

# **ANGOLA**





# 1 Angola's Renewable Energy Potential and Country Overview

Nestled on the southwestern coast of Africa, Angola is a nation endowed with natural resources, including solar, wind, and hydro power, which have the potential to transform its energy landscape and contribute to sustainable development. It has a population of 35.6 million<sup>1</sup>, about 1.63 times the population of Beijing (21.84 million) with projections indicating a rise to 44.9 million by 2030.<sup>2</sup> While Beijing has installed renewable capacity at 2181 MW, Angola surpasses this with 4068 MW. This indicates a greater investment in renewable energy infrastructure is needed in Angola to meet its population growth. Angola is the eighth-largest economy in Africa and the second in Southern Africa, with a GDP of USD 106.71 billion in 2022.<sup>3</sup> Angola's economic story is closely entwined with its reliance on oil in the past. It faced challenges from



2016 to 2020, navigating a downturn in oil prices and a reduction in production. However, Angola's resilient economy is now on an upward trajectory, steering away from historical oil reliance toward sustainable growth. Proactively fostering a diversified economy, the government places high priority on renewable energy development, as exemplified by the ambitious pledge at COP26 to increase the renewable energy mix to 70% by 2025<sup>4</sup> and the cornerstone document "Angola Energia 2025" outlining a comprehensive roadmap for a sustainable energy transition, including a target to increase electrification to 60% by the policy's conclusion.<sup>5</sup> These commitments are aligned with Angola's Nationally Determined Contribution (NDC) which includes plans of renewable installation including biomass, hydro, solar and wind.

Table 1: Summary of Angola's Overall Renewable Energy Potential by Resource

	Renewable Energy Resource		Angola	China
	Solar Photovoltaic potential (kWh/kWp		3.51-5.35	2.21-5.82
	Wind resource potential (Wind speed range, metre per second)		4.19-6.22	5.96-10.21
<b>P</b>	Biomass Potential (GW)		3.7	30
<b>3</b>	Hydro Potential (MW)		18	542,000
	Geothermal Potential (MW)		N/A	1500
Electric Price (USD/kWh)	Household	0.014	0.076	
		Businesses	0.012	0.089

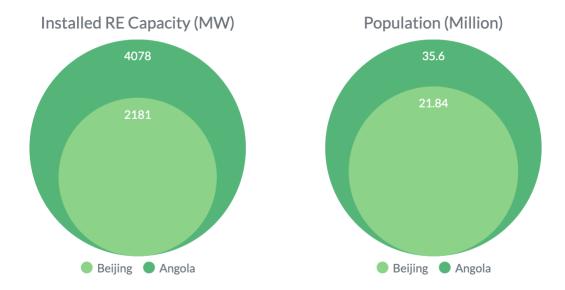
<sup>&</sup>lt;sup>1</sup> The Time Weekly, 2023, https://www.thepaper.cn/newsDetail\_forward\_22640606

<sup>&</sup>lt;sup>2</sup> United Nations Population Fund, Country programme document for Angola, 2023.

<sup>&</sup>lt;sup>3</sup> Trading Economics. <a href="https://tradingeconomics.com/country-list/gdp?continent=africa">https://tradingeconomics.com/country-list/gdp?continent=africa</a>

Macau News Agency, Angola: COP26: President pledges increase in use of renewable energy to 70 pct by 2025, 2021, <a href="https://www.macaubusiness.com/angola-cop26-president-pledges-increase-in-use-of-renewable-energy-to-70-pct-by-2025/">https://www.macaubusiness.com/angola-cop26-president-pledges-increase-in-use-of-renewable-energy-to-70-pct-by-2025/</a>
 Angola Energy 2025, Executive Summary. <a href="https://angolaenergia2025.gestoenergy.com/en/conteudo/executive-summary">https://angolaenergia2025.gestoenergy.com/en/conteudo/executive-summary</a>





## 2 RENEWABLE ENERGY POTENTIAL

While when compared to Africa's average renewable energy potential (indicated by the average of its wind power density at 100 meters and its solar PV potential) Angola's potential falls only slightly below (see Figure 2), Angola possesses a rich and diverse renewable energy potential as a result of its solar, hydro, biomass, and wind resources. Currently, renewable energy represents 65.6% of Angola's electricity capacity, reaching 4.08GW. Figure 3 below illustrates Angola's renewable energy consumption by sector in 2020. However, these sources remain significantly untapped.

