

**Africa
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A REVIEW OF BARRIERS AND OPPORTUNITIES FOR RENEWABLE ENERGY ADOPTION BY SMES IN GHANA



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Abbreviations

AGI	Association of Ghana Industries
CO ₂	Carbon Dioxide
ESC	Energy Service Centre
GHS	Ghana Cedis
kg	kilograms
kW	kilo Watts
kWh	Kilo Watt per Hour
LPG	Liquefied Petroleum Gas
PPA	Power Purchase Agreements
RE	Renewable Energy
SME	Small and Medium-Scale Enterprise
US\$	United States of America Dollars
Solar PV	Solar Photovoltaics

Executive summary

Electricity is an essential aspect of the operations of Small and Medium-Scale Enterprises (SME) in various sectors of the economy including agriculture, industry and services. Access to a reliable and affordable supply of power is essential for their operations to remain competitive. SMEs in Ghana rely primarily on conventional power from the national grid. In recent times, conventional power supply in Ghana has been plagued by challenges primarily erratic power supply and high end-user tariffs, which have adverse impacts on SMEs' productivity. End-user tariffs for SMEs are often higher than tariffs for residential consumers resulting in increased production costs which reduces their profitability, hence, long-term resilience and sustainability.

To mitigate the impact of these power challenges, some SMEs turn to self-generating options such as fuel-powered generators. However, this option is associated with an increased cost of operation and its attendant negative environmental impacts. Better alternatives that mitigate the challenge of the unreliability of power supply and high cost of power are essential for SME productivity. Solar and other forms of renewable energy technologies have not only proven to be stable, and economical in the long term, but also contribute to environmental sustainability.

Nonetheless, the rate of renewable energy adoption in Ghana among SMEs has been moderately low. As part of a broader objective of enhancing access to affordable renewable energy, this report highlights the results of a survey aimed at examining the opportunities, motivating factors and challenges to renewable energy adoption among SMEs. Participants in the survey were relevant stakeholders such as SMEs, suppliers of renewable energy technologies, government and regulatory institutions, and financial institutions.

The report aims to increase awareness of the economic and environmental benefits of renewable energy adoption among Small and Medium Scale enterprises, while, breaking down barriers to renewable energy adoption. The survey elicited the following results:

1. Beyond environmental sustainability, renewable energy adoption presents additional opportunities for SMEs including significant cost savings and an avenue to build a green business image.
2. Access to capital required for investment is the primary challenge that inhibits renewable energy adoption characterised by high initial costs and limited access to renewable energy technology financing.
3. The limited adoption of renewable energy technologies is shaped by knowledge gaps on renewable energy technologies, the economic and environmental benefits and available funding opportunities for green investments.
4. Renewable energy suppliers and service providers mainly face regulatory challenges including bureaucracies and high costs of licensing businesses and delays in implanting renewable energy policies such as net metering. In line with the results of the survey, the following recommendations are made;

Recommendations

1. Energy Commission must streamline its processes to facilitate easy acquisition and renewal of licences for renewable energy technology suppliers.
2. Government and regulatory institutions must expedite their actions towards the implementation of net metering to encourage self-generation through the adoption of renewable energy technologies.
3. Government in collaboration with businesses and civil society actors must intensify education to create awareness on clean energy adoption, paying particular attention to the economic and environmental benefits.
4. Financial institutions must create more awareness on funding available for renewable energy investments accessible by SMEs.
5. There must be an intensified and broader dialogue and engagement among stakeholders to deepen the conversation on renewable energy adoption and the options available for financing.

Introduction

Globalisation and technological advancement have contributed to intense competition among businesses especially for Small and Medium Scale Enterprises (SMEs). Their survival depends on their ability to build resilience within the business environment. Such resilience requires business operations to remain productive over the long term. Thus, SMEs must be able to reliably access their inputs at an affordable cost to meet their growing needs. Electricity is an essential input for SMEs' operations across the various economic sectors, including agriculture, industry, and services. In the agriculture sector, electricity is necessary for irrigation, food storage, and farm machinery operation while the industrial sector depends on electricity for processing, packaging, and manufacturing.

