



NELSAP-CU  
**NILE BASIN INITIATIVE**  
INITIATIVE DU BASSIN DU NIL



# **SOUTH SUDAN-UGANDA** **POWER INTERCONNECTION** **PROJECT (SUPIP)**



Burundi



DR Congo



Egypt



Ethiopia



Kenya



Rwanda



South Sudan



The Sudan



Tanzania



Uganda

**Nile Equatorial Lakes Subsidiary Action Plan (NELSAP)**

Kigali City Tower, 5th Floor, Avenue du Commerce

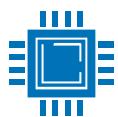
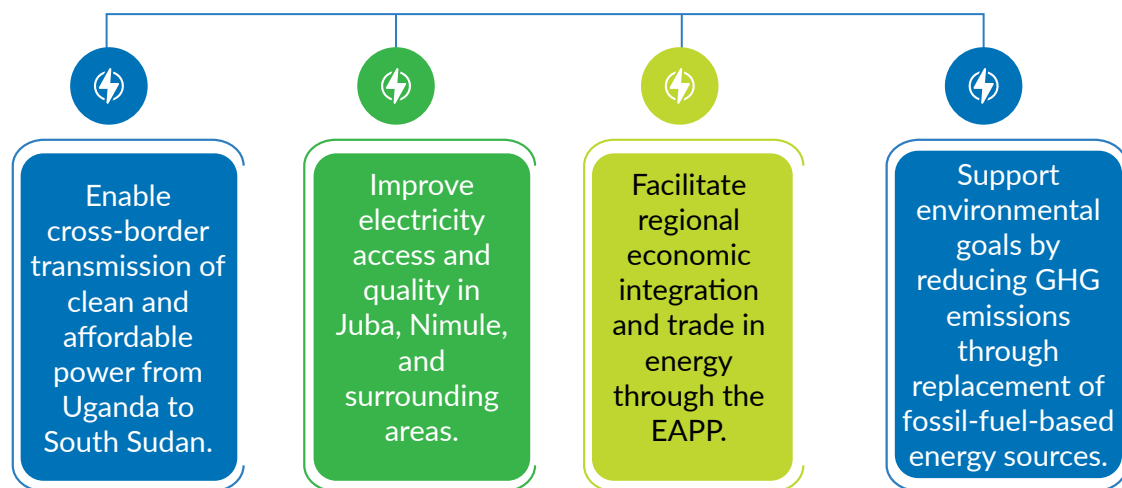
P.O.Box: 6759 Kigali - Rwanda | Tel: + 250 788307334 | Email: nelsapcu@nilebasin.org

## Overview

The South Sudan–Uganda Power Interconnection Project (SUPIP) is a transformative regional energy infrastructure initiative to be implemented by the Governments of South Sudan and Uganda, with coordination by the Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU). The project is jointly financed by the African Development Fund (ADF), the European Union (EU), and participating governments, under the guidance of the African Development Bank (AfDB).

SUPIP seeks to connect South Sudan to the Eastern Africa Power Pool (EAPP) and enable it to import affordable, reliable electricity from Uganda. By doing so, it aims to address South Sudan's severe power deficit, reduce dependence on diesel generators, and promote regional energy trade, peace, and economic integration.

