



## 1. POWER SYSTEM/ INTERCONNECTION ENGINEER (S)

<b>Department Division:</b>	Program Office	<b>Location</b>	NELSAP Kigali, Rwanda
<b>Reports To:</b> Regional Power Program Officer for Power and Trade Projects			
<b>Direct Reports:</b> • None			
<b>Job Group:</b>	Regional	<b>Career Family:</b>	Power Programs - Power and Trade Projects
<b>Date Reviewed:</b> October 2024			
<b>JOB DESCRIPTION</b>			
<b>Job Purpose</b> The Power Engineer will provide technical support in the coordination and the implementation of the interconnection and generation projects in all benefiting countries. The job holder will particularly coordinate the implementation of the Interconnection of the South Sudan (Juba) – Uganda (Olwiyo), 400kV Interconnection Project, while assisting the power programs on other projects where need arises. The job holder will work hand in hand with Project Implementation Teams (PIT) based in South Sudan and Uganda and the Regional Project Coordination Unit (RPCU) already established at NELSAP-CU based in Kigali, Rwanda.			
<b>Key Responsibilities</b>			
<b>(i) Specific responsibilities Relating to the Uganda – South Sudan Power Interconnection Project:</b>			
<ul style="list-style-type: none"> <li>• Lead NELSAP Project Implementation Team (PIT), and follow-up on the day-to-day project implementation activities in both countries (Uganda and South Sudan) and ensuring timely receipt and consolidation of project reports for presentation at the Joint Project Coordination meeting, and subsequently to the Joint Project Steering Committee (JPSC) as necessary.</li> <li>• Coordinate and participate in the joint recruitment of project Supervision Consultant and coordinate the project Supervision Consultant’s associated deliverables including preparing the Joint Management and Operations Agreements (JOMA) and the Power</li> </ul>			

Purchase/Sales Agreement expected to be signed six months prior to completion of the transmission infrastructure.

- With the guidance from the NELSAP-CU, lead the NELSAP-PIT in supporting SSEC in the international recruitment of Project Manager and Procurement Expert, and the recruitment of local staff in line with the Project Appraisal Report (PAR) and Financing Agreement.
- As key member of the JPIT team, participate in due diligence on potential contractors, contract negotiations and conduct of the Factory Acceptance Tests of Plant, Equipment & Materials
- Ensuring compliance on all EPC contracts on project implementation. Support the Project Supervision Consultant in developing and overseeing solutions to problems arising from TL and SS construction contracts and facilitating resolution of any disputes.
- Monitoring project resources expended in each country and ensuring efficient utilization in accordance with the financing agreement and in line with the PAR and Financing Agreements
- Coordinate inputs and comments from JPIT and JPSC in relation to project design and construction drawings and manuals and lead the team in contract negotiations and conducting due diligence of contractors and Factory Acceptance Tests of plant equipment & Materials.
- Assist NELSAP-CU in the coordination of the project implementation in the two countries, the activities and programs of PITs, JPIT and JPSC, and maintain an up-to-date record of all project contracts including a clear and up to date record of Bid Bonds, Performance Bonds, Bank guarantees and warranties.
- With the guidance of NELSAP-CU, convene project quarterly co-ordination meetings amongst the key stakeholders, and facilitate and coordinate the project Monitoring and Evaluation (M&E) exercises.
- Resolve any problems or difficulties in respect of terms of consultancy contracts with the National PIT Project Manager, NELSAP-CU and the financiers.
- In consultation with the National PIT project Managers, maintain a daily log of all project related incidences, and security issues and preparing a weekly brief that will be submitted to the Bank every first day of the week. All security incidents shall be reported to the Bank within 24 hours at the latest.
- Maintain an up to date record of all the project contracts and supporting documents, including minutes of negotiations, changes and variations of orders, etc .
- Provide expert opinions on the decisions of the JPIT and the JPSC

**(ii) General Responsibilities as Staff of the NELSAP-CU**

- Guide and Support Implementation of NLSAP-CU project's portfolio.
- Assist in the recruitment of the Power Interconnection project implementation supervision consultants, contractors and other services as the need arises.
- Provide engineering support to the National Project Implementation Teams (NPIT) during the feasibility study preparation, preparation of tender documents and bid

evaluation phases of the interconnection project in benefiting countries. Assist during the bidding process in answering all questions posed by concerned parties.