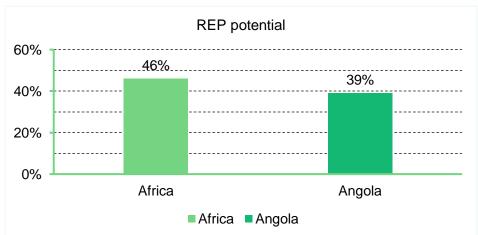


Figure 2: Comparing Angola's and Africa's average REP



0% 6% 30% Industry Transport Household Other

Figure 3: Angola's renewable energy consumption by sector<sup>6</sup>

To support potential Chinese investors interested in exploring opportunities in Angola's renewable energy sector, a breakdown of each renewable energy resource as well as potential investment opportunities within each area is provided below.

## 2.1 Solar Energy

Solar energy is one of the most promising renewable energy resources in Angola with an estimated potential reaching up to 55 GW and an annual average global horizontal radiation ranging from 1,370 to 2,100 kWh/m2/year.7 The country's solar potential is also evident when compared to that of all other African countries. As seen in Figure 4, Angola's solar PV potential (4.66 kWh/kWp/day) is higher than the average potential of the African region (4.51 kWh/kWp/day).

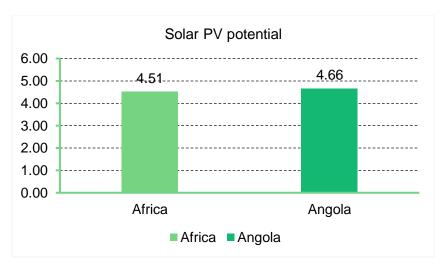


Figure 4: Comparing Angola's and Africa's average Solar PV Potential

<sup>6</sup> IRENA. Energy Profile Angola, 2023. https://www.irena.org/-

<sup>/</sup>media/Files/IRENA/Agency/Statistics/Statistical Profiles/Africa/Angola Africa RE SP.pdf

Ministry of Energy and Water. National Strategy for the New Renewable Energies. June 2014.



Solar energy stands out as the most extensive and evenly distributed renewable resource throughout the nation, with the Central and Southern provinces showcasing particularly high solar irradiation (see Figure 5). The diverse solar landscape in Angola offers a range of investment avenues for those looking to contribute to the nation's renewable energy development. For example, investors can participate in large-scale PV power generation projects, either as Independent Power Producers (IPPs) or through Public-Private Partnerships (PPPs) with the government. Additionally, investors can explore opportunities in small-scale household solar solutions, such as air and water solar heaters and solar water pumping systems.

Although Angola is not traditionally regarded as a highwind-potential country, it still possesses a wind potential Luanda Junga Gayana Pangoela Huamba Hangoela Huamba Luana

Figure 5: Angola's Regions with High Solar

Irradiation

Daily totals: 3.4 3.8 4.2 4.6 5.0 5.4 M/h/M/p

totalling approximately 3.9 GW. This potential arises from the convergence of various factors and conditions, including areas with average wind speeds exceeding 6.0 m/s, locations beyond reserves or natural protection zones, and areas demonstrating favorable technical characteristics concerning terrain and accessibility. From the 18 Angolan provinces, Cuanza Sul province stands out for its 300 MW of potential projects as well as for being the province in which the project with the lowest cost of generation was identified - Quitobia 100 MW Wind Project (see Figure 6).9

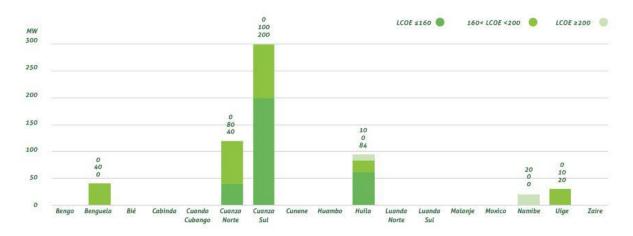


Figure 6: Wind Potential of Angola's Provinces<sup>10</sup>

Nota: Sem impostos. Custo médio de capital de 11%. Note: Without taxes. Weighted average cost of capital 11%.

<sup>10</sup> Angola Energy 2025, Renewables-Wind.

