



Integrated National Electrification Programme

Master Plan for KZN



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Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA



PURPOSE AND OBJECTIVE

The purpose is to clearly identify (grid and off-grid) electrified and un-electrified areas in order to achieve Universal Access to Energy and the impact on Generation, Transmission and Distribution network infrastructure requirements.

The overall project objective is to develop a Provincial Integrated Electrification Master Plan that comprises of a long term integrated plan (20-30 yrs.); Three-to-Five year's Capital and Operational Plan and a One-year Project and Budget plan for licensed entities (Municipalities and Eskom), within KZN province.



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SCOPE OF WORK

The following are seen as minimum activities to be developed to achieve the project objectives;

Project Inception

- The objective of this phase is to ensure a complete understanding of, among other things, the approach, methodology, timelines, supporting information and deliverables of the project.

Status Quo Analysis

- The outcome of this phase after completing an exercise in information gathering will be a dataset including GIS shape files indicating both the areas that are electrified and associated backlog quantities. The Status Quo will include information pertaining to:
 - Bulk Supply System;
 - Assessment of the current distribution system;
 - Current Capacity;
 - Accuracy of the Current Demand;
 - Backlogs relating to the Millennium Development Goals (MDGs); and
 - Efficiency Levels and Losses Assessment.



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SCOPE OF WORK (Cont..)

Future Demand, Needs and Challenges

The Spatial Development in line with the national initiatives that target areas for growth and development must be considered. With regard to Land Use, the anticipated energy demand and critical factors that would affect the service provision must be identified.

Analysis and Modelling

This exercise will include, but not limited to, the following:

- a) Demand side management;
- b) Bulk Supply (placement of primary substations);
- c) Upgrades and Refurbishment necessary;
- d) Expansion of networks;
Alternative Technologies, Solutions and Standards (where necessary);
- e) Financial Analysis and Cost Benefit (Cost of supply studies);
- f) Cost per connection analysis; and
- g) Risk Analysis



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SCOPE OF WORK (Cont..)

Breakdown of Plans

This activity should include the following:

One-year Project and Budget Plan

- This plan should cover the projects to be delivered in the immediate future. It should indicate corrective actions that need to be taken immediately (within the first year) to ensure that the stages mentioned below will be realized.

Three-to-Five-Year Capital Plan

- This plan should itemize projects to be developed over this period (3 – 5 years), having due regard for, and as far as practicably possible inform, the Medium Term Expenditure Framework (MTEF) estimates as they relate to electrification.

Long term integrated plan (20-30 years)

- Long term integrated plan (20-30 years) taking into account anticipated economic and population growth. At a minimum, this should be based on the Spatial Development Framework and the Town Planning Scheme for the area(s). This should be accompanied by the present day cost and operational cost estimates which are adjusted so that the electricity department from the municipalities can prepare budgets for the Medium Term Financial Plan (MTFP) for the anticipated Capital costs and Operational and Maintenance (O&M) costs.



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SCOPE OF WORK (Cont..)

Identification of Grid vs. Off-Grid Areas

- This task should build on the previous tasks in that specific Grid vs Off-grid areas should be evaluated and identified. The definition of Off-grid areas should be supported by suitable feasibility analysis, clearly showing the benefits of an area remaining Off-grid. The outcome of this task will be the spatial definition of Grid and Off-Grid area.



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PERIOD OF EXECUTION

The period of execution shall be categorised as per the Specific Activity outlined below and is for the duration of 10 months after the signing of a contract:

- a) **Inception Phase:** will be finalised within 2 weeks after signing of Agreement with the Department;
- b) **Status Quo:** will be finalised within 3 months after the finalisation of the inception phase;
- c) **Future Demand, Needs, Challenges, Analysis and Modelling:** will be finalised within 3 months after the completion of the Status Quo phase; and
- d) **Provincial Electrification Master Plan & Identification of Grid vs. Off-Grid Areas:** shall be finalised within 3 months after the completion of the Future Demands, Needs and Challenges phase; and
- e) **Close-out:** will be finalized in exactly 2 weeks after the finalization of the Master Plan.



