

1 SCOPE

Transnet seeks to appoint experienced specialist consultants to support the Capacity Validation Process for the Ore Export Corridor (OEC) and to conduct comprehensive financial modelling and capital investment assessments. The objective of the engagement is to determine the true existing, recoverable, and sustainable capacity of the OEC (rail, port, and rolling stock), quantify the capital required to reinstate or enhance capacity, and develop financially sound tariff and investment models to support Transnet's long-term Capacity Allocation Process.

This scope of work will ensure that Transnet secures accurate, independent, and reliable information regarding current infrastructure capability, technical constraints, future capacity scenarios, and associated capital and financial implications. The engagement will encompass, but is not limited to, the following:

1. Infrastructure Capacity Assessment

- **Assess and validate** the current installed capacity of port, rail, and rolling stock assets across the OEC.
- **Evaluate asset** condition, performance indicators, operational constraints, and bottlenecks affecting throughput.
- **Determine the remaining economic** life of key port and rail infrastructure and the extent to which this limits future capacity.
- **Review maintenance strategies**, reliability trends, and operating practices to estimate sustainable operational capacity levels.

2. Validation of Recoverable and Future Capacity

- **Quantify the recoverable capacity** that can be achieved through improved operations, maintenance interventions, or operational optimisation.
- **Assess potential capacity increases** based on existing design specifications and engineering studies.
- **Align capacity validation results** with demand outcomes from the Volume Validation Process.
- **Identify capacity constraints** that may prevent Transnet from meeting validated demand, both partially and wholly.

3. Capital Investment and Rehabilitation Analysis

- **Determine the capital expenditure required** to reinstate the OEC's design capacity where infrastructure has deteriorated.
- **Develop cost estimates for required asset renewals**, rehabilitation, or replacement based on engineering inputs.
- **Analyse capital investment needs** associated with infrastructure upgrades, expansions, or operational enhancements.
- **Evaluate technical** feasibility, financial viability, and sequencing of proposed capital projects.

4. Financial Modelling and Tariff Analysis

- **Develop comprehensive financial models** to support long-term planning, tariff design, and investment decision-making.
- **Model the financial impact** of different capacity scenarios, including rehabilitation, optimisation, and expansion options.
- **Conduct cost-recovery analysis** and propose tariff structures for the post-2028 contracting horizon.
- **Assess the impact** of capital investments, operational costs, and financing assumptions on overall corridor economics.

5. Scenario and Sensitivity Analysis

- **Perform scenario modelling** for multiple capacity, demand, and capital deployment pathways.
- **Test sensitivity to key variables** such as volumes, capital costs, operating costs, asset life assumptions, and financing options.
- **Provide recommendations** on the most financially viable and technically feasible scenarios for Transnet.

6. Integration with Volume Validation Outcomes

- **Align capacity assessments** with confirmed mine demand validated through the Volume Validation Process.
- **Compare projected long-term demand with technical and financial capacity outcomes.**
- **Identify potential gaps** where demand cannot be met due to infrastructure constraints or financial limitations.
- **Provide guidance** on optimal allocation strategies based on validated capacity.

7. Technical Review of Existing Studies

- **Review and incorporate findings** from previous OEC engineering studies conducted in partnership with the Transnet and its customers.
- **Validate assumptions**, operating parameters, design capacities, and previously modelled constraints.
- **Ensure that capacity outcomes** reflect the most current and accurate engineering and operational insights.

8. Advisory Support to CAP and Long-Term Planning

- **Provide expert guidance** to support the long-term Capacity Allocation Process.
- **Advise on investment** prioritisation, staging of capital projects, and strategic infrastructure decisions.

- **Assist Transnet in developing** a long-term capacity roadmap based on validated technical and financial outcomes.
- **Provide inputs** for stakeholder engagements, governance processes, and submission requirements.