PUBLIC UTILITIES REGULATORY COMMISSION

A Survey Report on

Consumer Preferences and Perceptions of Electricity Supply and Pricing in Ghana

JUNE 2025

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1.0 RESEARCH OVERVIEW

1.1 Executive Summary

This report presents key insights from a recent nationwide survey conducted by the Public Utilities Regulatory Commission (PURC) between May and June 2025. The objective of the survey was to understand how Ghanaians feel about their electricity supply, particularly regarding stability and pricing. The survey was conducted on 3,759 individuals across all 16 regions of Ghana.

1.2 Methodology

To get a clear picture of consumer sentiments, the study adopted a cross-sectional survey design which was administered both online and in-person between May 21, 2025 and June 23, 2025. The survey targeted a diverse sample of 3,759 participants across Ghana's 16 administrative regions. The survey used a structured questionnaire to collect information on:

- **Who participated**: Demographic details such as gender, age, region, educational level, and employment status.
- **How they use electricity:** Their meter type and average monthly electricity expenditure.
- **What they prefer:** Their choices regarding electricity supply stability and pricing options.
- **What they value:** Their perception of how important stable and reliable electricity is.
- **Their thoughts in their own words:** Open-ended questions allowed participants to explain their choices and provide additional feedback.

The collected data was then carefully analyzed to identify key trends, preferences, and underlying reasons for those preferences

Quantitative data were analysed using descriptive statistics (frequencies, percentages) and cross-tabulations to summarise demographic and usage profiles, and inferential statistics (Chi-square tests) to explore associations between variables. Qualitative data were subjected to thematic analysis following Braun and Clarkes (2006) six-phase framework: familiarisation, initial coding, theme development, theme review, theme definition and reporting. Open-ended responses were manually coded with themes derived for two preference groups: "Constant price with fluctuations in electricity" (n=167) and "Stable electricity with increasing electricity price" (n=236). Frequencies and percentages quantified theme prevalence, with illustrative quotes providing further context.

1.3 Summary of key findingsThe analysis revealed the following key findings;

- **Strong Demand for Reliability:** A significant proportion of Ghanaians (nearly 62%) are willing to pay more for a stable and reliable electricity supply, even if it means higher costs. Over 84% considered consistent power to be of utmost importance.
- **Varied Priorities:** While reliability is paramount to many, especially those in urban areas, business owners, and higher-income households; affordability is a major concern to others, particularly students, the unemployed, and those with lower income levels.

- **Demographic Influences:**
  - Gender: Men tend to prioritize stability more, while women are often more sensitive to pricing.
  - Education: More educated individuals generally valued reliability over lower costs.
  - Region: Urban areas show a higher demand for stable power, whereas rural areas are more concerned with affordability.
- Underlying Concerns: Qualitative feedback highlighted widespread concerns about the high cost of electricity, general economic hardship, and a desire for better communication from service providers regarding power outages. Many also expressed a lack of trust in the system's ability to deliver consistent power.

1.3.1 Implications for Policy:

These findings underscore the critical need for PURC and other stakeholders in Ghana's electricity sector to:

1. Enhance Grid Reliability: Continuous investment in infrastructure to ensure consistent power supply, especially in urban and economically active regions.
2. Address Affordability: Develop targeted pricing strategies, potentially including subsidies or tiered rates, for low-income households, students, and the unemployed.
3. Improve Communication: Implement clear and proactive communication channels (e.g., SMS alerts) about planned and unplanned outages to build trust and manage expectations.
4. Promote Transparency: Address public mistrust by increasing accountability and transparency in service delivery and billing.

By understanding these diverse preferences, PURC can develop more effective and equitable policies that support Ghana's socio-economic development and ensure a reliable energy future for all.

2.0 INTRODUCTION

Electricity is the lifeline of Ghanaian economy, powering homes, businesses, industries, and essential services across the nation. As the regulator of electricity, natural gas and water utilities, the Public Utilities Regulatory Commission (PURC) is committed to ensuring a fair, efficient, and reliable electricity sector for all Ghanaians. To achieve this, it is crucial to understand the needs, preferences, and challenges faced by consumers.

This report summarizes the findings of a comprehensive survey conducted to gather insights into consumer preferences and perceptions regarding electricity supply stability and pricing. The insights gained will inform future policy decisions, tariff reviews, and service improvements, which is ultimately aimed at enhancing the quality and accessibility of electricity for everyone in Ghana.

3.0 DESCRIPTIVE STATISTICS

3.1 Demographic Profile of participan

This section of the report captures detailed analysis of the demographic profile of the 3,759 participants surveyed for the study. The data encompasses key variables such as gender, age, region of residence, educational level, and employment status, which provides relevant information into the socio-economic composition of the sampled population.

