Scientific Research Publishing

Open Journal of Accounting, 2026, 15(1), 127-145
https://www.scirp.org/journal/ojacct
ISSN Online: 2169-3412
ISSN Print: 2169-3404

Accounting and Control Procedures for Inventory Management in ENEO Cameroon: Implications for Power Supply Reliability

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How to cite this paper: Mukah, S. T. (2026). Accounting and Control Procedures for Inventory Management in ENEO Cameroon: Implications for Power Supply Reliability. *Open Journal of Accounting, 15,* 127-145.
https://doi.org/10.4236/ojacct.2026.151005

Received: November 20, 2025
Accepted: January 27, 2026
Published: January 30, 2026

Abstract

A dependable supply of electricity is essential for the socio-economic advancement of any nation. Nevertheless, Cameroon persists in experiencing regular power outages despite its significant hydropower capacity. This article evaluates the accounting and control procedures for inventory ordering, receiving, storing, and issuing, and analyses their impact on energy supply stability. A descriptive case study design was utilised, employing a mixed-methods approach that integrated surveys from 131 staff members with 10 Key Informant Interviews (KIIs) with senior personnel. Quantitative data were examined by descriptive statistics, whereas qualitative data from interviews and document analyses were thematically assessed to corroborate conclusions. Findings indicated that inventory ordering is frequently reactive and centralised at the headquarters, resulting in procurement delays; inventory receiving is inadequately monitored and inspected, heightening the risk of defective or missing materials; inventory storage is characterised by inadequate labelling, irregular counts, and inconsistent access control, complicating stock retrieval; and inventory issuing is hindered by sporadic lapses in authorisation and inconsistent timeliness. Control and accounting procedures exhibit deficiencies, including insufficient segregation of duties, tardy ledger updates, and incomplete adherence to valuation and depreciation rules. Key Informant Interviews validated these findings, highlighting obstacles in procurement, oversight, and paperwork that directly impact the reliability of energy delivery. The study asserts that bolstering internal controls, decentralising procurement, conducting frequent audits, and adopting digital inventory management systems are essential for improving operational efficiency and mitigating power disruptions. Policy recommendations encompass human capacity enhancement, explicit operational protocols, and technology interventions to ensure power supply stability in Cameroon.

Keywords

Inventory Management, Accounting and Control Procedures, ENEO Cameroon, Power Supply Stability

1. Introduction

Electricity plays a crucial role in the contemporary world. It powers economic activities, improves living standards, drives industrial development, and supports vital amenities such as education and healthcare. A dependable electricity supply attracts investors who in effect foster economic development. Electricity is therefore the basis of any modern society because it powers virtually all aspects of human life from homes to businesses and government services. Consequently, an adequate and reliable supply of electricity is crucial for the development and prosperity of Africa in general and Cameroon in particular.

Approximately 600,000,000 people in Sub-Saharan Africa are deprived of electricity. As a result, a great initiative called Mission 300 steered by the World Bank Group (WBG) and the African Development Bank (AfDB), has been hatched to connect electricity in the region by 2030 (World Bank Group, 2025). This initiative is expected to bring together the private sector, African governments, and development partners to provide inexpensive electricity, enlarge access to electricity, improve utility efficiency, draw private investment and enhance regional integration of energy that will revamp the economies. By 2030, the WBG is expected to connect 250,000,000 people to electrical power and the AfDB an additional 50,000,000. Africa with an estimated 40% electricity access explains its underdevelopment and its position as the least electrified continent (Mohammed et al., 2013). Access to electricity is a vital catalyst for economic growth, social progress, and enhanced quality of life (Marius & Joel, 2019; Koščak et al., 2021). However, there is a need to reach net-zero-degree greenhouse gas emissions by the year 2050. This has greatly pushed the injection of renewable energy into the existing traditional grids (Kavita & Kumar, 2023).

The primary electricity power supply body in Cameroon is called Energy of Cameroon S. A. abbreviated as ENEO S. A. rebranded from AES SONEL in 2014 with the pious hope of providing better services to its customers. It produces, distributes and markets electricity to homes, businesses and the government. It is a semi-public company: a British company called Actis holding 51% of the investment, the Cameroon government 44%, and the employees 5%. ENEO generates 968 MW of electricity with 74% of the energy produced from hydroelectric sources. The mission of ENEO Cameroon is to deliver reliable energy and quality services in order to establish itself as a model in Africa. Its source of production comprises 73.30% hydro, 26.66% thermal and 0.04% solar (ENEO annual review, 2021). ENEO Cameroon supplies electricity services to more than 973,250 con-

sumers in 2017; in 2022, 1,917,553 customers and 2,104,288 households and businesses by the middle of 2024.