Primarily, electricity is essential for all administrative activities in all sectors of the economy. Therefore, the importance of electricity for SMEs' activities cannot be overemphasised. However, SMEs in Ghana face significant power supply challenges, which are mainly erratic power supply and high end-user tariffs. The erratic power supply is due to disruptions in transmission and distribution networks across the country occasioned by load congestion on some major transmission lines. These congestions affect the ability of the transmission system to recover after major system disturbances,¹ resulting in power outages and fluctuations in power supply. This often leads to reduced economic activities and machine breakdowns with accompanying adverse effects on the SMEs' productivity.

Ghana's electricity tariff system is such that the average tariff for industrial and commercial consumers is higher than that for residential consumers. While residential consumers pay an average of about GHS0.69 per kWh of electricity consumed, non-residential or commercial consumers pay about GHS0.95 for the same unit of electricity consumption.² High user tariffs result in high operating costs contributing to the low profitability of SMEs. Hence, SMEs resort to self-generation options, mainly through diesel-powered generators, to mitigate the impact of these power challenges. SMEs use diesel-powered generators as either primary or backup sources of power, depending on the generator's power capacity and efficiency. The fuel required to generate a kWh of electricity depends on the efficiency of the generator. As a major input for operating generators, rising costs of fuel increase the total operating costs of self-generation. In Ghana, diesel prices increase by about 6 per cent every year,³ introducing high operating costs for diesel-powered generation.

Environmental sustainability is another concern for diesel-powered electricity generation. A litre of diesel emits about 2.7 kilograms (kg) of carbon dioxide (CO₂), compared to petrol which emits about 2.3 kg and LPG which emits about 1.53 kg of CO₂ per litre, respectively. Thus, diesel-fired generators have a relatively higher rate of CO₂ emissions which pose negative environmental impacts. A more cost-effective and environmentally friendly alternative would be essential for SMEs to mitigate the challenges of unreliable and high costs of power supply. These options must contribute to the decarbonisation efforts of countries and optimise SMEs' cost of operations.

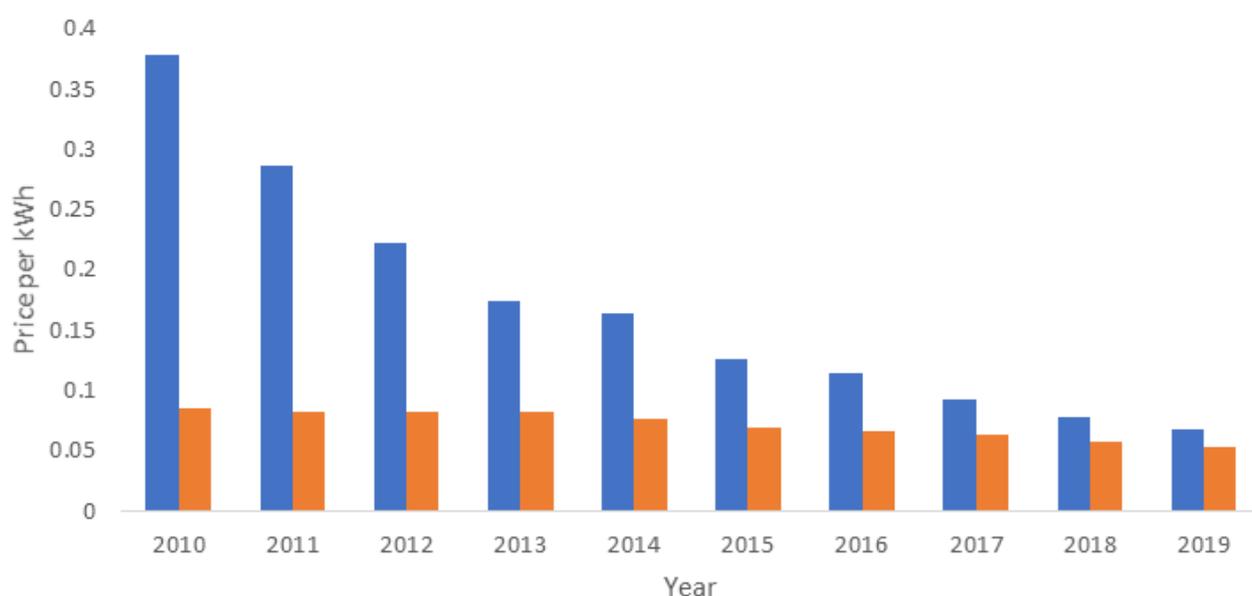
¹ 2020 Electricity supply plan for the Ghana power system.