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CONTRACTING

- **The project will commence after signing of the Contract.**
- **Create employment/in-service training opportunities**

The appointed service provider shall create employment and/or provide opportunities to grade 12 certificate recipients, graduates and persons seeking internship during the contract period with the Department. Opportunities that will be created for the below-mentioned candidates may include but not limited to:

- Data Collectors;
- Data Capturers;
- GIS Officials;
- Statisticians;
- Project Administrators;
- Energy Officers; and
- Clerks of Works.



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EXPERIENCE AND QUALIFICATIONS OF THE BIDDER'S PROPOSED KEY RESOURCES/ EXPERTS

Key Resource	Minimum Experience and Qualification for each PSP's proposed key resources/ experts
Team Leader	A Bachelor Degree in Electrical Engineering. Registered Professional Engineer or a Professional Engineering Technologist in terms of the Engineering Professions Act, 2000. Must have 5 years Electrical engineering experience in electricity infrastructure services provision. Planning, Design and Project Management of electrical engineering infrastructure required in municipal engineering services provision.
Electrical Engineer	A Bachelor Degree in Electrical Engineering. Registered Professional Engineer or a Professional Engineering Technologist in terms of the Engineering Professions Act, 2000. Must have 5 years Electrical engineering experience in electricity infrastructure services provision. Planning, design and project management of electrical engineering infrastructure required in municipal engineering services provision.
Town Planner	A Bachelor Degree in Town planning. Registered Professional Planner in terms of the Planning Profession Act, 2002 (Act 36 of 2002). Must have 5 years experience in spatial development planning in municipal environment; Management processes as it relates to the built environment.
GIS Specialist	A Bachelor Degree in Geographical Sciences (GIS)/ Bachelors of Science in Environmental Management (GIS), Professional registration as a Professional with SAGC; Must have 5 years' experience in Managing collection, visualization and capturing of data from various formats and sources, spatial mapping and analysis of energy infrastructure related projects, manage, design and implement a database to store required data sets.



EVALUATION EXPERIENCE OF THE PSPs (LEAD PSPs AND ENTITIES IN JV, CONSORTIUM, ASSOCIATION, ETC)

The experience of the PSPs (or that of the constituent member in a joint venture, consortium or association) in the execution of projects within the provision of Macro Planning, Project Planning, Project Management Plans and Infrastructure Asset Management services, etc. in the municipal sphere over the past years will be evaluated. PSPs should very briefly describe their experience in this regard and attach this to the documents that will be sent to the department. The description should be consolidated in the format of the tables provided.

The Reference Letter signed by the referee must be included in the documents that will accompany the bid submission. A separate letter must be submitted for each reference required in the evaluation of the bidder's experience and therefore failure to adhere to this requirement will result in such bid not considered. Note that Bidders are required to fulfil this requirement separately for each category they wish to be considered. An average score of at least 70 is required for the reference to be considered.



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LEAD BIDDER'S QUALITY MANAGEMENT SYSTEM

The Bidder needs to describe the quality management/ assurance plan that the organization uses, and how it will be adopted for the proposed project.

- a. Organization's Quality Policy: To explain the bidder's pre-existing quality processes, procedures and standard operational procedures.
- b. Project Planning, Implementation and Monitoring: To outline the bidder's understanding of the key deliverables and how quality will be assessed and ensured for each of the deliverables.
- c. Document Management and Control: To outline the bidder's processes in place to ensure that all project key milestones and contractual documentation is adequately recorded until such time that the information is required.
- d. Risk Management: To Identify risks and develop strategies to manage them throughout the project implementation period

Any ISO certification needs to be stated and proof need to be attached to the bid.



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PRICE

The price quoted must clearly indicate resources to be used, professional rates used, hours required to complete the work, overheads and admin costs, subsistence, travel and accommodation rates and any other costs included.

The total cost must be VAT inclusive and should be quoted in South African Rand (i.e. ZAR).

The service provider should provide hourly rates as prescribed by Department of Public Service and Administration (DPSA), Auditor- General (AG) or the body regulating the profession of the consultant.

The service Provider should provide (Subsistence & Travel (S&T)) rates that are in aligned to the National Treasury instruction note as follows:

Hotel Accommodation – R1550 per night per person, including breakfast, dinner and parking

Air travel must be restricted to economy class

Claims for kilometers may not exceed the rates approved by the Automobile Association of South Africa.



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THANK YOU



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