Insufficient and wobbly power supply in Cameroon constitutes a major constraint to industrial production and development (Ismaila & Fambon, 2020; International Energy Agency, 2023). Adequate and constant power supply harnesses and enhances industrial production, economic growth and development (UNIDO, 2009). In the 18th century fuels such as coal and oil set the foundation for industrial development in the U.S. and Europe (Sieferle, 2001). Since then power has constituted a central input in industrial production and in the improvement of the standards of living (UNIDO, 2009).

ENEO desires to deliver affordable, consistent and quality services to more than 973,250 customers (with about 45% based in Douala and Yaounde), and to serve as a model of governance in Africa. With an installed power generation capacity of 968 MW ENEO has 39 power generation plants with 74% being from hydroelectric power plants. It has 24 substations, High-Voltage lines of 1944.29 kilometres, Medium-Voltage lines of 15081.48 kilometres and Low-Voltage lines of 15209.25 kilometres. Its distribution network includes eleven 158 km lines of 220 to 380 KV and eleven 450 km lines of 5.5 to 33 KV (ENEO Annual Review, 2022). With all this the ENEO Cameroon puts in place an inventory system that monitors and regulates inventory heights, refill times and capacities so as to assure uninterrupted services to stakeholders. Unfortunately, over the years there have been persistent and significant interruptions that have led to daily, monthly, and in rare cases yearly innumerable power outages. This is a major cause of underdevelopment in the country. As a solution Cameroon came up with a strategy in 2003 to step up the production capacity to 3000 MW by 2020 yet in 2020 the production barely got to 1040 MW. Presently, only about 1600 MW is produced (Ngono & Ndzana, 2024) and the company strives to expand power generation capacity to 5000 MW by 2030 (Energie électrique, 2023). However, Lagdo hydropower plant in North Cameroon has seen a decline in power generation during the dry season due to falling water levels (Iweh et al., 2023).

In the English-Speaking Cameroon the history of electricity started in 1929 with the construction of the pioneer hydroelectric power stations in Luermann and Malale to supply electricity mainly to homes and factories of colonists in the Muyuka region. A public electricity utility entity was created in 1946 to supply electricity mostly from private plants installed by colonists. In 1958, the Yoke power plant was added. Meanwhile, in the French speaking Cameroon before the 1939-1945 war the pioneer electricity plants were created by the Administration in Nkongsamba, Douala and Yaounde and were privately managed. In 1948 a mixed economy company known as "Energie Electrique du Cameroun (ENELCAM)" was created and assigned to develop the Edea 1 hydroelectric plant on the Sanaga to supply power to Douala and Edea from the 1st of January 1953. From 1955 to 1958 the Edea 1 power plant initially having two 11 MW units was complemented with the construction of the Edea 2 power plant with 6 units of 20.8 MW each. Mean-

while, a third 11 megawatt unit was mounted at Edea 1 to supply electrical power to the big ALUCAM electrochemical facilities commissioned in Edea. During 1966 to 1976 the Edea power plant was extended progressively by ENELCAM and later by SONEL with the addition of Edea 3 also carrying 20.8 MW (Eneo, 2015).

The Cameroon Electricity Corporation (POWERCAM) was created in 1962 in independent Cameroon. In 1963 Electricité du Cameroon (EDC) was created with the State of East Cameroon and local councils owning the majority shares. It had the responsibility to manage all public supply of electricity, and subsequent production and transmission. With the exception of the Edea power plants still run by ENELCAM at the time, POWERCAM took over the public power distribution systems in Douala and Edéa from 1st July 1964, those in Yaounde, Bafang, Bafoussam, Dschang, Ebolowa, Foumban, Kribi, Maroua and Nkongsamba from 1st February 1966, Garoua from 1st January 1971. On the 18th of May 1974 the Cameroon National Electricity Corporation (SONEL) was created to manage public power distribution systems, including those of the former West Cameroon. SONEL eventually absorbed POWERCAM in 1975, and on 17 July 2001 SONEL was privatized and taken over by AES-Sirocco Limited, a subsidiary of AES Corporation, thereby becoming AES-SONEL. The State of Cameroon held 44% of the capital, the Personnel 5% and AES Corporation held 51%. On the 23rd of May 2014 the Cameroon government signed an agreement which granted ACTIS 56% of the shares of AES-SONEL and its affiliates KPDC and DPDC thus giving birth to ENEO Cameroon S. A. on the 12 of September 2014 (World Bank, 2017). On 19 November, 2025 Cameroon concluded an agreement with the British fund Actis to buy back the fund's shares for 119 million euro (approximately 77.9 billion fcfa), thus making ENEO Cameroon 100% Cameroonian Electricity Company (Journal of Cameroon, 2025).