² Public Utilities Regulatory Commission (2021). Publication of electricity tariffs. Available at <https://www.purc.com.gh/attachment/642643-20210225110236.pdf>

³ This is based on the analysis of the indicative prices of diesel at the pumps between 2018 and 2021

Solar Photovoltaics⁴ (Solar PVs) and other forms of renewable energy technologies have proven to be stable and cheaper in the long term, and environmentally sustainable. The growing concerns of the impact of climate change have heightened the call for countries to ensure a just transition from fossil fuel to cleaner energy sources. In response to this call, some governments and businesses have increased the share of renewable energy in their energy mix as contributions towards mitigating the impacts of climate change. Again, the cost of renewable energy technologies has declined steadily over the years. This reduction in prices has made such technologies more attractive and cost-effective. Between 2010 and 2019, the average Levelized Cost of Energy (LCOE)⁵ of solar PV models has declined by about 82 per cent (from US\$0.38/kWh in 2010 to about US\$0.068/kWh). Similarly, the global LCOE of onshore wind energy generation technologies have reduced from US\$0.086/kWh to US\$0.053/kWh.⁶ These reductions present opportunities and incentives for SMEs to adopt renewable energy technologies.

Figure 1: Cost of solar PVs and onshore wind between 2010 to 2019



Source: International Renewable Energy Agency

Despite the economic and environmental benefits of renewable energy technologies, there has been relatively low adoption by SMEs, who primarily rely on electricity supply from the national grid. Ghana's energy mix is predominantly characterised by thermal and large-scale hydroelectric sources with minimal renewable energy penetration. The share of renewable energy technologies such as wind, solar and biomass is less than one per cent of the total energy mix. This is despite numerous policies and regulations formulated to expand the adoption and utilisation of renewable energy sources for power generation in the country. As part of the broader objective of enhancing access to affordable renewable energy, this brief report highlights the results of a survey aimed at examining the opportunities, motivating factors and challenges to renewable energy adoption among SMEs.

⁴ Solar PV technologies convert sunlight directly into electricity.

⁵ LCOE describes the net present cost of generating energy from a generating source over the life of the technology.

It is usually measured in \$/kWh (or depending on the currency used for determination)

⁶ Solar PVs and Wind technologies data from International Renewable Energy Agency (IRENA)

This was done by engaging relevant stakeholders such as SMEs, renewable energy suppliers, government, and financial institutions, numbering 64 in total. The selected SMEs had not adopted renewable energy technologies. This was to assess their knowledge of renewable energy adoption and barriers that inhibit their adoption. The research approach was qualitative, and data was collected using interviews and questionnaires. Separate questionnaires were designed for each category of stakeholders containing both close-ended and open-ended questions. The solicited information covered power usage, cost of business operations, the state of renewable energy adoption, the challenges to renewable energy adoption and its motivating factors. Interviews were conducted to solicit information from the government institutions. Table 1 presents the various categories of stakeholders who participated in the survey.

Table 1: Categories of Respondents

Category	Description	Number of respondents	Form of data collection
SMEs	Small and medium scale enterprises whose line of business include manufacturing and provision of goods and services.	45	Questionnaire
Renewable energy suppliers	These included importers and retailers of renewable energy products. Most of these suppliers also offered installation and maintenance services.	13	Questionnaire
Financial institutions	These are banks that provide loans for businesses, including SMEs and renewable energy suppliers.	3	Questionnaire
Government institutions	These are regulatory and policymaking institutions in the energy sector.	3	Interviews/ Questionnaires

Characteristics of stakeholders

For representativeness, the SMEs were selected from the main economic sectors in Ghana, namely, agriculture, industry, and services. Respondents from the services sector represented 42 per cent of the total number of SMEs sampled, followed by that of the industry and agriculture with 40 per cent and 18 per cent representation. Respondents from the services sector engaged in business consultancy, information technology, wholesale and retail of goods, catering, and fashion services.