- Participate in the evaluation of bids (for the procurement of the EPC the Supervision Consultant will take the lead).
- Assist in preparing and submitting to the Bank the Bid/Proposal Evaluation Reports with recommendations on contract award.
- Assist the NPITs with contract negotiations with the selected consultants.
- Review documents to confirm the technical and commercial viability of projects and interact with the clients, consultants and contractors to solicit information to enable the validation of these documents.
- Provide Engineering support during the implementation to operationalize and commercialize the project to realize its developmental objective to improve access to electricity in the Nile Basin member countries through increased cross-border sharing of energy and power resources.
- With assistance from the procurement specialists within NELSAP-CU, ensure adherence to AfDB procurement procedures/guidelines by the project executing entities in the benefiting countries.
- Participate in the implementation of procurement procedures of public procurement following the Financing Agencies' procurement policies, rules and guidelines as well as country procurement and NELSAP-CU guidelines.
- Play an active role in organizing Project Technical and Steering Committees meetings in consultation with the RPCU and NELSAP-CU regional power program officer, assist in the preparation of minutes and follow up on the implementation of the project and agreed recommendations/decisions.
- Provide any relevant briefs and liaise with the Project Manager, Environmental and Social Experts and other relevant experts in the Regional Project Coordination Unit (RPCU) and the countries.
- Provide engineering support to the project to ensure effective project coordination to reach a synchronized implementation of all project components in the NBI countries and specifically individual interconnections between any two benefiting countries.
- Monitor the physical implementation of the project to ensure satisfactory completion and compliance with the terms and conditions of the financing including the procurement rules.
- Participate in the preparation of the Project Completion Report at the completion of the project for submission to the Governments and the Bank together with the project consultant.
- Handles any other duties assigned to him by the Regional Power Program Officer and NELSAP management
- **Coordination and Support to the Consultants**
- Monitor contracts in place in the various countries and review activity reporting from the consultants while ensuring appropriate actions are taken where required.
- Review the technical progress reports from the management and supervise consultants, and contractors implementing the project.

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" To achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources"

Burundi, D.R. Congo, Egypt, Kenya, Rwanda, Sudan, Tanzania, Uganda

- **Stakeholder Engagement**

- Ensure effective liaison with national institutions, particularly the national power utilities implementing the project, and other NELSAP projects, development partners and the international community.

- **Project Reporting**

- Monitor project progress, and prepare consolidated monthly, and quarterly progress reports and work plans following the NBI rules and the financing agreements.
- Support the NELSAP-CU in the preparation of a quarterly information flyer for posting on the AFDB Energy Portal and on the relevant EU website updating stakeholders and the public on the progress of the South Sudan – Uganda Power Interconnection project.

### JOB CONTEXT

**Job Complexity:** The jobholder is required to develop concept notes and technical proposals, focus on capacity building and institutional strengthening of member states, address politically sensitive issues within the context of the policy instrument, guidelines and standard operating procedures offer strategic assessment and analysis and data management

**Creativity, Innovation & Problem Solving:** The job requires deep thinking of the best formulation of scope and context giving priority to identifying issues and challenges to address key strategic issues in terms of policies, power projects planning, management and development. The job holder is required to continuously seek opportunities to improve upon the efficiency and effectiveness in terms of time spent to deliver results and quality of results.

**Consequences of Error:** Comprehensive knowledge of boundary conditions limitation, and barriers are key to gaining buy-in into the NBI policy framework, any failure to fulfil these conditions can lead to dis-approval and non-adoption of policy documents which may affect the credibility of NBI and livelihood of people.

**Leadership & Human Capital Development:** The job holder will ensure that during the planning and implementation of transboundary water resource activities, teamwork and motivation are ensured, and coaching and training staff is undertaken.

**Service Delivery & Customer Focus:** The jobholder is responsible for serving the Nile basin member states by guiding on policies, strategies, safeguards and guidelines as well as ensuring findings, results and recommended packages for interventions are developed according to key strategic issues identified.

**Financial & Physical Resources:** The jobholder prepares an annual detailed budget coupled with the work plan and prepares quarterly and semi-annual progress reports on the same. S/he is responsible for various company assets given to him to facilitate him/ her in the performance of the duties as required by the office e.g. computer, laptop, printer, scanner, whiteboard and markers, flip chart, stationery and telephone.

**Dexterity:** The jobholder requires high concentration and to be alert as his/her role requires high accuracy and attention to detail in policy formulation, forecasting, report writing, and technical documents review.

**Mental/Sensory Demand:** The jobholder expends mental and sensory efforts in report writing, ensuring work quality, reading, monitoring, writing concept notes and proposals,

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preparing presentation and program evaluations and policy formulation and implementation.

**Physical Exertion:** The jobholder will normally work in an office sitting continuously for long hours, working on a computer, carrying out his/her duties and has periods of travel for long hours, and going on-site visits in extremely rough environments e.g. hydro-meteorological stations and other projects site in remote sites.

**Working Environment & Occupational Hazards:** Power cuts cause internet disconnection and as a result cause delays in the execution of some tasks. The job holder may be subjected to normal office environment hazards such as sitting for long periods, fire, dust, water, etc.

## JOB SPECIFICATION

### Qualification

#### Minimum

- A master's degree in electrical, Electromechanical Engineering or other related Engineering disciplines.