Power production in Cameroon is in short supply (Cameroon-Tribune, 2023). The electricity corporation in Cameroon's epileptic nature of supplying electricity has over the years been a very critical area of concern to households, investors, and other stakeholders. ENEO has centres all over the country and puts in place accounting and control procedures for inventory in a bid to effectively control the costs, supply, and security of the inventory involved. All this is done in a bid to ensure uninterrupted quality electricity supplies to its stakeholders. The scale of investment and the costs associated with ordering, carrying, and issuing of inventory is certainly quite substantial as it is the case in countless organisations in the world. Despite this initiative, many geographical areas in Cameroon go for hours, days, weeks and even months without electricity supply. ENEO has been always accused of poor quality supplies and delays in attaining to customer services due to lack of supplies and inventory such as power supply, meters, transformers, and cables. Consequently, this study assesses the accounting and control procedures for inventory management (ordering, receiving, storing, and issuing) in order to analyse their impact on the adequacy and stability of power supply.

2. Literature Review

Power supply reliability refers to the ability of an electrical power supply agency (such as ENEO Cameroon) to supply energy in a constant and safe way, void of outages or disruptions, and risks to connected devices (eMergy Tech, 2024). Factors that may puncture power supply reliability include a lack of grid resilience. That is the ability of an electrical network to endure and absorb disturbances such as equipment failures, natural tragedies, and vacillations in the demand for electricity (Migisha, 2023). Power supply corporations are expected to perfect the design of the supply network and optimize their grid settings.

Another factor that disrupts power consistency is the lack of effective maintenance practices such as preventive, predictive, corrective, and scheduled maintenance. Power unreliability can also be caused by inadequate demand management practices. Such practices include forecasting energy qualities to ensure sufficient supply, carrying out peak shaving, load shifting and demand response programmes all in a bid to balance demand and supply of electrical power. In all these the power companies should consider the introduction of advanced technology and personnel training (Duan et al., 2021).

Power reliability is affected by manifold interdependent factors such as inclement weather which may be outside the control of policy makers. However, many others can easily be addressed if a durable and comprehensive approach is embraced. Consequently, adequate production capacity, the operational efficiency of the utilities, financial performance, and the all-embracing regulatory framework should not be handled separately. All of these levers are integral in ensuring that the electricity supply meets demand in a sustainable way. With proper planning and farsightedness, diverse strategies can be employed to safeguard a continuous flow of electrical power. A balanced energy mix is crucial and should be prioritised. A power system infrastructure, financial and operational performance, regulation, and generation adequacy constitute the various factors that affect electricity supply reliability (World Bank, 2017).

Power supply goes with the inventory. The International Accounting Standards (IAS) 2 defines inventories as assets: in the form of materials or supplies to be consumed in the production process; in the form of materials or supplies to be consumed or distributed in the rendering of services; held for sale or distribution in the ordinary course of operations; or in the process of production for sale or distribution'. Inventory management, a very crucial aspect of management in any company that supplies electricity includes a wide category of items. They include uninterrupted power supplies (UPS), linear and rock-mount power supplies, power cords and connectors, voltage regulators, transformers, electricity poles, and electricity meters (e.g. analog, digital or smart meters).

However, inventory control effectiveness is influenced by several factors. In the Ministry of State for Provincial Administration and Internal Security in Nairobi, Kenya the factors included an ineffective system of inventory documentation. Such a system decelerated daily operations in the Ministry and compromised the

reliability and safety of the inventory data. It was recommended that a completely computerised inventory documentation system for the recording of inventory control data be installed. The study also recommended timely disbursement of funds to Government Ministries concerned to meet optimal levels of inventory (Kariuki, 2013). Masudin et al. (2018) examined the practices and impact of inventory management and procurement on customer satisfaction and financial performance. It was revealed that computerised procurement practices such as e-product boost the performance of the company.

Eneje et al. (2012) studied the effect of efficient inventory management on the profitability of selected brewery firms in Nigeria and came to the conclusion that effective management of inventory significantly augments the performance and profitability of brewery companies in Nigeria. The findings were confirmed by Prempeh (2016) after investigating the impact of efficient inventory management on the profitability of some selected manufacturing firms in Ghana. This was further corroborated by Bawa et al. (2018) when they studied the impact of inventory management on the performance of some listed manufacturing firms in the Ghanaian Stock Exchange market during 2007 to 2016. A thesis on inventory management and control of the Ethiopian electric power revealed immense dissatisfaction of customers with the organisation's inventory management and control. This was a result of ineffective inventory planning, extensive bureaucratic processes, and a poor inventory monitoring and evaluation system (Gizachew, 2021).