The industry sector comprised mainly of textile and shoe manufacturing, food processing and pharmaceutical companies. Respondents from the agriculture sector were primarily engaged in food and animal production. A more significant proportion of the sampled SMEs had been in operation between six to ten years, with an average of nine years. Also, about 79 per cent of the SMEs had more than six employees. Table 2 provides details of the characteristics of SMEs used for the survey.

The second group of respondents were suppliers of renewable energy technologies, involved in importing, installing, and maintaining renewable energy technologies, mainly solar panels. The customers of these suppliers/service providers were primarily SMEs, large-scale corporate organisations, and individuals (See Table 3).

Table 2: Characteristics of sampled SMEs

Variable	Number of respondents	Percentage
Sector of business		
Agriculture	8	18%
Industry	18	40%
Service	19	42%
Time of operation		
Day and night	6	13%
Day time	38	84%
Night-time	1	2%
Years of operation		
Less than three years	2	4%
3 - 5 years	7	16%
6 - 10 years	22	48%
More than 10 years	14	31%
Number of employees		
Less than 10	15	33%
11-30 employees	27	61%
More than 50	3	6%

Table 3: Characteristics of sampled renewable energy suppliers

Variable	Number of respondents	Percentage
Type of service		
Importation, installation, and maintenance service provider	13	100%
Customer category of suppliers		
Businesses	9	69%
Households	4	31%

The Current State of Energy Consumption

Generally, SMEs use conventional sources (i.e., power from the national grid) as their primary source of energy generation. About 89 per cent of the sampled SMEs' main source of power was the national grid, with the remaining 11 per cent using fuel-powered generators. Again, SMEs utilised fuel-powered generators as backup sources during periods of unmet demand for grid power. Further buttressing the low level of renewable energy adoption and use by SMEs.

The introductory section of this report highlights that conventional power utilisation is wrought with two main challenges, high tariffs and unstable power supply. These challenges were further confirmed by SMEs. With regards to the cost of power, about 53 per cent of sampled SMEs identified the high cost of power as their major challenge of obtaining power from the grid. Estimates from the Integrated Business Establishment Survey (IBES)⁷ indicates that averagely, small and medium-sized enterprises spent about GHS14,300 on electricity in 2013, representing an average monthly electricity cost of about GHS 1,100. From the survey, the average monthly expenditure on-grid electricity was about GHS 2100 and about GHS 920 on fuel for powering backup generators. These costs cumulatively represent about 36 per cent of the total monthly operating costs of the sampled SMEs. Energy consumption cost is, therefore, a critical cost item for SMEs. Thus, the increasing cost of power either for primary or backup generation leads to a significant increase in the overall operating costs of SMEs. Thus, energy cost reduction schemes are beneficial in contributing towards reducing the overall operating costs of SMEs, to improve their profitability and enhance business expansion.

The second challenge faced by SMEs is the unreliability of power supply. About 47 per cent of the sampled SMEs identified this as a major challenge to day-to-day business operations. Respondents from the agriculture sector indicated that they use electricity for irrigation and animal feed processing. For respondents in the industrial sector, electricity was mainly used in powering machines for manufacturing and processing activities such as drying, milling and packaging. In the services sector, respondents indicated that they used electricity mainly for administrative operations. Unreliability of power supply does not only stifle the main operations of SMEs but also increase costs incurred for backup power generation.

⁷IBES is an economic census of business establishments across all the sectors of the economy. The survey was conducted in 2015 with 2013 as the reference year for data collection. The relevant areas for data collection included employment, employee compensation and operation and maintenance costs.