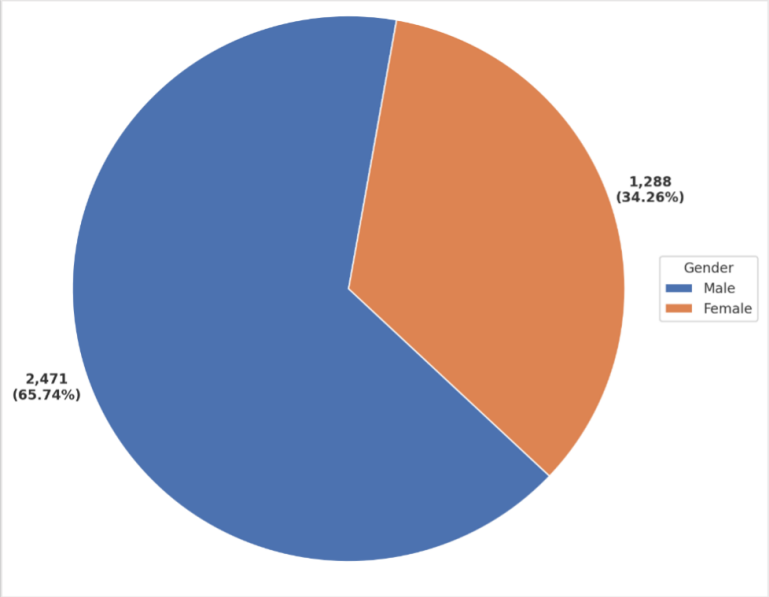
3.1.1 Gender

The participants comprised 2,471 males and 1,288 females representing 65.7% and 34.3% respectively. This significant gender imbalance may reflect either greater male participation in the survey or willingness to respond as shown in Table 1 and Figure 1 below

Table 1: Gender distribution of participants

GENDER	FREQUENCY	PERCENTAGE
Male	2,471	65.74%
Female	1, 288	34.26%

Figure 1: Gender distribution of participants



3.1.2 Age Distribution

The age distribution of participants is largely concentrated among adults aged 25–44 years, who make up 64.4% of the total respondents with 35–44 years being the largest group (33.41%), followed closely by 25–34 years (31.02%). Specifically, the age groups 45–54 and 18–24 contribute about 13.57% and 12.37% respectively, indicating moderate participation from both older and younger working-age participants. Respondents aged 55–64 account for 5.43%, while the "aged" (65+) represent 2.55%. A small proportion (1.65%) are under 18 years, signalling limited responses from minority groups. Table 2 and Figure 2 below summarises the age distribution of the research participants.

Table 2: Age distribution of Participants

AGE (YEARS)	FREQUENCY	PERCENTAGE
35–44	1,256	33.41%
25–34	1,166	31.02%
45–54	510	13.57%
18–24	465	12.37%
55–64	204	5.43%
65 and above	96	2.55%
under 18	62	1.65%

