Powering Nigerian Businesses

Energy Reliability, Costs and Enterprise Competitiveness



FATE Foundation

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EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

Reliable energy supports production, storage, communications and customer service. For businesses, the challenge is securing power when it is needed, at a dependable quality and a manageable cost. This report draws on the 2026 State of Entrepreneurship (SoE) survey of 10,721 businesses across Nigeria, alongside official energy data and other published sources. In 2024, nearly two in five Nigerians lacked access to electricity; in 2025, 82.5% of surveyed Nigerian firms experienced electrical outages [1]. Manufacturers' reported spending on alternative power rose from ₦781.68 billion in 2023 to ₦1.11 trillion in 2024 and ₦1.34 trillion in 2025 [2], a 20.7% nominal increase in 2025. These figures show the scale of the energy access and cost challenge facing businesses.

> The national context is significant, especially with 62.5% of Nigeria's population having electricity access in 2024, while the World Bank's 2025 Enterprise Survey found that 82.5% of Nigerian firms experienced electrical outages.

Key findings

- **Power remains a leading challenge for entrepreneurs in Nigeria.** Poor or high-cost power supply ranked among the SoE survey's five leading challenges every year from 2022 to 2026, placing second in 2026. In the latest survey, 48.1% rated it as a very important challenge and a further 34.4% rated it as important.

- **Businesses use several energy sources to keep operations going.** The national grid was the main power source for 68.4% of respondents. When asked which sources they spent the most on, 70.1% selected the grid, 35.5% petrol or diesel and 19.1% renewables. This implies that managing energy means budgeting for several sources rather than relying on the grid alone.

- **Energy takes a substantial share of operating costs.** 30.2% said energy accounted for more than one-fifth of operating costs. A further 78.1% reported that the cost of accessing grid power had increased in the past year. In essence, obtaining power is expensive for many businesses.

- **Supply hours and reliability remain concerns.** 63% reported receiving eight hours or fewer of grid supply per day, and 35.8% described grid supply as unreliable. Among respondents who identified as Band A customers [3], only 13.8% reported receiving more than 20 hours daily, the minimum set for that band.

- **Growth was reported across businesses with different grid experiences.** Growth was reported by 77.0% of businesses describing grid supply as reliable and 70.4% describing it as unreliable, a 6.6-percentage-point difference. Hiring and the introduction of new processes were also more common among the reliable-supply group. The results fit the broader 2026 SoE finding that many businesses continue to grow while managing significant operating constraints.

- **Finance and shared solutions offer possible routes forward.** Of respondents who had tried to obtain finance for an energy solution, 43.2% reported success. Among businesses in clusters or shared production spaces, 75.9% said they would pay for reliable shared power, and 55.6% preferred a pay-as-you-use model.

- **Financing should fit the size and cash flow of energy investments.** Pay-as-you-go can ease upfront costs for smaller systems, leasing can spread equipment payments over time, and guarantees or blended finance can help lenders support projects with higher perceived risk or longer paths to commercial viability. Clear contracts should specify the service, equipment responsibilities and payment terms.

[1] World Bank World Development Indicators and World Bank's 2025 Enterprise Survey

[2] Arinze Nwafor, "Manufacturers spent N1.34tn on alternative energy in 2025 – MAN," The PUNCH, 3 June 2026

[3] Band A is the highest service band under Nigeria's service-based electricity tariff framework. Nigerian Electricity Regulatory Commission (NERC) sets a minimum supply target of 20 hours of grid electricity per day for Band A customers (NERC, 2023).

Financing and shared solutions

These findings point to the need for energy finance that fits business cash flows and equipment life, alongside support for providers that need capital to develop and maintain services. Shared power projects may suit some markets and enterprise clusters. Each site will need an assessment of business demand, operating hours, acceptable prices and payment arrangements before a solution is selected.

A Productive Energy Compact

The report proposes a Compact that brings government, regulators, energy providers, financiers and business associations around shared service goals. Its priorities are to make service performance visible, plan energy around business demand, expand suitable financing, organise demand for shared solutions and track service and business results. Progress should be judged through the hours and quality of power businesses receive, continuity of supply, energy costs and the fit between available options and production needs.





PRODUCTIVE ENERGY AND ENTERPRISE COMPETITIVENESS



Energy availability shapes a business's operating costs, production schedule, product quality and capacity to grow. Despite its importance, energy access and reliability remain major challenges for nano, micro, small and medium-sized enterprises (NMSMEs) in Nigeria. Poor or high cost of power supply ranked among the State of Entrepreneurship survey's five leading business challenges in every annual ranking since 2022: second in 2022-2024, fifth in 2025 and second in 2026 (FATE Foundation, 2022-2026). Also, according to the World Bank's 2025 Enterprise Survey, 82.5% of surveyed Nigerian firms experienced electrical outages. For many firms, energy planning therefore includes both covering the cost of power and managing production/business activities around availability/outages.



Table 1: Top five business challenges, 2022-2026

Rank	2022	2023	2024	2025	2026
1	Limited access to finance	Limited access to finance	Limited access to finance	Limited access to finance	Limited access to finance
2	**Poor power supply**	**Poor power supply**	**Poor power supply**	Poor access to markets	**Poor/high cost of power supply**
3	Multiple Taxation	Unstable government policies & regulations	Insecurity	Poor capacity building and limited business support	Insecurity
4	Poor access to markets	Multiple Taxation	Foreign exchange problems	Unstable government policies & regulations	Poor access to markets
5	Insecurity	Poor access to markets	Infrastructure challenges	**Poor/high cost of power supply**	Infrastructure challenges

Source: FATE Foundation, State of Entrepreneurship surveys, 2022-2026. Power-related challenge entries are highlighted.



The inefficiencies and high cost of securing energy from the national grid mean that Nigerian firms spend heavily to secure power. According to figures from the Manufacturers Association of Nigeria (MAN), as reported by The Punch, manufacturers spent an estimated ₦1.34 trillion on alternative power in 2025, up by 20.7% from ₦1.11 trillion in 2024 and ₦781.68 billion in 2023 (Nwafor, 2026). These figures show the scale of spending on self-generation in one productive sector.

Power outages and the resultant costs are a competitiveness barrier for most Nigerian businesses. Frequent interruptions can disrupt production and delivery, while money spent on alternative power can reduce the cash available for inputs, maintenance, equipment, wages and, more importantly, business expansion. The effect will vary with the firm's production process, size, location and access to finance. Energy solutions should provide power reliably, at a cost firms can manage and when firms need to operate. This report therefore considers grid services alongside generators, solar and shared energy systems, and asks which arrangements suit different businesses and production settings.

According to figures from the Manufacturers Association of Nigeria (MAN), as reported by The Punch, manufacturers spent an estimated ₦1.34 trillion on alternative power in 2025, up by 20.7% from ₦1.11 trillion in 2024 and ₦781.68 billion in 2023 (Nwafor, 2026).

This report uses "productive energy" to mean an energy service that meets a business's production needs in supply hours, is reliable, of high quality and affordable price. It examines how energy conditions shape firms' choices and costs, and how those choices relate to production, sales, jobs and competitiveness.

Questions guiding the report

- How do businesses combine grid electricity, generators and renewable sources, and what does energy absorb from operating budgets?
- How do service hours, costs and reliability differ across business types and locations?
- Which financing and service arrangements can give different enterprises power that fits their production needs?

Report structure

The next section of the report sets out Nigeria's energy landscape, and then presents 2026 SoE survey findings on businesses' energy sources, costs, supply hours and reliability. Subsequent sections examine how these conditions relate to reported business performance, consider financing for businesses and energy providers, and assess shared energy solutions for markets and enterprise clusters. The report concludes with priority actions under a Productive Energy Compact.





NIGERIA'S ENERGY LANDSCAPE FOR NANO, MICRO, SMALL AND MEDIUM-SIZED ENTERPRISES (NMSMES)



Nigeria's energy system gives businesses several ways to obtain electricity: the national grid, petrol and diesel generators, solar systems and mini-grids. The mix available to a firm depends on its location, the quality of local grid service, the cost of each option and the finance available for equipment and fuel. This section examines the supply conditions and policies that shape those choices.

Grid supply and access

The World Bank estimates that 62.5% of Nigeria's population had access to electricity in 2024. Access was much higher in urban areas (85.5%) than in rural areas (23.5%) (World Bank, 2024). With Nigeria's population at 232.7 million, this leaves about 87 million people without electricity access. While these figures show whether people have electricity access, they do not measure how many hours of supply are available or how reliable electricity is. Those service conditions matter to businesses that need dependable power to operate.

The World Bank estimates that 62.5% of Nigeria's population had access to electricity in 2024. Access was much higher in urban areas (85.5%) than in rural areas (23.5%) (World Bank, 2024).



Table 2: Population, average electricity generation and access, 2024

Country	Population	Average generation	Population with electricity access
Nigeria	232.7 million	4,578 MW	62.50%
Egypt	116.5 million	27,100 MW	100.00%
South Africa	64.0 million	28,266 MW	90.20%



Source: World Bank, World Development Indicators and SDG7 Electrification Dataset; Ember, Yearly Electricity Data.

Note: Average gross generation is calculated by converting annual generation into an average MW output across 8,760 hours. It represents electricity produced over the year. The Table reports average gross generation, calculated from annual electricity production. Figure 1 shows NERC's average available grid generation. These are different measures and are not directly comparable. The DisCo energy figure for H1 2026 covers six months, while the 2021-2025 figures cover full years.

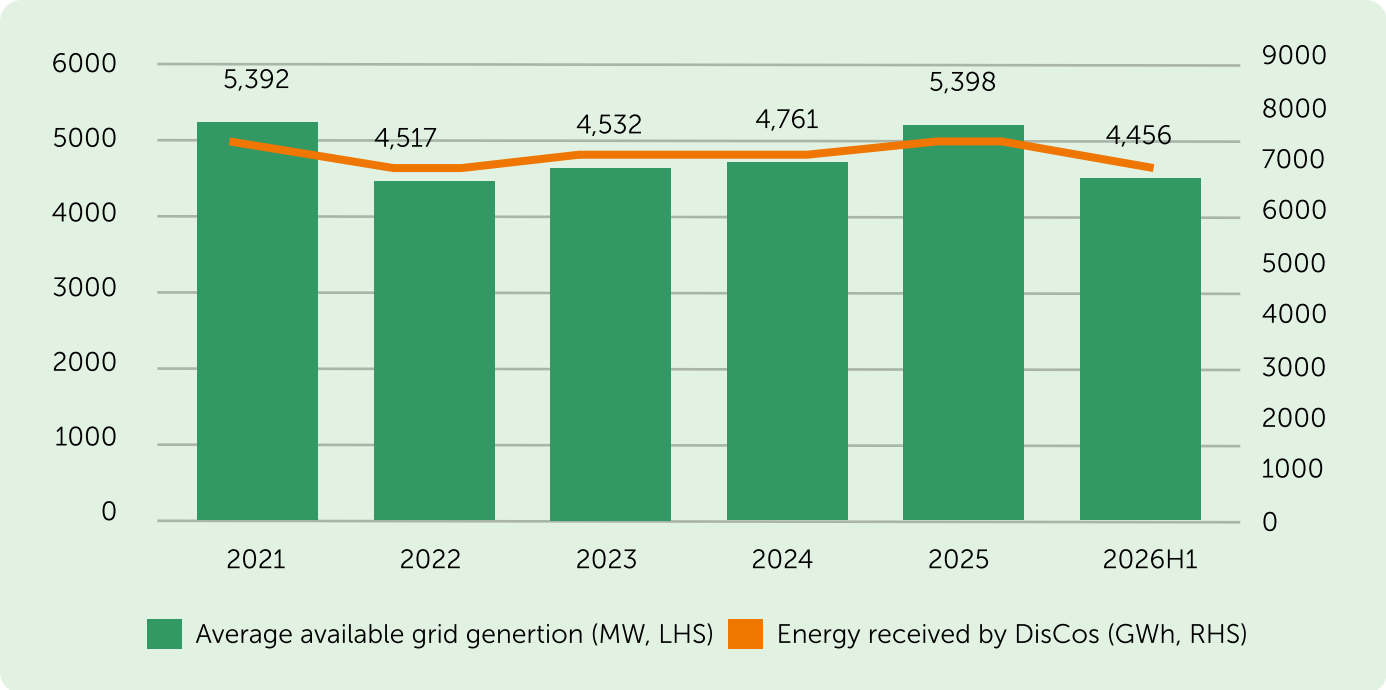
Nigeria's population is about twice Egypt's and more than three times South Africa's. Its average gross generation was, however, just 4.6 GW in 2024 – 17% of Egypt's 27.1 GW and 16% of South Africa's 28.3 GW. The comparison shows the scale of electricity production relative to the population of these countries and reveals that Nigeria still produces much less electricity relative to its population than either comparator.



Structural Weaknesses in Nigeria's Electricity Supply System

Nigeria's electricity system is estimated to require around 34,000 MW (NESG, 2024). Nigerian Electricity Regulatory Commission (NERC)'s annual averages show available grid generation falling from 5,391.7 MW in 2021 to 4,516.5 MW in 2022, then rising to 5,398.3 MW in 2025. In January-June 2026, average available generation was 4,456.1 MW, 17.5% below the 2025 annual average. Against the 34,000 MW estimate, this was about 13.1% of estimated need, implying an indicative gap of 86.9%. Over the last five years (see Figure 1), generation volumes have been volatile, suggesting that generation improvements have not established a sustained, stable supply trajectory.

Figure 1: Average available grid generation and energy received by DisCos (2021-2026)

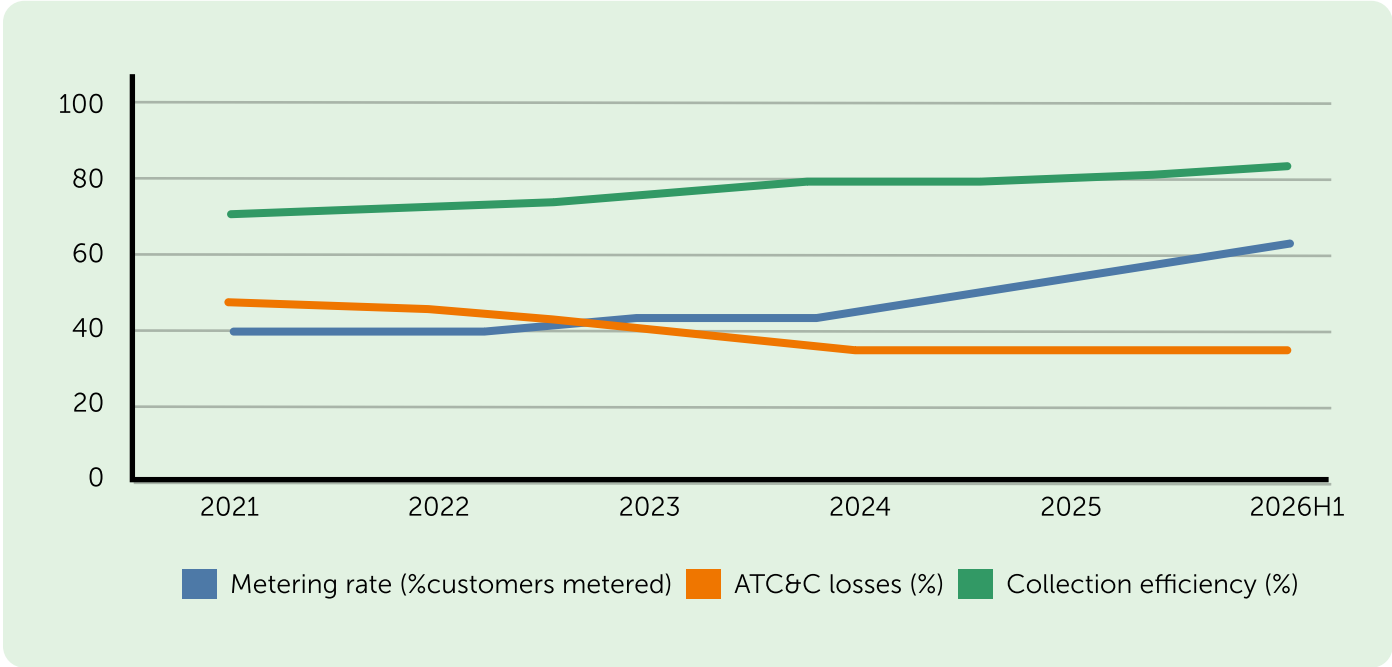


Source: NERC quarterly reports, 2021-2026[4]

Note: Table 1 reports average gross generation, calculated from annual electricity production. Figure 1 shows NERC's average available grid generation. These are different measures and are not directly comparable. The DisCo energy figure for H1 2026 covers six months, while the 2021-2025 figures cover full years.

Transmission and distribution also face several challenges. Between 2021 and mid-2026, metering coverage increased from approximately 40% to 61.5%, collection efficiency improved from 68.6% to 81.1%, and aggregate technical, commercial and collection (ATC&C) losses declined from 49.3% to 36.2%. Nevertheless, losses remained substantially above the 2026 regulatory target of 16.9%. Persistent losses weaken distribution companies' financial positions and constrain network investment, while incomplete metering undermines billing transparency and revenue collection.