A study on agrochemical distributors in Nakuru's Central Sub-County by Onchoke & Wanyoike (2016) found that effective inventory control practices, including internal security procedures, regular audits, and computerised systems significantly boost procurement performance. A computerised system provides real-time inventory data. Astuty et al. (2023) examined the mediating role of the quality of accounting information systems in the association between modern accounting information systems and inventory management in manufacturing firms in Indonesia. The revelation was that the implementation of total-quantity-management, just-in-time, target costing, time-driven activity-based costing, and the balanced scorecard significantly and positively impacts the quality of accounting information. Efficient management accounting practices enhance the quality of accounting information systems. This is because they ease the provision of accurate cost data, effective budgeting, and performance measurement. In fact, effective inventory control management enhances operational performance significantly (Ilori & Majiyagbe, 2024).

3. Methodology

3.1. Data Description

The study adopted a descriptive case study methodology to examine the accounting and control procedures for inventory management (ordering, receiving, storing, and issuing) in ENEO Cameroon and to analyse the implications for power supply reliability. Data were primarily collected from three strategically critical

regions (Southwest, Littoral, and Center regions) chosen due to the elevated electricity demand, recurrent public grievances regarding service disruptions, and their importance within ENEO's operational and logistical framework. The incorporation of both urban and semi-urban locations facilitated a thorough comprehension of inventory management across varied operational environments.

The target population consisted of ENEO staff engaged in inventory processes, including procurement officers, inventory accountants, warehouse managers, storekeepers, branch managers, technical supervisors, internal auditors, and logistics coordinators. A purposive sampling method was employed to select individuals possessing direct knowledge and having operational responsibilities, thus ensuring the relevance and trustworthiness of their responses. One hundred and thirty-one (131) respondents answered structured questionnaires, while ten senior staff members engaged in Key Informant Interviews (KIIs), offering strategic insights on inventory control methods, operational issues, and their implications for the reliability of energy supply. Data were gathered by standardised questionnaires and semi-structured interviews to ensure the rigour and validity of the findings. A pilot test conducted in a non-sampled ENEO branch further evaluated the instruments for reliability and validity, leading to significant adjustments in clarity, timing, and appropriateness.

3.2. Data Analysis

The data obtained from the structured questionnaires were analysed using basic descriptive statistics namely: frequencies, percentages, means, and cross-tabulations, to summarise respondents' demographics, evaluate the implementation levels of inventory management procedures, and identify perceived deficiencies in accounting and control systems. This methodology enabled the researcher to elucidate the distribution of replies with clarity and brevity, while employing tables and charts to augment interpretability and permit comparisons across regions, employment roles, and inventory functions. The quantitative analysis established a basis for understanding the prevalently perceived efficacy of ENEO's inventory ordering, receiving, storing, and issuing operations.

The qualitative data derived from the Key Informant Interviews (KIIs) were subjected to thematic content analysis, with the aim of revealing operational challenges that structured questionnaires may not readily capture, such as inventory delays, supply chain inefficiencies, insufficient segregation of duties, out-dated or inconsistent documentation practices, and underutilisation of digital tracking systems. To enhance the credibility and rigour of the study, a triangulation method was employed, synthesising results from surveys, interviews, and document analyses.

4. Results

On the composition of the sample, Branch managers constitute 5.3% of responders, indicating their small yet strategic role in supervising area operations and en-

suring compliance with ENEO's corporate protocols. Supervisors constitute 16.8% of the sample, representing a vital mid-level management tier tasked with overseeing inventory processes and ensuring adherence to procedures. Technicians, comprising 23.7%, are a substantial segment of the operational workforce, directly involved in the technical facets of power supply maintenance and distribution. The predominant segment of respondents (54.2%) is classified under the "Others" category, encompassing procurement officers, storekeepers, inventory accountants, and finance officers. These are positions that deliver critical administrative, accounting, and logistical assistance to the inventory management processes in ENEO Cameroon (Table 1).

Table 1. Regional distribution of respondents.

Position Occupied	Total	% of Total	Southwest	Littoral	Centre
Branch Manager	7	5.3%	2	3	2
Supervisor	22	16.8%	7	8	7
Technician	31	23.7%	10	11	10
Others	71	54.2%	24	23	24
Total	131	100%	43	45	43

Source: By author.

The distribution throughout the three primary operational regions namely Southwest, Littoral, and Centre is generally equitable with 43 respondents from the Southwest, 45 from the Littoral, and 43 from the Centre. This distribution reflects the concentration of ENEO offices in certain areas and encapsulates differences in operational environments. The distribution of branch managers and supervisors is relatively uniform across regions, indicating a standardised organisational framework. The Littoral region has a marginally greater number of technicians (11), likely due to the increased electrical consumption and infrastructure concentration in urban and industrial centres like Douala. This balanced and context-sensitive depiction guarantees that the study's findings accurately reflect ENEO's accounting and control methods for inventory ordering, receiving, storing, and issuing throughout its operational network.