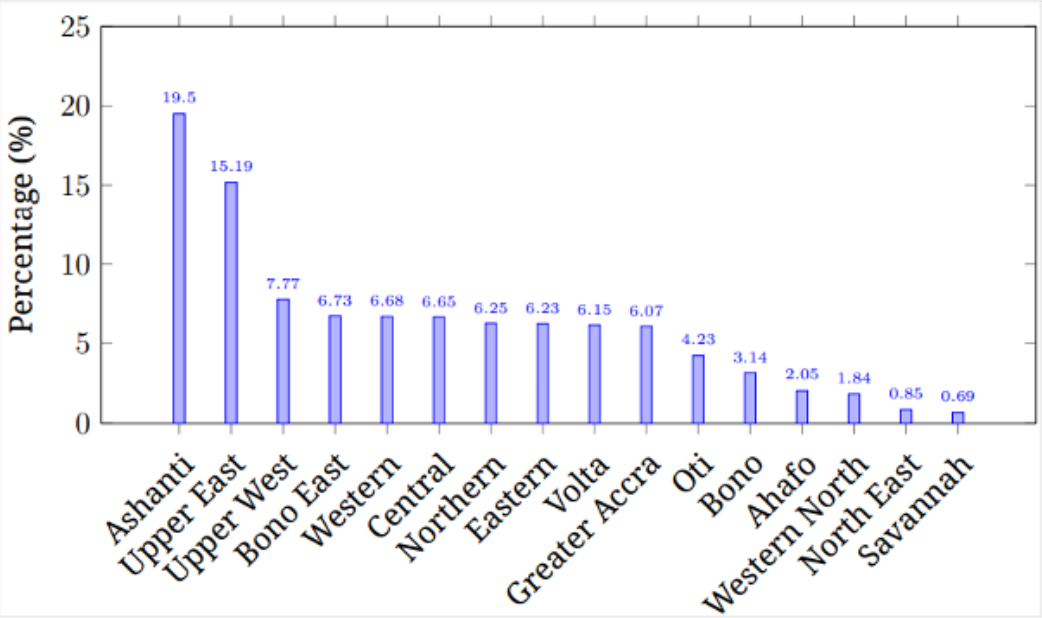
3.1.3 Region of Residence

The analysis shows a wide geographic spread of participants across the various 16 regions of Ghana, with notable concentrations in a few key regions. Notably, Ashanti Region accounts for the highest share of respondents at 19.5%, followed by the Upper East Region with 15.19%, which is significantly higher than many other regions. The Upper West (7.77%) and Bono East (6.73%) regions also contributed notable proportions. Most other regions were within the 6% to 7% range, including Western, Central, Northern, Eastern, Volta and Greater Accra regions with each contributing around 6% of the responses. There is evidence of lower participation as observed in regions such as Oti (4.23%), Bono (3.14%), Ahafo (2.05%), Western North (1.84%), North East (0.85%) and Savannah (0.69%) which reflects either smaller populations or reduced access and engagement. Table 3 and figure 2 provides an overview of the region of residence of participants.

Table 3: Region of Residence

REGION	FREQUENCY	PERCENTAGE
Ashanti	733	19.50%
Upper East	571	15.19%
Upper West	292	7.77%
Bono East	253	6.73%
Western	251	6.68%
Central	250	6.65%
Northern	235	6.25%
Eastern	234	6.23%
Volta	231	6.15%
Greater Accra	228	6.07%
Oti	159	4.23%
Bono	118	3.14%
Ahafo	77	2.05%
Western North	69	1.84%
North East	32	0.85%
Savannah	26	0.69%

Figure 2: Region of Residence



3.1.4 Level of Education

The analysis reveals a highly educated participant base, with a majority (59.11%) having attained Tertiary education. An additional 25.17% have completed Secondary education, bringing the total with at least a secondary-level education to over 84%. Participants with only Basic education constitute 10.91%, while those with no Formal education make up about 4.82% of the sample. This suggests that the surveyed population is predominantly literate and well-educated, which may influence their understanding, expectations, and decision-making regarding services such as electricity and its pricing. This is further supported by Table 4.

Table 4: Level of Education of participants

HIGHEST LEVEL OF EDUCATION	FREQUENCY	PERCENTAGE
Tertiary	2,222	59.11%
Secondary Education	946	25.17%
Basic Education	410	10.91%
No Formal Education	181	4.82%

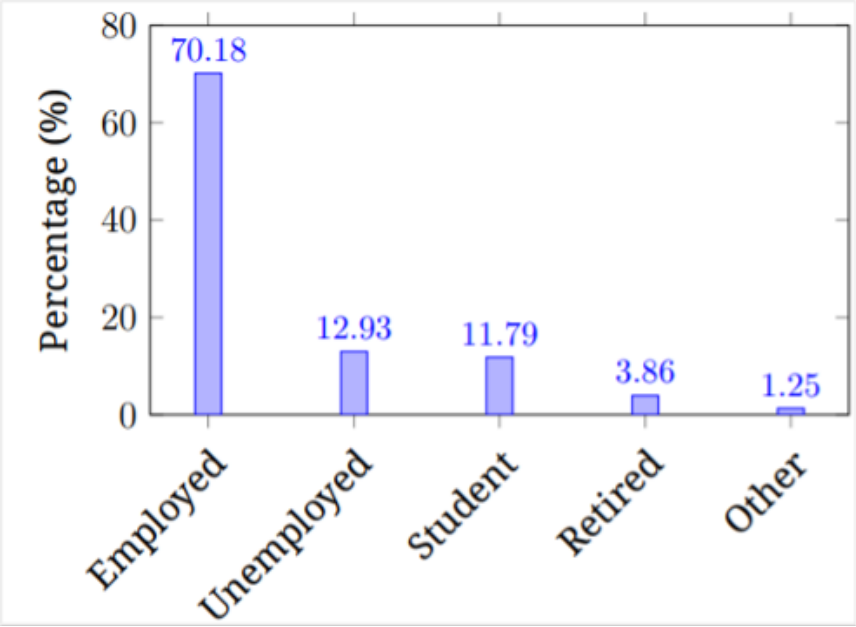
3.1.5 Employment Status

The analysis reveals a highly educated participant base, with a majority (59.11%) having attained Tertiary education. An additional 25.17% have completed Secondary education, bringing the total with at least a secondary-level education to over 84%. Participants with only Basic education constitute 10.91%, while those with no Formal education make up about 4.82% of the sample. This suggests that the surveyed population is predominantly literate and well-educated, which may influence their understanding, expectations, and decision-making regarding services such as electricity and its pricing. This is further supported by Table 4.

