ANALYSIS OF THE HEALTHCARE FEDERATION OF NIGERIA SURVEY

ON

ENERGY USAGE AND CONSUMPTION IN PRIVATE HEALTHCARE FACILITIES

28TH APRIL, 2025

Executive Summary

Nigeria's private healthcare sector is increasingly threatened by chronic energy insecurity, compounded by rising electricity tariffs. The Healthcare Federation of Nigeria (HFN) conducted an Energy Survey, which highlights the sector's heavy reliance on diesel generators due to the unreliability of grid electricity. This dependence results in significantly higher operational costs, service disruptions, and compromised patient care.

Despite the sector's interest in transitioning to solar and other clean energy solutions, private healthcare providers face significant barriers, including limited access to affordable financing and exclusion from national energy reform programs. Immediate strategic interventions are necessary to address these challenges.

Key recommendations for addressing energy issues in the private healthcare sector include:

- Extending energy subsidies and reforms to cover private healthcare facilities.
- Facilitating access to green financing through programs such as the Nigeria Electrification Project (NEP) and the Sustainable Energy Fund for Africa (SEFA).
- Encouraging the adoption of Solar PV systems with storage through Pay-As-You-Go and lease-to-own models.
- Supporting group procurement initiatives and energy efficiency upgrades to reduce costs.

A coordinated public-private response is essential to ensure the resilience and sustainability of healthcare delivery in Nigeria.

Introduction

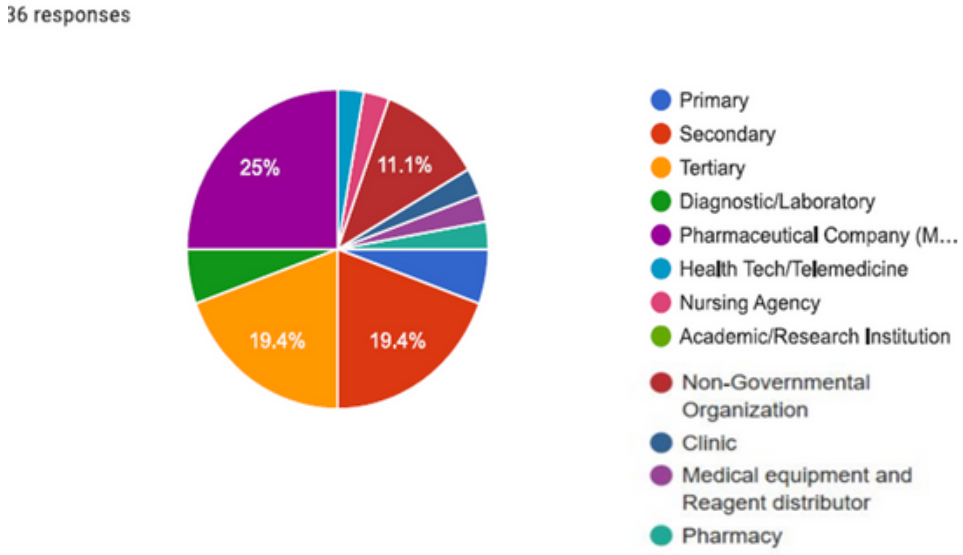
Reliable energy is essential for the efficient operation of healthcare services, affecting everything from the functionality of medical equipment to the affordability and quality of patient care. In Nigeria, energy challenges — characterized by frequent outages, rising electricity tariffs, and dependence on fossil fuel generators — have long strained healthcare providers. However, private health facilities, despite serving a significant share of the population, often operate outside the scope of government reforms and energy interventions.

Recognizing the escalating risks, the Healthcare Federation of Nigeria (HFN) conducted a survey of 36 private healthcare facilities across the country. The survey aimed to document energy consumption patterns, highlight the financial burden of unreliable energy, and assess readiness for the adoption of clean energy solutions.

The insights gathered provide a clearer understanding of the systemic risks energy insecurity poses to private healthcare delivery in Nigeria. They also offer a foundation for strategic actions to integrate private providers into national energy strategies, facilitating access to affordable and sustainable power sources essential for building a resilient health system.