Figure 2: Distribution performance: metering rate, ATC&C losses & collection efficiency (%)



Source: NERC quarterly reports, 2021-2026[5]



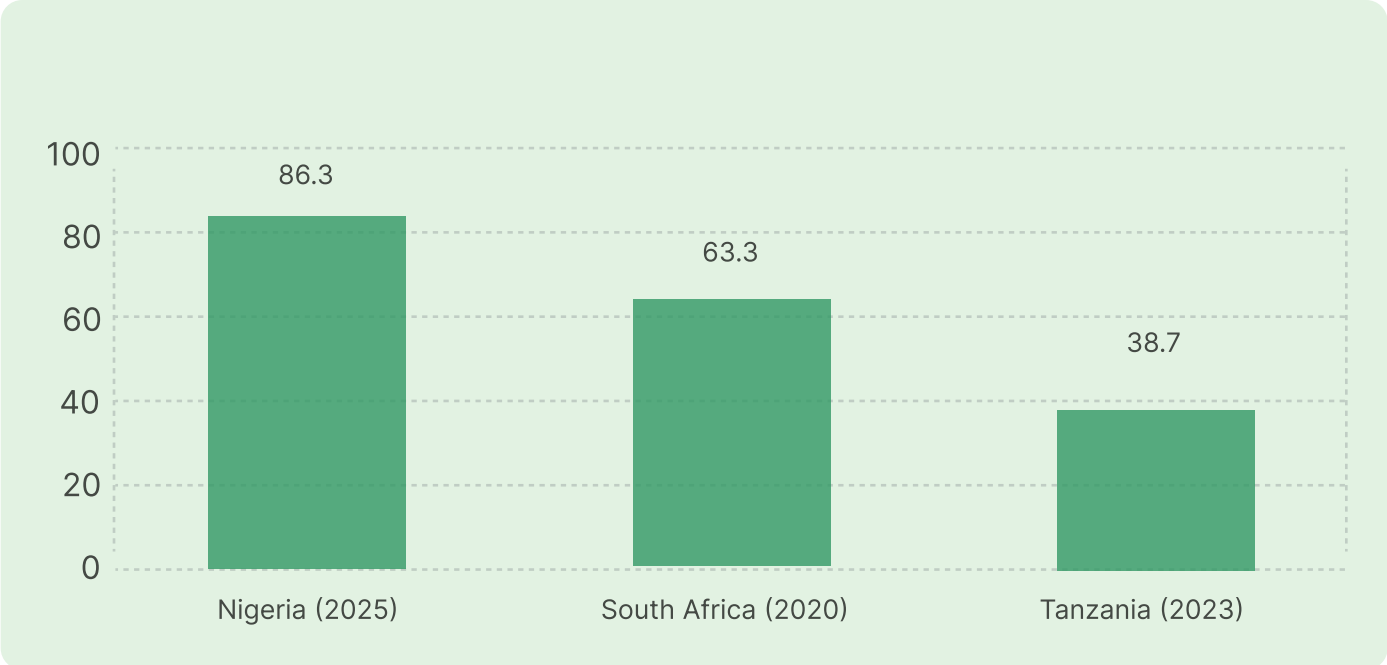
[4] https://nerc.gov.ng/resource-category/nerc-reports/
[5] https://nerc.gov.ng/resource-category/nerc-reports/

For enterprises, system performance depends on the consistency, predictability and quality of electricity delivered, rather than generation alone. The national grid recorded nine disturbances or collapses in 2024 and at least four so far as at October 2026, illustrating continuing vulnerability. Interruptions complicate production planning and require businesses to maintain backup systems to operate equipment, preserve goods and meet customer commitments. Effects vary by production requirements and the ability to substitute grid power differs by financial strength. Sectors have different energy needs and tolerances for interruptions. For instance, manufacturing, healthcare, logistics, hospitality, and information and communications technology have higher needs and lower tolerance for interruptions, relative to others.



While national access and generation figures describe the scale of electricity supply, firms experience it through the reliability and cost of power. In the World Bank's 2025 Enterprise Survey, 82.5% of Nigerian firms reported electrical outages. Also, 86.3% of Nigerian firms reported owning or sharing a generator, compared with 63.3% in South Africa and 38.7% in Tanzania. These figures point to the role of outage frequency, supply hours, tariffs and backup power costs in shaping firms' day-to-day operations.

Figure 3: Firms owning or sharing a generator



Source: Latest available World Bank Enterprise Survey results for each country. Survey years differ.

Owning or sharing a generator helps firms maintain operations during grid interruptions, while adding equipment, fuel and maintenance costs to their budgets. The SoE survey analysis will show how Nigerian businesses combine grid supply, generators and other sources, and how their energy choices relate to operating costs and business activity.

Service-based tariffs

Nigeria's service-based tariff system links electricity charges to the minimum daily supply hours assigned to a customer's service band. In April 2024, the tariff for Band A customers increased from N71.06 to N225 per kilowatt-hour, before being adjusted to N209.50 from July 2024. Bands B to E remained within an approximate range of N36-N66 per kilowatt-hour, with government subsidies covering the difference between applicable tariffs and underlying supply costs.

Table 3: Minimum Daily Electricity Supply Hours by Service Band

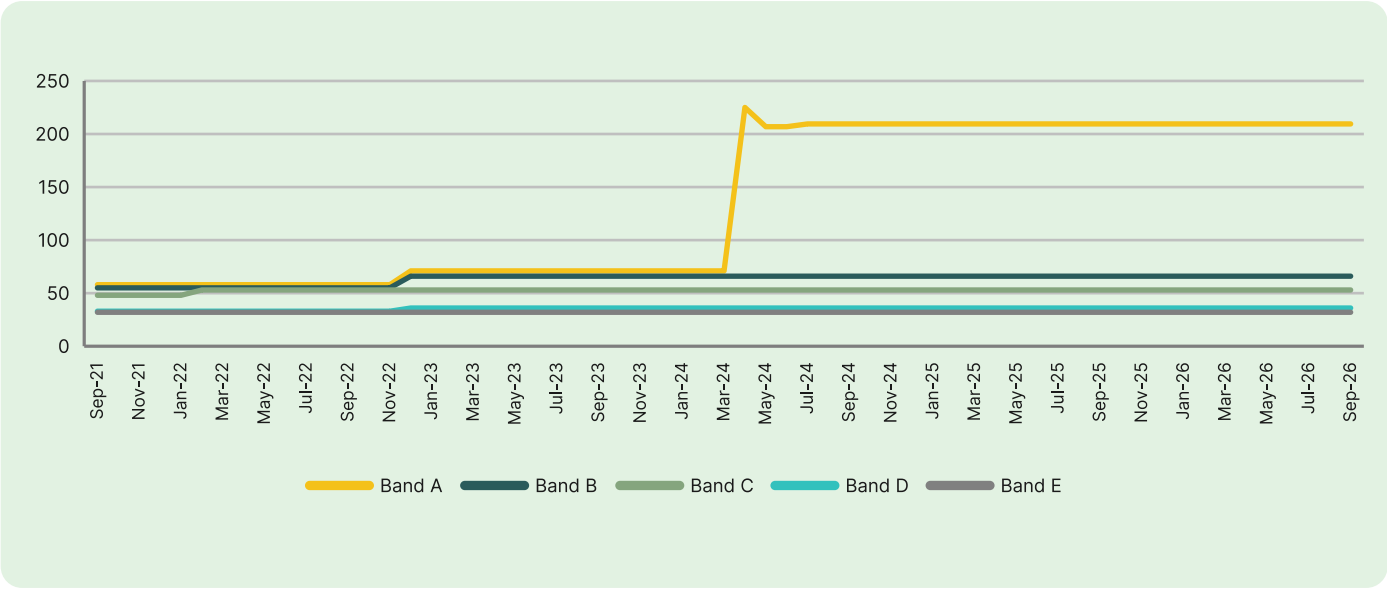
SERVICE BAND	Minimum supply per day
A	20 hours
B	16 hours
C	12 hours
D	8 hours
E	4 hours

Source: Nigerian Electricity Regulatory Commission (NERC), Electricity Tariffs FAQ.





Figure 4: Electricity tariffs by band (N/kWh)



Source: NERC tariff orders (MYTO)[6]

For a business, the band sets a reference point for the grid service expected at its location. NERC is expected to review DisCo performance over 60 days when minimum supply hours are not met. After verification, it can adjust rates for customers in the affected cluster. NERC's orders also use feeder-level performance reports to downgrade or upgrade feeders and provide compensation for service shortfalls. In August 2026, the Forum of Nigerian Electricity Regulators highlighted the need for timely, real-time feeder data from DisCos. Reliable monitoring and consistent enforcement across feeders are crucial and therefore determine whether businesses receive the service their band promises.

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State electricity markets

The Electricity Act 2023 recognises states' authority to legislate on electricity generation, transmission, distribution, supply and retail within their borders; establish state electricity markets; and create state regulators (Federal Republic of Nigeria, 2023, sections 2(2) and 230(2)). Section 230(2) sets out the process: a state establishes its market and regulator, then asks NERC to transfer oversight of intrastate electricity activities. NERC retains responsibility for interstate and international activities and national grid operations.



6 https://nerc.gov.ng/resource-category/myto/

By July 2026, NERC had transferred regulatory oversight to 16 states[7]. In August, it issued a transfer order for the Akwa Ibom State Electricity Regulatory Commission (NERC, 2026a, 2026b, 2026c). For businesses, the change brings regulation of local electricity services and customer complaints closer to the state. State markets also create scope for rules and solutions that reflect local conditions. Their impact will depend on how state regulators coordinate with NERC and distribution companies, and how consistently they implement their responsibilities.

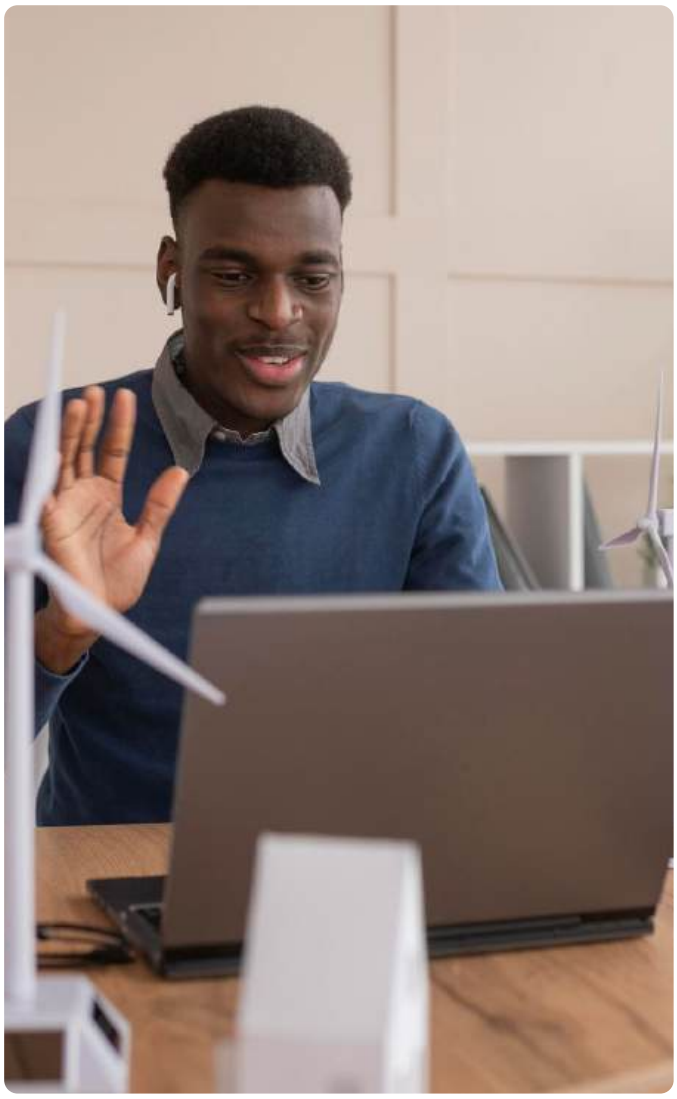
In August, it issued a transfer order for the Akwa Ibom State Electricity Regulatory Commission (NERC, 2026a, 2026b, 2026c). For businesses, the change brings regulation of local electricity services and customer complaints closer to the state.

Power sector finance also shapes service conditions, particularly given the legacy debt issues facing the sector. In April 2026, the Federal Government approved a ₦3.3 trillion settlement of verified legacy debts. The State House reported ₦501 billion raised and ₦223 billion disbursed at that point (State House, 2026). NERC's subsequent operational reporting provides the indicators for tracking generation and service performance.

The Rural Electrification Agency's DARES programme supports private-sector mini-grid and standalone-solar services. Its stated targets include improved or new electricity access for 17.5 million people and power for 236,986 MSMEs (REA, n.d.). For MSMEs, the programme's impact will depend on the connections delivered and the reliability and affordability of the electricity they receive.

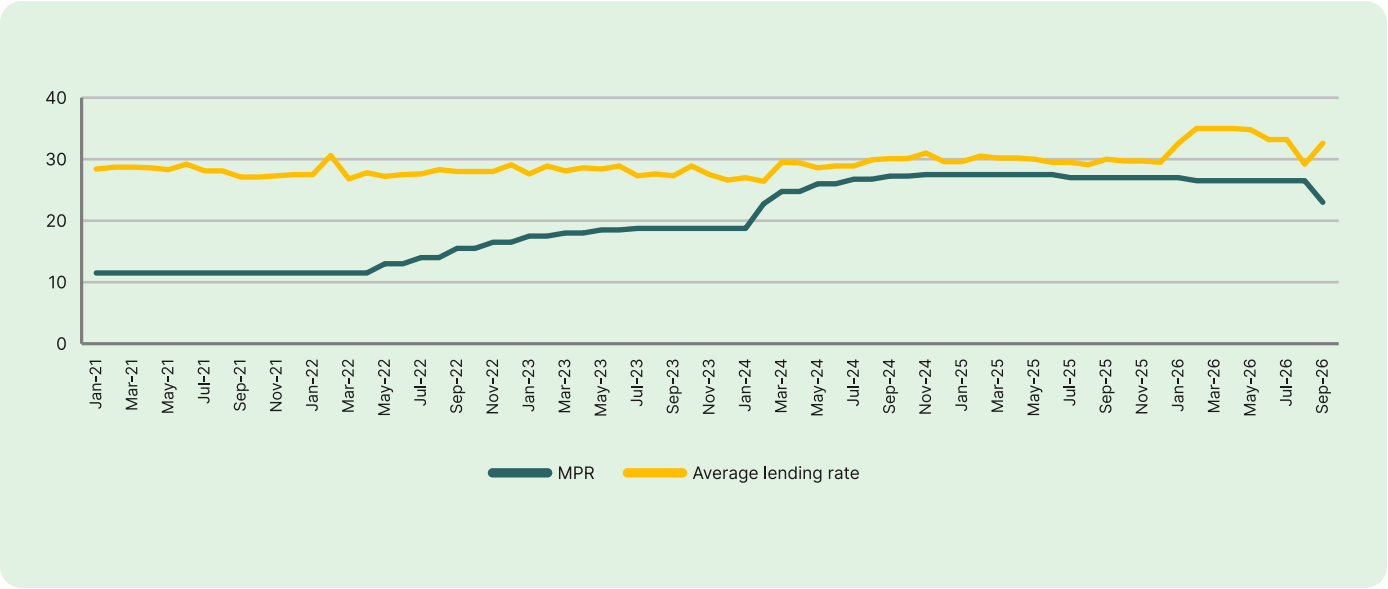
Financing Conditions and Enterprise Investment in Energy

The ability to respond to unreliable and expensive electricity depends partly on access to finance. Limited access to credit and high borrowing costs can prevent adoption even when investments offer potential long-term savings. The restrictive monetary environment has intensified this constraint. The Central Bank of Nigeria's Monetary Policy Rate stood at 23% in September 2026, while the maximum lending rate remained around 30%, according to figures from the CBN. Lending rates outside commercial banks are much higher. High interest rates raise borrowing costs and can make energy investments unattractive, particularly for enterprises with uncertain cash flows, limited collateral or short operating histories.



[7]The 16 states include Abia, Anambra, Bayelsa, Edo, Ekiti, Enugu, Gombe, Imo, Kogi, Lagos, Nasarawa, Niger, Ogun, Ondo, Oyo and Plateau. See: https://nerc.gov.ng/media/15-states-have-transitioned-to-regulating-their-state-electricity-markets/?utm and https://nerc.gov.ng/media/transfer-of-regulatory-oversight-of-the-electricity-market-in-gombe-state-to-goserc/?utm_

Figure 5: Monetary Policy Rate and average lending rate (%), monthly 2021-2026



Source: CBN[8]

Overall, enterprise energy choices are shaped by interconnected pressures ranging from fuel prices to exchange rate depreciation, tariff adjustments and high borrowing costs. Financing arrangements must therefore reflect both enterprise cash-flow realities and providers' investment requirements.

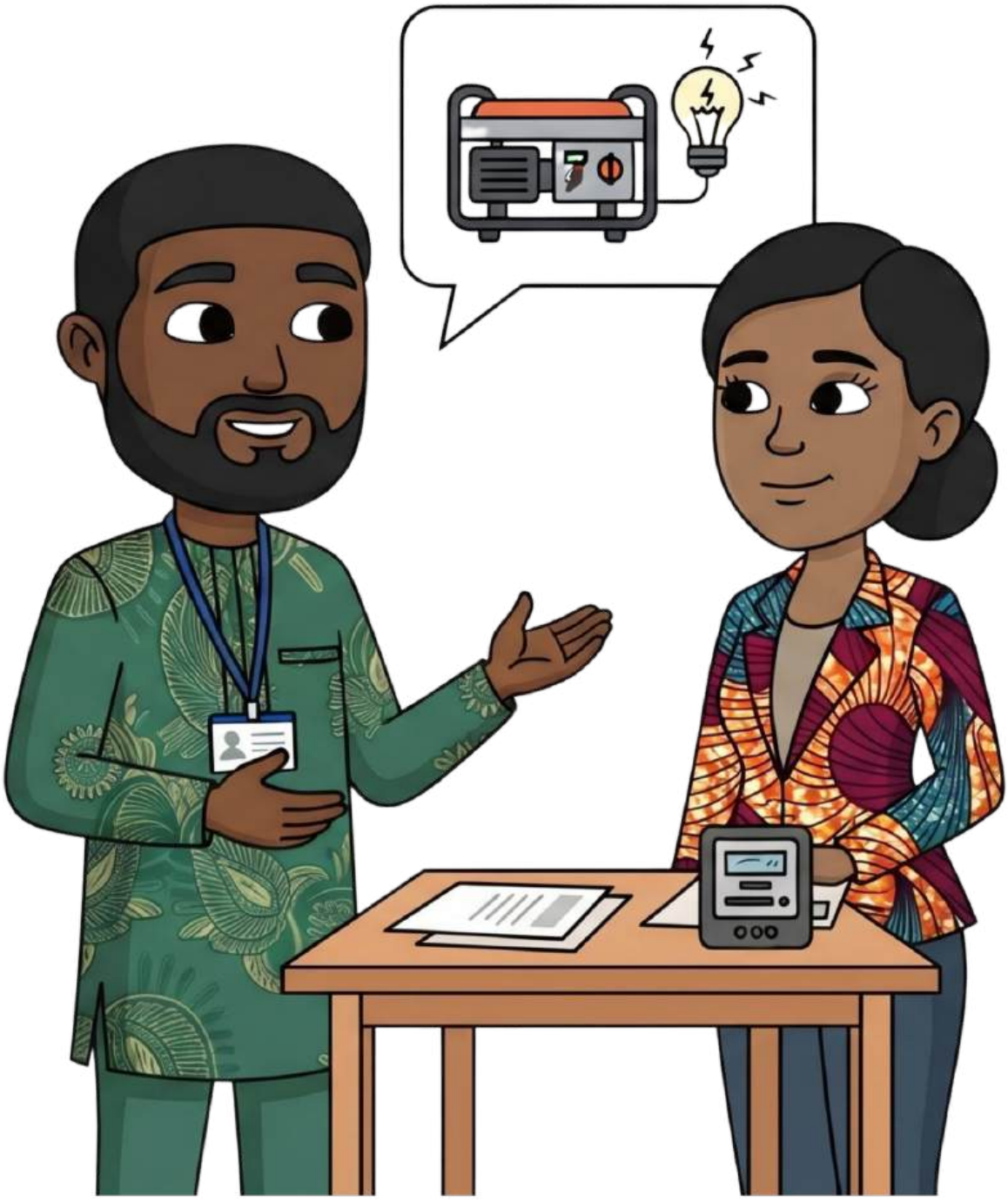
These national indicators set the context for the next section, which focuses on the energy sources businesses use, the share of operating costs they devote to power, and how these patterns vary across firms and locations.



