

Republic of South Sudan

Ministry of Mining (MOM)

Terms of Reference for Development of Energy Transition Strategy for the Extractive Sector.

I. Position Information:	
1. Description of Assignment:	Consultancy Services for the development of energy transition strategy for the extractive sector of South Sudan. This is in line with emerging issues of climate change, low carbon future and sustainable development.
2. Consultancy Type	Firm
3. Project Name	Institutional Support Project for Strengthening Economic Governance in South Sudan
4. Duration of Assignment	Six(6) Months
5. Duty station:	Juba South Sudan
6. Starting date:	August2023
7. Host Agency/Institution	Ministry of Mining
II. Sector Context and Strategy Rationale	
<p>The Republic of South Sudan became an independent state on July 9, 2011. The attainment of independence by South Sudan has opened an unprecedented window of opportunity to turn the devastation of over 20 years of civil war, displacement and underdevelopment into a new era of peace and prosperity.</p> <p>South Sudan's unexploited oil reserves have the potential to make the country one of the largest oil producers in sub-Saharan Africa. Estimates put the country resources at 3.5 billion barrels. South Sudan produces roughly 150,000 to 170,000 barrels of oil per day. However, due to the share owed to oil companies and fees paid to Sudan, it earns income from 45,000 barrels at most, according to the best estimates available¹. Production in the oil sector, which accounts for over 75% of GDP (AEO, 2022) and 80% of the industry sector's value added, fell as some oilfields reached maturity² and investments are scarce. The government's share of oil exports has averaged only \$1.3 billion in the three years following the signing of the 2018 peace deal, barely two-fifth of its value at independence in 2011. The country is ranked among the most oil-dependent country globally, and highly vulnerable to oil price shocks and market risks, hence the need to expand and diversify the non-oil revenue base, especially considering the potential from other revenue sources such as agriculture, forestry, mining, industry, trade and tourism.</p>	

¹ <http://jital.org/index.php/jital/article/view/102>

² <https://www.afdb.org/en/countries/east-africa/south-sudan/south-sudan-economic-outlook>

Rationale

The need to reach net-zero carbon emissions globally by mid-century has created pressure to shift from fossil fuels to cleaner energy sources. Investors are increasingly attempting to reduce their exposure to the financial risks posed by climate change, including the risks of stranded assets in the oil and gas industry. Aided by technological advances and the declining costs of various clean technologies, many governments are also investing in climate-friendly projects across energy, transportation, water, and other priority sectors to reduce emissions and adapt to the impacts of climate change.

The transition to clean energy, along with a shift away from overdependence on oil and gas production, can create important economic benefits, but it poses major challenges for oil- and gas-producing nations, especially middle-income developing countries. Whereas richer countries should be expected to go first and fastest in phasing down fossil fuel production, middle-income countries—responsible for 48 percent of the world’s oil production and 52 percent of its gas production—are poorly positioned to weather the coming shifts³. The economies of many such countries are not adequately diversified, and the oil and gas sector accounts for a significant share of exports and government revenue. This heightens their vulnerability not just to temporary economic shocks and price volatility caused by wars, pandemics, or recessions but also to the necessary phasedown of fossil fuel production due to climate change and the low carbon future.

For South Sudan, developing an energy transition strategy will assist the country improve its energy access and poverty alleviation. In fact access to modern and affordable energy services is crucial for poverty alleviation and improving the quality of life for the population. Currently, large parts of South Sudan's population lack access to electricity, hindering social and economic development. Developing an energy transition strategy that focuses on decentralized renewable energy solutions can help expand energy access, particularly in rural areas, empowering communities, improving healthcare and education services, and fostering economic opportunities. The energy transition also presents an opportunity for South Sudan to adopt a sustainable development pathway, balancing economic growth with social and environmental considerations. By prioritizing renewable energy sources, energy efficiency, and sustainable practices, South Sudan can build a more resilient energy system that minimizes resource depletion, reduces pollution, and promotes long-term sustainability.

Overall, the challenges of transitioning away from oil and gas can be mitigated by prioritizing place-based economic diversification to generate alternative revenue sources and new jobs, including in the clean energy economy, and developing just transition strategies to aid impacted workers and all the citizenry of South Sudan.

³ Calverley, D., and K. Anderson. 2022. *Phaseout Pathways for Fossil Fuel Production within Paris-Compliant Carbon Budgets*. Tyndall Production Phaseout Report. Manchester, UK: Tyndall Centre, University of Manchester. [https://www.research.manchester.ac.uk/portal/en/publications/phaseout-pathways-for-fossil-fuel-production-within-paris-compliant-carbon-budgets\(c7235a8e-e3b1-4f44-99dec27958c03758\).html](https://www.research.manchester.ac.uk/portal/en/publications/phaseout-pathways-for-fossil-fuel-production-within-paris-compliant-carbon-budgets(c7235a8e-e3b1-4f44-99dec27958c03758).html).

According to the IEA, falling demand, and a drop in investment volumes and incomes in the fossil fuel sector will have huge impacts on the economies that have a strong dependency on fossil fuels. First and foremost, new and emerging producers could be the most vulnerable, particularly in Africa where producers have taken loans for which costs have not yet been amortized as it takes a long time to repay these.