Barriers to Renewable Energy Adoption

Data from the survey shows that some factors contributed to the non-utilisation of renewable energy either as a primary or complementary source of power. These included financial challenges, market-related challenges, limited knowledge on renewable energy technologies, and regulatory challenges.

Financial challenges

The main challenge identified with SME's adoption of renewable energy technologies is the high initial cost. About 80 per cent of the SME respondents identified this as the foremost demotivating factor to the adoption of renewable energy, although renewable energy technologies have witnessed a significant drop in prices. The difficulty for most SMEs is the lack of capacity to make such a significant amount of investment.

The high capital investment is further worsened by the lack of access to funds that will enable SMEs to invest in renewable energy. While some SMEs indicated their willingness to adopt renewable energy technologies, access to the initial capital is an inhibiting factor. Some SMEs have indicated their hesitation to approach banks for renewable energy financing citing high interest rates.

Engagement with some financial institutions shows that there are climate and green energy funds available for SMEs and individuals interested in investing in renewable energy and other energy-efficient technologies at competitive lending rates. Additionally, these institutions are willing to offer financial support to SMEs provided they have the requisite security and evidence of sustainable cash flow to reduce the risk of loan defaults. However, it became evident that SMEs are mostly unaware of the existence of such opportunities. There is a need for more education on such funding opportunities available to SMEs for investment in cleaner and more reliable sources of energy.

Limited market for renewable energy technologies

The success of any enterprise depends to a great extent, the availability of a market that creates demand for the technology. The potential for renewable generation in Ghana is high, especially considering the sunlight and wind potential of the country. However, the market for the supply of renewable energy technology is relatively low. The low market potential is driven by several challenges including knowledge gaps in the economic potential of renewable energy technologies, the government's focus on conventional energy and the absence of market data for business start-ups.

Knowledge gaps

The level of knowledge on renewable energy technologies and the benefits they offer to SMEs remain low despite the increased advocacy and awareness creation on the use of clean energy. The indication is that these advocacy efforts have largely focused on energy-efficient appliances with little attention given to renewable energy technologies. As a result of this limited knowledge, many forms of misinformation have shaped SMEs' resistance to RE adoption.

Limited knowledge of renewable energy technologies: Interactions with some SMEs indicated their unwillingness to invest in renewable energy technology because they lack confidence in the work of renewable energy suppliers. This is due to their perceptions that the supply of renewable energy experts in Ghana is limited. However, experts in renewable energy technologies are increasingly available, providing installation, maintenance, and support services to customers. Energy Commission, which regulates the renewable energy space has also licensed over 30 companies that offer installation, sales and other renewable energy services to businesses and individuals. In addition, the Association of Ghana Industries (AGI) has an Energy Service Centre (ESC) that provides advisory services to businesses and individuals for the adoption of renewable energy technologies. SMEs can source information for the assessment of their energy needs for appropriate renewable energy technologies.

Little concern for environmental sustainability: The general knowledge on the advantages of renewable energy technologies is their environmental friendliness. Available research results have shown that most SMEs in developing countries do not show much concern for environmental sustainability, unlike large scale companies.⁸ The inadequacy of concern towards green management practices affects their decision to adopt green management practices such as renewable energy adoption. The results of this survey corroborate these findings, as it shows that about 61 per cent of SMEs surveyed did not consider climate change mitigation or the green image of their businesses in their choice for a power source.

Limited knowledge of the economic potential of renewable energy technologies: The financial challenges as described above show that SMEs are concerned about the high initial costs of adopting renewable energy technologies. It is evident that SMEs are concerned about activities that add significant cost burdens to their operations. However, the survey showed that SMEs are mostly unaware of the cost-saving potential of renewable energy technologies. Businesses that transition fully or partially to renewable energy can wean themselves from tariff payments which cumulatively offset the costs of investments, especially for SMEs with high power consumption patterns. Suppliers of renewable energy technologies must begin to make a business case for SMEs to see the economic gains in switching from conventional to renewable energy resources.

Regulatory Challenges

Energy Commission is mandated to issue licences to companies involved in wholesale electricity production from renewable energy sources. They also provide licenses for the production, transportation and storage, distribution, sales, marketing, importation and exportation of renewable energy products, and the installation and maintenance of renewable energy facilities. Suppliers of renewable energy technologies highlighted two main regulatory challenges which relate to licencing and delays in rolling out net-metering systems.