[8] https://www.cbn.gov.ng/rates/mnymktind.html


Residential Grid Connected PV System
Solar Panels
Meter

WHAT NIGERIAN BUSINESSES SAY ABOUT ENERGY



This section draws on the 2026 State of Entrepreneurship (SoE) survey of 10,721 businesses across Nigeria, conducted by the FATE Institute[9]. To begin with, the survey asked businesses about their main power source, grid supply hours, changes in grid-power costs, reliability, energy spending, energy finance and interest in shared power. These responses show how businesses experience electricity at their premises and how they report adapting to supply and cost conditions.

Power remains a leading business challenge

Poor or high-cost power supply has ranked among the SoE survey's five leading business challenges in every year since 2022. It ranked second in 2022, 2023 and 2024, fifth in 2025, and second in 2026, behind limited access to finance. The 2026 survey asked respondents to rate how much different factors affected their business. Poor access or high cost of power was rated "very important" by 48.1% and "important" by a further 34.4%. The "very important" rating was 51.6% among nano businesses, 43.3% among medium-sized businesses and 52.5% among large businesses.

The 2026 survey asked respondents to rate how much different factors affected their business. Poor access or high cost of power was rated "very important" by 48.1% and "important" by a further 34.4%. The "very important" rating was 51.6% among nano businesses, 43.3% among medium-sized businesses and 52.5% among large businesses.

Figure 6: How respondents rated poor access or high cost of power, overall

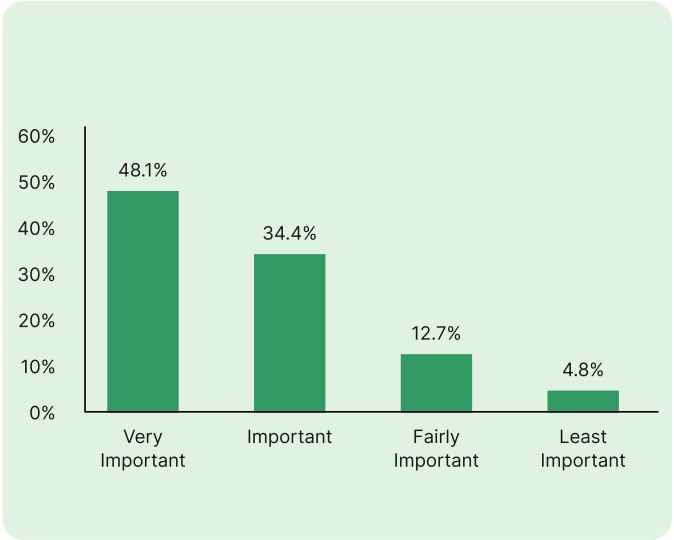
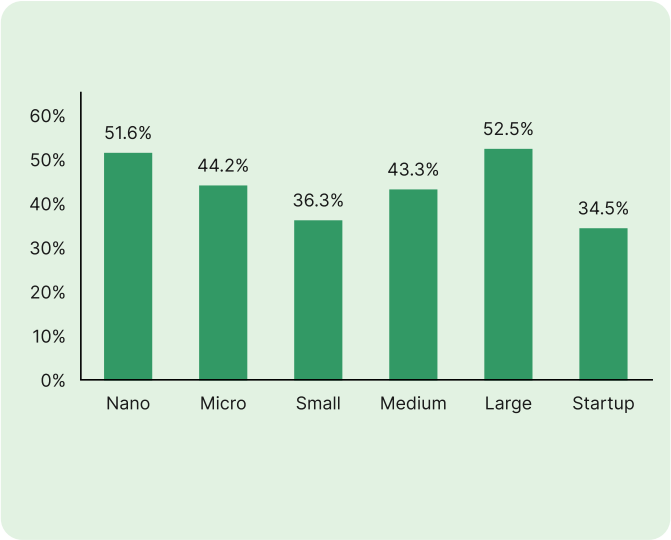


Figure 7: Share of businesses rating power as a "very important" negative factor, by business size (% of businesses)



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

[9] See appendix for Methodology Note

Businesses use the grid and pay for other sources

The grid was the main power source for 68.4% of respondents. Grid dependence differed by state. Respondents named the grid as the main source in Imo (99.4%), Kebbi (99.0%), and Kaduna (96.6%). The shares were 11.0% in Ekiti, 13.0% in Kogi and 30.7% in Bayelsa.

Figure 8: Major source of electricity for your business (% of businesses)

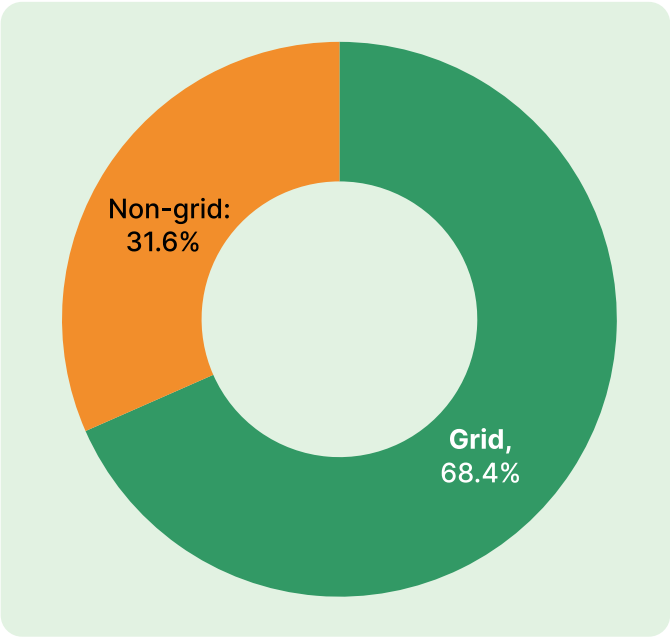
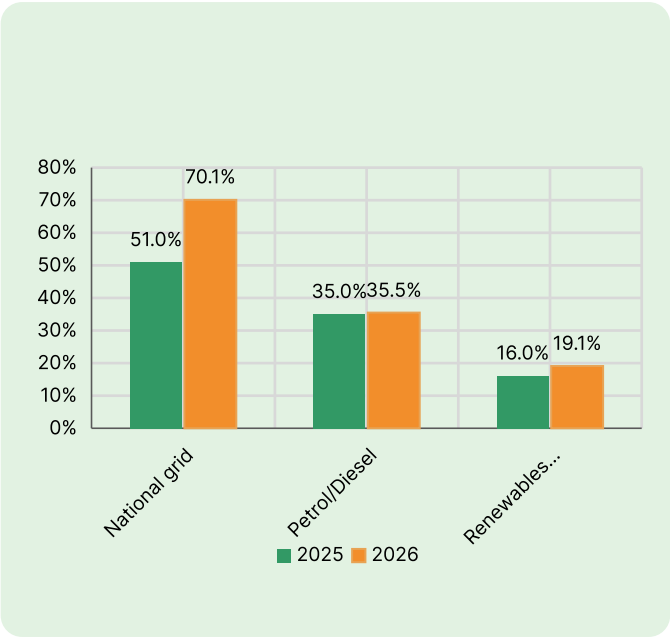


Figure 9: Source of power businesses spend the most on, 2025 vs 2026 (% of businesses; multiple responses)





Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Grid electricity was the source most often selected as businesses' largest energy expense. It was selected by 70.1% of respondents, compared with 35.5% for petrol or diesel and 19.1% for renewable energy. Since 22.3% selected more than one source, these results show source selections and do not establish one exclusive highest-cost source for every respondent.



Table 4: Energy source selected by businesses choosing one option only

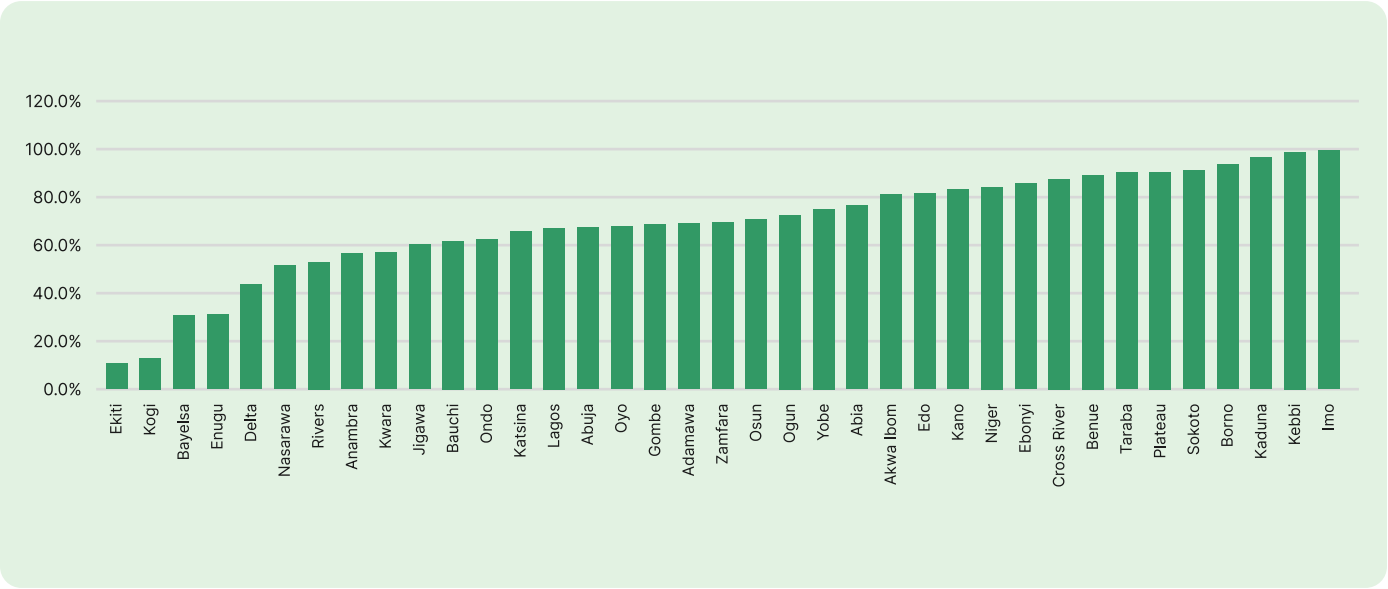
Single source selected	Share of single-source responses
Grid bills	65.9%
Petrol/diesel	23.4%
Renewables	10.7%

Source: FATE Foundation, 2026 State of Entrepreneurship Survey

National grid bills were the most frequently chosen option among businesses that selected one listed source only. 65.9% selected grid bills, 23.4% petrol or diesel, and 10.7% renewable energy. 22.3% of all respondents selected multiple sources, most commonly grid bills and petrol or diesel. The responses show that grid bills lead among single-source selections, while many businesses report spending across more than one source.



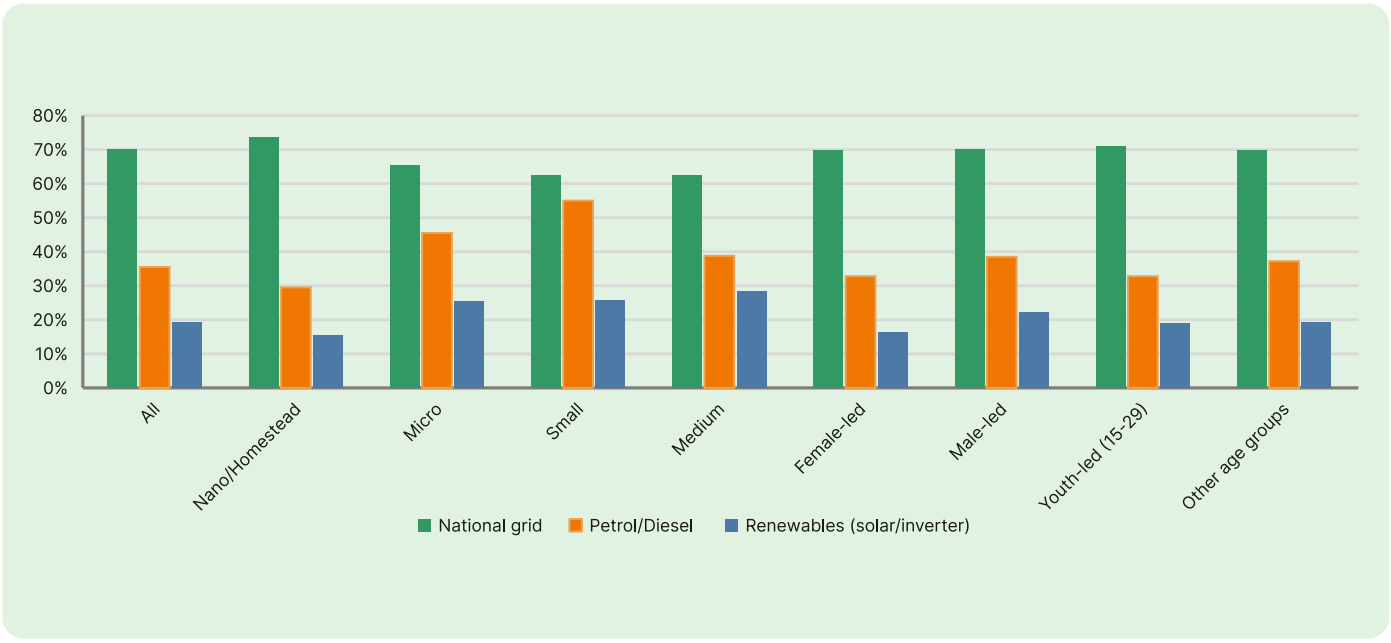
Figure 10: National grid as the main power source as reported by entrepreneurs, by states



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

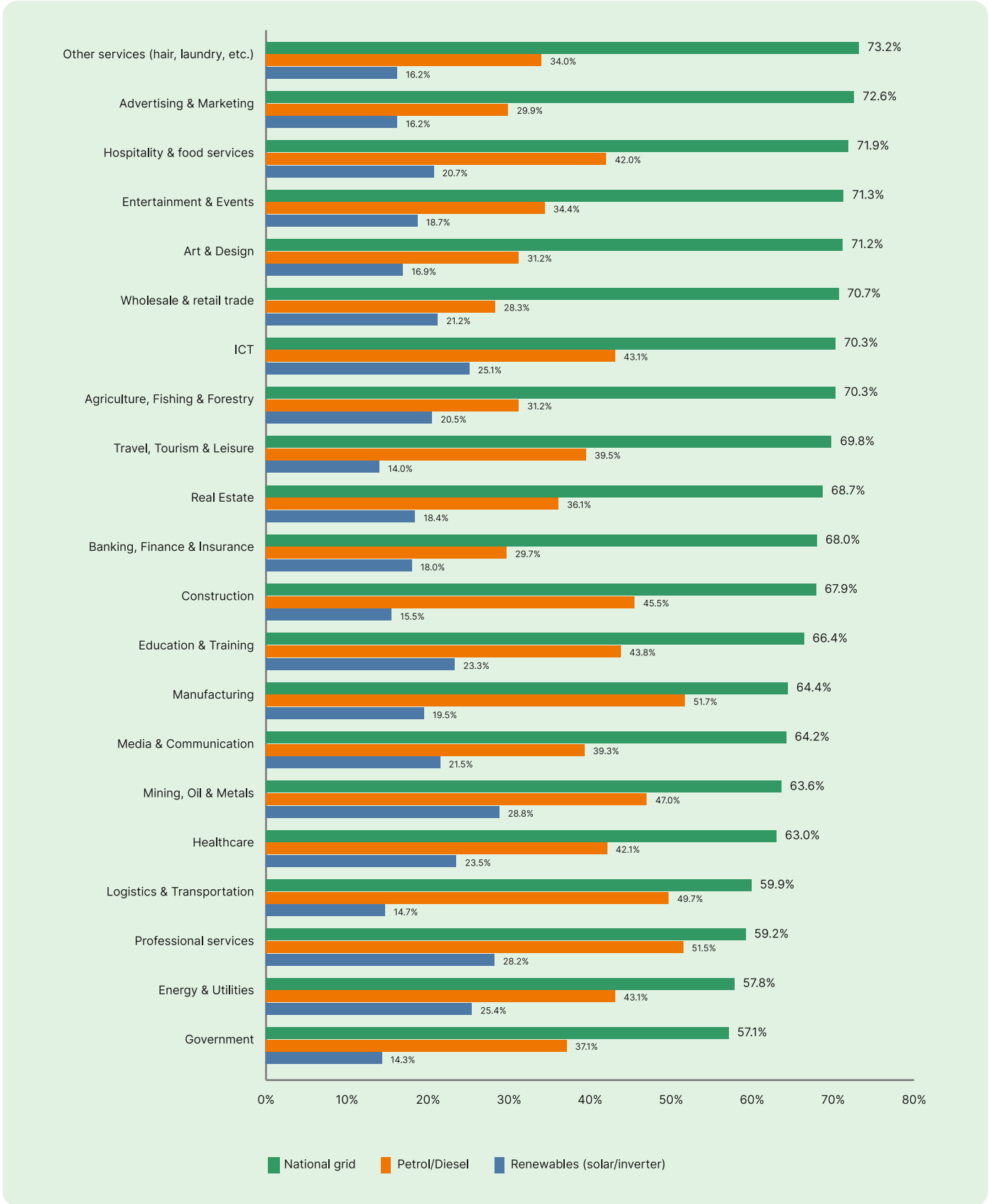
Small businesses were most likely to select petrol or diesel as a source they spend the most on. This response was selected by 54.9% of small businesses, 45.7% of micro businesses, 38.9% of medium-sized businesses and 29.6% of nano businesses. By sector, 51.7% of manufacturing respondents selected petrol or diesel, followed by 51.5% in professional services and 49.7% in logistics and transportation. Renewable energy was selected by 25.4% of energy and utilities respondents, 25.1% of ICT respondents and 23.5% of healthcare respondents**.**

Figure 11: Source of power businesses spend the most on, by size, gender and age, 2026 (% of businesses)