Table 5: Employment Status

EMPLOYMENT STATUS	FREQUENCY	PERCENTAGE
Employed	2,638	70.18%
Unemployed	486	12.93%
Student	443	11.79%
Retired	145	3.86%
Other	47	1.25%

Figure 3: Employment Status



3.2 Analysis of Participant's Electricity and Pricing Preference

This section of the report provides an overview of the analysis done on participant's electricity preference and behaviour.

3.2.1 Monthly Expenditure on Electricity

The majority of respondents (56.05%) spend between GHS 50 and GHS 300 per month on electricity, suggesting that this is the most common expenditure range for households. An additional 22.61% fall within the GHS 301–600 bracket, indicating a significant portion of moderate-to-high electricity users. Smaller proportions of participants reported spending GHS 601–1000 (9.34%) and more than GHS 1000 (3.83%), likely representing higher-income or energy-intensive households. Only 5.35% spend less than GHS 50, and 2.82% report that they do not pay electricity bills directly, possibly due to shared accommodations, subsidies, or alternative arrangements. Overall, the data shows that most respondents incur moderate electricity costs, with a clear distribution across income and usage levels.

Table 6: Average Monthly Electricity Expenditure

AVERAGE MONTHLY ELECTRICITY EXPENDITURE	FREQUENCY	PERCENTAGE
GHS 50–300	2107	56.05%
GHS 301–600	850	22.61%
GHS 601–1000	351	9.34%
Less than GHS 50	201	5.35%
More than GHS 1000	144	3.83%
I do not pay electricity bills directly	106	2.82%

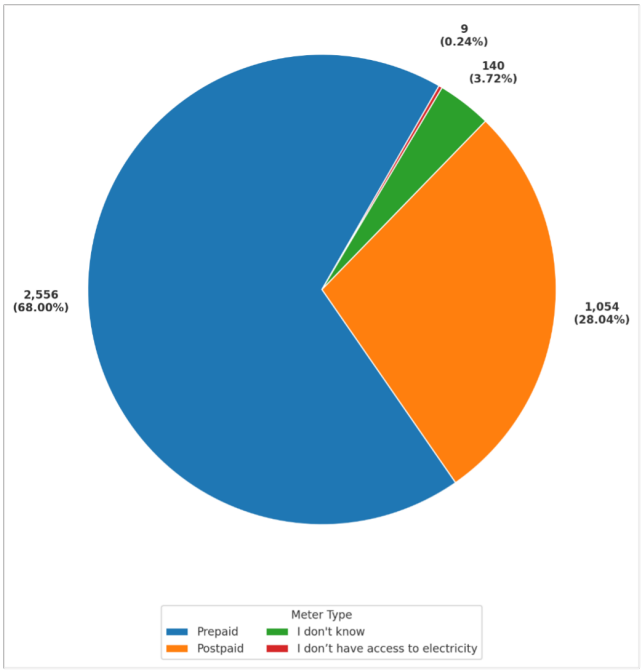
3.2.2 Meter Type

As shown in Table 7 and Figure 4, the analysis indicates that 68% of respondents use prepaid meters, suggesting that, there exists a strong preference for pay-as-you-go electricity systems. Postpaid meters are used by 28.04% of respondents, reflecting a notable minority who receive electricity before payment, mostly through monthly billings. A small fraction (3.72%) indicated that they do not know the type of meter they use, which could point to limited household involvement in electricity management. Only 0.24% of respondents reported having no access to electricity.

Table 7: Type of Meter

METER TYPE	FREQUENCY	PERCENTAGE
Prepaid	2,556	68.00%
Postpaid	1,054	28.04%
I don't know	140	3.72%
I don’t have access to electricity	9	0.24%

