



REPORT



**The West
African
Power Pool:
Bringing the
intentions to
reality.**

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1. Introduction



The West African Power Pool (WAPP) was established to harness available energy resources in the region to benefit all of its member countries to deliver sustainable and competitive electricity. WAPP set a lofty target of interconnecting all member countries' power systems into a unified regional electricity market by 2025 through the development of generating and transmission infrastructure.^[1] Moreover, the Economic Community of West African States (ECOWAS) has set a goal of achieving 100% electrification in all of its member countries as well as improving the share of renewable energy in the electricity mix to 48% by the year 2030 into WAPP grid.^[2, 3]

The WAPP grid encompasses two geographical zones, A and B:^[2]

- Zone A includes Nigeria, Niger, Benin, Togo, Burkina Faso, Ghana, and Ivory Coast, which are already interconnected through interconnections.
- Zone B consists of Mali, Liberia, Guinea, Sierra Leone, Guinea-Bissau, Senegal, and Gambia. Currently, only Senegal and Mali are interconnected among the countries in this zone.

WAPP's activities include the development of cross-border transmission lines, harmonising technical and regulatory standards, and establishing a legal and institutional framework for regional power trade. WAPP also promotes the development of renewable energy resources and encourages the participation of the private sector in power projects.

Hence, WAPP was created to facilitate the development of a regional power market and promote the exchange of electricity among ECOWAS member states. By connecting national power grids and enabling the transfer of electric

ity across borders, WAPP aims to improve access to electricity, enhance energy security, and foster economic growth in the region.

2. Intentions of the WAPP

The main intention of the West African Power Pool (WAPP) organisation is to foster regional cooperation and integration in the power sector in West Africa. The organisation has several specific intentions, including:

- **Regional Power Market:** WAPP aims to establish a platform for member states to trade electricity in a regional power market. This enables the optimisation of power generation and utilisation, ensuring a more reliable and efficient power supply across the region.
- **Power Supply Security:** WAPP seeks to enhance energy security by promoting cross-border electricity transmission and cooperation among member states. The interconnected national power grids provide backup power supply options during high-demand periods or emergencies, minimising the risk of power shortages.
- **Access to Electricity:** WAPP intends to improve access to electricity in West Africa, particularly in rural and underserved areas. Through regional cooperation and the development of cross-border transmission infrastructure, WAPP aims to extend power networks to areas that currently lack access to electricity, thereby promoting social and economic development.
- **Renewable Energy Development:** WAPP recognises the importance of renewable energy in achieving a sustainable and environmentally friendly power sector. The organisation intends to promote the development, impacts and integration of renewable energy resources, such as solar, wind, and hydropower, into the regional power system. This includes facilitating investments in renewable energy projects and establishing mechanisms for renewable energy trade.^[4]
- **Institutional and Regulatory Harmonisation:** WAPP aims to harmonise technical and regulatory standards in the power sector among member states.

By creating a common framework, WAPP intends to streamline procedures, facilitate cross-border power trade, and attract investments in the region's power sector.

3. How to bring WAPP intentions into reality

Bringing the intentions of the West African Power Pool (WAPP) into reality requires concerted efforts from member states, regional institutions, and relevant stakeholders. Here are some key steps that can be taken to achieve the goals of WAPP:

- **Political Commitment:** Member states must demonstrate strong political commitment to WAPP's objectives. This includes prioritising regional power sector cooperation, supporting infrastructure development, and allocating necessary resources for implementation.
- **Institutional Framework:** Establish a robust institutional framework to govern and coordinate WAPP's activities. This entails creating a central body with the authority to oversee project implementation, facilitate regional power trade, and harmonise technical and regulatory standards.
- **Regional Transmission Infrastructure:** Invest in developing regional transmission infrastructure, such as transmission lines, substations, and interconnection facilities. This infrastructure is vital for enabling cross-border power exchange and integrating national power grids.
- **Harmonization of Policies and Regulations:** Harmonize policies, regulations, and technical standards across member states to create an enabling environment for regional power trade. This involves aligning licensing procedures, tariff structures, grid codes, and safety standards.
- **Investment and Financing:** Mobilise financial resources from member states, regional institutions, and external sources to fund regional power projects. This includes attracting private sector investments through supportive policies and regulations.
- **Renewable Energy Development:** Encourage developing and integrating

renewable energy resources into the regional power system. This can be achieved by adopting supportive policies, incentives for renewable energy investments, and establishing a framework for renewable energy trade.