#### Desirable

- A degree or diploma/Certificate in management and/or project management or hands-on experience at the managerial level of at least three years is an added advantage.

### Experience

#### Minimum

- A minimum of 10 years of relevant experience in the power sector.
- Not less than 7 years in construction supervision of High Voltage (110 kV and above) transmission lines and substations, and with excellent understanding of the process of executing large engineering projects in the power sector, from tendering and procurement stage through, construction Design and drawing approvals, to commissioning and metering, and overseeing seamless integration of new infrastructure into existing networks. The candidate must demonstrate to have actively participated in a cross-border power infrastructure project in which he/she had a major role.
- Demonstrated knowledge of the roles of the various parties in a power infrastructure project – Governments, clients, supervision consultants and the EPC contractors as defined in the applicable International Federation of Consulting Engineers FIDIC suite.
- Demonstrable experience and knowledge of methodologies for substation design, transmission line design and implementation, power protection philosophies and communication protocols, High Voltage network control and operational planning, power system development planning and management and use of power system planning and analysis softwares, and knowledge and use of Project Management tools such as MS Projects or equivalent.
- Familiarity and experience with international public procurement practices and experience in vetting major construction and engineering construction and consultancy contracts, including the process of undertaking credible due diligence of consulting firms, EPC contractors and manufacturing facilities.
- Demonstrable understanding and participation in negotiations of Power Purchase/Sales Agreements, and their application in cross-border power interconnectors.

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- Good understanding of institutional capacity building aspects of the electricity sector, and power/electricity sector structural design and staffing to enhance sector functionality, efficiency and effectiveness in line with best international standards.
- Good knowledge of the process of undertaking cost-of-electricity service studies, in particular, defining the required data set and data mining.
- Experience with managing projects financed by the African Development Bank (AFDB) and other international development partners such as World Bank, KfW, BMZ, EU, JICA, CIWA etc.

### **Desirable**

- Fluency in English and a Working knowledge in French is an added advantage.
- Experience working in Africa, particularly the Nile Basin countries, is preferred.
- Being a registered/registrable member of a recognized engineering or project management institution will be an added advantage.

### **Skills Required**

- Strong analytical and demonstrated computing skills.
- Excellent written, presentation, and reporting skills.
- Integrity and Team Working – Ability to operate consistently within business guidelines and ethics and work sensitively and effectively in multicultural and multi-disciplinary environments, building effective working relations with clients and colleagues to deliver the objectives of the team and the project.
- Planning & Organizing – Self-motivated, ability to work to and meet tight deadlines and to plan and organize work unsupervised logically and efficiently.
- Communication Skills – Ability to communicate appropriate, concise and accurate information in verbal and written formats, appropriate to the audience at the time and confidence in handling senior clients (CEO/CFO) and local officials of government, Utilities and regulatory bodies.
- Analysis and Problem-Solving – The ability to tackle issues and problems logically and practically.
- Flexibility to work unusually long hours beyond normal working hours and willing to travel to and work in the Project benefiting countries of operation.
- As time is an important factor in projects such as this one, the candidate must expect to work under intense pressure and still produce quality results.

### **Duration of the Assignment**

The successful candidate will sign a one (1) year contract renewable every year based on the candidate's performance, conduct on the job, need for the services and availability of resources. The contract will have a six (6) month probation period. The decision to terminate the contract for whatever reason shall require Bank No Objection.

### **Terms and Conditions of the Contract**

The Terms and Conditions of the contract shall be those prevailing within the NELSAP-CU policies for similar assignments and within the limits provided in the Bank's PAR and the Grant

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Agreement.

### **Confidentiality of Client's Information**

Information received from the clients and key project stakeholders for transboundary projects is highly sensitive and CANNOT be used or shared outside the project fraternity without express permission of the sources and clearance by NELSAP-CU and No Objection of the AfDB.

Consequently, all reports, documents, data, and information entrusted to the consultant by the Clients and close stakeholders in the process of the assignment shall remain the property of the Client and shall remain **Confidential** and shall not be shared with any other party outside the NELSAP-CU and the AfDB without prior clearance by NELSAP-CU and a No Objection from the AfDB. A record of such reports, documents, data, and information shall be maintained to facilitate handing them back at the end of the consultant's contract period or upon termination of his/her contract whatever the case maybe.

### **Working Relationships**

#### **Internal**

- NELSAP Regional Coordinator
- Procurement Officer
- Senior Economist / M&E Specialist
- FAM and Finance Officers.
- Project Managers
- Social Safeguards Officer
- Regional Project Coordination Units

#### **External**

- The development Partners (principally the AfDB and EU, as well as World Bank, KfW, BMZ, JICA), regional bodies such as EAPP and EGL, and national utilities in the project counties and in the EAPP region.