Figure 4: Type of Meter



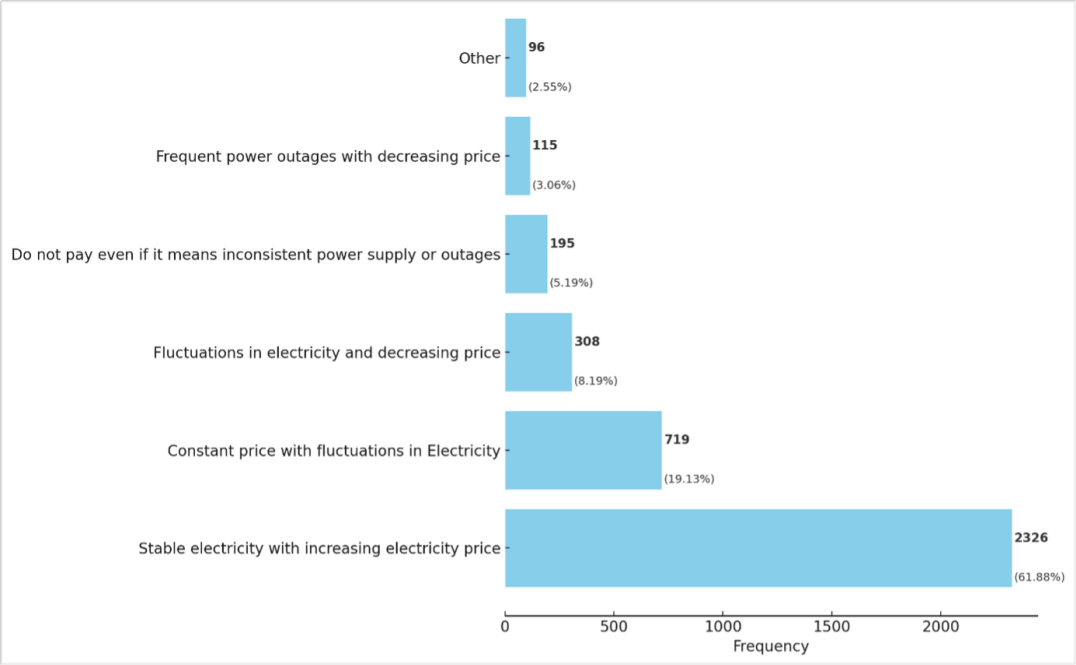
3.3 Preferred Electricity and Pricing Option

The data reveals a strong preference for reliable electricity, even at a higher cost. Majority of the respondents (61.88%) favour stable electricity with increasing electricity price, highlighting the value placed on consistency and uninterrupted power supply. The second most selected option, constant price with fluctuations in electricity (19.13%), suggests that while some respondents are price-sensitive, they are still willing to tolerate some occasional outages. Approximately 8.19% of respondents prefer fluctuating electricity with decreasing price, and even so, fewer (3.06%) participants opt for frequent power outages with lower cost. This indicates that reliability outweighs affordability for most respondents. Additionally, 5.19% prefer not to pay, even if it results in inconsistent supply, and 2.55% selected "Other", possibly reflecting other preferences. Overall, the results as shown in Table 8 and Figure 5 demonstrate a clear trend which shows that reliable electricity is prioritised over lower prices among the majority of respondents.

Table 8: Most Preferred Electricity and Pricing Option

MOST PREFERRED ELECTRICITY AND PRICING OPTION	FREQUENCY	PERCENTAGE
Stable electricity with increasing electricity price	2,326	61.88%
Constant price with fluctuations in electricity	719	19.13%
Fluctuations in electricity and decreasing price	308	8.19%
Do not pay even if it means inconsistent power supply or outages	195	5.19%
Frequent power outages with decreasing price	115	3.06%
Other	96	2.55%

Figure 5: Most Preferred Electricity and Pricing Option



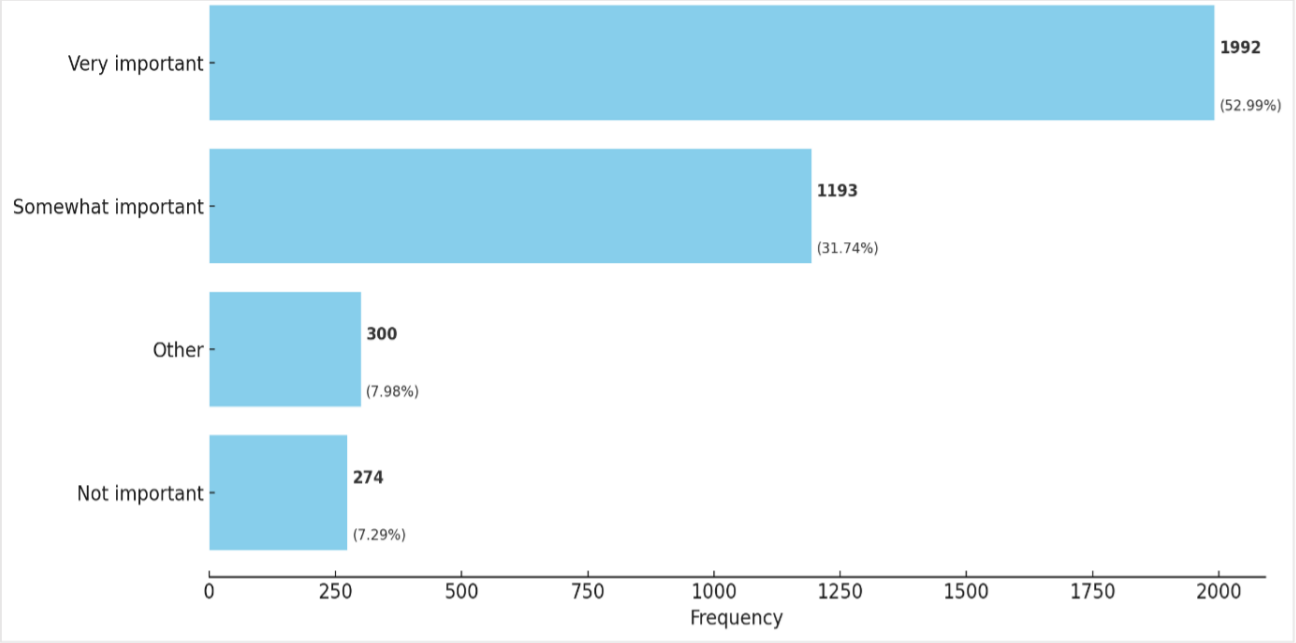
3.4 Relevance of stable and reliable electricity

