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Gridlocked Progress: Addressing the Lack of Electricity Access in Cameroon

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Executive Summary:

The lack of access to stable electricity continues to threaten Cameroon's development aspirations, thus deepening regional inequalities across the country. Over 75% of rural households in the country lack reliable access to the national grid, and conflict-affected areas in the North-West and South-West have seen dramatic service disruptions. Despite an abundance of energy-generating resources in the country, including its vast hydropower and solar energy potential, millions of Cameroonians continue to live in abject energy poverty.

The resulting energy gridlock is partly due to outdated infrastructure with limited rural coverage and consistent delays in the completion of national energy-generating projects. Additionally, fragmented governance structures and institutional turf continue to weaken cross-sectoral coordination, thus slowing electricity and energy-specific reforms in the country. Meanwhile, conflict-related damages, especially in the northern and Anglophone regions of Cameroon, are major contributors to the lack of access to stable and consistent electricity, while a lack of transparency and a highly politicized regulatory environment continue to hugely undermine large-scale investment in energy projects.

Key Policy Recommendations:

1. **Reform Regulatory Institutions:** reform the Electricity Sector Regulatory Agency (ARSEL) and Rural Electrification Agency (AER) to improve oversight, transparency, and private sector engagement.
2. **Accelerate Public-Private Partnerships:** develop financing incentives and licensing reforms to attract private investments for renewable energy and mini-grid projects.
3. **Launch a National Electricity Access Portal:** track progress, inform planning, and foster public accountability.
4. **Decentralize Rural Electrification:** support locally driven energy solutions in rural, underserved, and conflict-affected areas.

Background:

Since gaining its independence in 1960, Cameroon's electricity sector has slightly improved, but many people, especially those in rural and conflict-affected areas, still lack access to reliable power. In the early years after independence, electricity distribution was mainly fragmented between the former French and British Cameroons, and mostly relied on small colonial-era hydro plants and local infrastructure. In 1974, the government established the Cameroon National Electricity Corporation (SONEL), a state-owned monopoly responsible for the country's electricity generation, transmission, and distribution. For over twenty years, SONEL was the backbone of Cameroon's power sector, developing major hydroelectric projects like the Edea Power Station on the Sanaga River and expanding the national electricity grid. However, by the early 1990s, rural areas still had very limited electricity access, and SONEL faced financial and technical challenges common to many state-run power companies in Africa.[1]

In the late 1990s, Cameroon initiated reforms in its power sector to enhance performance and attract foreign direct investment. By 1998, a new electricity law was enacted to open the sector and establish key regulatory agencies, including the Electricity Sector Regulatory Agency (ARSEL) to oversee tariffs and service quality, and the Rural Electrification Agency (AER) to support the expansion of access.[2] The reforms opened the door to independent power producers and set the stage for privatizing the state's entities responsible for the generation and distribution of electricity. In July 2001, the government privatized SONEL by selling a 56% stake to AES Corporation (via its subsidiary AES-Sirocco). The new company was then renamed AES-SONEL, with the state retaining 44% ownership. This 20-year concession brought foreign direct investment and some improvements as AES-SONEL increased revenues and expanded access to the national grids. However, the company also faced multiple challenges in meeting Cameroon's growing demand for electricity. Notable among these challenges were consistent service disruptions due to ongoing conflicts and increased maintenance and operational costs.

In 2014, Cameroon's electricity sector experienced another major change as AES Corporation decided to exit, and its shares in AES-SONEL were acquired by Actis, a British private equity firm. In September 2014, the new utility was then rebranded as ENEO Cameroon (short for "Energy of Cameroon"). ENEO has since operated as the country's main electricity company, holding a monopoly on power distribution and transmission under government regulation. The company manages most of Cameroon's generated electricity capacities (largely hydropower, plus smaller thermal plants) alongside a few active Independent Power Producers (IPPS). Since taking over, ENEO has expanded the customer base, reaching its one-millionth connection in 2017, and has also managed to reduce technical losses, but power supply has at times been unreliable, with aging infrastructure and capacity shortfalls leading to consistent blackouts across the country.[3]

An even more persistent challenge has been the urban-rural gap in electricity access in the country. While most cities are connected to the grid, many rural communities remain off-grid. In 2016, a Rural Electrification Master Plan was developed to map out grid extension and off-grid solutions for unserved rural areas[4]. By 2018, the World Bank and other European partners supported the Government of Cameroon to launch the Rural Electrification and Access to Energy in Underserved Areas Project (PERACE), which aimed to connect 687 villages across Cameroon's northern, eastern, and anglophone regions by installing about 163,000 subsidized meters and connecting 120,000 new rural households by 2025.[5] However, the project's progress has been slower than expected, and by 2022, the project had faced significant delays due to conflict in