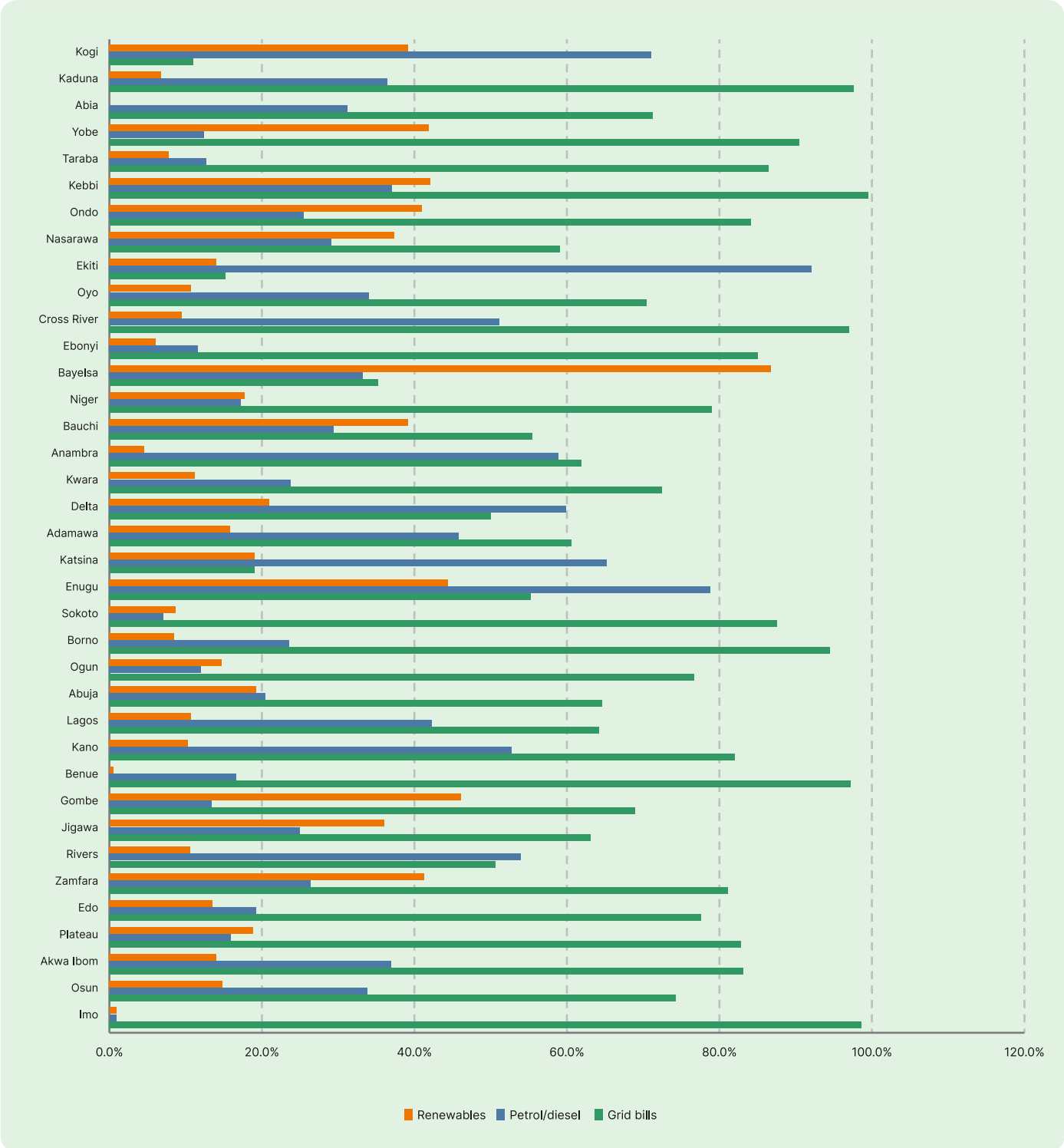
Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Figure 12: Source of power businesses spend the most on, by sector, 2026 (%)



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Figure 13: Sources selected in response to "Which energy source do you spend the most on?", by state (% of selections)

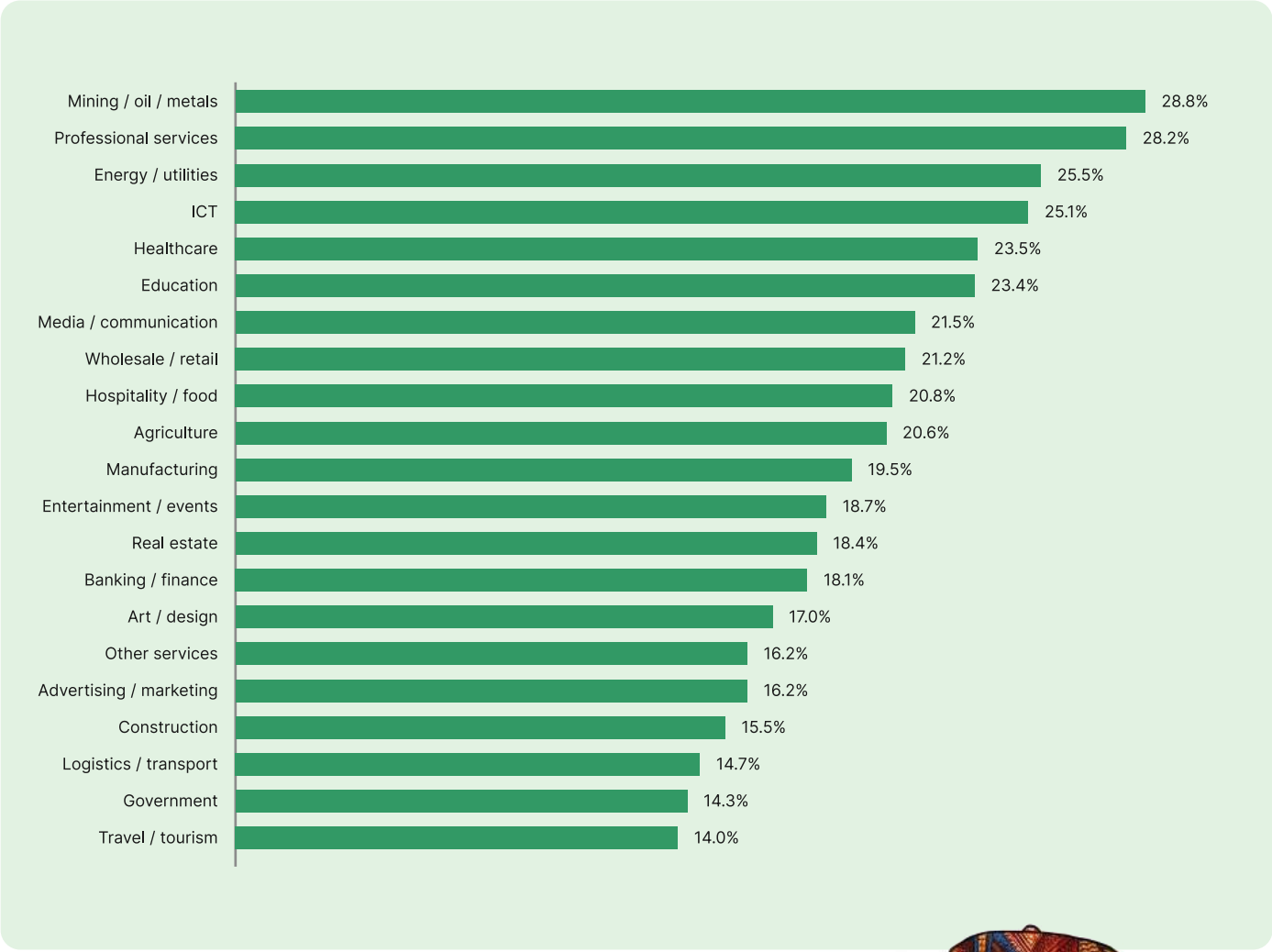


Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Each bar shows each source's share of the recorded grid bill, petrol/diesel and renewable selections in that state. Respondents could select more than one source, so a business may contribute multiple selections. Percentages are shares of selections, not shares of businesses or total energy expenditure.

Renewables featured most prominently in start-ups' energy-spending selections. The selection rate was 40.9% among start-ups, followed by mining, oil and metals (28.8%) and professional services (28.2%). It was also 25.1% in ICT, 23.5% in healthcare and 21.2% in wholesale and retail trade. Across valid responses, 19.1% selected renewables among the sources they spend the most on. These patterns point renewable energy providers towards customer segments to explore.

Figure 14: Businesses selecting renewables among highest-spending energy sources, by sector (%).

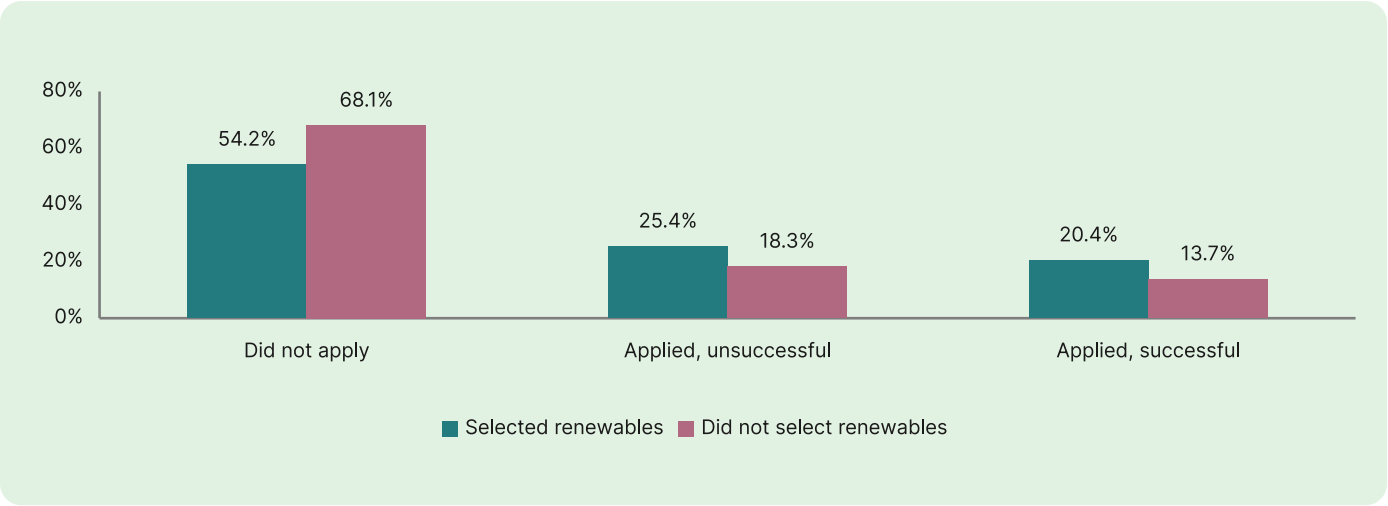


Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Businesses selecting renewables were more likely to seek finance for energy solutions, while their reported application outcomes were mixed. 45.8% had tried to obtain finance, compared with 31.9% of other respondents to the spending question. Among those who applied, 44.5% of renewable selectors and 42.8% of other respondents reported success. Unsuccessful applications were reported by 25.4% of renewable selectors and 18.3% of others. These findings point to an opportunity for providers and lenders to develop financing and payment options that address upfront costs.



Figure 15: Energy-solution finance attempts and outcomes, by renewable-source selection (%)



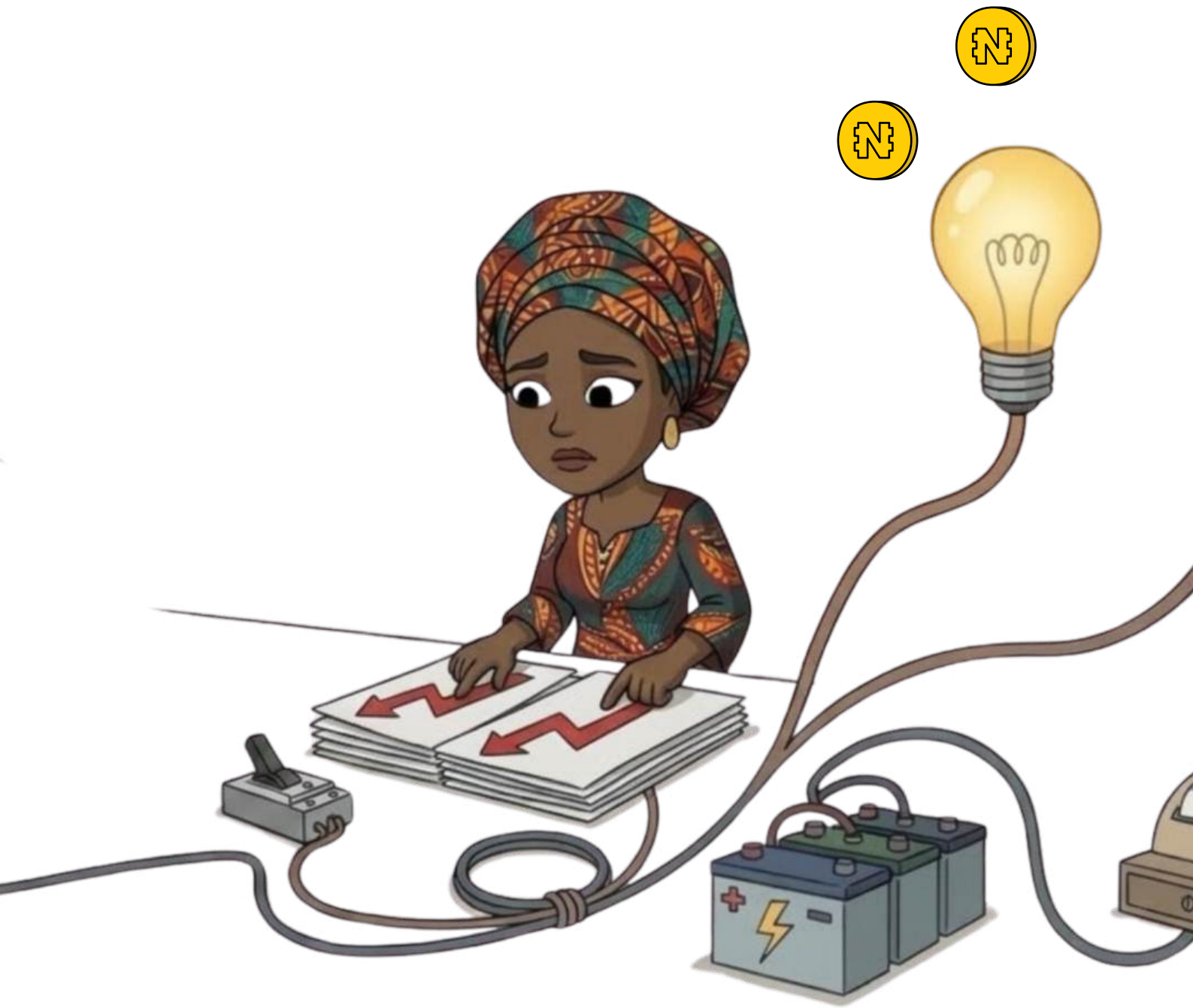
Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Overall, the evidence indicates that Nigerian enterprises are operating with a mixed energy portfolio. The national grid remains central; however, self-generation and renewable energy systems have become important components of business energy arrangements. This diversification reflects the need to manage unreliable supply, although it also introduces additional investment and operating costs.




DATA
Listings
TRADE
TOOLS

ENERGY COSTS, RELIABILITY AND FIRM PERFORMANCE



Energy can affect business performance through the cost of keeping operations running and through interruptions to production or service. The SoE data provide reported cost shares, self-assessed effects of power, and cross-tabulations with growth, hiring and process innovation. The comparisons describe associations within the survey, alongside other influences such as firm size, sector, location and finance.



Energy absorbs a sizeable share of operating costs

The survey asked respondents to estimate the share of operating costs spent on power and energy. **A combined 30.2% reported spending more than 20% of their total operating costs on energy:** 18.9% reported 21-30%, 7.7% reported 31-40% and 3.6% reported more than 40%. The share above 20% was 52.9% among medium-sized businesses and 43.0% among small businesses. It reached 55.0% among large businesses. By sector, the highest shares were travel, tourism and leisure (46.5%), government (42.9%), education and training (41.8%), ICT (41.3%) and mining, oil and metals (40.9%). High energy cost shares may constrain cash available for inventory, wages or investment. The survey measures energy cost bands, while profits and cash available for these uses sit outside the measure.

Figure 16: Share of total operating cost spent on power/energy, 2026 (% of businesses)

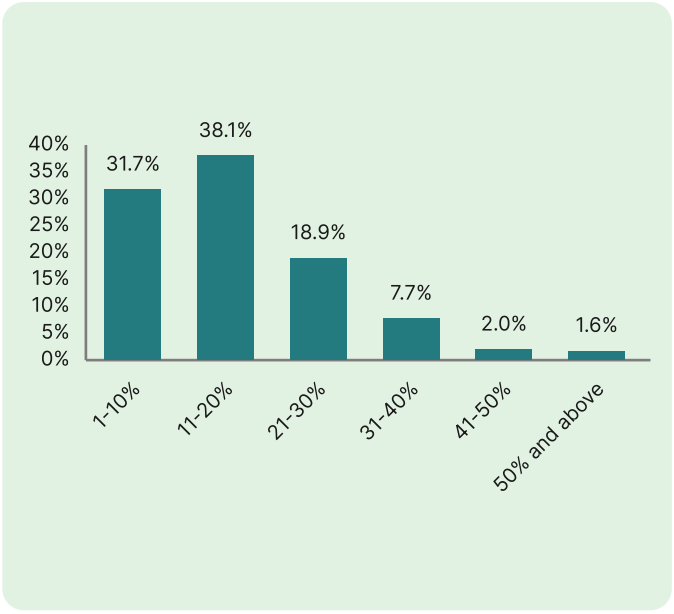
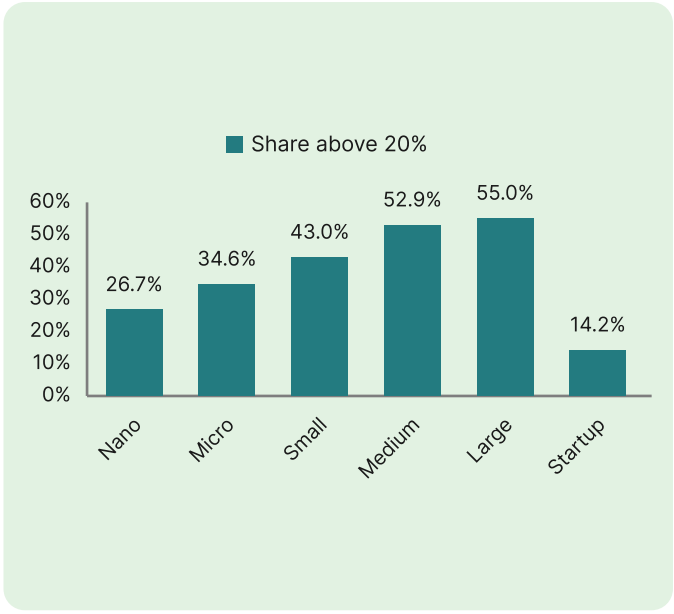
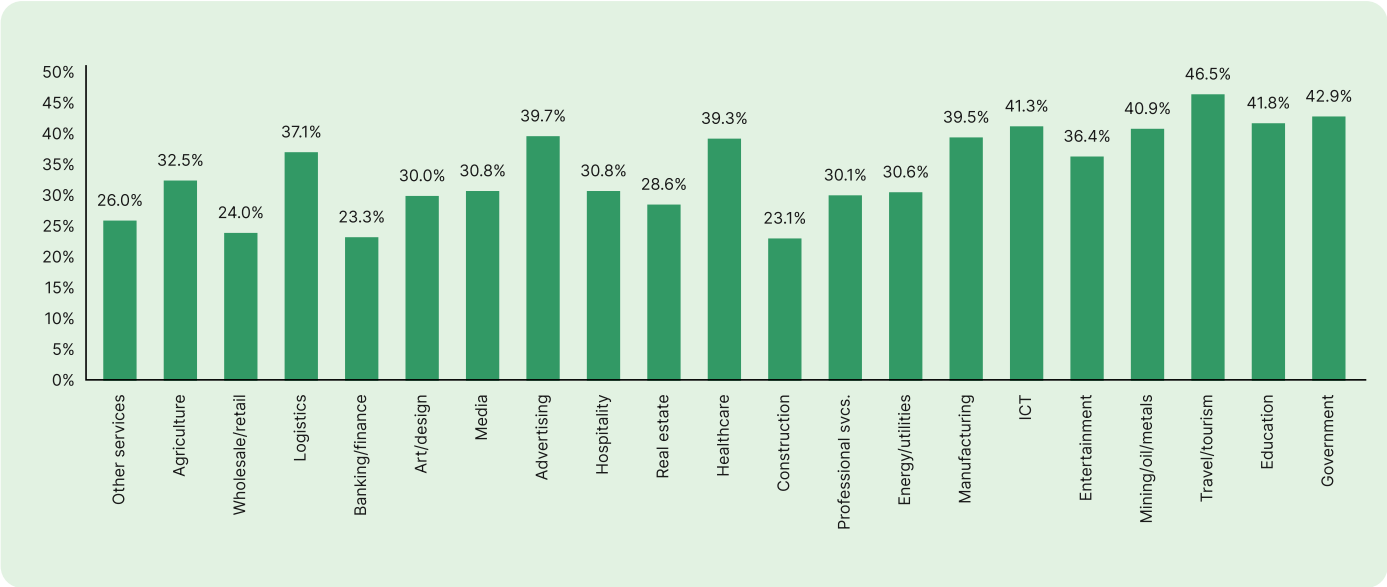


