

# ENVIRONMENTAL STUDIES UNDERWAY FOR CAPANDA GREEN AMMONIA PROJECT

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## Highlights

- In advance of the Pre-Feasibility Study (PFS), the Company is undertaking wet and dry season environmental studies for the **Capanda Green Ammonia Project**.
- Baseline environmental surveys are currently being completed by HCV Africa, a specialist consultancy providing international-standard environmental and social services, biodiversity assessments, environmental impact assessments and environmental auditing.
- Survey information will feed into the Environmental and Social Impact Assessment (ESIA) with work to be completed to an IFC standard and an Environmental Impact Assessment (EIA) to Angolan regulatory requirements.
- Tender work for key engineering providers is underway in preparation for the PFS.
- PFS to further investigate the use of electrolyzers to generate green hydrogen, designed to deliver 112,000 tonnes p.a. of Green Ammonia to produce 255,000 tonnes p.a. of finished product, including fertilizer and mining explosives.
- Driven by 100%-renewable power from the Capanda hydroelectric complex and supported by a competitive power concession, the study will access what the Company believes is **one of the only cost-competitive zero-carbon Green Ammonia projects being developed globally**.
- **Hydropower is the single largest renewable energy source globally**, with approximately 60% of all renewable electricity generated by hydropower. **The renewables sector produces about 16% of total electricity generation from all sources<sup>1</sup>**.
- Capanda Dam is a run-of-river hydropower facility, channelling flowing water from the Kwanza River, through a penstock canal, to a turbine. Run-of-river hydropower provides a continuous supply of electricity (base load), with some flexibility of operation for daily fluctuations in demand through water flow that is regulated by the facility.

<sup>1</sup>International Hydropower Association

- With high average rainfall and dam-friendly topography, Angola has some of the best hydroelectric potential globally, with exploitable potential of 12GW of which only 4GW is currently harnessed.<sup>2</sup>
- Angola’s Ministry of Energy and Water is currently constructing the Angola Cabaça Cabaça hydropower project, a 2GW run-of-river hydroelectric facility in the Kwanza Norte Province of Angola and is expected to be commissioned in 2024.

### **Next Steps (PFS)**

- Appoint engineering company to carry out engineering studies on plant and infrastructure and undertake market studies: Q4 2023.
- Undertake wet season baseline surveys: Q1 2024.
- Completion of Environmental and Social Impact Assessment (ESIA): H2 2024.

**Minbos Resources Limited (ASX:MNB) (“Minbos” or “the Company”)** is pleased to announce that environmental studies have commenced for the Capanda Green Ammonia Project.

The Capanda Hydroelectric Dam is a hydroelectric dam on the Kwanza River in the Malanje Province of Angola. The facility generates power from four turbines of 130 megawatts each, giving total installed capacity of 520 megawatts. The Capanda Green Ammonia Project is located within the Capanda Agro-Industrial Hub (Fig. 1) and within 5km of the Capanda Hydroelectric power station. Baseline environmental studies are now underway and include expected routes for the water pipeline from the dam and the powerline from the substation to the Project site.



Figure 1 – Capanda Green Ammonia Project site, located on the Kwanza River in the Malanje Province and close to the Capanda Dam and electric substation.

<sup>2</sup>International Hydropower Association: 2023 World Hydropower Outlook



Dry season environmental data is currently being collected to include hydrology, mammals and avifauna (birds), botany, herpetofauna (reptiles), soils, groundwater and aquatic ecology (Fig.2).



Figure 2 – Baseline Surveys being undertaken by HCV Africa for the Capanda Green Ammonia Project.

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The green ammonia site is located in the 411,000-hectare Capanda Agro Industrial Pole which is serviced by established highways and the Malanje railway line. The Pole will be a ready-made market for nitrogen and already hosts several large farms including the 30,000-hectare Biocom sugar plantation.

Boasting a diverse and fertile ecology, Angola holds the potential to become one of the leading agricultural producers on the continent. The country's arable land is well suited to a variety of crops and livestock including cassava, bananas, potatoes, corn, sweet potatoes, citrus, pineapples, and cattle.

This announcement is authorised for release by the Board of Minbos Resources Limited.

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**Compliance Statement**

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

**Forward Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices, or potential growth of Minbos Resources Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.