4.1. Perception on Inventory Ordering

The inventory ordering process at ENEO exhibits a combination of systematic protocols and operational difficulties, directly affecting the reliability of electricity supply. Survey results reveal that a significant majority of respondents (70.23%) reported that departments submit requisitions just when their inventory falls below a minimum threshold. This reactive strategy entails that supplies are frequently procured on a just-in-time basis, resulting in less capacity to accommodate unforeseen surges in demand. The majority of respondents recognised that the issuing of purchase orders to suppliers is a routine procedure, 39.69% agree-

ing, 29.77% strongly agreeing, and nearly 40% noted that order fulfilment often experiences significant delays. Delays in obtaining critical meters, transformers, and cables may result in prolonged power outages, particularly during urgent repair situations (Table 2).

Table 2. Perception on inventory ordering.

Perception	Strongly Disagree	Disagree	No idea	Agree	Strongly agree
Departments submit requisitions for inventory items to the procurement department when their inventory gets to a known minimum level	0%	9.92%	9.92%	70.23%	9.92%
Procurement department raises a purchase order to the supplier.	20.61%	9.92%	0%	39.69%	29.77%
Inventory ordering is done only at the head office of ENEO	20.61%	9.92%	19.85%	39.69%	9.92%
Purchase order is authorized by the management.	0%	0%	0%	80.15%	19.85%
Purchase order is recorded in the inventory ledger.	9.92%	9.92%	0%	80.15%	0%
Inventory order takes a very long time before the supply is made	20.61%	9.92%	19.85%	39.69%	9.92%

Source: By author.

The centralisation of the ordering process exacerbates these difficulties. Survey statistics indicate that 39.69% of respondents concurred that all orders are handled via the head office, resulting in bottlenecks that disproportionately impact outlying or regional centres. The management's authorisation of purchase orders, however widely endorsed, adds an additional procedural step that, although essential for accountability, may impede response times if not effectively organised. Positively, 80.15% of respondents affirmed that purchase orders are reliably documented in the inventory ledger, indicating that record-keeping is generally robust despite operational limitations. The survey data indicate that decentralising ordering authority and optimising procurement timeframes may assist ENEO in minimising downtime due to inventory shortages and enhancing overall power supply reliability.

Insights from the Key Informant Interviews reinforced these findings, adding depth to the quantitative trends. One branch manager explained, "*We often submit our orders weekly in advance, but materials still arrive late because all approvals have to go through Douala. It feels like we're always racing against time.*" Several procurement officers echoed similar frustrations, emphasising that inadequate communication between departments and suppliers frequently exacerbates delays, so impacting electricity delivery. The synthesis of survey and interview

data elucidates a distinct conclusion: although ENEO possesses formal inventory protocols, inefficiencies in implementation particularly stemming from centralisation and protracted procurement persist as a significant contributor to the ongoing power supply disruptions.

4.2. Perception on Inventory Receiving

The inventory receiving process at ENEO exposes multiple operational deficiencies that may directly impact the stability of the energy supply. Survey findings indicate that 70.23% of participants were uncertain regarding the timely receipt of inventory products from suppliers, whilst only 29.77% affirmed that deliveries were prompt. The significant uncertainty indicates deficiencies in communication and monitoring, implying that essential equipment or spare parts may be unavailable when required, hence heightening the danger of extended power outages during failures.

The inspection of received inventory seems to be irregular. Only 39.69% of respondents strongly agreed that inventory items are adequately inspected for quality and quantity, while 30.53% indicated a lack of awareness of the inspection process. This raises worries that defective or partial delivery may remain undetected, potentially leading to equipment problems and persistent service outages (**Table 3**).

Table 3. Perception on inventory receiving.

Perception	Strongly disagree	Disagree	No idea	Agree	Strongly agree
Inventory items are received from the supplier on time.	0%	70.23%	29.77%	0%	0%
Items are inspected for quality and quantity.	0%	30.53%	9.92%	19.85%	39.69%
Receipt is recorded in the inventory ledger.	19.85%	9.92%	0%	70.23%	0%
Inventory records are updated.	0%	9.92%	19.85%	60.31%	9.92%

Source: By author.

The documentation and revision of inventory receipts are moderately noted, with 70.23% affirming that receipts are recorded in the inventory ledger and 60.31% concurring that the records are subsequently updated. The presence of respondents who disagreed or were uncertain signifies inconsistencies in stock documentation, potentially leading to discrepancies, misplaced components, and delayed procurement, all of which hinder repair operations during outages and jeopardise the reliability of electricity supply.

Key Informant Interviews (KIIs) clarified these difficulties. Warehouse managers and technical supervisors indicated that inspections are not consistently performed with rigour owing to personnel shortages. One KII respondent noted,

"*Items are received, but often we do not have enough staff to check quantities and quality immediately, which can lead to defects being unnoticed until deployment.*" Internal auditors highlighted that inconsistent recording and delayed updating of inventory ledgers further undermine stock tracking, making it difficult to respond swiftly to operational needs.