1 NGUEPJOUO, "Eneo Cameroon S.A."
2 Africa Energy Portal, "Cameroon."
3 NGUEPJOUO, "Eneo Cameroon S.A."
4 "upOwa Solar Home Systems Project, Cameroon."
5 Tourism, "Electricity."

the North-West and South-West regions, as well as severe procurement issues. Additionally, the Economic Community of West African States (ECOWAS) Regional Off-Grid Electricity Access Project[6] is helping to establish quality standards and financing for solar products in Cameroon. The Government of Cameroon has also piloted solar mini-grids in villages and encouraged independent developers to invest in renewables.

Meanwhile, Cameroon enjoys abundant renewable energy resources. An estimated 12,000 MW in hydro-power project, and several small and mid-sized hydropower stations and solar farms have been commissioned or are under construction in the country through a public-private partnership framework.[7] Currently, the Nachtigal Hydropower Project on the Sanaga River, a 420 MW plant co-financed by the World Bank, AfDB, and private investors, is expected to boost Cameroon's generation capacity by over 30% once fully operational[8]. As of January 2025, six of Nachtigal's seven turbines were being tested, injecting power into the national grid. Additionally, Cameroon recently joined Mission 300, a partnership of the African Development Bank and World Bank aiming to connect 300 million more Africans by 2030, and has committed to accelerating policies and investments needed for universal electricity access, including potentially leveraging innovative financing for off-grid expansion.

Despite several efforts from the government and its development partners, Cameroon still struggles with overall access to electricity. Recent estimates show that only about 71% of Cameroon's population has access to reliable electricity. While this represents improvement from a decade ago, when barely half the population had access, around 30% of Cameroonians, roughly 8 million people, still do not have access to stable electricity, and most of them reside in the rural areas of the country.[9]

6 "About ROGEAP."
7 World Bank, "Cameroon's Journey toward Affordable, Reliable, and Universal Electricity Access for All."
8 Africa Energy Portal, "Nachtigal Dam Injects Its First MW into Cameroon's Power Grid."
9 World Bank, "Cameroon's Journey toward Affordable, Reliable, and Universal Electricity Access for All."

Policy Analysis:

Electricity governance in Cameroon is fragmented across multiple agencies and suffers from weak coordination, turf wars, and a lack of cross-coordination among government bodies. The state's vertically integrated electricity monopoly appears feasible on paper, but in practice, overlapping roles create confusion and weaken policy coherence and consistency.

ENEO Cameroon, the national utility concessionaire, is 51% privately owned and responsible for most of the electricity generated and distributed in Cameroon, yet other entities also operate simultaneously. The Electricity Development Corporation (EDC) is a state-owned company responsible for developing electricity generation projects, particularly hydropower, and managing public electricity distribution. Meanwhile, the Electricity Sector Regulatory Agency (ARSEL) oversees regulation, tariff approval, licensing, consumer protection, and quality assurance, but its effectiveness is hugely limited by political influence.

ARSEL and AER were established during the country's 1990s reforms to promote private investment and ensure fair and transparent oversight. However, these agencies remain institutionally weak. In many cases, their boards are politicized, and funding is always limited, which undermines independent regulation. ARSEL has consistently struggled to enforce established performance standards or fully hold the state's operators accountable, and its mandate to publish annual sectoral data has not led to transparent reporting over the years.

Furthermore, a separate transmission operator, SONATREL, was established in 2015, introducing new cross-coordination challenges. SONATREL took over the high-voltage grid from ENEO as mandated by a 2011 law[10] aimed at disintegrating the electricity grid system and attracting more private investments. While this is necessary, SONATREL must work closely with ENEO to ensure adequate network expansion and stability.

Overlapping responsibilities between ENEO, which retains distribution and some generation, SONATREL, which focuses on transmission, and EDC, which is tasked with project development, AER, which directly caters to rural projects, and the Ministry of Water and Energy, which streamlines policy directions, have led to huge institutional fragmentation as roles are not always clearly defined, causing delays in decision-making and inconsistency in project planning and implementation. This has also led to compound issues with the decentralization of electricity in Cameroon. Although Cameroon's 1996 Constitution[11] and 2004[12] laws provide for the need to decentralize certain infrastructure responsibilities, including electricity planning, to local government, electricity generation and distribution remain highly centralized, as local councils have little to no authority or funding to initiate electrification in their communities. This highly centralized, top-down approach to electricity planning and governance means rural electrification projects depend on central programs, which are often heavily donor-funded, and sometimes do not align with the dire needs of the local communities.