Bureaucracies and high licensing costs: Renewable energy companies are required to submit an application form with the relevant documentation, after which a confirmation of receipt is made after five days. The Sitting Committee of the Commission proceeds to evaluate the application based on the technical, financial, administrative, and environmental sustainability capacities of the company. The Commission then decides whether to approve

⁸ Afum, E., Osei-Ahenkan, V. Y., Agyabeng-Mensah, Y., Owusu, J. A., Kusi, L. Y., & Ankomah, J. (2020). Green manufacturing practices and sustainable performance among Ghanaian manufacturing SMEs: The explanatory link of green supply chain integration. *Management of Environmental Quality: An International Journal*.

the application within 60 days after acknowledging receipt of the application.⁹ This reveals that companies have a maximum of 65 days for the approval of their license applications. Suppliers and installers of renewable energy technologies noted that these processes are bureaucratic and fraught with delays.

The delays in licensing and renewals interrupt operations and increase the cost of RE development. Interaction with officials of the ministry of energy confirmed the grievance of the suppliers and noted that the outfit was in discussions with the energy commission to resolve the challenge.

Investors and suppliers of renewable energy technologies further indicated that they face high registration and license renewal fees that are charged by the Energy Commission. For instance, a renewable energy company involved in the importation and installation of renewable energy technologies requires a separate license for each operation. On average, such companies pay about GHS 5,600 (approximately US\$1,000) annually for each license.

Delays in rolling up a net metering system: The renewable energy Act, 2011 (Act 832) makes provision for net metering as an incentive for renewable energy adoption. Net-metering is a mechanism that allows self-generators of electricity (particularly renewable energy generation) to transfer excess generation to the grid to be redeemed later. In 2015, Energy Commission released the Net Metering Sub Code with the objective of providing guidelines and technical connection conditions for connections between renewable energy generation sources and distribution networks that allow for net metering. The implementation of the code has however been unsuccessful. The government's focus has largely centred on sustaining demand for grid electricity and as a result, has delayed its readiness to implement the net metering system.

⁹ Energy Commission. (2012). Renewable energy licensing manual.

Opportunities for Renewable Energy investment

Reduction in prices of renewable energy technologies: As already indicated, the prices of renewable energy technologies have reduced by about 80 per cent, suggesting that the initial investment cost required for renewable energy has significantly decreased, making it more attractive. Savings obtained from the non-payment of electricity tariffs will be enough to offset the initial and maintenance costs within the short to medium term.

Net metering potential: The amended Renewable Energy Act makes provision for net metering to encourage self-generation. Net metering provides value for excess energy generation by preventing wastage and significantly increasing investments in energy storage devices. To encourage SME's investment in renewable energy, government must ensure the implementation of the net metering code.

Building a green business image: A concerted effort of SMEs towards ensuring environmental sustainability within their business operations enhances their brand image. In recent times, some strategic partnerships with other larger or multinational companies require some commitment to the green agenda. Research also shows how customers' concern for environmental sustainability has influenced their purchasing and consumption behaviour. Environmental sustainability has been shown to have a positive linkage with the financial performance of firms.¹⁰ SMEs in Ghana have the advantage to tap into these opportunities by undertaking their business operations in a more environmentally sustainable manner, of which renewable energy generation is essential.

Tapping the off-grid potential: Ghana's electrification rate is about 85 per cent, however, there are areas not connected to the grid, hence, lack access to electricity. The private sector with the support of government could take advantage of such areas which are far from the electricity grids to provide off-grid solutions. Such collaboration has the potential of expanding the market base for renewable energy while contributing to Ghana's target of universal electrification.

¹⁰ Chege, S. M., & Wang, D. (2020). The influence of technology innovation on SME performance through environmental sustainability practices in Kenya. *Technology in Society*, 60, 101210.

