Angola energy storage investment trends

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Angola"s economic landscape in 2024 presents a complex picture, marked by potential for growth but also significant challenges. While the nation boasts abundant natural resources, particularly oil, realizing sustained economic development requires addressing persistent structural issues.

Angola"s economy remains heavily reliant on oil exports, a vulnerability highlighted by fluctuating global prices and the ongoing energy transition. While oil revenue contributes significantly to government coffers, this dependence limits diversification and hinders the development of other crucial sectors. The government"s efforts to reduce this reliance, through investments in agriculture and infrastructure, are crucial for long-term stability. However, progress in this area has been slow, hampered by bureaucratic inefficiencies and a lack of private sector investment.

Diversification is not merely an economic imperative; it"s a strategic necessity for Angola"s future. Developing robust agricultural sectors, fostering manufacturing, and promoting tourism are vital steps towards creating a more resilient economy. This requires significant investment in infrastructure, skills development, and a supportive regulatory environment. The current climate, while showing some signs of improvement, still presents considerable hurdles for investors.

Improving Angola"s infrastructure is a key component of attracting foreign investment and stimulating economic growth. The country needs significant improvements in transportation networks, energy supply, and digital connectivity to compete effectively on the global stage. While infrastructure projects are underway, their pace and effectiveness remain a subject of debate, with concerns about transparency and efficiency.

Beyond the economic challenges, Angola faces significant social and political hurdles. High levels of poverty and inequality contribute to social unrest, and addressing these issues is crucial for long-term stability. Furthermore, strengthening institutions, promoting good governance, and tackling corruption are essential for attracting foreign investment and building investor confidence.

The following map exemplifies the calculation of the guaranteed power capacity that should be available by 2017 - considering that La?ca only enters into service at the end of that year - and compares it with the estimated consumption peak this scenario we obtain a cover ratio of 1,1 (ratio between guaranteed power and peak demand), which demonstrates that an adequate implementation of the 2013-2017 Action Plan will allow reaching sufficient levels of coverage by 2017.

The analysis demonstrates that such future power capacity (expected plus already decided projects) is clearly not sufficient, with a deficit of guaranteed power of 1,3 GW with respect to the maximum load and of 1,7 GW if a cover ratio of 1,05 is intended (this value was selected as the cover ratio target in the present study for 2025 so as to safeguard eventual delays in the development of certain projects or a higher demand rate

growth).

The need for additional capacity will be higher should it be decided to promote new additional hydropower projects which, although competitive, show lower guaranteed capacity relative to installed capacity and cannot benefit from a higher hour concentration of hydropower production as does La?ca. The need for power will also vary with the evolution of demand, hence it is important to adjust the system requirements to the evolution of project execution and consumption.

Angola has innumerous possibilities concerning supply options in order to face the needs of additional generation until 2025, in particular in what concerns hydropower and natural gas - as explained in the previous chapters. Four main possible guidelines were developed, designated as "macro-scenarios" in order to select which projects to install until 2025, giving different weights and relevance to each of the main alternative power sources:

The significant difference in CO2 emissions between the different scenarios resulted in a lower score for both the scenarios of diversification - due to the high emission levels associated with coke - and of natural gas. On the other hand, the lower investment needed for natural gas resulted in two scenarios of Hydropower and Gas Balance being considered.

The new hydropower projects of the Cuanza river, although highly competitive, should only be developed by 2025 if associated with new structuring projects that imply a significant increase of the forecasted demand.