<sup>&</sup>lt;sup>8</sup> Figure 5: Angola's Regions with High Solar Irradiation

<sup>&</sup>lt;sup>9</sup> Angola Energy 2025, Renewables-Wind. <a href="https://angolaenergia2025.gestoenergy.com/en/conteudo/renewables-wind">https://angolaenergia2025.gestoenergy.com/en/conteudo/renewables-wind</a>



# 2.2 Hydro Power

Hydroelectric power currently stands as Angola's largest electricity source, with an installed capacity of 3.7GW. However, the nation's hydro potential is farreaching, estimated at 18GW, indicating an annual production potential of 72TWh. 11 Notably, the river basins of Kwanza, Queve, Cunene, and Catumbela represent 86% of this estimated potential, identified as prime targets for hydro development. Beyond these, Angola's diverse river network, characterized by abundant flows and falls, offers optimal conditions for implementing smaller hydro projects (up to 10MW) across the entire territory. As seen in Figure 7, the Angolan government has identified about 100 suitable locations for small hydropower plants, presenting a great opportunity for Chinese investors in the hydro sector to tap into this national resource. Moreover, Chinese investors can leverage this opportunity by engaging in the manufacturing of components for the hydro systems, such as hydraulic turbines.

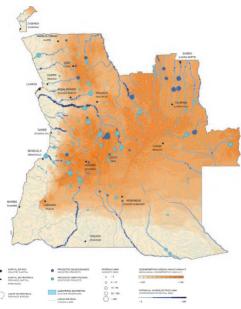


Figure 7: Identified Hydroelectric Projects

# 2.3 Biomass Energy

Angola's biomass resources, including forestry residues, energy crops, agro-food industry residues (with a focus on sugar cane), livestock farming, and municipal solid waste, have the potential to generate 3.7 GW of energy, of which 3.3 GW are forestry related.<sup>12</sup> The Central Region and the Eastern Region are particularly promising for forestry and agro-industry resources. The government of Angola has identified 42 potential biomass projects, with calculated levelized costs ranging from USD 0.1 to USD 0.2/kWh.<sup>13</sup> These mappings provide a robust foundation for prospective biomass investors.

# 2.4 Energy Sector

Enhancing electrical power availability to foster economic diversification and address the rising energy demands of a growing population is a top priority for the Angolan government. In pursuit of the targeted 9.9 GW of installed generation capacity and a 60 percent electrification rate by 2025, the government has developed an ambitious infrastructure plan. Currently, Angola's installed capacity is estimated at 5.6 GW, with only 4.5 GW accessible. The existing energy mix comprises 68% hydropower, 31% other fossil fuels, and 0.7% hybrid (solar/fossil fuel). However, the Ministry of Energy and Water is anticipating an increase to 6.3 GW of generation capacity upon the full operation of the Soyo combined cycle gas plant (750 MW) and the Laúca

<sup>&</sup>lt;sup>11</sup> Ministry of Energy and Water. National Strategy for the New Renewable Energies. June 2014.

<sup>&</sup>lt;sup>12</sup> Ministry of Energy and Water. National Strategy for the New Renewable Energies. June 2014.

<sup>&</sup>lt;sup>13</sup> Ministry of Energy and Water. National Strategy for the New Renewable Energies. June 2014.

<sup>&</sup>lt;sup>14</sup> The International Trade Administration, U.S. Department of Commerce. Angola - Country Commercial Guide, 2022. https://www.trade.gov/country-commercial-guides/angola-energy



hydroelectric project (2.1 GW). In addition to this, several other hydro and solar projects are in development and are expected to be operational within the next two to five years. Given recent government budget constraints and Angola's emergence from an economic downturn, external financing and private project development will continue to play a crucial role in supporting both ongoing and future energy initiatives.

# 2.5 Electricity Sector

Angola's electrification rate has been advancing steadily, at an annual pace of approximately 3% since 2016. Yet, to realize the objective of elevating electrification to 60% by 2025, a substantial influx of investment into electricity infrastructure and energy installations becomes imperative. Among those with access, per capita consumption is at 363.37 kWh (2020), significantly lower than that of South Africa (3539.84 kWh). In terms of access to clean fuels and technologies, there exists a stark urban-rural divide. While 76.6% of urban residents have that access, only 8.1% of rural population have that privilege. Bridging this gap requires strategic and targeted investment in rural infrastructure development and innovative mini renewable energy solutions.

