PROCUREMENT UNIT
Department:
Works
REPUBLIC OF SOUTH AFRICA

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SUPPLY CHAIN MANAGEMENT

PRE: APPROVAL FOR THE SUPPLY

Request for Quotation (RFQ)
Project Title: Electrolyzer Technology Preference
Project Location: KwaZulu-Natal
Project Owner: South Africa Government
RFQ Reference No.: ZNB3000/1/25-26-A
Issue Date: 29th September 2025
Submission Deadline: 9th November 2025

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1. Scope of Supply

- **Design, manufacturing, testing, and supply of complete green hydrogen electrolyzer system.**
- **Supply and installation of all associated balance of plant (BoP) equipment.**
- **Start-up and commissioning support.**
- **Technical training and documentation.**

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2. Electrolyzer Capacity Requirements

- **Nominal Hydrogen Production Capacity: [e.g., 5 MW / 10 MW / 20 MW]**
- **Hydrogen Purity: ≥ 99.99%**
- **Hydrogen Pressure: 30 bar (outlet pressure) with optional compression to 350 bar or 700 bar depending on downstream application.**
- **Water Source: Deionized (DI) water**
- **Expected DI Water Consumption: Approximately 20 liters per hour per 1 MW of electrolyzer capacity (~200 L/hr for a 10 MW system).**
- **System Type:**
  - **Acceptable technologies: PEM (Proton Exchange Membrane) or Alkaline Electrolyzer.**
  - **Vendors shall clearly specify the proposed technology type, provide technical advantages, efficiency data, and any additional infrastructure requirements.**
  - **If alternative technology (e.g., SOEC) is proposed, it must be supported with technical justification and performance guarantees.**

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3. Site and Utilities

- **Grid or renewable power supply (specifications to be aligned with vendor requirements).**
- **Water treatment and conditioning unit to be clarified separately**
- **Ambient Operating Conditions:**
  - **Temperature: 5 °C to 45 °C**
  - **Humidity: 30 % to 90 % RH (non-condensing)**

Dr Sonto Mahlaba
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