The survey captured responses from a diverse range of providers, including:

- Hospitals (Primary, Secondary and Tertiary Care) – 16 (44.4% of respondents)
- Pharmaceutical Companies – 9 (25% of respondents)
- Non-Governmental Organizations – 4 (11.1% of respondents)
- Diagnostic Centers – 2 (5.5% of respondents)
- Clinics and Health Centers – 1 (2.7% of respondents)
- Nursing Agencies -1 (2.7% of respondents)
- Health Tech/Telemedicine – 1 (2.7% of respondents)
- Medical Equipment and Reagent distributor – 1 (2.7% of respondents)
- Pharmacy – 1 (2.7% of respondents)



Key Findings

1 Power Sources and Reliability

Power Source Distribution:

The majority of private healthcare facilities rely on a mix of energy sources:

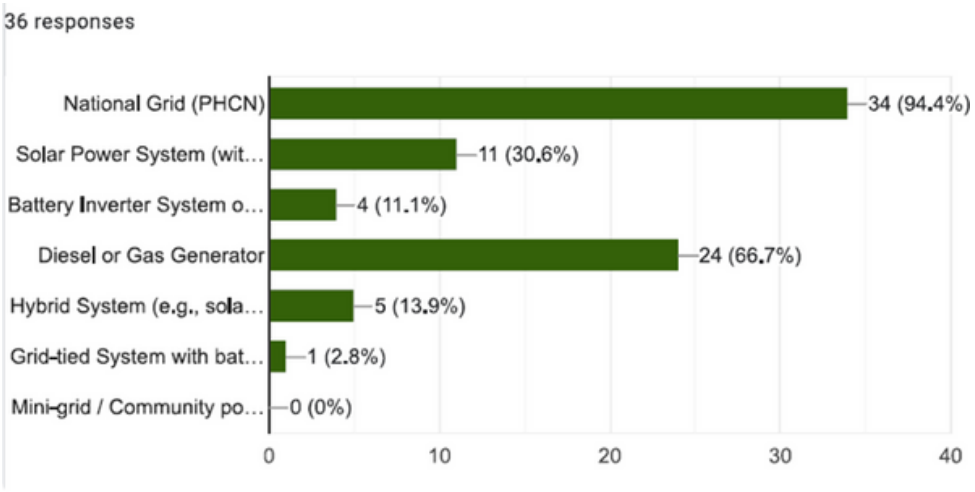
- 94.4% (34 out of 36 respondents) use the National Grid (DisCo) as their primary energy source.
- 66.7% (24 out of 36) depend on diesel/petrol generators, either as a primary or backup energy source.
- 30.6% (11 out of 36) have adopted solar power systems.

Challenges with the National Grid:

- Despite the high reliance on the National Grid, its unreliability forces many healthcare facilities to depend on generators, leading to increased operational costs and potential service disruptions.

Increasing Adoption of Solar Power:

- Solar power adoption is growing, with many facilities looking for more sustainable and reliable energy alternatives due to grid failures.

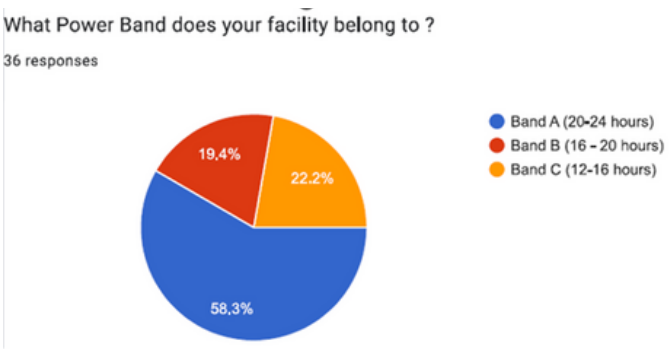


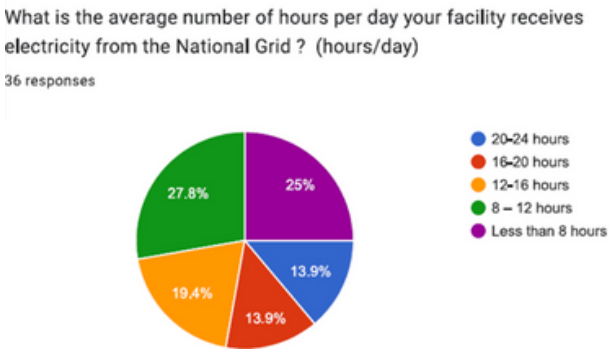
2 Energy Access Profile

Mismatch Between Energy Needs and Supply:

A significant number of healthcare facilities experience a gap between their energy needs and the actual energy they receive, which exacerbates their operational costs and diminishes value for money. Here are some of the findings:

- 58.3% of facilities fall into Band A (20-24 hours of energy per day), yet only 13.9% of them receive this level of power.
- 19.4% of facilities fall into Band B (16-20 hours), and only 13.9% of them receive this amount.
- 22.2% of facilities are in Band C (12-16 hours), but only 19.4% of them are receiving this level of service.