Figure 17: Businesses reporting energy costs above 20% of operating costs, by size



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

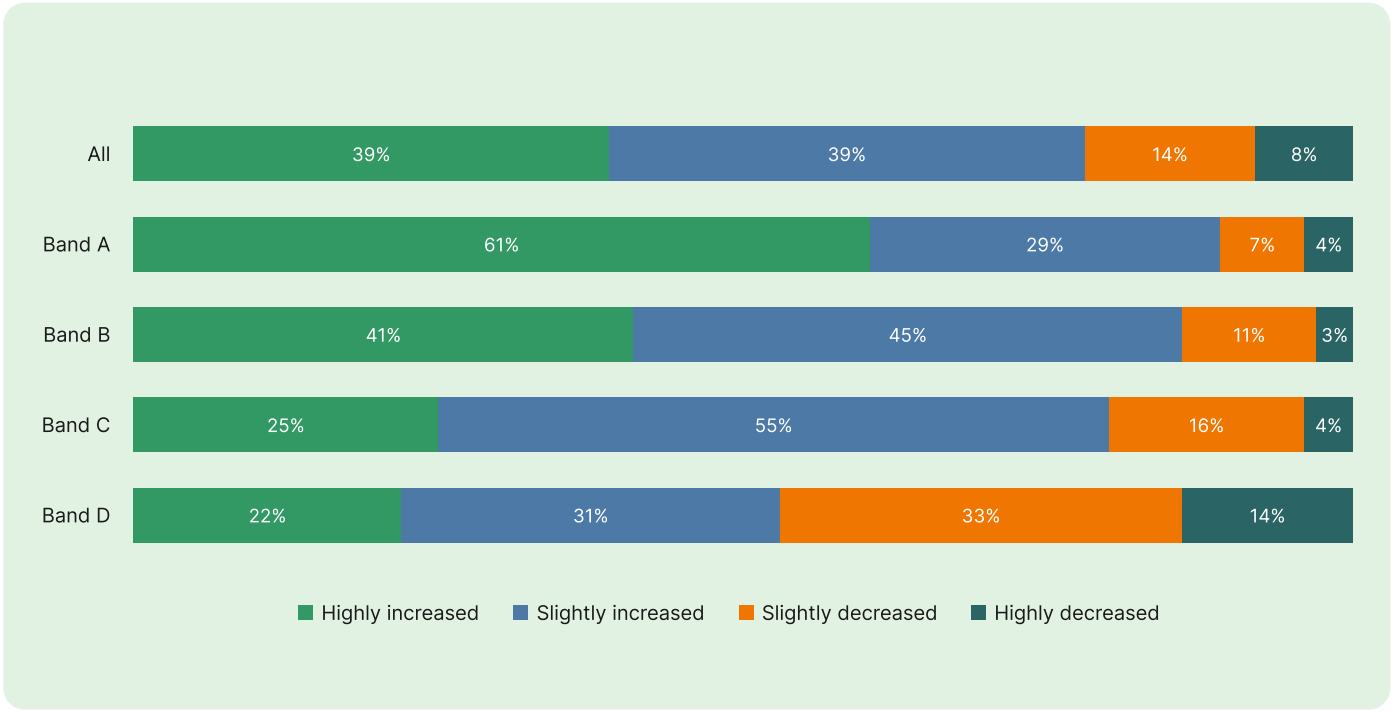
Figure 18: Businesses reporting energy costs above 20% of operating costs, by sector



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Rising grid-power costs were a widespread pressure for businesses. In the last one year, 78.1% of respondents reported an increase in the cost of accessing grid power. The share was almost evenly divided between those reporting a slight increase (39.0%) and a substantial increase (39.1%). The survey captures businesses' reported cost experience; it does not identify whether changes in tariffs, tariff bands or electricity use drove each increase.

Figure 19: Change in cost of accessing grid power in the past year, by tariff band, 2026 (%)



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

These findings show that energy affordability is not confined to traditionally energy-intensive sectors. Businesses providing digital services, healthcare, advertising and other services also face substantial energy expenditure. The cost burden is therefore relevant across a broad range of economic activities, although the channels through which energy affects production differ.

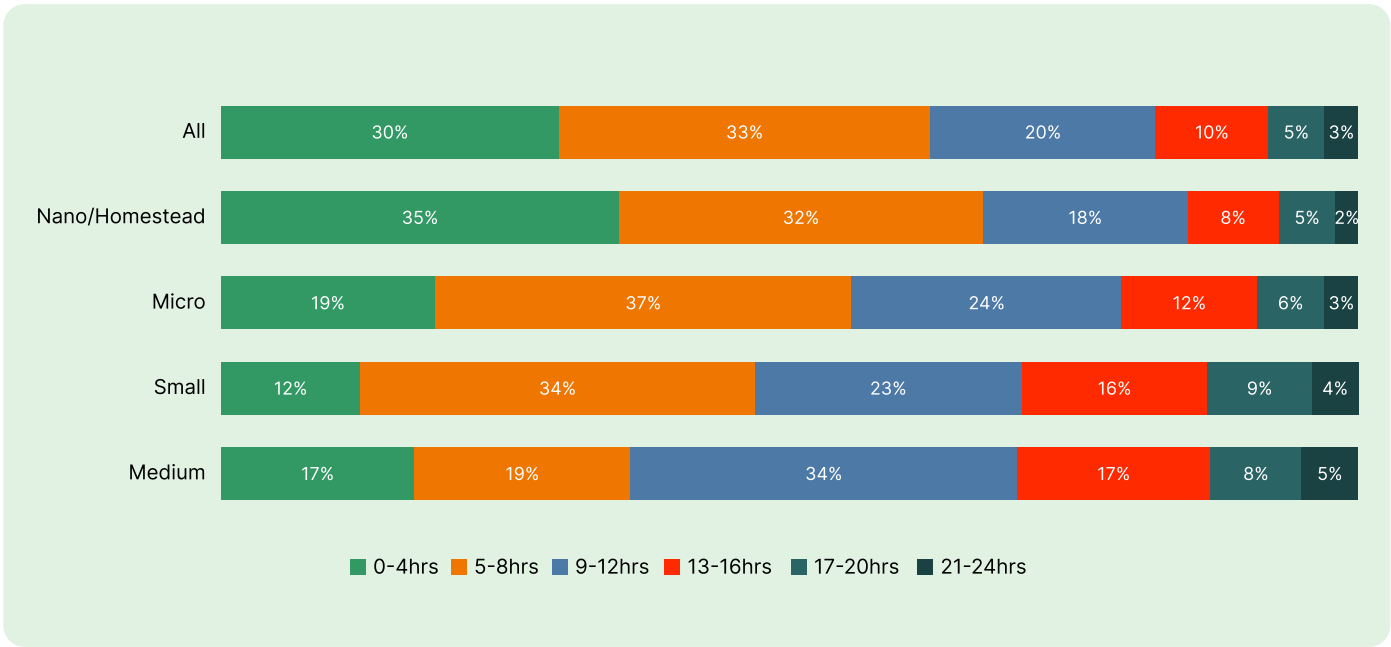
The distribution of expenditure also raises questions about the capacity of businesses to absorb energy-price increases. Where energy accounts for a substantial share of operating costs, increases in electricity tariffs, fuel prices or equipment maintenance costs may reduce the resources available for other business requirements. Enterprises may respond by increasing prices, reducing energy consumption, delaying investment or accepting lower operating margins.



Reliability and reported business outcomes

Grid supply was limited for many respondents: 63% reported receiving eight hours or fewer a day; 20% reported nine to twelve hours and only 8% reported more than 16 hours. The share receiving eight hours or fewer was 67% among nano businesses, 56% among micro businesses, 46% among small businesses and 36% among medium-sized businesses.

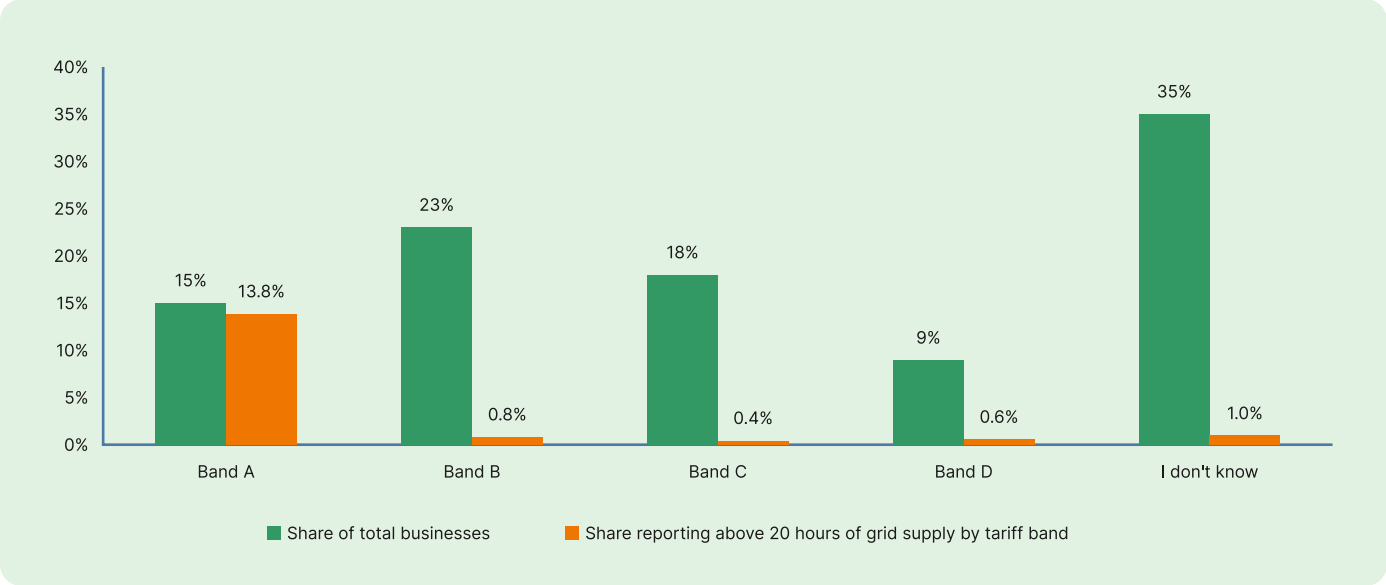
Figure 20: Hours of grid supply businesses typically get per day, 2026 (% of businesses)



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Survey responses show that only a small share of businesses identifying as Band A clearly reported supply above the band's 20-hour daily benchmark. Only 13.8% reported receiving 21-24 hours of grid supply. A further 17.7% selected 17-20 hours. The survey therefore points to a gap between the Band A benchmark and confirmed supply above that level. More than one-third of all respondents (35.3%) were unsure of their tariff band.

Figure 21: Electricity tariff band of businesses and share receiving more than 16 hours of supply per band, 2026 (%)



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

On reliability, 36% described grid supply as unreliable, 18% as reliable and 46% chose neutral. The unreliable rating reached 41.9% among micro businesses and 52.2% among the separate startup category; it was 33.8% among nano businesses, 33.1% among small businesses and 26.1% among medium-sized businesses. State responses ranged from 96.5% reporting unreliable supply in Bayelsa, 87.5% in Ekiti and 81.0% in Kogi to 58.4% reporting reliable supply in Gombe, 49.3% in Akwa Ibom and 47.3% in Kwara.

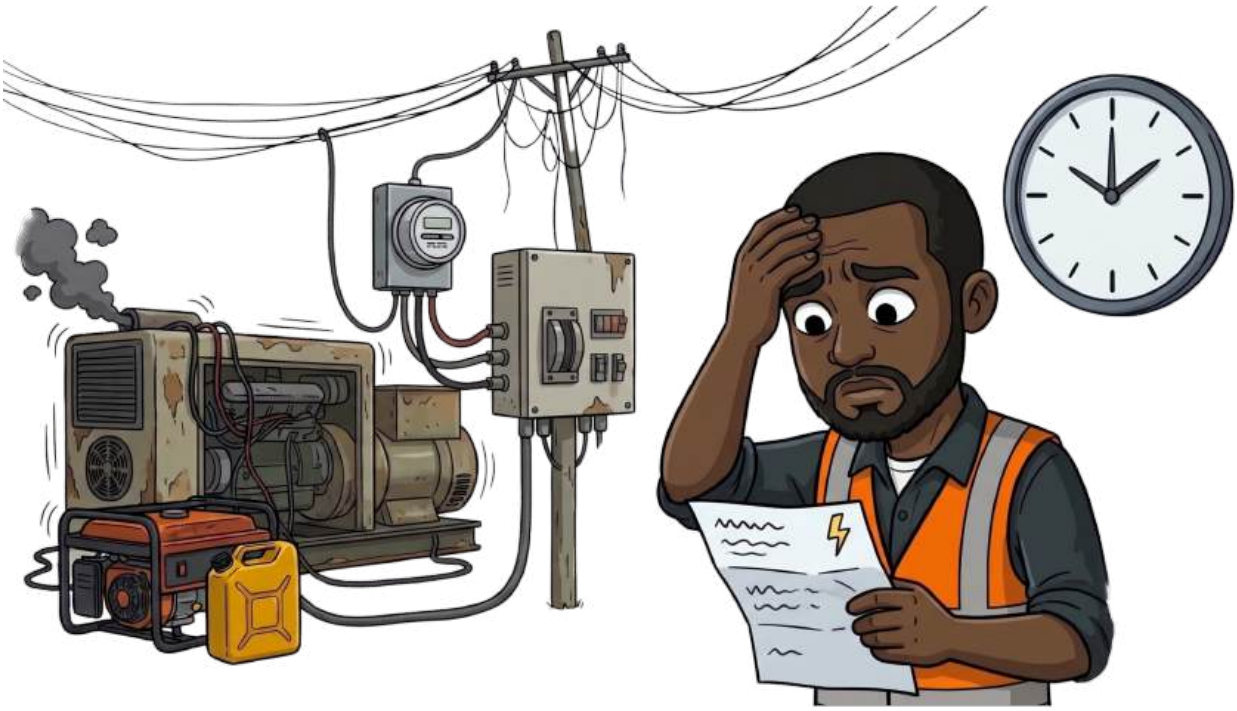
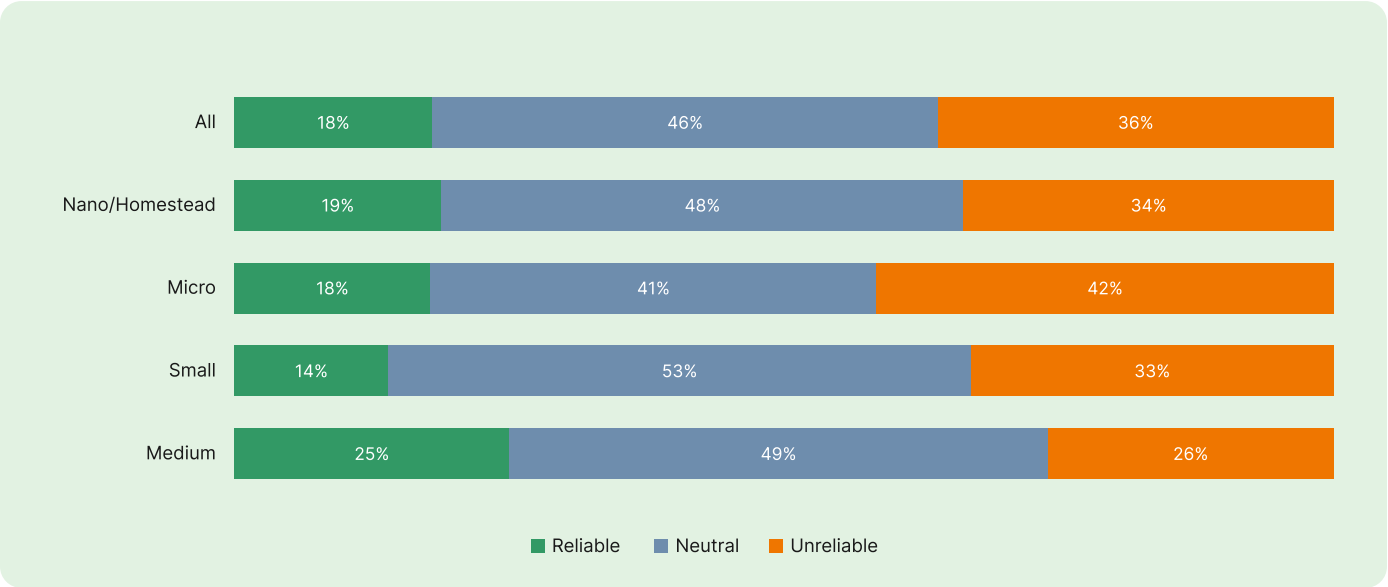


Figure 22: How reliable has grid power supply been in the last one year? (% of businesses), by size



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

The state-level results also reveal substantial geographical differences. Businesses in Bayelsa, Ekiti, and Kogi recorded particularly high levels of reported grid unreliability, at 96.5%, 87.5%, and 81.0%, respectively. However, reliability is highest in Gombe (58.4%), Akwa Ibom (49.3%) and Kwara (47.4%). These variations suggest that location-specific infrastructure and distribution conditions partly shape the experience of electricity supply. National averages therefore conceal important differences in businesses' operating environments across states.