The electricity price in Angola is highly subsidized and non-cost-reflective, and is among the lowest in Africa and globally.<sup>17/8</sup> To increase incentives for private sector to participate in power generation, there has been a tariff reform initiative and the government is working to gradually increase tariffs to cost recovery levels and to progressively reduce the subsidies.<sup>19</sup>

#### 3 INSTITUTIONAL AND REGULATORY FRAMEWORK

The commitment of the Angolan government to diversify its energy sources and attract investments in renewable energy is evident in its proactive efforts to establish a robust institutional and regulatory framework for the sector. The country has a sound legal and institutional framework supporting the development of renewable energy.

Within the legal framework, the General Electricity Law and the Private Investment Law provide a legal basis for the development of renewable energy projects, while the National Renewable Energy Strategy outlines a comprehensive roadmap, identifying resources and setting targets to guide the country's renewable energy deployment.

Within the institutional framework, the Ministry of Energy and Water (MINEA) plays a central role in the development and implementation of energy policies, including those related to renewable energy. The ministry is responsible for overseeing the sector and promoting sustainable energy development. Under the umbrella of MINEA, four state-owned entities are entrusted with distinct responsibilities related to energy development, transmission, distribution, and engineering, collectively contributing to the coordinated and efficient advancement of Angola's energy goals. To support potential investors in better understanding the governance of Angola's renewable energy sector, Table 2 below provides an overview of the key relevant actors (including government authorities and private sector companies) as well as a list of relevant regulatory frameworks and legislations.

<sup>17</sup> Global Petrol Prices, Angola electricity prices, 2023. https://www.globalpetrolprices.com/Angola/electricity\_prices/

<sup>&</sup>lt;sup>15</sup> Africa Energy Portal. https://africa-energy-portal.org/aep/country/angola

<sup>&</sup>lt;sup>16</sup> World Bank Database.

<sup>&</sup>lt;sup>18</sup> Cable. The price of electricity per KWh in 230 countries. <a href="https://www.cable.co.uk/energy/worldwide-pricing/">https://www.cable.co.uk/energy/worldwide-pricing/</a>

<sup>19</sup> African Development Bank. Angola - Angola Renewable Energy Program - Enabling Environment - SEFA Appraisal Report.



Table 2: Angola's Renewable Energy Sector: Key Actors and Regulatory Framework<sup>202122</sup>

Key Actors	Responsibilities		
Ministry of Energy and Water (MINEA)	It is the government ministry that determines strategies and policies for the energy and electricity sector		
Instituto Regulador dos Serviços de Electricidade e de Agua (IRSEA)	It is the regulator of the electricity sector. It regulates the production, transport, distribution and commercialization of electrical energy in the Public Electric System		
Empresa Pública de Produção de Electricidade (PRODEL-EP)	It is a state-owned company engaged in power generation		
Empresa Rede Nacional de Transporte de Electricidade (RNT-EP)	It is a state-owned company engaged in the operation of the electricity transmission system		
Empresa Nacional de Distribuição de Electricidade (ENDE-EP)	It is a state-owned company engaged in the distribution and sale of electricity		
Gabinete de Aproveitamento do Médio Kwanza (GAMEK)	It is a state-owned company engaged in engineering and development of power projects		
Angola Private Investment and Export Promotion Agency (AIPEX)	It is the investment and trade promotion agency that engages with foreign investors on investment opportunities and investment registration		
Energy Project Implementation Support Unit (EPISU)	Established with the help of African Development Bank, it is a one-stop shop unit that helps independent power producers (IPPs) improve the bankability of projects		
Relevant Regulatory Frameworks and Legislation	<ul> <li>The General Electricity Law of 1996 (Law No. 14-A/96 of 31 May 1996); Amended in 2015 as the General Electricity Law of 2015 (Law no. 27/15 of 14 December 2015)</li> <li>Public Private Partnership Law 02/2011</li> <li>The latest Private Investment Law (Law no. 10/21 of 22 April 2021)</li> <li>The Free Trade Zones Law (Law no. 35/20 of 12 October 2022)</li> <li>Presidential Decree no. 76/21, Regulation on the Activities of Production, Transmission, Distribution and Commercialization of Electricity</li> <li>Presidential Decree no. 43/21, Regulation on Independent Electric Power Production</li> <li>National Renewable Energy Strategy (2015)</li> <li>Tax Benefit Codes (Law 8/22 of 14 April 2022)</li> </ul>		

# 4 INVESTMENT INCENTIVES

To promote economic diversification, the government of Angola actively encourages private investment and has taken steps to improve the business environment, exemplified by the enactment of the new Private Investment Law (PIL) in 2018, subsequently amended in 2021. This