It is within the above context that the Government of South Sudan wishes to develop an Energy Transition Strategy and an Action Plan to facilitate the gradual diversification from hydrocarbons towards transitioning to cleaner sources of energy for socio-economic development. The strategy will also be a means of developing adaptation plans to avoid resource and asset stranding whilst strengthening the diversification agenda to cater for the expected diminishing oil sector revenues.

III. Scope of Activities

Under the direct supervision of the Undersecretary , the Consulting Firm will undertake the following specific tasks:

- (i) Analyze the potential impacts of fossil fuel industry decline and evaluate possible policies to address economic, environmental and social impacts.
- (ii) Identify options for economic diversification, social safety nets and new employment that can support workers and their families in the transition.
- (iii) Conduct analyses with a double goal to switch to clean energy and to provide electricity access to the people of South Sudan.
- (iv) Analyse national efforts and current NDC processes and build on them- Baseline emissions data and information required
- (v) Engage all stakeholders (stakeholder mapping will be required) - an open dialogue with labour groups, communities, industry associations and other interested parties to identify practical issues to inform the strategy.
- (vi) Consider longer timeline than 2050 to become Net Zero through scenario modelling (e.g., when cost or implementation to transition in a shorter timeframe can be considered too challenging. Models can be created for 2050 and beyond 2050 up to 2100)
- (vii) Propose establishment of a dedicated fund to support the just transition and economic diversification. Savings from fossil fuel revenues can be used to fund the transition. Donor support will also be essential.
- (viii) Develop an energy transition strategy with related Action Plan for stakeholder validation.

V. Deliverables:

The Consultant is expected to produce the following deliverables:

1. An Inception Report;
2. Brief report on baseline emission mapping and stakeholder analysis
3. Report on scenario analysis using modelling (for example, net zero at 2050 and net zero beyond 2050 up to 2100)
4. Proposed Energy Transition Strategy with Costed Action Plan for the Extractive Sector.

VI. Task Team: Skills, Experience and Qualifications Required:

Task Team

- A firm with experience in extractive policy, law and regulations as well as development of extractive sector strategies will be hired to undertake the study. The Firm will field appropriate team with qualified members to produce the deliverables as outlined. The team should comprise of three (3) key experts, including the team leader, with general qualifications described below. The firm is welcome to propose additional experts for efficient implementation of the assignment. The experts should be complementary so as not to duplicate efforts and contributions.
- The team should have expertise in the following fields, inter alia: extractive resources management, mineral and petroleum economics, policy development; strategy development, climate change mitigation and adaptation etc.

Qualifications and Experience of Task Team

- *Team Leader/Principal Expert*
- Minimum of a master's degree in petroleum economics, natural resources management or other relevant discipline, or possession of relevant skills and experience. A PhD degree is an advantage.
- At least 15 years' experience in research, policy analysis and/or technical advisory related to Africa's extractive sector.
- Experience in conducting empirical research in African countries.
- Experience in extractive value chain analysis and international trade
- Experience in scenario modelling based on Climate Change and low carbon future
- Excellent written and oral English.
- Good working knowledge of African continental strategic frameworks etc.

(b) Geoscientist or Petroleum Economist

- Must possess minimum of a Master’s degree in petroleum engineering, economic geology, petroleum economics or other relevant qualification.
- At least 10 years’ experience in research, policy analysis and/or technical advisory related to minerals in Africa.
- Experience in conducting value chain analysis and designing industrial policies in Africa.
- Experience in petroleum and mineral value chain analysis and international trade; and
- Excellent written English.

(c) Policy/Development Expert/Climate Change Expert

- Possession of at least a master’s degree in Mineral/Petroleum Policy, Environmental Science with significant experience in the extractive sector.
- Minimum of ten (10) years’ experience in policy development in Africa’s extractive sector
- Significant experience in Climate Change Issues in the extractive and allied sector
- Must have conducted at least two similar assignments at the National level.
- Excellent strategy development skills, good interpersonal skills and computer literate.
- Considerable professional experience in the region/ South Sudan is an advantage.

VII. Consultant/Firm Selection Criteria

CRITERIA	Marks (%)
General qualifications and adequacy for the proposed assignment	30
Similar experience in the area of expertise of the assignment as described in the Terms of Reference and understanding the terms of reference (Brief Proposal to the TOR is required)	50
Experience with the Bank or other international donors	10
Knowledge of the Region (environment of the Assignment)	5
Language capacity (Excellent technical and writing skills in English); Knowledge of Arabic Language will be an added advantage.	5
TOTAL	100

Only Consulting Firms scoring 70% and above will be shortlisted for the RFP stage

VIII. PROPOSED TIMELINES

Activity	Deliverables	Timeline
Preparation of inception report	Report explaining understanding of the TOR and proposed methodology	2 weeks after contract signature
Meeting for validation of the inception report	Brief report on key agreed issues, draft Strategy outline	3 weeks after contract signature
Preparation of analytical report on baseline emission and stakeholder analysis	Brief report on baseline emission mapping and stakeholder analysis	6 weeks after contract signature
Scenario Analysis through Modelling	Report on scenario analysis using modelling (for example, net zero at 2050 and net zero beyond 2050 up to 2100)	16 weeks after contract signature
Preparation of Draft Energy Transition Strategy with Action Plan	Draft Energy Transition Strategy with Action Plan	20 weeks after contract
Validation Workshop by key stakeholders	Observations, comments and recommendations from Partners	22 weeks after contract signature
Submission of final draft of deliverables	Final Drafts of Energy Transition Plan for the Extractive Sector	24 weeks after contract signature