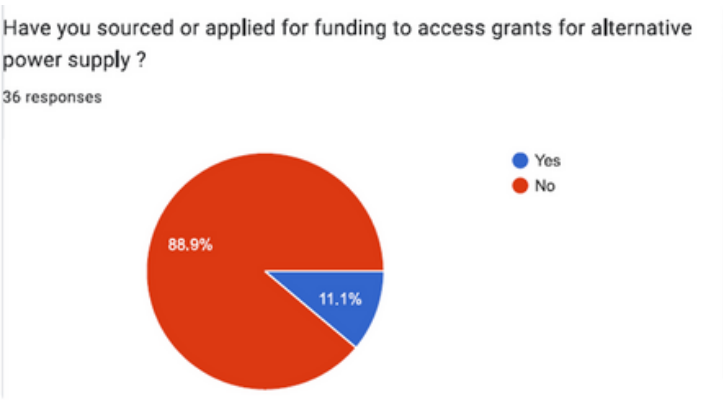
3 Energy Funding for Alternative Power Supply

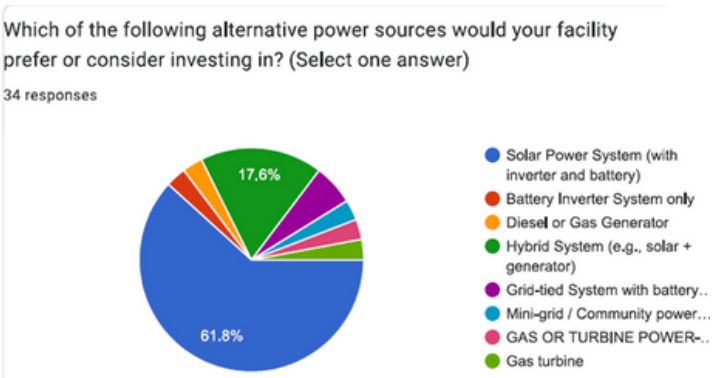
Limited Engagement with Funding Programs:

- Only 11.1% of facilities have applied for funding or grants to support alternative power solutions, suggesting a lack of awareness or difficulty in accessing such funding.

Preference for Alternative Energy:

- 61.8% of respondents are interested in solar power systems (including solar with inverter batteries) as an alternative energy solution.
- 17.6% would consider hybrid systems (generator + solar power).
- Hospitals, pharmaceutical companies, and NGOs show varied preferences, with NGOs overwhelmingly opting for solar systems.





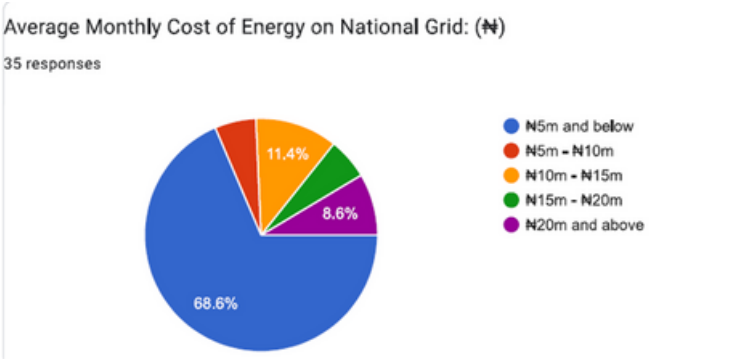
4 Energy Consumption and Costs

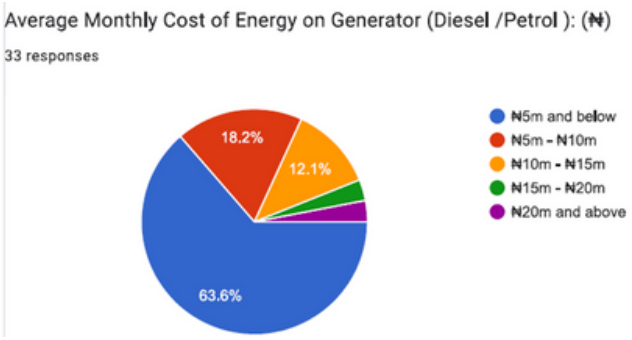
Energy Consumption by Facility Type:

- 34.4% of respondents consume between 2,000-10,000 kWh monthly, with 12.5% consuming over 30,000 kWh, mainly among hospitals.
- A significant portion of high energy-consuming facilities is found in Band A, which highlights the disparity in energy supply across different facility types.