- **Stakeholder Engagement:** Foster collaboration and engagement with various stakeholders, including power companies, regulatory agencies, civil society organisations, and the private sector. Encourage their active participation and involvement in the decision-making processes of WAPP.
- **Monitoring and Evaluation:** Establish robust monitoring and evaluation mechanisms to track the progress of WAPP initiatives, measure the impact of regional integration efforts, and identify areas for improvement. Regular assessment and reporting ensure transparency and accountability.
- **Knowledge Sharing and Learning:** Promote knowledge sharing and learning among member states by organising workshops, conferences, and study visits. Facilitate the exchange of best practices, experiences, and lessons learned in power sector development and regional integration.

4. Methodology

- **Understand the WAPP Framework:** Familiarise with the WAPP's goals, objectives, and operational structure. Gain knowledge about the existing infrastructure, interconnections, and power trading mechanisms within the WAPP region.
- **Research Renewable Energy Potential:** Conduct a comprehensive assessment of the renewable energy potential in the WAPP region. Identify the available renewable energy resources such as solar, wind, hydro, biomass, and geothermal. Evaluate renewable energy projects' technical and economic viability in different member countries.
- **Engage Stakeholders:** Collaborate with relevant stakeholders, including government agencies, regulatory bodies, power utilities, private sector entities, and international development organisations. Foster partnerships and engage in dialogue to understand the priorities, challenges, and opportunities for integrating renewable energy systems into the WAPP.

- **Policy and Regulatory Framework:** Analyse the existing policy and regulatory frameworks related to renewable energy in the WAPP region. Identify any barriers or gaps that need to be addressed to promote renewable energy development. Advocate for supportive policies, incentives, and regulations that encourage renewable energy investments and integration.
- **Project Identification and Development:** Identify potential renewable energy projects that align with the WAPP's goals and objectives. This could include utility-scale renewable power plants, distributed generation systems, mini-grids, and energy storage projects. Conduct feasibility studies, resource assessments, and financial analyses to develop bankable projects.
- **Financing Mechanisms:** Explore financing options for renewable energy projects within the WAPP. This may involve accessing international climate funds, development finance institutions, private sector investments, and public-private partnerships. Work closely with financial institutions to structure suitable financing mechanisms that attract investment in renewable energy projects.
- **Capacity Building and Technical Assistance:** Collaborate with the WAPP and other regional institutions to develop capacity-building programs and technical assistance initiatives. These programs can enhance the technical skills of energy professionals, strengthen regulatory frameworks, and promote knowledge sharing on renewable energy technologies and best practices.

References



[1] <https://www.vanguardngr.com/2023/07/agenda-for-tinubu-as-ecowas-chair/>

[2] WAPP. Update of the ECOWAS Revised Master Plan for the Generation and Transmission of Electrical Energy: Final Report Volume 1: Study Data. 2021.

Available online:

http://www.ecowapp.org/sites/default/files/mp_wapp_volume_1.pdf (accessed on 15 December 2020).

[3] ECREEE. ECOWAS Renewable Energy Policy. 2015. Available online:

http://www.ecreee.org/sites/default/files/documents/ecowas_renewable_energy_policy.pdf (accessed on 24 June 2022).

[4] ECOWAS. Renewable Energy Policy (ERP) towards Sustainability. 2015.

Available online: https://ecowas.int/special_agency/

[ecowas-center-for-renewable-energy-and-energy-efficiency-ecreee/](https://ecowas.int/special_agency/ecowas-center-for-renewable-energy-and-energy-efficiency-ecreee/) (accessed on 24 June 2022).

About IAP

Integrated Africa Power (IAP) is a multi-unit enterprise specialized in energy and infrastructure development on the African continent. We seek to solve Africa's energy deficits, through integrated systems solutions, resource pooling and cross-border cooperation. Our approach is based on our philosophies of tailored suitability, cost-effectiveness, sustainability and energy-development linkages.

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