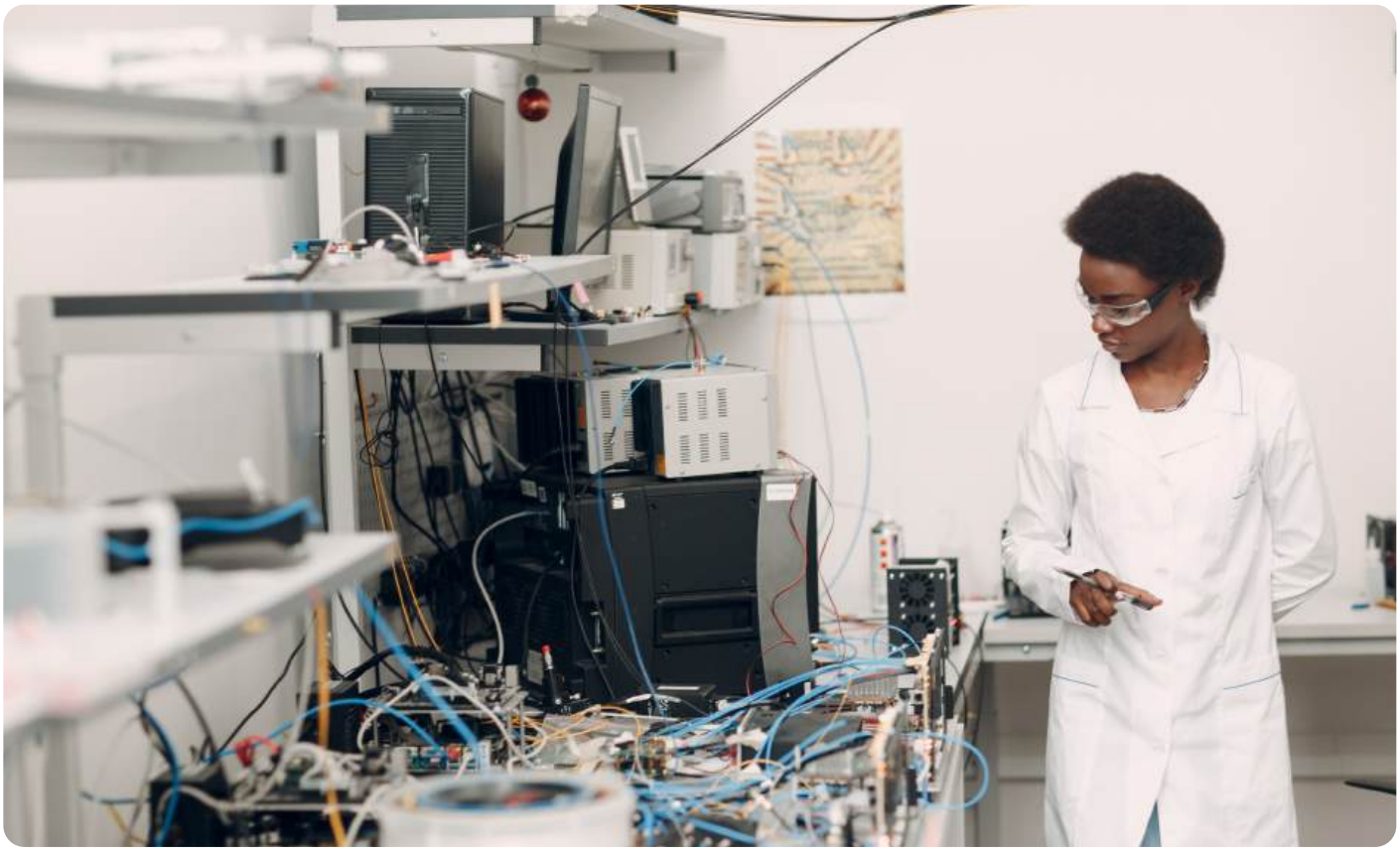
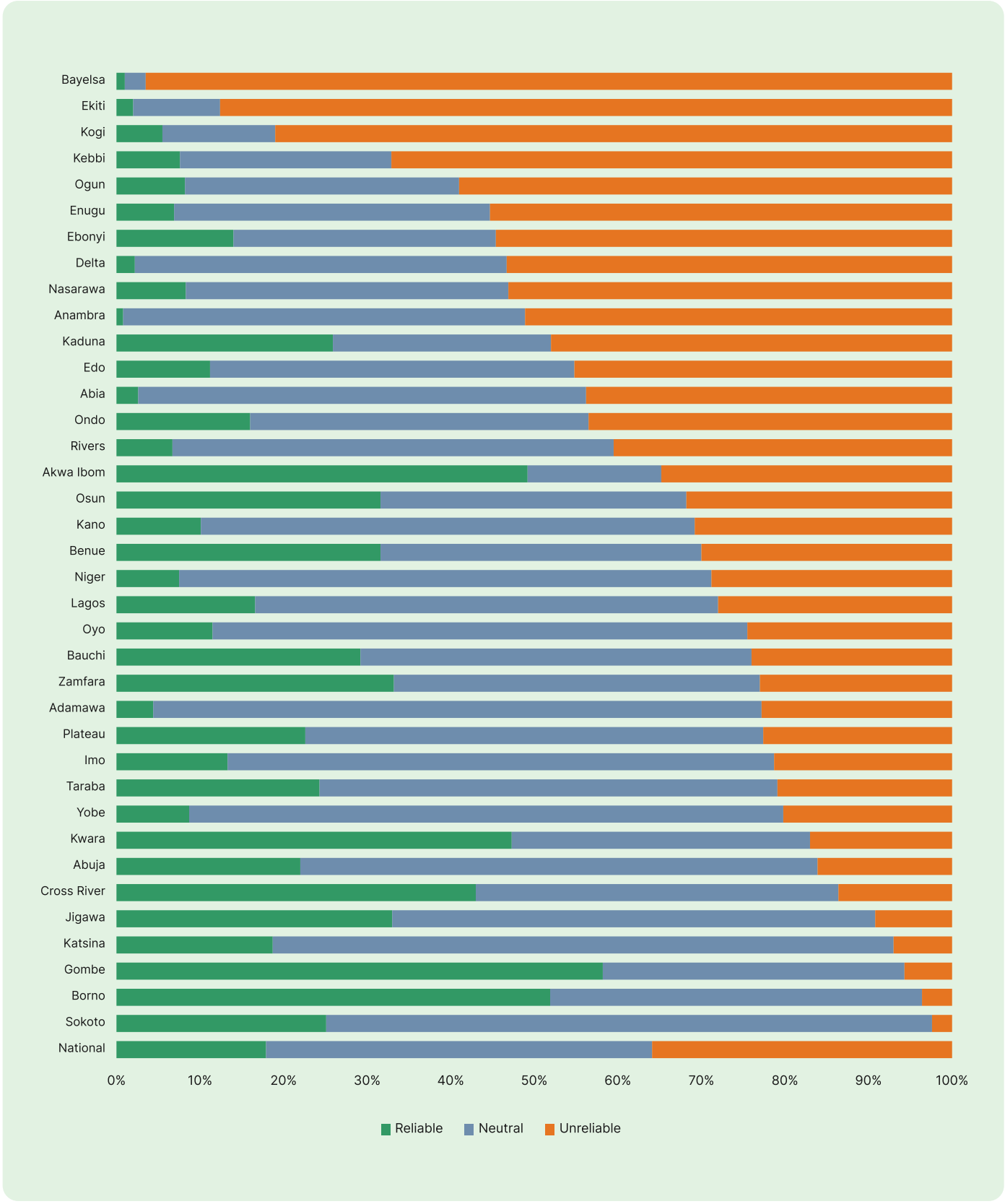


Figure 23: How reliable has grid power supply been in the last one year? (% of businesses), by state



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

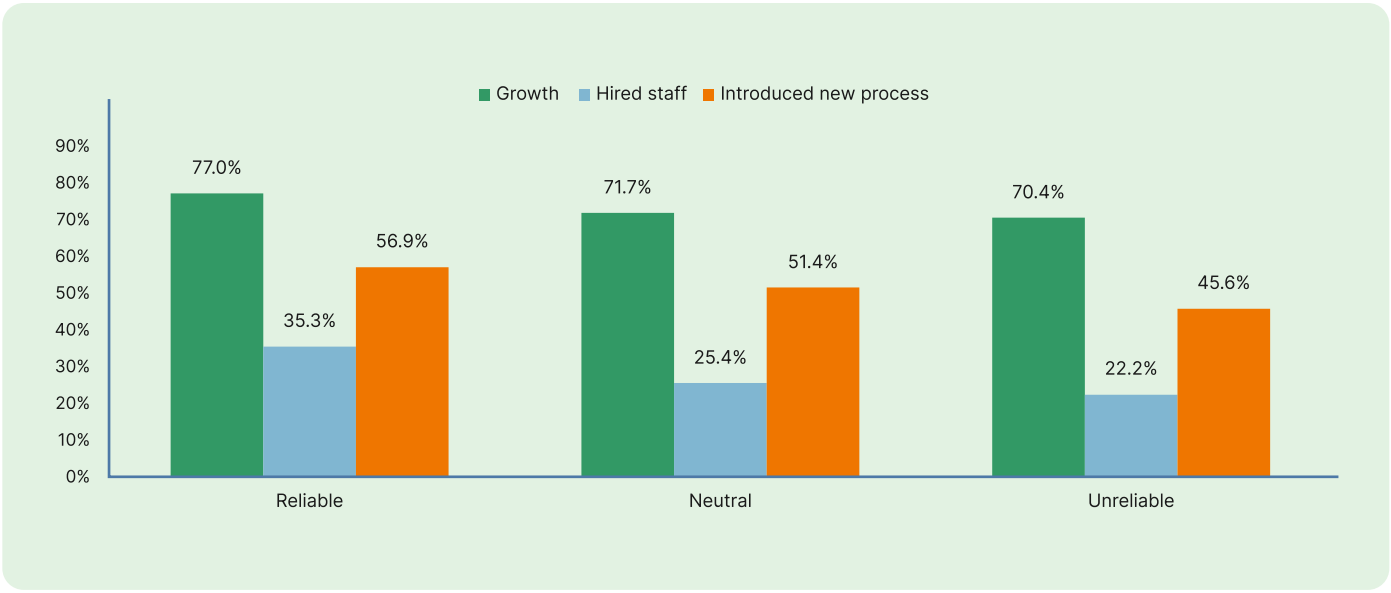
The findings demonstrate that the key challenges facing enterprises include the adequacy and predictability of electricity. Limited supply hours and unreliable service increase the need for alternative energy arrangements, potentially raising operating costs and complicating production planning. For enterprises that require uninterrupted electricity for production, relatively short disruptions can affect service delivery, equipment utilisation and the ability to meet customer requirements.



Energy Conditions and Business Growth

Businesses describing grid supply as reliable more often reported growth, hiring and new business processes, with the largest gaps in hiring and process adoption. Growth was reported by 77.0% of the reliable-supply group and 70.4% of the unreliable-supply group, a difference of 6.6 percentage points. The gaps were larger for hiring (35.3% versus 22.2%) and introducing a new business process (56.9% versus 45.6%). These comparisons show that reported reliability and business activity move together in this survey; other business and market conditions also shape the outcomes.

Figure 24: Reported growth, hiring and new processes by grid reliability, 2026



Percentages are within each reliability group.

Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Daily supply hours show a similar pattern for hiring. Hiring was reported by 26.7% of respondents receiving zero to four grid hours and 35.8% of those receiving 21-24 hours. Reported growth ranged from 69.2% among the five-to-eight-hour group to 80.7% among the 21-24-hour group. The pattern varies across intervals: 72.6% of the zero-to-four-hour group reported growth, compared with 69.2% in the five-to-eight-hour group. These figures provide descriptive comparisons across supply-hour groups.

Figure 25: Reported growth and hiring by daily grid-supply hours



Source: FATE Foundation, 2026 State of Entrepreneurship Survey





FINANCING PRODUCTIVE ENERGY FOR BUSINESSES AND PROVIDERS



Access to finance determines whether Nigerian businesses can move towards more reliable and affordable energy arrangements. Investment requirements extend beyond equipment acquisition to installation, maintenance, and supporting infrastructure. While businesses struggle to meet upfront costs, energy providers need capital to develop infrastructure, procure equipment, and extend services. Their financing needs differ in scale, tenor, currency exposure and project risk.

This section examines the financing constraints facing both groups, drawing on the 2026 SoE Survey to assess business demand, access barriers and differences across enterprise categories. It also considers provider financing requirements, existing programmes and instruments that could expand productive energy access.

While businesses struggle to meet upfront costs, energy providers need capital to develop infrastructure, procure equipment, and extend services. Their financing needs differ in scale, tenor, currency exposure and project risk.

Business demand for energy finance

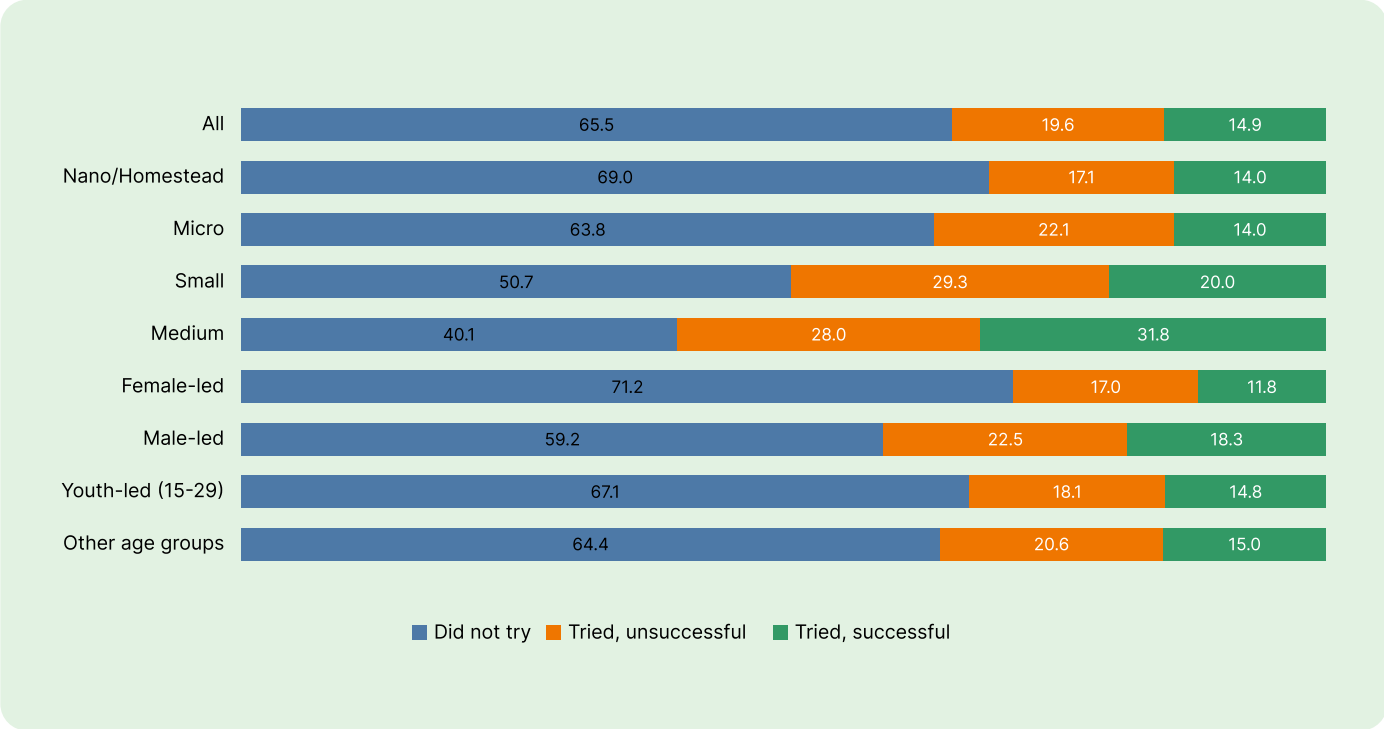
From the survey, about one-third of respondents (34.5%) had tried to obtain finance for an energy solution. Of these applicants, 43.2% reported success and 56.8% reported an unsuccessful application. Application rates were 59.8% among medium-sized businesses and 49.3% among small businesses, compared with 36.2% among micro businesses and 31.1% among nano businesses. The rate was 28.8% among female-led businesses and 40.8% among male-led businesses. Among applicants, reported success rates were 41.0% for female-led businesses and 44.9% for male-led businesses.



General access to business finance was associated with energy finance outcomes. Among respondents with access to finance from any institution in the preceding year, 32.3% reported success in obtaining energy finance, compared with 9.7% among respondents without general finance access. The difference describes an association between the two outcomes.