Additionally, the electricity grid is underdeveloped and unevenly connected throughout the country. The high-voltage transmission lines do not extend everywhere. Though partly due to under-investment in Cameroon's electricity infrastructure, this mainly causes electricity shortages and the inability to meet energy demand, especially outside major cities and in rural areas. In 2023, electricity consumption in Cameroon was 6.16 billion kilowatt-hours, which was an increase from 5.96 billion kilowatt-hours in the previous year. When compared to the rest of the world, the average consumption during that same period was just 142.53 billion kilowatt-hours for 189

10 Cameroonian Electricity Sector Reforms, "Cameroonian Electricity Sector Reforms."
11 "Constitution."
12 "Law N° 2004/003 of 21 April. 2004 Governing Town Planning in Cameroon."

countries.[13] Meanwhile, Cameroon's electricity generation capacity is currently estimated at 1600 MW[14], and it is barely sufficient to handle peak consumption demand nationwide. Additionally, grid extension to rural areas has not kept pace with population growth and energy demand over the years.

As of 2018, an estimated 80% of unelectrified villages lay within only 20 km of the existing grid, yet had not been connected. In wealthier coastal and central regions (Center, Littoral, South-West), most towns and many villages are connected to the grid, and household access rates are relatively high.[15] In contrast, the Extreme North and North regions and parts of the East have some of the lowest access levels in the country, with only under half of the population in these areas benefiting from electricity.[16] These northern regions account for a large share of Cameroon's population but only a small fraction of grid electricity customers.[17] A recent estimate showed that only approximately 12% of ENEO's subscribers are in the three northern regions.[18] This huge disparity in electricity distribution reflects historical neglect and socio-economic imbalances. It also perpetuates poverty in those areas. Without access to consistent electricity, these communities would struggle to establish industries, pump clean drinking water, or light up schools and clinics, thus widening the already existing development gap between the north and south regions of Cameroon.

Underlying these structural disparities, the conflict in Cameroon's Anglophone region has further crippled electricity access in parts of the country. Since 2017, armed conflict in the North-West and South-West (NWSW) regions has damaged infrastructure and hindered service provision. Numerous incidents of sabotage, grid damage, or unsafe conditions have led to prolonged outages. As of 2018, around 60% of the Northwest/Southwest population was no longer being served with electricity due to the insecurity and breakdown of services.[19]

Additionally, many communities in these Anglophone regions that technically had grid lines have experienced blackouts or abandoned service because maintenance crews cannot safely access lines to repair damages. The conflict has also forced the suspension of new projects in these areas that were aimed at improving access. Rural electrification works and rehabilitation of networks around Bamenda and Buea have largely stalled. Businesses and residents in conflict zones resort to generators (if they can afford fuel) or simply go without power for extended periods, thus deepening the economic hardships already existing in the regions. Beyond the Anglophone crisis, the Far North region has also seen insurgent violence (mostly related to Boko Haram), which has occasionally targeted electricity facilities and deterred public or private investment. Additionally, refugee inflows in the East (mostly from the Central African Republic conflicts) put pressure on the already scant electricity supply there.

Meanwhile, a lack of transparency and challenging political dynamics in Cameroon's power sector hinder effective solutions to the electricity challenges. Cameroon's end-user tariffs average around CFA 82 per kWh, which is relatively very high and among the highest in Africa for predominantly hydropower electrical systems.[20] Paradoxically, these high prices coexist with significant government subsidies. Tariffs have been frozen since 2012 for social and political reasons, as no politician wants to anger consumers, meaning they have not kept up with costs.

13 TheGlobalEconomy.Com, "Cameroon Electricity Consumption- Data, Chart."
14 Ngono and Ndzana, "Current State of Energy Production in Cameroon and Projection for 2035."
15 World Bank, "Cameroon's Journey toward Affordable, Reliable, and Universal Electricity Access for All."
16 NGUEPJOUO, "Eneo Cameroon S.A."
17 World Bank, "Cameroon's Journey toward Affordable, Reliable, and Universal Electricity Access for All."
18 Jacques Fotso et al., "Household Access to the Public Electricity Grid in Cameroon."
19 "The-Socio-Political-Crisis-in-the-Northwest-and-Southwest-Regions-of-Cameroon-Assessing-the-Economic-and-Social-Impacts.Pdf."
20 Tourism, "Cameroon to Standardize Electricity Rates for All Customers Starting November 2024."