<sup>&</sup>lt;sup>20</sup> Africa Energy Portal. <a href="https://africa-energy-portal.org/eri/country/angola">https://africa-energy-portal.org/eri/country/angola</a>

<sup>&</sup>lt;sup>21</sup> Barbosa, P. C.& Amaro, R. A., Electricity Regulation in Angola, Lexology, 2019.

https://www.lexology.com/library/detail.aspx?g=7c9d9305-072d-46d0-bda6-518dea4b2e78

22 Global Legal Insights. Energy Laws and Regulations 2023 Angola. https://www.globallegalinsights.com/practice-areas/energy-laws-and-regulations/angola



legislation ensures equal access to investment incentives for both foreign and domestic investors. Another recent development is the introduction of the Tax Benefits Code (Law 8/22 of 14 April), providing a comprehensive overview of incentives for private investors, including in the renewable energy sector. For example, taxpayers engaged in renewable energy production and sale benefit from a 35% reduction in Corporate Income Tax and a 60% reduction in Investment Income Tax. Similarly, buildings exclusively used for renewable energy production receive a 75% reduction in Property Tax upon acquisition and 50% reduction for ownership. These reductions remain in force as long as the property is used for renewable energy production.<sup>23</sup>

Key incentives for private investors in Angola are delineated in the Private Investment Law, focusing on priority sectors including electricity production and distribution. The primary incentive is tax reduction, with the percentage and duration of these benefits contingent on the investment's location. Angola is divided into four zones based on development levels, and investors in less developed areas can enjoy higher tax reduction rates for an extended period, up to a maximum of 15 years of significant tax rate reduction.<sup>24</sup> Public-private partnership projects also benefit from private investment incentives. Investments in free trade zones can lead to customs and tax exemptions, including a 15% industrial tax rate and investment income tax exemption for dividends. Renewable energy producers may receive a reduction of industrial tax rate to 16.25%, among other incentives related to land and buildings.<sup>25</sup>

# 4.1 Foreign Renewable Energy Investments and Collaborations

#### 4.1.1 CHINESE INVESTMENTS IN ANGOLA'S ENERGY SECTOR

Angola maintains robust economic ties with China, especially in the energy sector. It is the largest destination for Chinese loan commitments and fifth largest FDI destination in terms of FDI stock.<sup>26</sup> In comparison to the average Chinese FDI received by all other African nations between 2017-2021, Angola's intake is significantly higher (see Figure 8).

<sup>&</sup>lt;sup>23</sup> PLMJ. Tax Benefits Code.

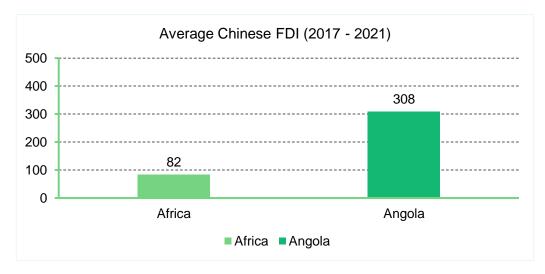
<sup>&</sup>lt;sup>24</sup> AIPEX. https://www.aipex.gov.ao/PortalAIPEX/#!/investimentos/investir/como-investir

<sup>&</sup>lt;sup>25</sup> Figueiredo, M. & Graca, T. M., Angola's Tax Environment and Incentives for Investors, Bloomberg Tax, 2022. https://news.bloombergtax.com/daily-tax-report-international/angolas-tax-environment-and-incentives-for-investors

<sup>&</sup>lt;sup>26</sup> China-Africa Research Initiative, School of Advanced International Studies. Dataset: Chinese Investment in Africa. Johns Hopkins University. Washington DC. 2023. <a href="http://www.sais-cari.org/s/FDIData\_April2023.xlsx">http://www.sais-cari.org/s/FDIData\_April2023.xlsx</a>



Figure 8: Comparing Chinese FDI received by Angola and all other African countries on average from 2017 – 2021 (million)



According to Boston University's database, between 2002 and 2022, China committed loans amounting to USD 45.0 billion to 258 projects in Angola, and 57.6% (USD 25.9 billion, 37 projects) of those loans went into the energy sector. The majority of the 37 projects focus on electricity infrastructure such as electricity network, transmission and transformation while there are 5 projects focusing on renewable energy development, all of them related to hydropower (see Table 3). These 5 projects, which in total amount to USD 4.474 billion, if completed, can add 2292MW of power for Angola, a big boost to power generation.