The vast majority of respondents consider stable and reliable electricity to be important. Over half (52.99%) rated it as "Very important", while an additional 31.74% selected "Somewhat important", bringing the total to nearly 85% who recognise its significance. A smaller segment 7.29% regard it as "Not important", and 7.98% chose "Other", possibly indicating mixed feelings or alternative perspectives. As shown in Table 9 and Figure 6 below, the data underscores a strong public demand for dependable electricity services, reinforcing the need for policy and infrastructure investments that prioritise supply stability.

Table 9: Relevance of stable and reliable electricity

RELEVANCE OF STABLE AND RELIABLE ELECTRICITY	FREQUENCY	PERCENTAGE
Very important	1,992	52.99%
Somewhat important	1,193	31.74%
Other	300	7.98%
Not important	274	7.29%

Figure 5: Most Preferred Electricity and Pricing Option



4.0 CROSS-TABULATIONS AND INFERENTIAL STATISTICS

The cross-tabulations and Chi-Square test results from the survey provide a detailed analysis of how demographic and socio-economic factors including gender, educational level, average monthly electricity expenditure and region of residence influence preferences for electricity supply and pricing options, as well as the perceived importance of stable and reliable electricity. These findings reveal trends that reflect varying priorities across different groups in electricity sector of Ghana.

4.1 Gender and Electricity Preference

Analysis of the data reveal that there is a statistically significant relationship between gender and the most preferred electricity and pricing option. Males (64.2%) are more likely to prioritize stable electricity with increasing prices compared to females (57.5%,), while females show greater price sensitivity, favouring constant prices with fluctuations (23.4% vs. 16.9% for males) or fluctuations with decreasing prices (10.2% vs. 7.1% for males). Females are less likely to choose "Do not pay" (3.6%, vs. 6.0%for males). The Chi-Square test (χ^2 = 45.310, df = 5, $p < 0.001$) confirms a significant association signalling a diverse gender-based preferences.

4.2 Gender and Relevance of Stable and reliable Electricity

The cross-tabulation and Chi-Square test results reveal a significant relationship between gender and the perceived importance of stable and reliable electricity. Males (53.2%) and females (52.6%) rate stable electricity as "Very important" at similar rates, but females are more likely to select "Somewhat important" (35.8% vs. 29.6% for males) or "Not important" (8.2% vs. 6.8% for males), reflecting greater price sensitivity. Males have a higher proportion of "Other" responses (10.3% vs. 3.5% for females), suggesting more diverse perspectives. The Chi-Square test (χ^2 = 61.651, df = 3, $p < 0.001$) confirms a significant association indicating that males lean toward higher importance ratings.

4.3 Educational Level and Preferred Electricity and Pricing Option

Additionally, the results show a significant relationship between education level and the most preferred electricity and pricing option. Specifically, tertiary-educated respondents (66.7%) are most likely to prioritize stable electricity with increasing prices, while those with no formal education prefer cost-saving options, with 9.4% each selecting frequent outages or not paying. Basic (12.4%) and secondary (25.1%) education respondents show moderate price sensitivity, favouring constant prices with fluctuations. The Chi-Square test (χ^2 = 113.677, df = 15, $p < 0.001$) confirms a significant association which shows that higher education correlates with greater emphasis on reliability.

4.4 Educational Level and Relevance of Stable Electricity

There is also a significant relationship between education level and the perceived importance of stable and reliable electricity. Tertiary-educated (53.8%) and basic-educated (53.7%) respondents are most likely to rate stable electricity as "Very important," followed by secondary-educated respondents (52.5%). Those with no formal education are least likely to prioritize reliability, with 44.2% rating it as "Very important" and 23.8% as "Not important," reflecting potential lower dependency or access constraints. Secondary-educated respondents show the highest "Somewhat important" responses (36.2%,), while tertiary-educated respondents have the most "Other" responses (11.5%,), indicating diverse perspectives. In terms of significance, the Chi-Square test (χ^2 = 182.182, df = 9, $p < 0.001$) confirms a significant association, with no linear trend to suggest educational influences.