4.3. Perception on Inventory Storing

The inventory management techniques at ENEO exhibit multiple operational problems that may adversely impact the stability of the energy supply. Survey results reveal that 39.69% of respondents strongly agreed and 29.77% agreed that inventory goods are securely housed in the warehouse, while a total of 30.53% either disagreed or expressed uncertainty. The inconsistencies indicate that inadequate or hazardous storage may result in damage or loss of essential equipment, including meters, transformers, and cables, thereby delaying maintenance operations and extending power outages (Table 4).

Table 4. Perception on inventory storing.

Perception	Strongly disagree	Disagree	No idea	Agree	Strongly agree
Inventory items are safely stored in the warehouse.	20.61%	0%	9.92%	29.77%	39.69%
Items are labelled with their description, quantity, and location.	20.61%	29.77%	29.77%	9.92%	9.92%
Access to the warehouse is restricted to authorized personnel.	20.61%	0%	9.92%	19.85%	49.62%
Regular inventory counts are conducted to ensure accuracy.	0%	50.38%	0%	19.85%	29.77%

Source: By author.

The findings show that the labelling of inventory items seems insufficient. Only 19.84% of respondents concurred or strongly concurred that inventories were accurately labelled with their description, amount, and location, whereas a substantial 70.15% either disagreed or expressed uncertainty. Inadequate labelling hinders the identification and retrieval of inventory, slowing the issuing process and postponing repairs during power outages. Access control to the warehouse exhibited modest compliance, with 49.62% strongly affirming that access is limited to authorised people, while 30.53% indicated disagreement or confusion. Inadequate access control heightens the risk of inventory theft or misplacement, hence undermining the reliability of the electrical supply. Moreover, frequent inventory counts, essential for sustaining precise stock records, were reported by merely 29.77% of respondents as being performed, while 50.38% were uninformed of their execution and 19.85% expressed disagreement. Infrequent or inadequately conducted inventory counts may lead to stock inconsistencies, delayed restocking, and extended reaction times during shortages.

In fact, logistics coordinators and warehouse managers reported that warehouse conditions and labelling practices were uneven. One logistics coordinator explained, "Some materials are properly stored and controlled, but in many cases, labelling is missing or inaccurate, and this makes it difficult to locate parts when urgent repairs are needed." Branch managers and internal auditors noted that while access control is generally enforced, occasional lapses and irregular inventory counts create gaps in accountability.

4.4. Perception on Inventory Issuing

The analysis shows that the inventory issuance procedure at ENEO exhibits procedural strengths with operational shortcomings that could impact the reliability of energy delivery. Survey findings indicate that a majority of participants (70.23%) concurred and 9.92% strongly concurred that departments submit requisitions for inventory goods as necessary, suggesting that the initial request procedure is predominantly adhered to. The efficacy of management authorisation seems to be inconsistent. While 69.47% concurred that requisitions are sanctioned, 20.61% vehemently disagreed, indicating potential failures or delays in the approval process. The deficiencies in authorisation may impede the timely provision of critical materials to operational teams, so obstructing maintenance and repair efforts and extending power outages (Table 5).

Table 5. Perception on inventory issuing.

Perception	Strongly disagree	Disagree	No idea	Agree	Strongly agree
Departments submit requisitions for inventory items from the store.	9.92%	0%	9.92%	70.23%	9.92%
Requisition is authorized by the management.	20.61%	0%	0%	69.47%	9.92%
Inventory items are issued to the department on time to serve customers.	9.92%	30.53%	0%	29.77%	29.77%
Issuance is recorded in the inventory ledger.	0%	0%	9.92%	50.38%	39.69%

Source: By author.

The prompt issuance of inventory items was emphasised as a significant issue. Only 29.77% of respondents concurred that things are issued punctually, while 30.53% dissented, and an additional 29.77% indicated a lack of information regarding the issuance schedule. This uncertainty highlights operational inefficiencies that could postpone repairs, maintenance, and service restoration. The documentation of issued items in the inventory ledger is robust, with 50.38% agreeing and 39.69% strongly agreeing that issuance is accurately recorded. This indicates that, notwithstanding operational delays, ENEO upholds responsibility and traceability of its inventory.

Technical supervisors emphasised that despite requisitions being submitted in

accordance with protocol, items may experience delays of several days in reaching the asking department due to processing holdups or ledger inconsistencies. A supervisor remarked, "Even when a department submits a requisition, it may take several days to receive the items due to processing delays or ledger discrepancies, thereby hindering maintenance operations." Warehouse managers confirmed that issuance records are typically dependable, supporting survey findings on documentation practices. These findings indicate that although ENEO has established inventory issuing protocols, deficiencies in authorisation and irregular timeliness may lead to operational delays and disruptions in electricity supply.