Energy Costs:

- National Grid: 68.6% of respondents spend 5 million Naira or less per month on National Grid electricity.
- Generators: 63.6% spend 5 million Naira or less per month on generator fuel.
- Operating Costs: 38.2% of respondents report spending 5-15% of their monthly operating costs on energy, with some facilities spending up to 25%.



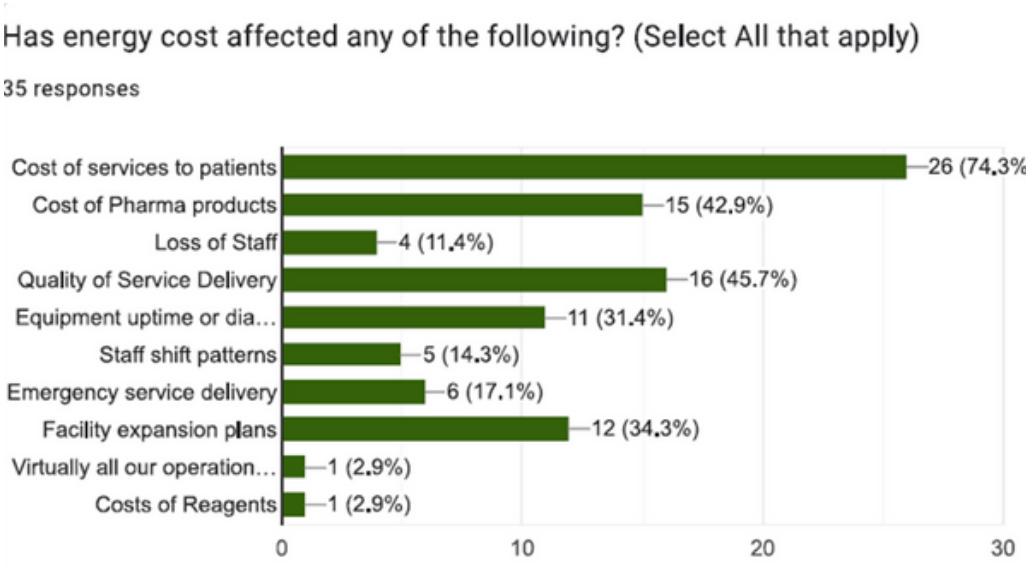


5 Impact of Energy Costs on Operations

- **Increased Cost of Healthcare Services:** A large percentage of respondents reported that rising energy costs have increased the cost of services to patients, making healthcare less affordable for many, particularly low- and middle-income individuals.

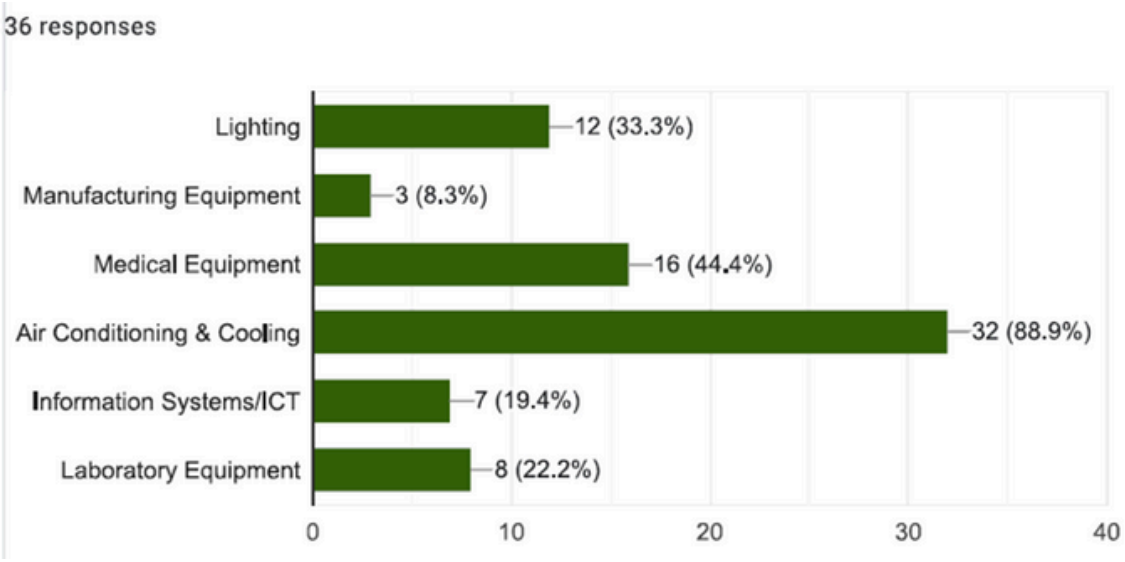
- **Impact on Service Quality:** 45.7% indicated that energy costs have negatively affected the quality of service delivery, while 42.9% noted an influence on the cost of pharmaceutical products.

