

Request for proposals for the Energy Modelling support to the National Energy Crisis Committee

Introduction

The National Business Initiative (NBI) is a voluntary group of leading national and multi-national companies, working together towards sustainable growth and development in South Africa through partnerships, practical programmes and policy engagement. Since its establishment in 1995, the NBI has been an advocate for the collective role of business in support of a stable democracy, growing economy and healthy natural environment.

To this end, the NBI has been appointed by the Resource Mobilisation Fund (RMF) to assist in the provisioning of resources to the Presidency, for use in the National Energy Crisis Committee (NECOM).

Project Background

President Ramaphosa established NECOM to oversee the implementation of an Energy Action Plan to end load shedding and achieve energy security. The NECOM is chaired by the President and includes the Minister in the Presidency, the Minister of Mineral Resources and Energy, the Minister of Public Enterprises, the Minister of Finance, the Minister of Forestry, Fisheries and the Environment, and the Minister of Trade, Industry and Competition.

A technical secretariat has been established to support NECOM, including senior officials in various government departments and state agencies. The secretariat is chaired by the Director-General in the Presidency and comprises nine workstreams to coordinate the implementation of interventions to reduce load shedding and achieve energy security. Details of the workstreams are provided in Table 1 below.

Table 1: NECOM workstreams

Overview of workstream focus area	Departments/ Entities represented
<p>Workstream 1: Improving Eskom Plant Performance and Strengthening the Grid</p> <p>Workstream 1 will focus on two areas. First, it will oversee improvements in the performance and availability of existing Eskom plant, working closely with Eskom. This will include an independent review of plant performance to identify improvements in operating practices, skills and other factors. Second, it will focus on expanding and strengthening transmission infrastructure to enable the connection of new generation capacity, including large-scale renewables.</p>	<p>DPE DMRE Eskom</p>

<p>Workstream 2: Regulatory and Legal</p> <p>Workstream 2 will focus on cross-cutting policy, legal, regulatory issues and decision-making processes. It will also provide support to other work streams where legal issues arise. The immediate focus is to consider the tabling of special legislation to reduce or remove red tape for energy projects for a period of two years. The existing Embedded Generation Intervention Task Team will form part of the Regulatory and Legal Workstream and will work towards the establishment of a one-stop shop for energy-related applications.</p>	<p>DFFE , DMRE DALRRD DOT, DWS DPWI, DOJ&CD DTIC (InvestSA) National Treasury NERSA, SALGA Eskom</p>
<p>Workstream 3: New Generation Capacity</p> <p>Workstream 3 will focus on expediting the connection of additional generation capacity from existing and future procurement rounds as well as emergency procurement. In addition, it will focus on measures to ensure private investment in new generation capacity as well as to facilitate commercial and residential installations of small-scale embedded generation. This will include implementing a feed-in tariff structure and expanding or reinstating tax incentives for Small-scale Embedded Generation (SSEG).</p>	<p>DMRE Eskom National Treasury NERSA SALGA</p>
<p>Workstream 4: Procurement and Financing</p> <p>Workstream 4 will focus on providing exemptions from the PFMA to enable emergency procurement of electricity and maintenance, as well as determining any cost and the deployment of financial resources in implementing the Action Plan to End Load Shedding.</p>	<p>National Treasury Eskom DPE</p>
<p>Workstream 5: Demand Side Management</p> <p>Workstream 5 will develop a detailed plan to improve demand management and ensure implementation of energy efficiency and customer response measures.</p>	<p>DMRE DPWI Eskom</p>
<p>Workstream 6: Safety and Security</p> <p>Workstream 6 will focus on ensuring that the Security Cluster implements a coordinated plan by law enforcement agencies to address sabotage, theft and fraud at Eskom as well as cable theft and illegal connections. A further critical area is to ensure that our intelligence capability addresses ongoing economic sabotage and protects critical infrastructure.</p>	<p>SANDF SAPS SSA DOJ&CD NPA Eskom</p>
<p>Workstream 7: Data Analytics and Research</p> <p>Workstream 7 will provide ongoing data and research support to inform decision making, including modelling the impact of measures to address the energy shortfall.</p>	<p>DSI , DPME DMRE, CSIR SANEDI, Eskom</p>