4.5. Perception on Control Procedures

The evaluation of control methods at ENEO identifies severe deficiencies that may adversely impact inventory management and, subsequently, the stability of energy supply. Survey results reveal that merely 33.05% of participants concurred that distinct persons are accountable for ordering, receiving, storing, and issuing inventory, while 44.92% expressed strong disagreement. This indicates inadequate segregation of roles, heightening the possibility of errors, mismanagement, or misappropriation of inventory, thereby delaying the availability of essential materials required for the prompt maintenance and repair of electricity infrastructure (Table 6).

Table 6. Perception on control procedures.

Perception	Strongly disagree	Disagree	No idea	Agree	Strongly agree
Different personnel are responsible for ordering, receiving, storing, and issuing inventory.	44.92%	11.02%	0%	11.02%	33.05%
All transactions require authorization.	20.61%	19.85%	0%	49.62%	9.92%
All transactions are recorded in the inventory ledger.	20.61%	19.85%	29.77%	19.85%	9.92%
Regular inventory counts are conducted to ensure accuracy	0%	9.92%	9.92%	70.23%	9.92%
All transactions are tracked and monitored.	9.92%	0%	9.92%	50.38%	29.77%

Source: By author.

The authorisation of transactions seems irregular, as 49.62% of respondents indicate a lack of awareness regarding the necessity for formal approval of all transactions, while merely 29.53% concur or strongly concur that authorisation protocols are routinely adhered to. Likewise, the documentation of transactions in the inventory ledger is inconsistent, with 40.46% of respondents expressing disagreement or strong disagreement and 29.77% remaining neutral. Regular inventory

counts, crucial for validating stock levels, are inadequately monitored; 70.23% indicated a lack of awareness regarding these counts, while merely 9.92% strongly concurred that they are performed. Monitoring and tracking of inventory transactions indicate marginally improved compliance, with 50.38% in agreement and 29.77% in strong agreement; nonetheless, a considerable number of respondents remain ambivalent regarding the efficacy of these procedures. The identified gaps indicate that deficiencies in control systems may result in inventory inconsistencies, delayed replenishment, and operational inefficiencies, which can lead to recurrent power outages and compromise the reliability of the electricity supply.

Key Informant Interviews validated these findings and offered further insight into operational realities. Internal auditors identified cases where the same individuals managed various phases of inventory control, hence elevating the risk of inaccuracies and misappropriation. An auditor observed, "In certain branches, the same staff manages both ordering and issuing, thereby elevating the risk of errors or misappropriation." Although periodic audits are performed, numerous interviewees highlighted that subsequent actions frequently experience delays, diminishing the operational efficacy of control measures. This underscores the necessity of bolstering oversight, enforcing the segregation of duties, and ensuring prompt audits to enhance inventory integrity and improve electricity supply stability.

4.6. Perception on Accounting Procedures

The inventory accounting procedures have both strengths and shortcomings, each affecting the reliability of energy delivery. Survey findings indicate that the real-time updating of inventory records is irregular, with merely 30.53% of participants affirming that updates occur rapidly, while 29.77% disagreed and 19.85% reported uncertainty. Inadequate timely record-keeping may impede swift decision-making in procurement and distribution, potentially resulting in shortages of essential commodities and extending power outages (Table 7).

Table 7. Perception on accounting procedures.

Perception	Strongly agree	Disagree	No idea	Agree	Strongly disagree
Inventory records are updated in real-time.	0%	30.53%	29.77%	19.85%	19.85%
First-in, first-out method is used to value inventory.	0%	0%	29.77%	29.77%	40.46%
Inventory is valued at cost.	19.85%	20.61%	29.77%	29.77%	0%
Inventory is depreciated over its useful life.	50.38%	9.92%	29.77%	9.92%	0%
Inventory is reported in the financial statements.	9.92%	9.92%	9.92%	70.23%	0%

Source: By author.

The use of the first-in, first-out (FIFO) method for inventory value seems inconsistent. Merely 29.77% of respondents concurred that FIFO is uniformly implemented, while 40.46% strongly opposed this notion, indicating potential deficiencies in stock rotation and the management of ageing or perishable equipment. Inventory value at cost indicates partial compliance, and although depreciation methods are more often recognized with 50.38% strongly affirming that inventory is depreciated over its useful life, there are still inconsistencies in the uniform use of these accounting standards. Positively, the reporting of inventory in financial accounts is robust, with 70.23% of respondents affirming its occurrence, suggesting a degree of transparency and compliance with financial accountability norms. The findings indicate that although ENEO adheres to specific accounting rules, deficiencies in real-time updates, stock rotation, and valuation may lead to inventory mismanagement, maintenance delays, and diminished reliability in energy supply.