Table 3: Chinese loans into Angola's Renewable Energy Development

Year	Project Name	Loan (USD M)	Lender
2010	Lomaum Hydropower Project 65M	60.0	ICBC
2012	Mabubas Hydropower Project Expansion 10MW	21.8	China Energy Engineering Corporation (CEEC)
2013	Luachimo Hydropower Project, 36MW	180.2	ICBC
2014	Tchihumbwe Hydropower Plant (12MW); 110km Transmission Line (99.6km)	112.0	CHEXIM
2016	Caculo Cabaca Hydropower Project (2170MW); Transmission Lines	4100.0	MixedCN: Industrial and Commercial Bank of China Ltd. (ICBC), Export-Import Bank of China (CHEXIM), Bank of China (BoC), China Construction Bank (CCB), China Minsheng Bank, Ping An Bank Co., Ltd.

In addition to the financing ties between the two countries, Angola has also seen an increasing presence of Chinese companies operating in various sectors of the country. Chinese firms have engaged in projects related to infrastructure development, construction, telecommunications,

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<sup>&</sup>lt;sup>27</sup> BU Global Development Policy Center. (2023). Chinese Loans to Africa Database. Retrieved from: https://www.bu.edu/gdp/chinese-loans-to-africa-database/



renewable energy, and more. As a response to the increasing interest, the Angola government has taken steps to create a favorable investment climate, offering incentives and protective measures for investors. These efforts include policies such as the Private Investment Law (2018) and the Tax Benefit Code mentioned above. Table 4 below provides just a sample list of Chinese companies operating in Angola as of 2023.

Table 4: Sample List of Chinese Companies in Angola (2023)

Companies	SOE or Private	Areas	Projects
China Gezhouba Group Company Limited (CGGC)	SOE	Hydropower	Caculo-Cabaca project
Huawei	Private	Technology, communication	Huawei is creating partnerships with national entrepreneurs aiming at the rapid establishment of renewable energy in the country.
Power China	SOE	Hydropower, renewable energy, hydroelectricity	
Guangde Internatioal Group, LDA	Private	Trade, construction, power engineering, building materials production, industrial park investment and operation	Guangde International Industries Park in Luanda. It has a renewable energy factory manufacturing storage battery
CITIC Construction	SOE	Construction and engineering	
Sinohydro Construction Angola	SOE	Construction and engineering	

#### 4.1.2 OTHER FOREIGN INVESTMENTS

While the petroleum sector has traditionally drawn significant Foreign Direct Investment (FDI) in Angola, the renewable energy sector is currently experiencing a substantial upswing. China has emerged as a crucial partner in the development of hydro energy projects within the country. Beyond hydro, various sectors are becoming increasingly attractive to investors. Notably, American firms Sun Africa and AfricaGlobal Schaffer, with support from the US Department of Commerce and Export-Import Bank, are set to make a substantial investment of USD 2 billion in constructing new solar projects in Angola. This project aims to generate over 500MW of renewable power and contribute to addressing critical energy needs in Southern Angola. Additionally, on the development of solar energy, the government of Angola has secured

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<sup>&</sup>lt;sup>28</sup> Today News Africa. President Biden highlights U.S.-backed \$2 billion solar initiative in Angola. https://todaynewsafrica.com/

<sup>&</sup>lt;sup>29</sup> AfricaGlobal Schaffer. US EXIM Approves \$900MM Loan for Angolan Solar Mini-Grids.



EUR€1.29 billion (USD 1.41 billion) in financing from Standard Chartered Bank to construct photovoltaic electricity distribution infrastructure. 3031

## 5 BARRIERS TO RENEWABLE ENERGY DEPLOYMENT IN ANGOLA

Despite the potential of renewable energy in Angola, there are several challenges that need to be addressed in order to fully harness these resources. Main challenges encompass infrastructure limitations, regulatory challenges, currency exchange risks due to the volatility of the local currency (Kwanza) as well as risks related to high inflation.