<p>Workstream 8: Communication</p> <p>Workstream 8 will focus on communicating the strategy to the public in a coherent and effective manner, including providing regular progress updates, as well as on ensuring active and continuous stakeholder engagement.</p>	<p>GCIS</p> <p>Eskom</p> <p>DMRE</p>
<p>Workstream 9: Distribution</p> <p>Workstream 9 will focus on addressing distribution challenges, enabling all South Africans to benefit from new generation capacity.</p>	<p>NERSA, ESKOM</p> <p>DMRE</p> <p>SALGA</p> <p>AMEU</p>

Purpose

The overarching objectives of the Energy Action Plan are to restore security of electricity supply and reduce the risk of load shedding. In the short-term goal is to end loadshedding as soon as possible. It is important to track progress in achieving this, determining whether the interventions and actions are achieving this goal. To this end, KPIs and trajectories are required, against which progress can be tracked and to assess the impact of the Energy Action Plan.

To end loadshedding, several factors need to be considered:

- The different generation technologies need to be factored in, differentiating between dispatchable levels of the various dispatchable generation sources. Each source needs to be tracked separately to avoid forming a misleading picture of progress.
- While a variety of potential generation projects exist, we cannot assume that all of these will reach implementation stage. Thus, tracking according to contractual commitment is required.
- There are varying timelines for generation projects which also need to be taken into account.

Given this complexity, modelling is required to develop and inform KPIs and trajectories in order to measure progress towards ending loadshedding. However, the modelling needs to be nimble to enable this tracking to proceed sooner rather than later. The appointed expert(s) will therefore need to have an existing energy system model in place which can be adapted based on the assumptions in the Energy Action Plan.

Scope of work

The appointed experts will work closely with Workstream 7 of the NECT, with engagements also expected with Workstreams 1, 3 and 5. The scope of work should include but not be restricted to the overview described in table 2 below.

Table 2: Overview of scope of work

Activity area	Issues to be addressed in the activity area
<p>Conducting energy system modelling to independently evaluate the impact of NECOM interventions on reducing future load shedding.</p>	<ul style="list-style-type: none"> • Work with NECOM to establish plausible demand growth and coal EAF scenarios. • Conduct energy system modelling to determine the estimated levels of future load shedding, based on the additional dispatchable and non-dispatchable generation projects that NECOM is targeting over the next 3-5 years. • The energy system modelling tool should make use of hourly system dispatch of both existing and planned generators. • Given the short time horizon, the system dispatch model must be able to incorporate monthly changes in the installed capacity of generators. • The energy system model should be transparent and openly available to NECOM, and relevant stakeholders as required.
<p>Providing modelling results in a timely manner when updated inputs become available.</p>	<ul style="list-style-type: none"> • Providing ‘rapid-response’ modelling outputs to ‘ad-hoc’ requests from NECOM (2-3 day turnaround time). • Providing monthly/quarterly updates to the estimated levels of future load shedding in the form of feedback presentations to NECOM.
<p>Providing input on additional interventions that might be required to reduce load shedding levels to acceptable limits</p>	<ul style="list-style-type: none"> • In cases where, the modelling shows the risks of future load shedding are unacceptably high, this will require using the modelling outputs to assist NECOM in identifying additional interventions to be pursued.

NECOM has already commenced work in many of its focus areas and it will be important for system dispatch modelling capability to be available in a short timeframe. Therefore, existing models and tools that are credible will be prioritised.

Project deliverables and contractual period

Analytical expertise is required over 24-36 months, on a retainer basis, to provide energy system modelling support to NECOM, with the aim of independently evaluating the effectiveness of the planned interventions in reducing the future levels of load shedding. During this period, several deliverables will be submitted in response to the scope of work. These deliverables include:

- Providing monthly/quarterly reporting on the estimated levels of future load shedding based on demand and coal EAF scenarios, and additional new generation capacity.
- Providing ‘ad-hoc’ energy system dispatch modelling to support NECOM as required.
- Participation in meetings of the NECOM secretariat and/or other workstreams as required.

