## SOLAR PRO.

## The Gambia right power solutions

Will the Gambia be able to provide universal access to electricity?

The Gambia is poised to provide access to electricity for all its people. His Excellency, President Adama Barrow has stipulated that there is to be Universal Access by 2025. Given its unique geography, the country is fortunate in being able to achieve universal access almost exclusively through connections to the NAWEC grid.

Does the Gambia need more power generation capacity?

The Gambia's power sector will soon need additional generation capacity to be able to cover the forecast demand. A gap between available capacity and peak demand is identified from 2022 with the expiration of the Karpower contract and by 2025 nearly 140 MW of new capacity will be needed.

Should the Gambia import electricity from Senegal or Cote d'Ivoire?

The most important conclusion from the generation planning is that the least cost option for The Gambia is to import electricity from Senegal and/or Cote d'Ivoire. This conclusion is robust in all scenarios considered.

Are biomass power plants suitable for the Gambia?

However, biomass candidate power plants were excluded from the analysis as they were considered by NAWEC inadequate technologies for The Gambia. The potential of wind capacity in The Gambia is estimated to be approximately 197 MW with a capacity factor below 20% and 5 MW with a capacity factor higher than 30% 10.

Does the Gambia have solar energy resources?

The Gambia has significant solar energy resources which can be deployed via solar PV plants, which have become price competitive with thermal plants and attractive for advancing national renewable energy and greenhouse gas (GHG) reduction targets. IRENA (2018) has estimated national solar potential at 428 MW.

In 2022, the U.S. government's Millenium Challenge Corportation (MCC) launched a Threshold Agreement with the aim of improving The Gambia's access to clean, reliable electricity. Consumers also pay a high cost for power in The Gambia - the average tariff of \$0.23/kilowatt hour (kWh) is one of the highest in the world.

The Gambia's Electricity Sector Roadmap (2019-2025) aims to scale up electricity generation to 200 MW of available capacity at peak in 2025, with 14MW expected from the OMVG project with Guinea and Senegal, and 50MW from the Souapiti project and the remainder through Independent Power Producers (IPP).

The 2021 update of the strategic electricity roadmap exemplifies the Gambia government's drive and commitment to modernizing the electricity sub-sector by building on the gains achieved over so many decades, but also to capitalize on the opportunity for low-cost imports available in the emerging West Africa Power Pool (WAPP) regional ...

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Overall, The Gambia government should focus on developing three main electricity generation sources beyond oil based systems (including mainly new and existing HFO power plants). These sources include solar PV (grid and off-grid systems), wind onshore, and more importantly hydroelectricity imports.

The Gambia's power sector is in a precarious situation. Only 45MW of generation capacity is available in the Greater Banjul Area (GBA) compared to at least 70 MW demand, meaning blackouts are pervasive.

As a result, this article identified short, medium and long-term solutions needed to restore the Gambia's electricity generation, transmission and distribution performance. The possible solution need comprises of the rehabilitation of existing HFO plants, significant investments in T& D to reduce losses and the installation of smart metering ...

ABSTRACT:- The Gambia government recognizes the critical need to provide sustainable, affordable and environmentally sound energy services to all Gambians. The current electricity power generation, transmission and distribution is facing serious challenges which are hampering the entire socio-economic development of the country.

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The Gambia's energy sector is in the middle of a major transition. Since The Gambia entered a new political chapter in 2017, electricity supply has been stabilized and villages in the North Bank have been connected. NAWEC has made significant strides to improve operational efficiency and

The platform helps circulate and propagate tenders, intelligence and business opportunities to its members. Developers, power producers, ministries, utilities, regulators, financiers, and other like-minded individuals can join APP to share possible solutions and ideas on how to solve Africa's lack of electricity.

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