To prevent utility losses, the government compensates ENEO for the gap between the frozen tariff and the actual cost-recovery level. This subsidy was about $25 million in 2017, though the Nachtigal dam's cheaper power was expected to reduce it to approximately $16 million annually in 2018–2020. While well-intentioned to keep power affordable, these subsidies create a heavy burden on public finances and are often paid late. The sector's financial viability depends on timely subsidy payments and on ENEO controlling its losses. When the government delays payments (as has happened), ENEO accrues debt, cannot maintain the grid properly, and slows new connections. Moreover, uniform national tariffs mean ENEO loses money serving remote areas (higher cost-to-serve), yet political pressures prevent any regional tariff adjustments or targeted subsidies.

Policy Recommendations:

1. Reform Regulatory Institutions

Cameroon must reinforce the autonomy, capacity, and accountability of its electricity and energy institutions, particularly ARSEL and AER. A revised legal framework should clarify mandates, strengthen ARSEL's independence from political interference, and require annual public reporting on access, tariffs, subsidies, and investment outcomes. Regulatory reform should also support differentiated tariffs that protect poor and rural households while enabling financial sustainability and providing clear guidelines for private off-grid operators. An empowered ARSEL can restore investors' confidence and adequately improve sectoral performance.

2. Accelerate Public-Private Partnerships

To attract investment and address rural access gaps, the government should scale up public-private partnerships (PPPs) for decentralized solar and hydro systems. Streamlining licensing procedures for Independent Power Producers (IPPs) and community-based energy developers, introducing results-based financing, and creating payment guarantee mechanisms will incentivize innovation. Several lessons can be drawn from Kenya's feed-in-tariff program[21] and Nigeria's Solar Power Naija initiative[22], suggesting that robust PPP frameworks, blended finance tools, and connection subsidies can dramatically increase rural electrification rates.

3. Launch a National Electricity Access Portal

To improve accountability and evidence-based planning, Cameroon should create a centralized digital energy access portal. This portal should be managed jointly by ARSEL and the Ministry of Water and Energy. This platform would include real-time data on electrification rates, project pipelines, outages, tariffs, and budgets. It would allow communities to monitor progress, enable civil society to audit service delivery, and enhance transparency in procurement and implementation. This aligns with international open government commitments and complements the African Development Bank's Energy Data Portal initiative.[23]

4. Decentralize Rural Electrification

To overcome central bottlenecks and expand access in underserved regions, the government should launch a Rural Electrification Fund, co-financed by domestic resources and development partners. This fund would directly support local and regional governments to co-design and implement mini-grid and off-grid renewable energy projects tailored to local needs, especially in conflict-affected and remote rural areas. Drawing inspiration from Ghana's District Assemblies Common Fund[24] and Rwanda's off-grid subsidies[25], this fund would ensure transparent allocations and prioritize community ownership, energy equity, and conflict recovery.

21 *Feed-In-Tariffs Policy on Wind, Biomass, Small-Hydro, Geothermal, Biogas and Solar Resource Generated Electricity 2012*.
22 "Solar Power Naija."
23 "African Development Bank Launches Africa Energy Portal | Banque Africaine de Développement."
24 "Challenges in District Assemblies Common Fund and Minerals Development Fund Disbursements-."
25 "RBF Window 5 – A New Subsidy to Enable 370,000 Households Get Solar Home Systems."

Conclusion

Electricity is more than just a utility; it is a need, and everyone deserves the right to reliable and affordable electricity. It is the cornerstone of modern development. However, in Cameroon, millions remain in darkness due to institutional fragmentation, regional exclusion, and systemic underinvestment. The country's progress toward universal energy access has been significant, but overall progress remains uneven and stalled. To unlock the full potential of the energy sector, Cameroon must go beyond technical fixes and implement bold structural reforms. A transparent, decentralized, and well-funded rural electrification strategy that is built on strong institutions and inclusive governance will not only increase access but also boost national unity, improve livelihoods, and support post-conflict recovery. This is a crucial moment. Cameroon has both the resources and the need to act. A coordinated, multi-stakeholder effort is vital to power every Cameroonian home, clinic, and classroom. As the country heads into a crucial election this year, the time to turn ambition into action is now.

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