4.5 Monthly Electricity Expenditure and Preference

The relationship between average monthly electricity expenditure and the most preferred electricity and pricing option is found to be significant. Analysis shows that higher spenders, particularly those spending more than GHS 1,000 (90.3%) and GHS 301–600 (73.1%,), strongly prefer stable electricity with increasing prices, while lower spenders (less than GHS 50) show price sensitivity, with 43.8% favouring stable electricity, 28.4% choosing constant prices with fluctuations, and 10.0% opting for frequent outages with decreasing prices. Again, participants who spend GHS 601–1,000 prefer constant prices with fluctuations (40.7%), and non-payers prefer "Do not pay" (11.3%) or constant prices (24.5%). The Chi-Square test ($\chi^2 = 478.063$, df = 25, $p < 0.001$) confirms a significant association, with a linear trend indicating that higher expenditure correlates with prioritizing reliability.

4.6 Monthly Electricity Expenditure and Relevance

The test of significance shows an association between average monthly electricity expenditure and the perceived importance of stable and reliable electricity. For higher spenders, typically those spending more than GHS 1,000 (69.4%) and GHS 301–600 (58.1%), are most likely to rate stable electricity as "Very important," while low spenders (less than GHS 50) show less priority, with 34.3% rating it as "Very important" and 18.9% as "Not important." Moreso, participants who spend between GHS 601–1,000 opt for "Somewhat important" (45.6%), and non-payers show mixed priorities, with 48.1% rating it "Very important" and 19.8% "Not important." The Chi-Square test ($\chi^2 = 234.144$, df = 15, $p < 0.001$) confirms the significant association between the variables.

5.0 THEMATIC ANALYSIS

This thematic analysis examines the qualitative component of the survey response. The analysis focuses on three key area: reasons for selecting the most preferred electricity and pricing option, reasons for the perceived relevance of stable and reliable electricity, and additional feedback from participants on electricity provision. The data primarily reflects responses from participants who chose either "Constant price with fluctuations in electricity" or "Stable electricity with increasing electricity price." The study employed Braun and Clarkes (2006) thematic analysis framework, involving six phases: familiarization, initial coding, theme development, theme review, theme definition, and reporting. Responses were categorized by the two dominant preferences: "Constant price with fluctuations in electricity" (n=167) and "Stable electricity with increasing electricity price" (n=236). Through an iterative coding process, key themes were identified, and their frequencies and percentages were calculated. Supporting quotes illustrate each theme, followed by a discussion and interpretation of the findings. The analysis culminates in an extensive research report.

5.1 Thematic Analysis Results

Below are the identified themes, their frequencies, percentages, and illustrative quotes for each column, separated by the two main preference groups: "Constant price with fluctuations in electricity" and "Stable electricity with increasing electricity price.

5.1.1 Reasons for Selecting Most Preferred Electricity and Pricing Option

`a) Constant price with fluctuations in electricity

Table 10: Summary of thematic analysis on the justification for preferring "Constant price with fluctuations in electricity"

SN	THEME	DESCRIPTION	FREQUENCY	PERCENTAGE	SUPPORTING QUOTES
1.	**Affordability Concerns**	Emphasis on high electricity costs and the need for constant or lower prices to manage financial burdens.	82	49.1%	"The cost of electricity is very high in Ghana" (A male participant in the Northern Region); "Consumers are able to afford electricity bills if the prices are lower" (A female participant from the Central Region); "Being a student means I can't afford high electricity bills" (A male student from the Central Region).
2.	**Economic Hardship**	References to broader economic challenges, including low income and high cost of living, driving preference for stable prices.	45	26.9%	"The cost of living is very high and money is hard to come by" (A male resident from Greater Accra); "Economic hardship" (A male resident from Central Region); "My salary cannot afford higher electricity tariffs" (A male respondent from the Western Region).
3.	**Acceptance of Outages**	Acknowledgment that outages are inevitable due to systemic or natural issues, making constant pricing more acceptable.	25	15.0%	"No matter what, there will be outages due to something" (A male resident from the Greater Accra Region); "I believe power outages cannot be controlled over here" (A female participant in the Upper West Region); "Outages are bound to happen" (A female participant in the Upper West Region).
4.	**Business and Daily Needs**	Need for electricity for work or daily activities, but preference for affordability over reliability.	15	9.0%	"I want constant electricity for my business" (A female participant in the Upper West Region); "I will use it for my daily activities" (A male participant from the Volta Region); "I need electricity supply for my business" (A female respondent from Greater Accra).