Financing Options for Renewable Energy Investment in Ghana

Access to finance is a major barrier to renewable energy investment in Ghana. This notwithstanding, there are financial options available to SMEs interested in adopting renewable energy technologies. The survey highlighted options such as self-financing, bank loans and supplier credit schemes.

Self-Financing

According to the suppliers of renewable technology, most of their customers self-finance all costs incurred in the installation and maintenance of the technologies. This option is popular for businesses that have accumulated capital for outright payments or phased their investments over time.

Supplier Credit Schemes

Some suppliers of renewable energy technologies provide credit facilities with flexible repayment arrangements for their consumers. Renewable energy companies in Ghana operate two main financing schemes; lease arrangements and power purchase agreements. In lease arrangements, SMEs are offered the opportunity to use renewable energy technologies with minimal upfront payments. The utility (renewable energy supplier) company monitors the system's operational performance and provides solutions within the duration of the lease. The customer in a lease agreement makes fixed payments to the utility company over the tenure of the lease. Renewable energy Power Purchase Agreements (PPA) also involve making periodic payments to the renewable energy company. However, the customer makes payments per kWh of energy generated by the renewable energy system. There are different forms of lease and PPA options available, depending on the arrangement between the utility company and the customer. This notwithstanding, renewable energy leases and PPAs offer the benefit of forgoing high initial costs of installation. The SME is also weaned from incurring costs of monitoring and maintaining the system.

Bank loans

Green financing in Ghana is not as well developed, although a few financial institutions are offering green energy and energy efficiency investments to SMEs. Nonetheless, these green financing opportunities are expected to increase with the introduction of the Bank of Ghana's guidelines on Sustainable Banking Principles in 2019, which all commercial banks have committed to. The commitment to sustainable financing by the banks will accelerate the development of specialized products for renewable energy investment by individuals and businesses. Beyond specific green financing options, traditional options for financing such as loans are available for SMEs. The survey reveals that some financial institutions have indicated the availability of term loans for renewable energy investments provided the SMEs have the requisite collateral and evidence of sustainable cash flow.

Conclusion

The operations of Small and Medium-scale enterprises dominate across the industry, agriculture, and service sectors of the economy, as a result, their relevance to economic development cannot be understated. Access to affordable and reliable supply of power is important to optimize the productivity of SME operations. Renewable energy technologies present cleaner options for small businesses in Ghana to curtail the power supply challenges they face, which is also essential for the overall attainment of national environmental sustainability targets. Beyond environmental sustainability, renewable energy adoption presents additional opportunities for SMEs including significant cost savings and an avenue to build a green business image. Following the inherent opportunities and the low adoption rates for renewable energy adoption among SMEs, this survey was conducted to identify the major barriers.

Access to capital required for investment is the primary challenge that inhibits renewable energy adoption. This is characterised by high initial costs and limited access to financing the investments. The survey reveals that many SMEs are unaware of available funding opportunities for green investments. Limited information on the economic and environmental benefits of renewable energy adoption also creates knowledge gaps that impede SMEs' willingness to adopt renewable energy technologies. Renewable energy suppliers and service providers mainly face industry regulatory challenges including bureaucracies and high costs of licensing businesses. The governance of Ghana's power sector places more emphasis on conventional power generation, delaying the implementation of policies that are beneficial to renewable energy generation such as net metering. Also, advocacy efforts have largely focused on energy-efficiency techniques rather than clean energy. Government needs to create an enabling environment that allows the renewable energy industry to thrive and support the country's role in achieving global environmental sustainability targets.

Recommendations

1. Energy Commission must streamline its processes to facilitate easy acquisition and renewal of licences for renewable energy technology suppliers.
2. Government and regulatory institutions must expedite their actions towards the implementation of net metering to encourage self-generation through the adoption of renewable energy technologies.
3. Government in collaboration with businesses and civil society actors must intensify education to create awareness on clean energy adoption, paying particular attention to the economic and environmental benefits.
4. Financial institutions must create more awareness on funding available for renewable energy investments accessible by SMEs.
5. There must be an intensified and broader dialogue and engagement among stakeholders to deepen the conversation on renewable energy adoption and the options available for financing.

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