[6]See appendix for Methodology Note

Figure 26: Share of businesses that tried to obtain financing to invest in energy solutions, 2026 (%)

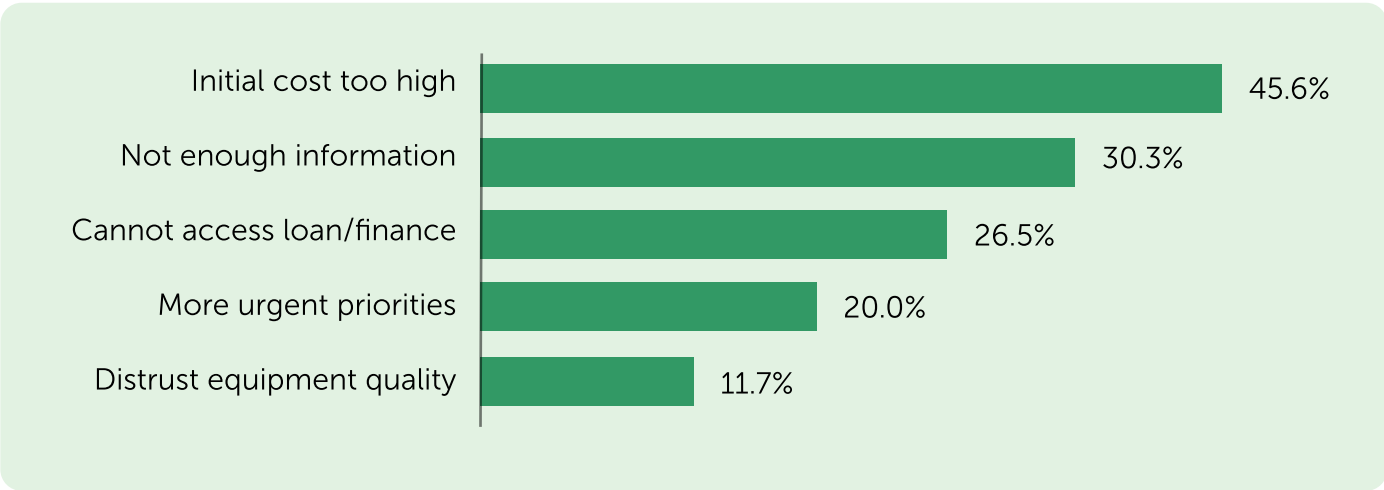


Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Upfront cost is the top reported investment barrier

The most frequently selected barrier was the initial cost of an energy solution (45.6%). Respondents also selected limited information about options (30.3%), inability to access a loan or finance (26.5%), more urgent business priorities (20.0%) and distrust of solar or inverter quality (11.7%). The question allowed multiple responses.

Figure 27: What prevents your business from investing in better energy solutions? 2026 (% of businesses)



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Table 5: What prevents your business from investing in better energy solutions? 2026 (% of businesses)

Barrier	All	Nano	Micro	Small	Medium	Female-led	Youth-led[1]
Initial cost too high	45.6	48.2	45.5	30.2	40.1	45.7	48.6
Not enough information about options	30.3	25.9	38.4	37.7	28.7	27.8	29.2
Cannot access loan or financing	26.5	24.8	31.1	20.6	19.1	23.3	29.5
More urgent business priorities	20.0	21.9	17.8	14.8	14.0	21.7	19.9
Distrust of solar/inverter quality	11.7	8.8	15.0	24.2	17.2	10.7	10.8

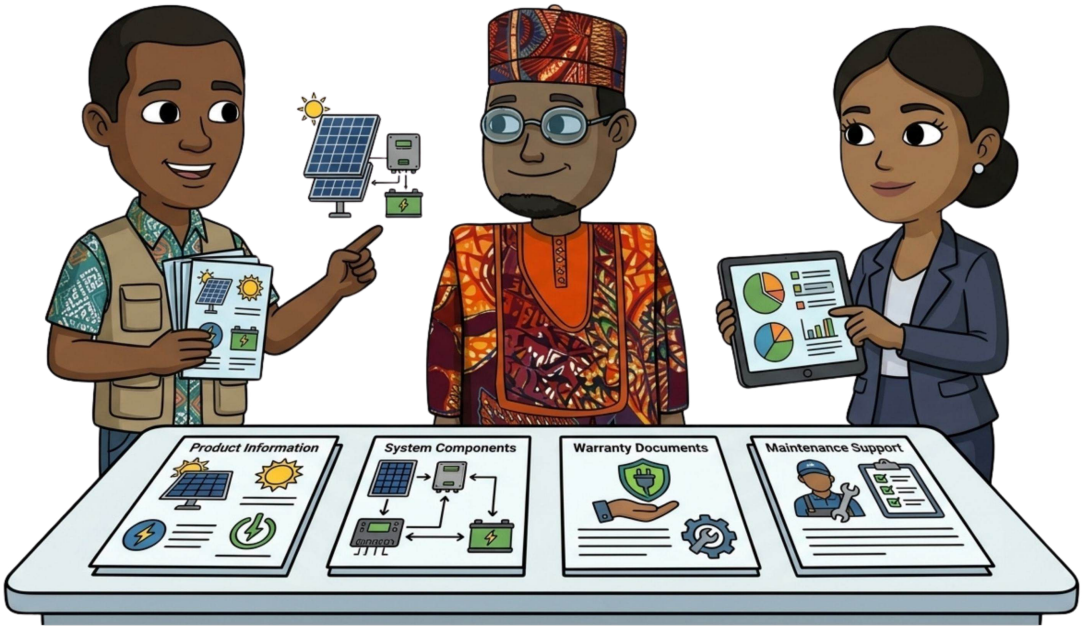
[1] *Youth-led businesses are defined here as respondents aged 15-29, using the age categories in the survey. Respondents could select multiple options, so percentages can sum to more than 100.*

Source: FATE Foundation, 2026 State of Entrepreneurship Survey

The results point to linked financial and information needs. Lowering upfront cost can make a system attainable, while clear information on system capacity, lifetime cost, maintenance and warranties can help businesses compare offers and lenders assess repayment prospects. These findings support financing products paired with transparent supplier standards and after-sales support.

Financing energy providers and delivery programmes

Energy providers face a different financing profile from end-user businesses. Mini-grid developers finance generation, storage, distribution and customer connections before they earn revenue. Solar distributors need working capital for equipment inventory and sales networks. Providers offering instalment or pay-as-you-go plans carry consumer credit exposure while they recover equipment costs.



The Nigeria Electrification Project (NEP) was established as a US$550 million programme supported by the World Bank and African Development Bank (World Bank, 2024b). The Rural Electrification Agency describes the successor, Distributed Access through Renewable Energy Scale-up (DARES), as a US$750 million programme targeting improved electricity access for more than 17.5 million Nigerians (REA, n.d.). These are supply-side programmes and their enterprise impact depends on the services delivered, connection costs and the affordability of electricity or equipment for businesses.

By 15 December 2024, NEP reported 180 commissioned mini-grids and 118,123 verified and paid connections under its mini-grid Performance-Based Grant component. Its stand-alone solar component had exceeded its one million verified connections, by over 80,000 verified and paid connections, serving more than 5.4 million people. The implementation report presents mini-grid connections in aggregate across customer types. These totals show infrastructure reach but enterprise-specific connection and usage data would clarify how much electricity reaches productive activity.

By 15 December 2024, NEP reported 180 commissioned mini-grids and 118,123 verified and paid connections under its mini-grid Performance-Based Grant component. Its stand-alone solar component had exceeded its one million verified connections, by over 80,000 verified and paid connections, serving more than 5.4 million people.



In 2026, the REA and Alpha Morgan Bank announced a financing framework of up to ₦50 billion for renewableenergy developers working on REA-supported project. Reported individual developer limits are up to ₦10 billion, with proposed 12-24 month tenors subject to bank assessment (Egboboh, 2026). While the facility addresses developer liquidity, enterprise affordability and loan access require separate products.

Matching financing to the user and the asset

Financing terms should reflect the enterprise's cash flow, the provider's asset life and the cost of keeping energy equipment operational.

Table 6: Financing options that can fit different enterprise energy needs

Enterprise/provider segment	Typical energy need	Potential financing route	Design point
Nano and micro businesses	Small systems, refrigeration, lighting and basic productive equipment	PAYGo or instalments; shared-power subscription; group finance	Keep payments small and frequent. Disclose total cost, service hours, warranty and default terms.
Small businesses	Larger systems, machinery, cold storage and backup	Leasing or lease-to-own; asset-backed lending; energy-as-a-service	Align repayment with cash flow and equipment life. Include maintenance and replacement terms.
Medium-sized businesses	Higher-capacity generation, storage and integrated systems	Commercial loan; equipment leasing; partial guarantee	Use longer tenor where assets have longer lives; assess foreign-currency exposure.
Energy providers	Generation, distribution, inventory and customer finance	Project finance; working-capital lines; guarantees; blended finance	Match currency and tenor to asset revenues. Track connections, service quality and productive-use customers.

Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Pay-as-you-go can ease the initial cash requirement for smaller systems. Leasing can spread payment for equipment over its useful life.

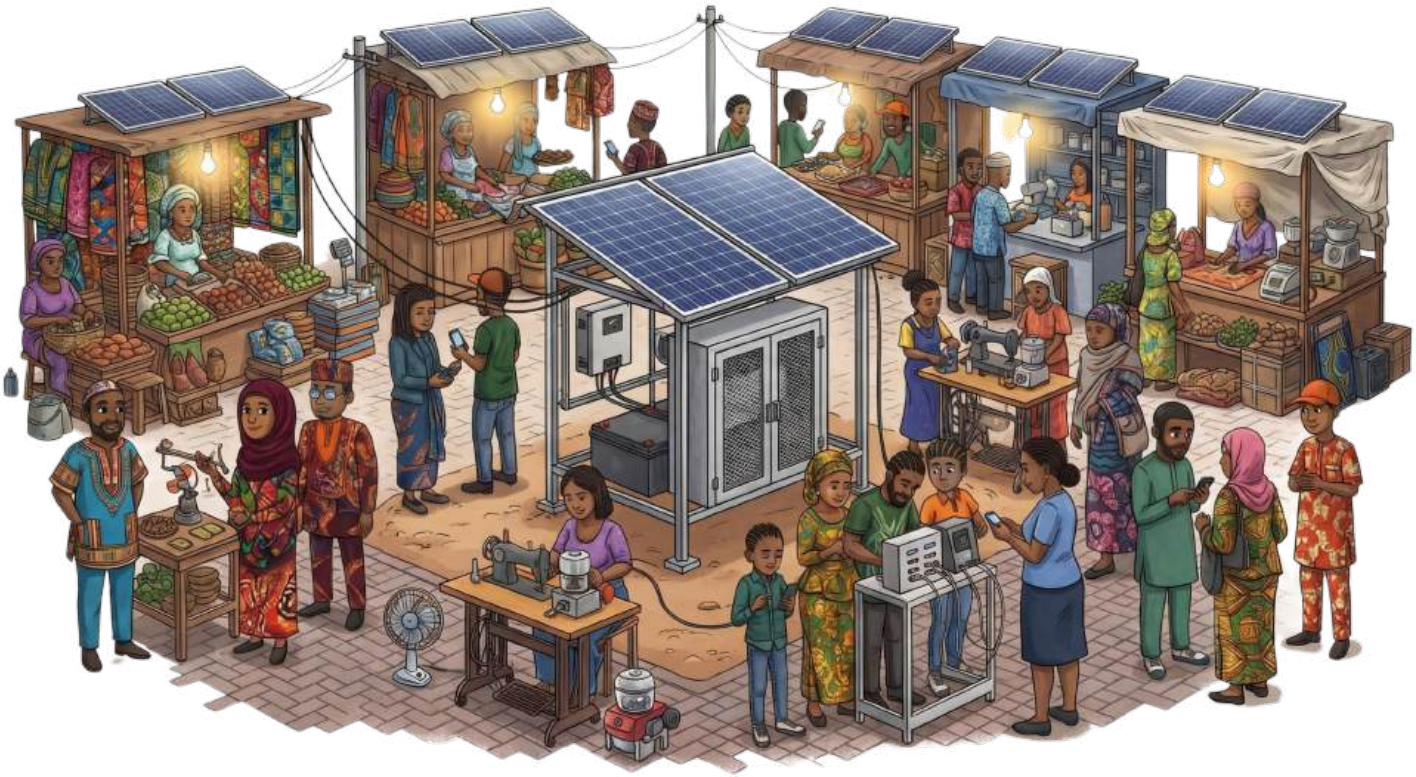
Guarantees can share credit risk where lenders are reluctant to finance smaller projects. Blended finance can support projects that have social value and need time to reach commercial viability.

In every case, the contract should state what service the customer receives, what happens when equipment fails, and how costs change over time.





SHARED ENERGY SOLUTIONS FOR MARKETS AND ENTERPRISE CLUSTERS



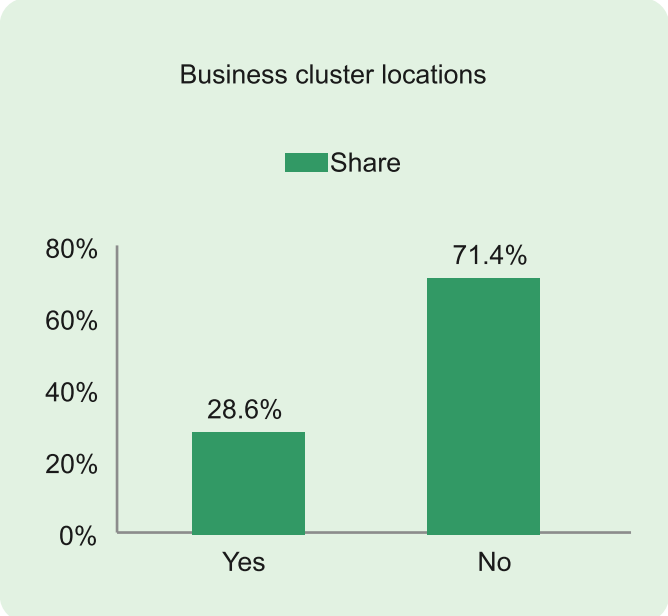
Shared power can serve groups of businesses that operate in the same market, cluster or production space. The 2026 SoE survey asked whether businesses were located in such a setting, whether shared power was available, whether they would pay for a reliable shared solution and which payment model they preferred. The responses provide an initial indication of stated interest. Site demand, acceptable tariff levels and project viability require separate assessment.

Where shared energy may fit

Shared power is already part of how many cluster-based businesses access electricity. 28% of respondents operated in an industrial or market cluster, or shared production space. Among them, 65.1% reported an existing shared power arrangement. This gives energy providers a starting point for understanding demand in business clusters. The survey records whether an arrangement exists, but not whether it involves shared generators, jointly owned equipment or a commercial energy service.

Cluster locations were most frequently reported in advertising and marketing (38.5%), art and design (36.6%), healthcare (36.0%), media and communication (35.5%), manufacturing (33.2%) and energy and utilities (31.0%). These shares show where respondents report business concentration.

Figure 28: Is your business located in an industrial cluster, market cluster or shared production space?



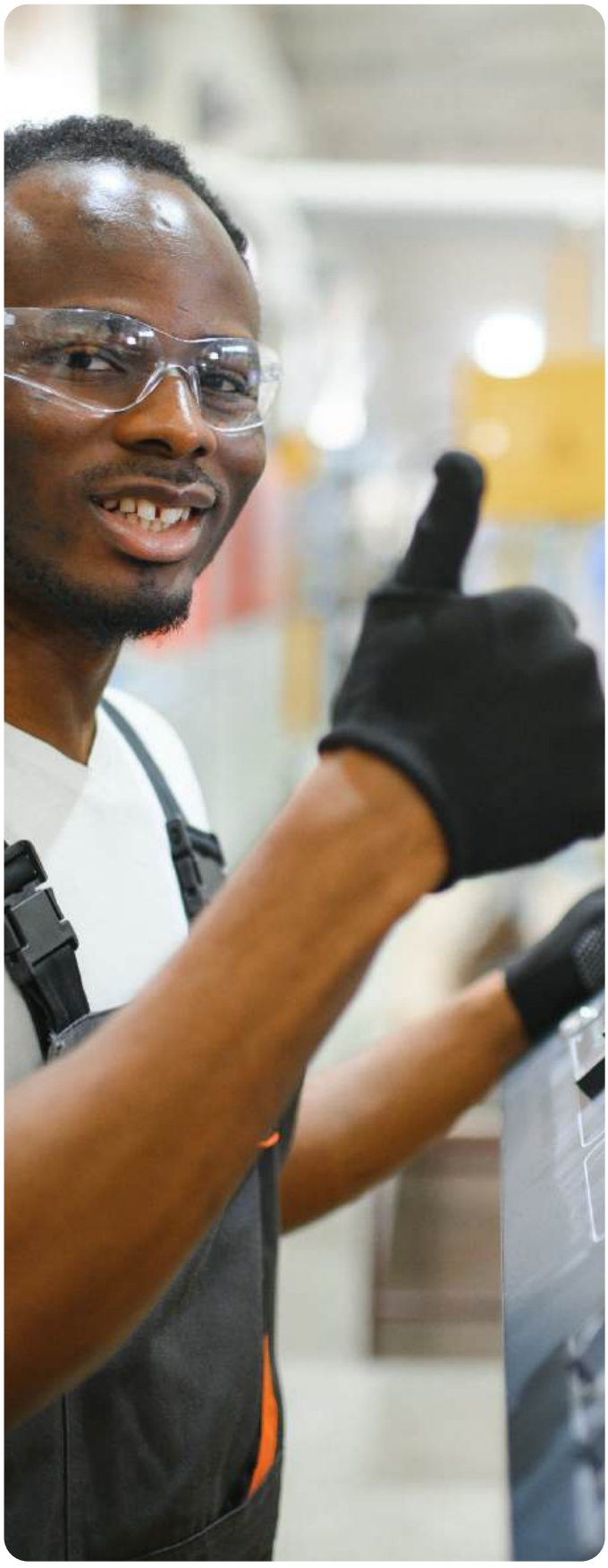
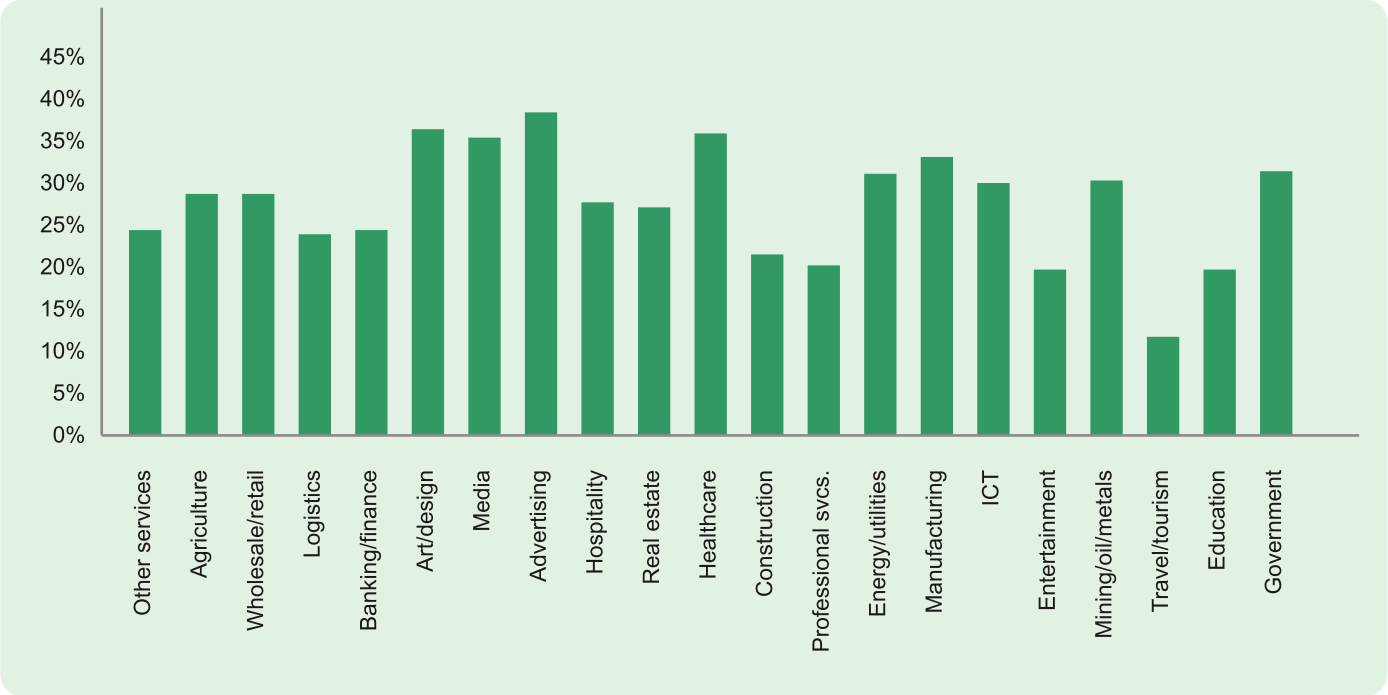