Reporting requirements

The Director-General in the Presidency will provide oversight of tasks carried out while day-to-day management will be the responsibility of the Project Management Office (PMO) in the Presidency, as part of the NECOM secretariat. The secretariat will supply all reasonable, relevant, available data and information required and requested by the successful project managers for the proper execution of the services. This day-to-day engagement will include weekly planning meetings with the secretariat to support project delivery.

Qualifications and experience

The successful team should have substantial experience working in South Africa's energy sector and in-depth technical expertise with respect to energy system modelling. Given the urgency of reviewing the impact of NECOM interventions, preference will be given to teams that have a track record of producing relevant modelling outputs based on energy system dispatch modelling. Additionally, experts in the team should possess sufficient experience in not only South African power system dynamics, but also the broader energy landscape, including both energy policy and regulatory aspects.

Proposal and Project Timelines

Proposal Due Date:	22 nd March 2023
Project Commencement:	3 rd April 2023
Project Duration:	24 – 36 months

Proposal Requirements

Please ensure that your Proposal specifically includes:

- Your proposed methodology including:
 - Organisation information (including governance structure, core business, contact details).
 - Exposure to the public sector
- Proposed budget –
 - an **all-inclusive hourly rate** per resource, per area
- Evidence of relevant experience including:
 - The suitability of your firm/team to complete this project.
 - Short summaries of the relevant capabilities and experiences of each individual assigned, showing an ability to understand the content area.
 - Indicate similar work your organisation has undertaken and outcomes achieved.
 - Contact details of project references
- Your tax compliance certificate.
- Your broad-based black economic empowerment status.

It is envisaged that the support will mostly be offered via virtual platforms. All proposed resources should be readily available to start on the proposed date as indicated below.

Your proposal should not exceed seven pages in Microsoft Word (pdf), excluding Annexures.

Please email your proposal and relevant supporting documents to Mandyp@nbi.org.za by 12h00 on 22nd March 2023. No late submissions will be considered.

Evaluation Criteria

Criteria	Weight
Functionality (Capability and track record)	80%
Cost	10%
BBBEE	10%
Total	100%

Important dates

Deadline for clarification questions to rutht@nbi.org.za	16th March 2023
Deadline for submission of proposals to mandyp@nbi.org.za	By 12h00 on 22nd March 2023 <u>No late submissions will be considered</u>

CHECKLIST OF DOCUMENTS TO BE SUBMITTED

A checklist below which is not mutually exclusive has been provided in order to highlight some of the important documents which must be included/ submitted with the Request for Proposal (RFP):

***not applicable to individuals**

	DESCRIPTION	Y/N
1	A signed Bid submission in response (responsive) to requirements stated in the Tender Terms of Reference and Evaluation Criteria	
2	Cost proposal / Budget	
3	Bank Details (verified by bank)	
4 *	Company Profile	
5 *	Valid B-BBEE Status Level Certificate / Sworn Affidavit, where all copies provided MUST be authenticated as true copies of the original document/s by a registered Commissioner of Oaths	
6 *	Proof of registration on National Treasury's Central Supplier Database (CSD) [Recommended]	
7	Tax Clearance Certificate (pin) OR sworn affidavit	
8	Curriculum Vitae (CVs) of resources proposed in the Bid Submission	
9	Certified copies of Academic and Professional documents of each proposed resource	
10	Project Reference Contact Details	
11 *	Registration and Good standing with Compensation Fund, Department of Labour, or private insurance. This must be attached.	
12	Professional Liability Insurance Certificate	

NOTE:

- Ensure that all document attachments are clearly marked and the tender proposal is submitted in a clear, logical and well-marked sequence together with an index of documents.
- Only one submission is required.