- Infrastructure Deficiencies: Angola faces infrastructure challenges particularly in rural areas. Many remote regions lack access to the national grid, making it difficult to distribute electricity generated from renewable energy sources. To overcome this, the government and private sector need to invest in expanding and upgrading the country's transmission and distribution networks
- **Regulatory Challenges:** While the government has made some efforts to attract investment by developing new regulations and laws, more needs to be done to create a conducive environment for investors. This includes implementing clear and transparent regulations, as well as offering more incentives for renewable energy projects.
- Currency Volatility: The exchange rate volatility of the Kwanza can have significant
  implications for businesses operating in the country, particularly those engaged in
  international trade and investment. For example, businesses involved in importing or
  exporting goods and services may face challenges due to currency fluctuations. Sudden
  depreciation of the Kwanza can increase the cost of imported goods, impacting profit
  margins.
- **Inflationary Pressures**: Rapid depreciation of the Kwanza can contribute to inflationary pressures in the economy. This, in turn, may impact consumer purchasing power and the overall cost structure for businesses, influencing pricing strategies and profitability.

### 6 CONCLUSION AND RECOMMENDATIONS

This briefing offers a comprehensive analysis of Angola's renewable energy landscape, emphasizing the several opportunities for Chinese investors within the sector. As evident from the analysis, the country has potential to utilize its renewable energy resources and the fact that the government has placed focus on creating a favorable regulatory environment to attract renewable energy investments is vital for future investors. However, despite the potential of the country, it is important to highlight that there are certain barriers as outlined above, that affect the deployment of country- specific renewable energy investments and for this reason, this briefing concludes with targeted recommendations to help Chinese investors navigate through these challenges.

#### 6.1 Recommendations

• Capitalise on existing involvement in the hydropower sector: Chinese companies already play a crucial role in Angola's hydropower sector undertaking major projects such

<sup>&</sup>lt;sup>30</sup> Okoro, U., Angola Solar Sector Set for Growth with Multiple Financing Commitments, Energy & Utilities, 2023. <a href="https://energy-utilities.com/angola-solar-sector-set-for-growth-with-multiple-news121591.html">https://energy-utilities.com/angola-solar-sector-set-for-growth-with-multiple-news121591.html</a>

<sup>&</sup>lt;sup>31</sup> Standard Chartered. Standard Chartered announces EUR 1.29 billion financing for development of solar-powered electricity infrastructure in Angola, 2023. <a href="https://www.sc.com/uk/2023/06/30/standard-chartered-announces-eur-1-29-billion-financing-for-development-of-solar-powered-electricity-infrastructure-in-angola/">https://www.sc.com/uk/2023/06/30/standard-chartered-announces-eur-1-29-billion-financing-for-development-of-solar-powered-electricity-infrastructure-in-angola/</a>



as the Caculo Cabaca Hydropower Project. However, by building on the existing collaboration and experience, more Chinese investors can participate in the development of small hydro projects across the country, contributing to sustainable energy solutions. Chinese investors interested in participating in this sector are encouraged to collaborate with established Chinese companies already active in the country, such as China Gezhouba Group Company Limited (CGGC) and Power China. As they can provide valuable insights into potential project opportunities and their interest in forming future partnerships. Connecting with experienced players in the field is a strategic approach for gaining a deeper understanding of the sector and exploring collaborative ventures.

- Facilitate the trade of renewable energy equipment: Leveraging the sea access of Angola, Chinese companies can establish joint ventures to facilitate the efficient transportation and distribution of renewable energy technologies, such as solar panels and wind turbines. By tapping into the maritime routes available, Chinese companies can streamline the import and export processes, reducing logistical challenges. Additionally, collaborative efforts can include the establishment of renewable energy hubs near the coast, serving as distribution centres for equipment within the regions and neighbouring countries. Angola's Ministry of Commerce is the key stakeholder that Chinese investors should get in touch with in order to discuss potential trade opportunities between the two countries.
- Consider exploiting economies of scale: Considering that Angola is part of numerous regional groups such as the Southern African Development Community (SADC) (an intergovernmental organization formed as an alliance of 16 southern African countries with the aim of coordinating development projects) Chinese investors are encouraged to liaise with such regional groups in order to leverage the immense potential offered within these economies of scale. Exploiting these economies of scale can lead to significant advantages for Chinese businesses seeking to expand their operations in the region.
- Leverage government-to-government agreements and existing relationships: Considering China's robust participation in Angola's infrastructure construction as well as the strong ties that China has with the government of Angola (which is evident from the significant amount of Chinese FDI received) Chinese companies should seek to work alongside the two governments to explore opportunities for private sector participation in the implementation of renewable energy initiatives. A starting point for Chinese investors to gain insights into which sectors are open to foreign investment could be by contacting the Embassy of Angola in China.