Figure 29: Cluster locations by sector

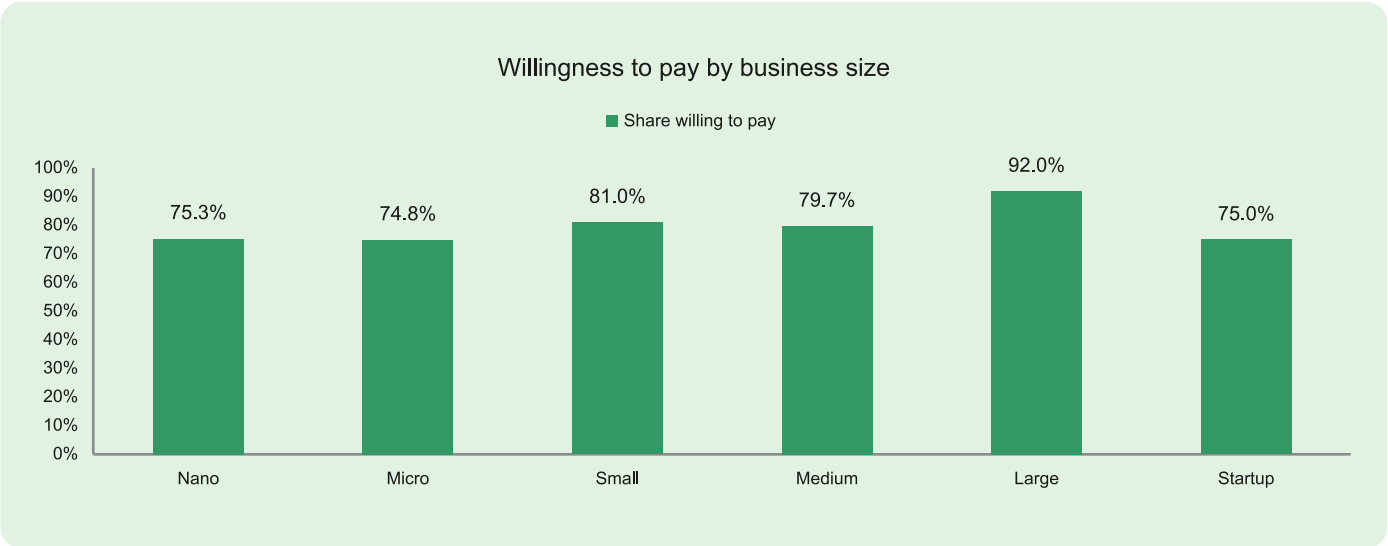


Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Willingness to pay and preferred models

Among businesses in clusters or shared production spaces, 75.9% said they would be willing to pay for a reliable shared-power solution. Willingness to pay was 75.3% among nano businesses, 74.8% among micro businesses, 81.0% among small businesses and 79.7% among medium-sized businesses.

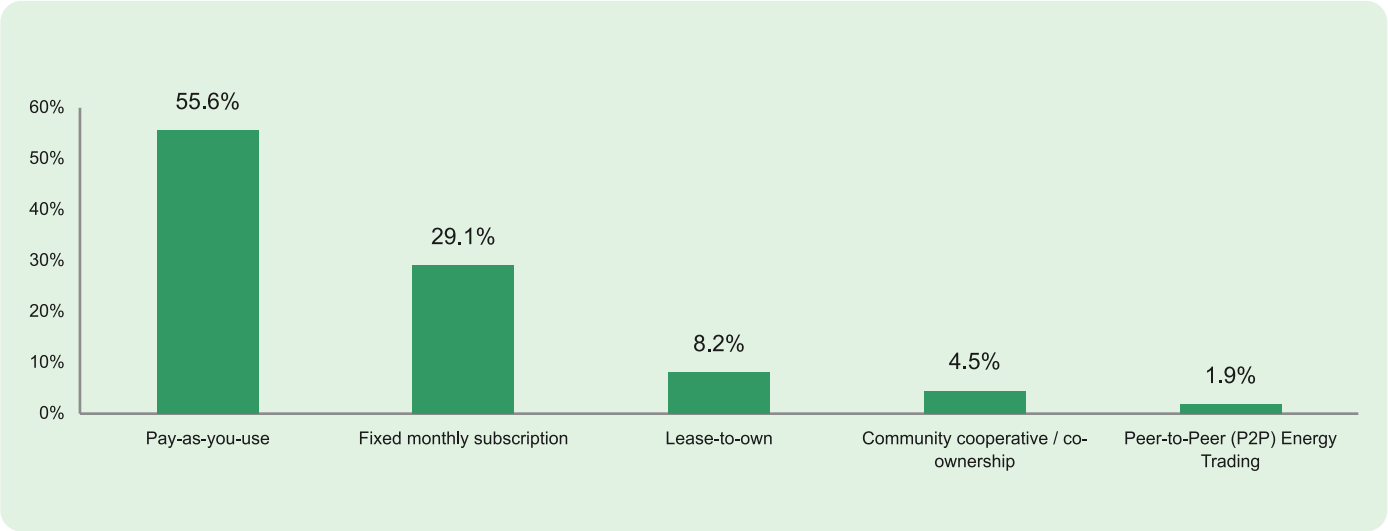
Figure 30: Willingness to pay by business size and preferred shared-energy payment model



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Pay-as-you-use was the most selected model among cluster-based businesses (55.6%), followed by a fixed monthly subscription (29.1%), lease-to-own (8.2%), community cooperative or co-ownership (4.5%) and peer-to-peer energy trading (1.9%). While these preferences can guide initial service design discussions, providers still need to test tariff levels, payment frequency and expected electricity use with businesses in each location.

Figure 31: Preferred shared-power payment model

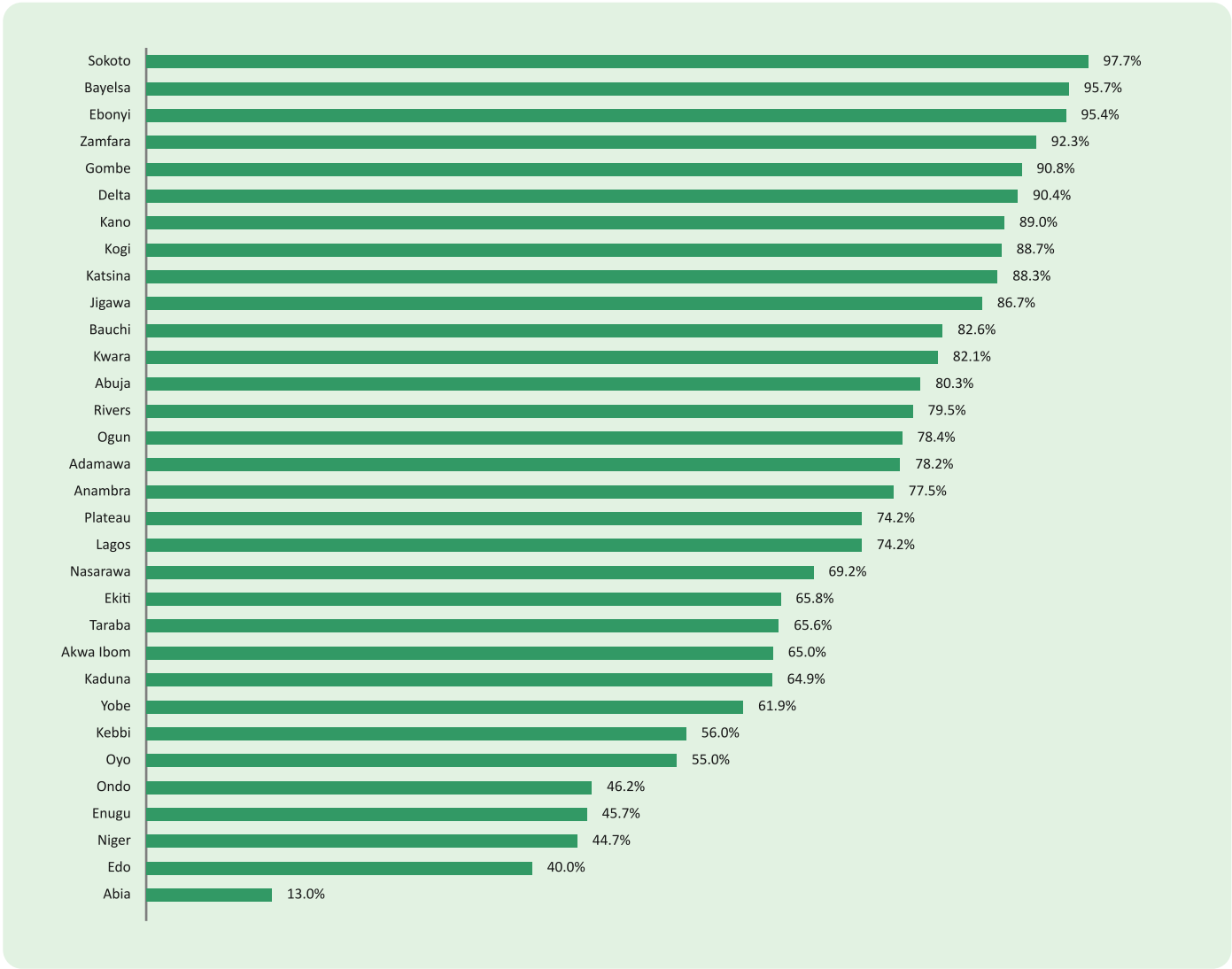


Source: FATE Foundation, 2026 State of Entrepreneurship Survey

State-level willingness-to-pay results vary, and the number of cluster-based respondents differs across states. Sokoto recorded 97.6% willingness among 170 cluster-based respondents; Bayelsa 95.7% among 69; Ebonyi 95.4% among 65; Zamfara 92.3% among 65; and Gombe 90.8% among 98. Abia recorded 13.0% among 100. These results can help select locations for market assessment, including follow-up on acceptable prices, supply hours and service standards.



Figure 32: Willingness to pay for shared power by state



Source: FATE Foundation, 2026 State of Entrepreneurship Survey

Assess costs, service and responsibilities before scaling

A shared-power project needs enough users, predictable demand and payment arrangements that cover generation, storage, distribution, metering, maintenance and equipment replacement. Businesses operating at different hours may share system capacity more efficiently. Businesses that all need high power at the same time may require more capacity and investment. While the SoE survey identifies interest and reported cluster locations, a site assessment must establish load profiles, existing spending, acceptable tariffs and expected service hours.

State electricity markets create additional routes for local power services under the Electricity Act 2023. Implementation depends on the relevant state regulator, applicable mini-grid and distribution rules, and clear arrangements with existing distribution companies. Market associations can help organise engagement and site access.





A PRODUCTIVE ENERGY COMPACT AND IMPLEMENTATION PRIORITIES



The previous sections raise several practical questions for energy policy and service delivery, including whether energy services provide businesses with reliable power, at the hours and quality their operations require, and at a cost they can manage. In the 2026 SoE survey, 30.2% of businesses said energy took more than one-fifth of operating costs, 35.8% described grid supply as unreliable and only 7.9% reported receiving more than 16 hours of grid supply per day. Financing is another constraint for many businesses, as 34.5% had tried to obtain finance for an energy solution, and 43.2% of applicants reported success.

A Productive Energy Compact would bring government, regulators, energy providers, financiers and business associations around shared service goals. It should connect investment in the grid and other energy systems to the needs of enterprises, with clear responsibilities for service, affordability and results.

Implementation Priorities

Table 7: Proposed implementation priorities for a Productive Energy Compact

Priority	Lead actors	Implementation action
Make service performance visible and accountable	NERC, state regulators and DisCos	Report supply hours, outages, voltage quality and complaint resolution for business districts. Apply service-based tariff rules transparently and make complaint and redress channels accessible to businesses.
Plan energy around business demand	State governments, REA, regulators, DisCos, developers and business associations	Map business clusters, operating hours, energy needs and existing supply. Use that evidence to identify where grid improvements, embedded generation, mini-grids or solar and battery systems best fit local demand.
Make finance fit businesses and energy providers	Banks, development finance institutions, government finance programmes and energy providers	Expand financing that reflects business cash flow and equipment life, including leasing, instalments, pay-as-you-use and group financing. Support providers' working capital as well as businesses' equipment purchases.
Organise demand and protect business customers	Market and enterprise associations, providers, regulators and equipment-standard agencies	Help businesses assess shared solutions and aggregate demand. Contracts should state the price, supply hours, service quality, maintenance, warranties and customer remedies.
Track service and business results	Regulators, state agencies, FATE Institute, business associations and providers	Set baselines and report on hours, reliability, energy costs and business use. Track changes in operating costs, production, investment and jobs to guide decisions about expanding successful approaches.

Source: FATE Institute's synthesis.

Implementation can begin in selected markets and enterprise clusters where businesses already report shared-power arrangements or interest in a reliable shared service. The SoE survey found that 28.6% of respondents operated in a cluster or shared production space; among these businesses, 75.9% said they would be willing to pay for reliable shared power. This signals interest for project testing. Each site still needs an assessment of its electricity demand, acceptable prices, service requirements and payment arrangements.



The Compact's progress should be judged by the service businesses receive. Key indicators should include reliable hours, fewer interruptions, manageable energy costs and energy options suited to different production needs. Monitoring these measures alongside business outcomes will help policymakers and providers improve delivery and direct investment where it supports enterprise activity.





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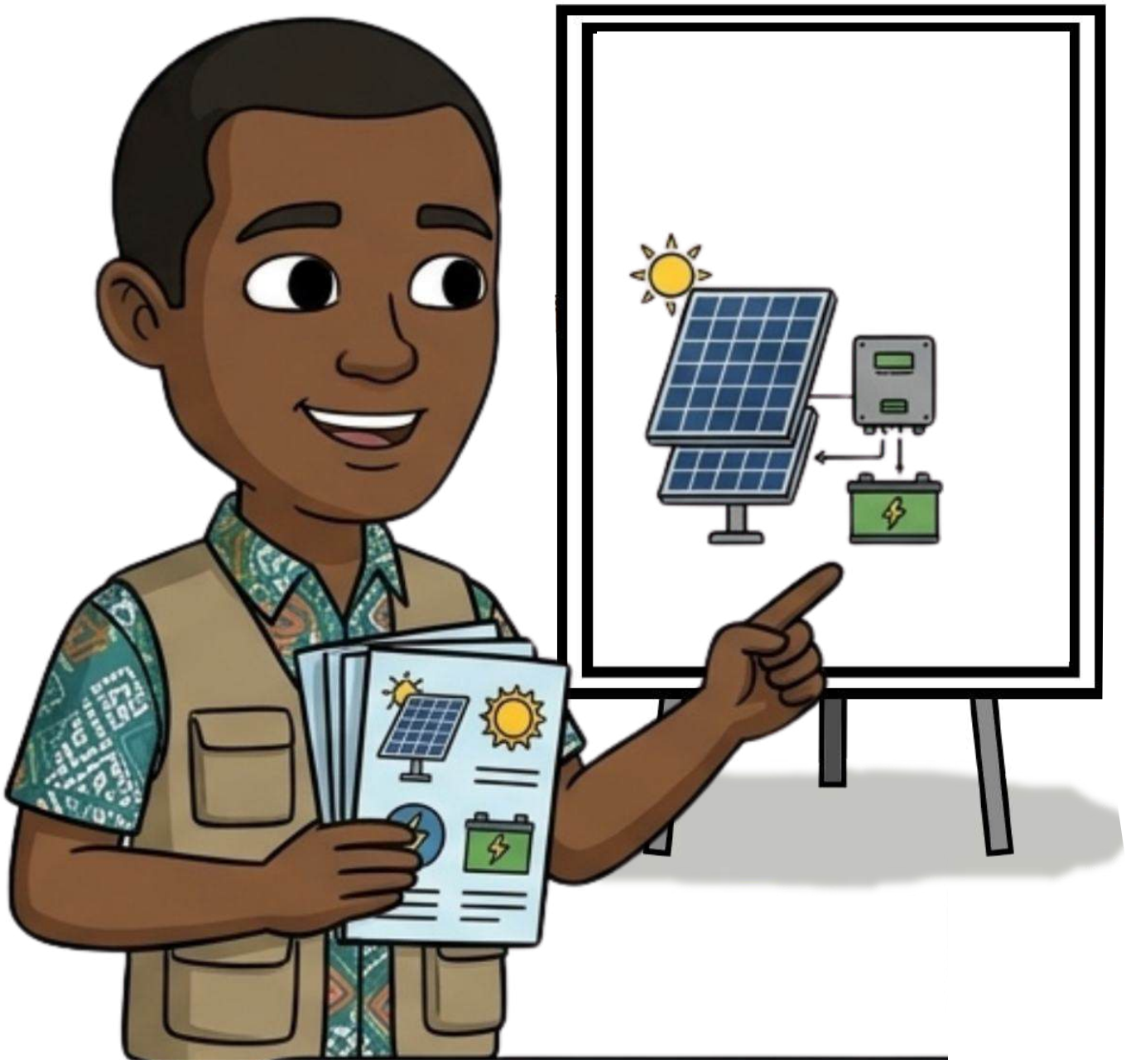
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APPENDIX



APPENDIX

Methodology Note

This report combines analysis of the 2026 State of Entrepreneurship survey with secondary data from official energy sector sources and published research. The survey dataset contains 10,721 valid responses from businesses across Nigeria's 36 states and the Federal Capital Territory. The survey was conducted in August 2026. The analysis uses descriptive statistics and cross-tabulations to examine reported energy sources, costs, supply hours, reliability, financing and shared energy preferences across business groups and locations. For multiple-response questions, respondents could select more than one option, so percentages may sum to more than 100. No interviews were conducted.



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