- **Operational Risks:** High energy demand and costs are placing private healthcare facilities under financial strain, reducing their ability to maintain high-quality care.



6 Energy Consumption by Equipment

- 88.9% of respondents identified air conditioning and cooling systems as major energy consumers.
- 44.4% cited medical equipment as a significant drain on energy resources.
- 33.3% identified lighting as another substantial energy cost.



Opportunities for Alternative Energy Supply

- Solar PV Systems with Storage Solutions: Members can explore partnerships with solar companies offering Pay-As-You-Go (PAYG) models or lease-to-own structures to reduce upfront costs.

- Hybrid Mini-grids: Facilities located within communities can join or anchor mini-grid projects that combine solar, battery storage, and backup diesel for reliability at lower overall costs.

- Participation in Aggregated Procurement Schemes: HFN can lead a group purchasing initiative to negotiate better prices for solar installations, batteries, and inverters.

- Accessing Green Financing: Leverage green finance programs through banks and development partners that offer concessional loans or grants for renewable energy investments.

- Energy Efficiency Upgrades: Simple measures such as switching to LED lighting, investing in energy-efficient medical equipment, and building insulation can reduce overall energy demand and costs.

A Case for Extending Energy Reforms to the Private Healthcare Sector

To achieve a truly resilient and inclusive healthcare system, it is imperative that energy concessions, subsidies, and clean energy transition programs be extended to private healthcare providers. The following are five key reasons:

1. Private Healthcare Delivers Critical Health Services to Millions: Private healthcare facilities serve up to 70% of Nigeria's population — often filling gaps where public healthcare systems are overstretched or unavailable. Supporting their operational sustainability through energy reforms directly strengthens national health outcomes.

2. Cost Pressures on Private Facilities are Directly Passed to Patients: As seen from responses in the survey, facilities are forced to transfer high operational costs to patients, making healthcare less accessible, especially for low- and middle-income Nigerians. Subsidies and concessions can help stabilize service costs and promote equitable access to quality care.

3. Energy Costs are a Leading Threat to Business Continuity: High and unpredictable energy expenses threaten the viability of many small- and medium-sized healthcare facilities. In the survey, facilities mentioned they spend 5-15% of their operating expenses on energy alone, which affects the sustainability of the business.

4. Private Sector Innovation Can Accelerate the Transition to Clean Energy: Private healthcare providers are more agile and able to adopt innovative clean energy solutions quickly. With the right support (grants, subsidies, technical assistance), the private sector can become a leader in advancing Nigeria's healthcare sustainability goals.

5. Strengthening Public-Private Collaboration is Vital for National Health Security: Energy insecurity in healthcare is not just a private sector problem — it affects public health at large. Building a resilient healthcare system requires coordinated support for both public and private sector facilities, ensuring readiness for emergencies, epidemics, and everyday care delivery.

Conclusion

The survey reveals a pressing need for systemic reforms and targeted support for private healthcare facilities in Nigeria to address the challenges of energy insecurity and high costs. Private healthcare plays a critical role in serving a large portion of Nigeria's population, and without inclusive energy reforms, the ability of these facilities to provide affordable, high-quality care will be severely compromised.

Energy reforms, including subsidies and access to clean energy solutions, are necessary to help private healthcare facilities overcome their energy challenges. HFN urges policymakers, energy regulators, and stakeholders to prioritize the integration of private healthcare facilities into national energy reforms to create a more reliable, affordable, and sustainable energy future for Nigeria's healthcare system.