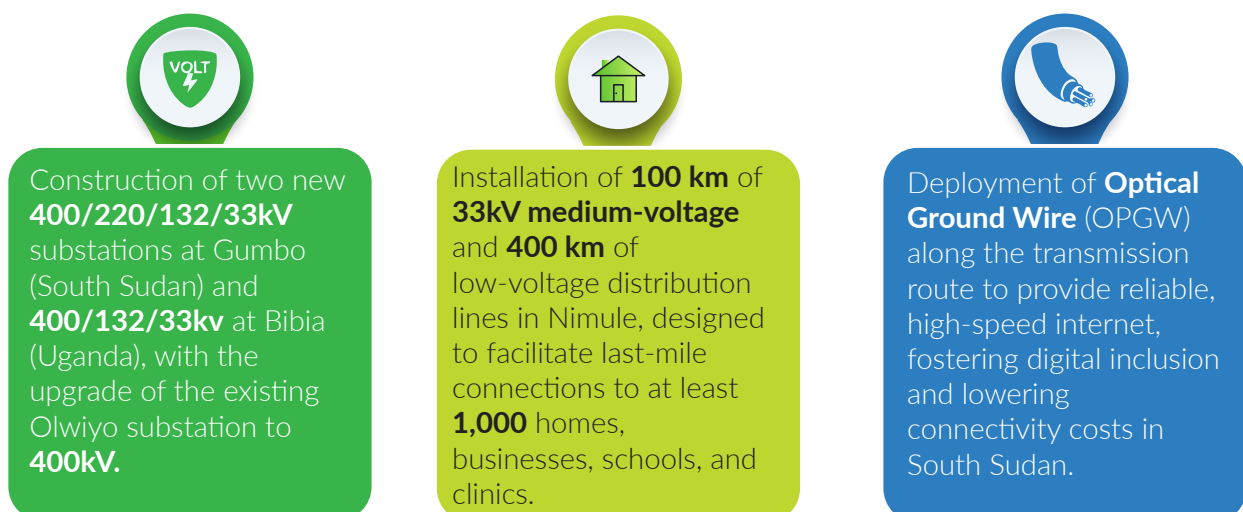
## Project Objectives



## Key Technical Components

SUPIP comprises the construction of a **300.5 Km 400kV** double-circuit transmission line **149 km** in South Sudan (Gumbo to Nimule) and **151.5 km** in Uganda (Nimule to Olwiyo). The line is designed to carry up to **1,000 MW** of power and will serve as a backbone for future regional electricity exchanges.

The project also includes:





## Institutional and Capacity Building

The project also invests in institutional strengthening, including:

Joint Operations and Maintenance Agreements (**JOMA**) between **UETCL** and **SSEC**.

Tariff reform and cost-of-service studies to ensure **affordable** and **sustainable** pricing.

**Capacity-building** support for grid operations, maintenance, and planning teams in both countries.



## Project Cost and Financing

The estimated project cost stands at UA 195.19 million (~USD 260 million), financed as follows:

**AfDB:** ADF, ROE, RPG, and CAW windows

European Union: **EUR 48.93 million**

Government of Uganda: **UA 13.42 million**

**In-kind contributions:** Government of South Sudan and Nile Basin Initiative institutions



## Impact on Local Communities: Quantified Benefits

The SUPIP will positively impact over **590,000 people** across Juba, Nimule, and the surrounding areas. Key anticipated benefits include:

- ✓ **Energy affordability:** South Sudan, a reduction in electricity costs by over **75%**, from **USD 0.40/kWh** (diesel) to **USD 0.09/kWh** (imported power).
- ✓ **Social infrastructure:** Over **100 schools** and over **50 health centers** in Juba and along the transmission line routes will benefit from stable electricity, improving service delivery.
- ✓ **Economic opportunity:** Over **1,000 jobs** are expected during construction, with **200+ permanent jobs** post-completion. Youth and women-led SMEs will gain access to electricity and digital tools.
- ✓ **Environmental impact:** Estimated annual emissions reduction of **over 250,000 tons** of **CO<sub>2</sub>** through transition to hydropower.



## Environmental and Social Safeguards

Given the project's Category 1 risk classification, comprehensive Environmental and Social Impact Assessments (ESIAs), Resettlement Action Plans (RAPs) and Biodiversity Action plan (BAP) have been conducted and disclosed. These cover over **1000 hectares** of land and about **1100+** project-affected persons (PAPs). Grievance redress mechanisms, gender mainstreaming, and climate adaptation measures are integrated throughout the project.



## Recent Coordination & Implementation Milestones (as of July 2025)

As of June 2025, SUPIP officially transitioned into the **implementation phase**, marked by several significant developments:

- ✓ **Field validation:** Design validation site visits began at Karuma and Olwiyo substations on **1st July 2025**, led by UETCL, feasibility study consultants, and NELSAP-CU technical experts.
- ✓ **Ugandan RAP update:** A critical **16 km corridor** along the Uganda–South Sudan border remains inaccessible, delaying the full completion of RAP. Additional scope on Karuma, Olwiyo substation shall also be done. UETCL has approved the budget to conduct this activity by **mid-September 2025**.
- ✓ **Institutional task force:** A joint task force between the Ministry of Energy and Mineral Development (MEMD), NELSAP, and Uganda Revenue Authority (URA) is addressing bottlenecks in the consultants' tax clearance and financial flow.
- ✓ **Community readiness:** Stakeholders have recommended establishing grievance redress desks, conducting community information campaigns, and increasing the frequency of site verification missions to accelerate readiness and public support.

These milestones mark a critical juncture in the SUPIP lifecycle, with strong momentum building toward full-scale construction and energy trade readiness by **early 2026**.



## Call to Action for Stakeholders

### The South Sudan–Uganda

Power Interconnection Project is more than an infrastructure development it is a bridge for peace, regional integration, and economic resilience. To ensure its full realization, the project calls upon stakeholders to contribute in the following ways:

#### Development Agencies:

Support co-financing, safeguard implementation, and policy alignment.

#### Private Sector:

Invest in renewable energy services, last-mile electrification, and ICT ventures along the corridor.

#### Civil Society & Local Governments:

Facilitate inclusive community engagement, feedback mechanisms, and social accountability.

#### Policy Makers & Regional Platforms:

Harmonize cross-border energy policies and enable market-based energy trade.

#### Media & Academia:

Document outcomes, highlight success stories, and inform public discourse with evidence-based research.

**SUPIP** is not just powering homes it is powering hope, prosperity, and the next phase of Nile Basin cooperation.





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