Key Informant Interviews (KIIs), particularly with inventory accountants and finance officers, highlighted difficulties in sustaining precise real-time records owing to inadequate digital systems and dependence on manual procedures. An accountant remarked, "We endeavour to keep records current, but constrained digital systems and manual procedures hinder our ability to ensure real-time accuracy." FIFO is rarely consistently implemented, particularly for antiquated equipment. Other interviewees corroborated that inventory is typically disclosed in financial statements, indicating partial adherence to accounting standards, while emphasising the operational limitations that intensify inventory inefficiencies and underscore the necessity for improved digital systems, stringent application of valuation methodologies, and fortified accounting controls to ensure a more dependable electricity supply.

4.7. Causes of Frequent Power Outages

The survey results in Table 8 regarding the causes of recurrent power outages underscore a series of technical, operational, and environmental obstacles that undermine the stability of energy supply. A considerable percentage of respondents recognised the deficiency of technical professionals, with 49.6% indicating that inadequate staffing restricts the prompt maintenance and repair of the electricity network. The scarcity, along with insufficient material availability indicated by 80.2% of respondents directly impairs the company's capacity to swiftly replace or repair defective equipment, resulting in extended outages.

Table 8. Causes of frequent power outages.

Causes of frequent power outages	Frequency	Percentage
Technical personnel not enough	65	49.6%
Materials not always available	105	80.2%
Insufficient power generation	105	80.2%

Continued

Vandalism by the population	52	39.7%
Out-dated equipment	92	70.2%
Transmission network overload	118	90.1%
Distribution network faults.	118	90.1%
Climate change impact (lower water levels)	105	80.2%
Unpaid bills (ENEO owes Globeleq some FCFA 8 billion monthly for power generation)	78	59.5%
Electricity fraud (leading to overloading & voltage drops in same)	105	80.2%
Others	13	9.9%

Source: By author.

Operational constraints significantly impact the situation, with 70.2% of respondents identifying old equipment and 90.1% reporting failures in both transmission and distribution networks. Insufficient power generation, climate-related effects such as diminished water levels, and electricity fraud were recognised by 80.2% of respondents, highlighting systemic difficulties that intensify supply unpredictability. Financial limitations, characterised by outstanding invoices resulting in postponed payments to power generators, were indicated by 59.5% of respondents, hence further constraining operational capability. Additional variables, including vandalism (39.7%) and managerial challenges such as mismanagement and incompetence (reflected in the 9.9% "Others" category), also contribute to disruptions. These findings indicate that power outages at ENEO arise from a complex interaction of human, material, technical, financial, and environmental factors, emphasising the necessity of effective inventory management, sufficient staffing, and enhanced operational oversight to improve electricity supply stability.

Key Informant Interviews (KIIs) reinforced the quantitative findings, citing multiple factors: insufficient technical personnel, unavailability of materials, outdated equipment, and transmission or distribution faults. A branch manager summarized, "*Even when we have the technical team ready, if parts are missing or old equipment fails, outages are inevitable. Management inefficiency and unpaid bills to generators also affect power supply.*" Climate-related issues, vandalism, and electricity fraud were also noted as contributing factors, demonstrating the multifaceted nature of power disruptions.

5. Conclusion and Policy Recommendations

The analysis reveals that although ENEO Cameroon has instituted accounting and control protocols for inventory management encompassing ordering, receiving, storing, and issuing, substantial insufficiencies in their execution persist, jeopardising the reliability of energy supply. Despite adherence to requisition submission,

purchase authorisation, and ledger recording, delays in procurement, centralised ordering, inadequate inspection, inconsistent record updates, poor labelling, and irregular inventory counts engender significant vulnerabilities in the inventory management system. Deficiencies in the segregation of roles, transaction authorisation, and real-time accounting further constrain operational efficiency and responsiveness, diminishing the company's ability to rapidly handle service outages. The procedural deficiencies, along with systemic issues including inadequate technical staff, obsolete equipment, transmission and distribution failures, insufficient power generation, and managerial inefficiencies, directly result in frequent power outages in ENEO Cameroon's operational areas.

From the results obtained the following policy recommendations can reverse the deficiencies in the accounting and control procedures for inventory management and enhance the power supply reliability by ENEO Cameroon:

- Setting and implementing a robust inventory management system adapted to modern technology or software that tracks, monitors, analyses and optimizes inventory levels.
- Provide staff training in inventory accounting and control best practices in order to improve their skills, knowledge, motivation, adaptability to innovative technology or software and prompt and effective response to customer enquiries, apprehensions and satisfaction.
- Decentralise inventory procurement procedures in order to reduce bureaucracy and localised decision-making that makes room for quick response to changing customer demands.
- Conduct regular inventory management audits to detect inventory excesses, shortages, inaccuracies, potential damage, obsolescence, or theft and thus reduce the risk of critical spares and materials shortages.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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