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ENERGY PULSE DIGEST

OCT 2025

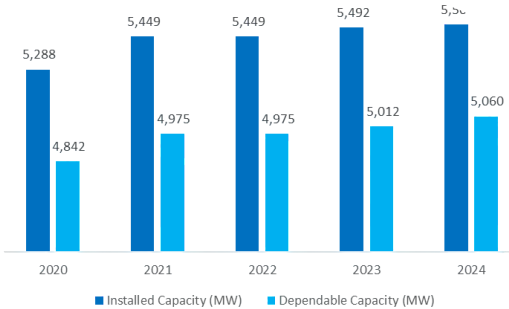
GHANA'S INDUSTRIALISATION DRIVE AGENDA: CAN POWER
SECTOR KEEP UP?

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OVERVIEW

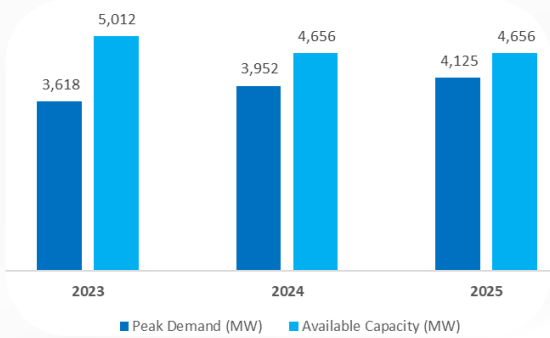
According to reports by Energy Commission (2024) and World Bank (2023), Ghana's goal of a 24-Hour Economy depends on a reliable power sector, but challenges like infrastructure deficits and financial issues cause frequent outages despite reforms. Reports from Ministry of Energy (2025) and IRENA (2023) suggest that while energy sources have diversified, demand is growing faster than supply, requiring strategic investments and new technologies such as smart grids and decentralized renewables. Achieving this vision needs systemic reforms, improved grid management, and collaboration to deliver consistent, affordable power.

GHANA INSTALLED CAPACITY VS DEPENDABLE CAPACITY MW (2020 - 2024)



SOURCE: ENERGY COMMISSION (2025)

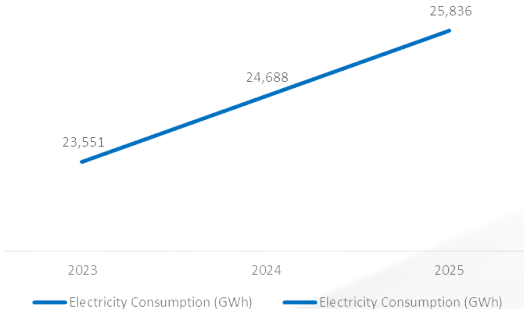
PEAK DEMAND VS AVAILABLE CAPACITY MW (2023-2025 PROJECTION)



SOURCE: ENERGY COMMISSION (2025)

The International Energy Agency (2024) and Power Africa (2024) noted that supply shortages and load-shedding persist during peak periods, largely due to the intermittency of renewables and aging infrastructure. Accelerated investment, private sector engagement, and smart grid adoption are needed to bridge this capacity gap.

PROJECTED ELECTRICITY CONSUMPTION GROWTH (GWH)



SOURCE: ENERGY COMMISSION (2025)

KEY HIGHLIGHTS

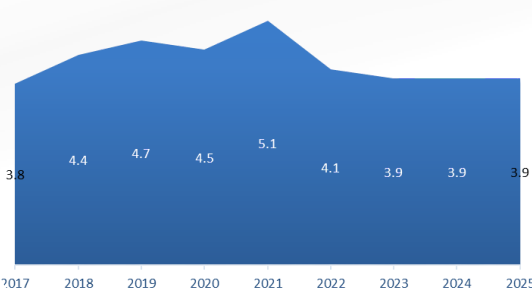
GENERATION CAPACITY VS DEMAND GROWTH

According to IRENA (2023) report, Ghana has made significant progress in expanding its power generation capacity through both renewable and conventional sources. However, demand driven by rapid urbanization and industrial growth continues to outstrip supply.

GRID RELIABILITY & TRANSMISSION CHALLENGES

Data from GRIDCo (2024) reveals that Ghana's power grid experiences significant transmission losses and inefficiencies, primarily because of outdated infrastructure. These technical losses undermine overall system efficiency and raise operational costs.

% TRANSMISSION LOSS TREND 2017-2025



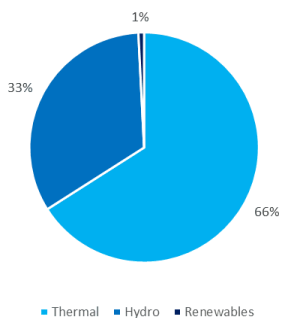
SOURCE: ENERGY COMMISSION (2025)

As IRENA (2023) highlights, modernizing transmission infrastructure and integrating digital tools for real-time monitoring and automation can drastically improve reliability. Insights from the Africa Energy Outlook (2023) further suggest decentralized power systems offer added resilience, especially for remote and off-grid areas.

POLICY & INSTITUTIONAL MEASURES

The Ministry of Energy (2025) reports that the Ghanaian government has implemented reforms to improve power sector efficiency, including tariff adjustments and policies encouraging private investment and renewable energy.

ELECTRICITY GENERATION MIX (2025)



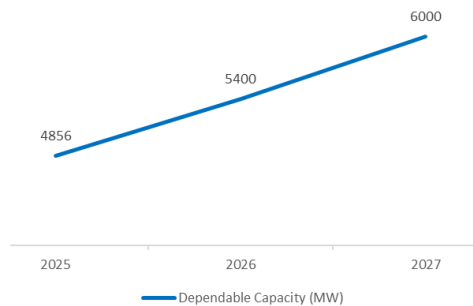
SOURCE: ENERGY COMMISSION (2025)

However, World Bank (2023) findings indicate that challenges such as agency coordination and regulatory hurdles persist. Engaging the private sector through public-private partnerships and innovative financing remains key to expanding infrastructure, while transparent tariffs and incentives are essential to ensure affordability and sustainability. As noted by Energy Commission (2024), ongoing regulatory updates will shape the sector's ability to support a 24-hour economy.

RECOMMENDATIONS

Energy demand analysis reveals that Ghana's current power capacity is projected to fall short of the increased demand triggered by the 24-hour economy. Without significant expansion of power generation, at least 1,200 MW by 2027, and investments totaling about \$10 billion, the power sector is unlikely to fully support the continuous operations envisioned. The current capacity and projected growth suggest the sector may struggle to keep up if these investments are not realized.

CAPACITY EXPANSION REQUIREMENT 2025 -2027



SOURCE: SPE EDITORIAL ANALYSIS

Additional scholarly and government reports agree that the power sector's capacity is not yet sufficient for a 24-hour economy, and the recommendations aim toward capacity expansion, grid modernization, and diversification of energy sources. These measures, if successfully implemented, could provide the necessary support, but without such efforts, the sector will likely face significant challenges sustaining the policy.

CONCLUSION

Given the current generation profile and projected demand growth, Ghana's power sector is not yet positioned to fully support a 24-Hour Economy. Expanding capacity, upgrading transmission systems, and deepening energy diversification are urgent priorities. If these measures are pursued with consistency and coordination, Ghana can create a resilient power framework capable of sustaining its economic transformation. Without such reforms, however, the risk of recurring outages and instability will remain as the country transitions toward continuous economic activity



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