b) Stable electricity with increasing electricity price

Table 11: Summary of thematic analysis on the justification for preferring "Stable electricity with increasing electricity price"

SN	THEME	DESCRIPTION	FREQUENCY	PERCENTAGE	SUPPORTING QUOTES
1.	**Business Productivity**	Stable electricity is critical for business operations, justifying higher costs.	98	41.5%	"I use the electricity for my business so anything to keep it stable" (A female participant from the Ashanti Region); "My shop depends on electricity to operate" (A male participant from the Ashanti Region); "I operate a cold store and cannot work without a stable power supply" (A female respondent from the Upper West Region).
2.	**Reliability for Daily Life**	Stable electricity supports daily routines, academic work, and household needs, making higher costs acceptable.	76	32.2%	"I need a reliable power supply for my studies" (A Student from the Bono Region); "Favourable for my family's routine" (A male retiree from the Bono Region); "A stable power supply favours my daily routine" (A male respondent from Bono Region).
3.	**Appliance Safety**	Preventing damage to appliances and electronics due to outages drives preference for stable electricity.	38	16.1%	"Stable electricity means my fridges will be safe" (A female entrepreneur from the Ashanti Region); "Prevents damage and loss" (A male entrepreneur from the Ashanti Region); "Protects appliances and electronics" (A female entrepreneur from the Ashanti Region).
4.	**Comfort and Security**	Stable electricity enhances comfort, reduces stress, and improves security, justifying higher costs.	24	10.2%	"Peace of mind and comfort" (A female entrepreneur from the Ashanti Region); "It helps prevent robbery attacks" (A 65+ year old man from the Eastern Region); "I find it hard to sleep in heat at night" (A male entrepreneur from the Eastern Region).

5.1.2 Reasons for selecting Relevance of Stable and Reliable Electricity

a) Constant price with fluctuations in electricity

Table 12: Summary of thematic analysis on the justification for preferring "Constant price with fluctuations in electricity"

SN	THEME	DESCRIPTION	FREQUENCY	PERCENTAGE	SUPPORTING QUOTES
1.	**Affordability Over Reliability**	Preference for lower costs, even if it means tolerating outages, due to financial constraints.	92	55.1%	"Consumers are able to afford electricity bills if the prices are lower" (A male graduate from the Central Region); "I care more about paying less, even if it means enduring outages" (A male respondent from the Oti Region); "High price will accumulate debts due to unpredictable income" (A male graduate from the Northern Region).
2.	**Acceptance of Outages**	Outages are seen as inevitable or manageable with planning, reducing the importance of reliability.	40	24.0%	"Occasional outages should be justified" (A Tertiary Student from the Ashanti Region); "I can always manage without electricity for a short while" (A Tertiary Student from the Upper West Region); "Periodic outages are expected, so it won't be bad to pay less" (A 55+ year old Retiree from the Upper East Region).
3.	**Business and Daily Needs**	Electricity is important for work or daily activities, but cost concerns dominate.	25	15.0%	"I want it reliable for my everyday business" (A female entrepreneur from the Upper West Region); "I need it for work and for daily activities" (A female participant from the Volta Region); "I want power to be reliable for my business" (A male graduate from the Upper West Region).
4.	**Systemic Issues**	Distrust in the system's ability to deliver reliable electricity, even with higher payments.	10	5.9%	"I know we can never have constant power supply" (A male graduate from the Upper East Region); "I don't trust ECG nor VRA" (A male graduate from the Upper West Region); "Increment in price will never ensure stable power supply" (A male graduate from the Northern Region).

b) Stable electricity with increasing electricity price

Table 13: Summary of thematic analysis on the justification for preferring "Stable electricity with increasing electricity price"

SN	THEME	DESCRIPTION	FREQUENCY	PERCENTAGE	SUPPORTING QUOTES
1.	**Business Productivity**	Stable electricity is essential for business operations and economic activities.	102	43.2%	"It's relevant for the operation of my cold store business" (A male entrepreneur from Bono Region); "My business can operate without interruptions" (A male graduate from the Eastern Region); "I need a stable power supply to run my business" (A male entrepreneur from the Bono Region).
2.	**Academic and Professional Needs**	Reliable electricity supports academic work and professional responsibilities.	62	26.3%	"It's relevant for my studies" (A male Tertiary student from Bono Region); "I cannot perform academic work without a reliable power supply" (A male student from the Bono Region); "I need a reliable power supply for work in the pharmacy" (A male worker from the Bono Region).
3.	**Appliance Safety**	Prevents damage to appliances, reducing financial losses.	36	15.3%	"Protects appliances and electronics" (A female entrepreneur from the Ashanti Region); "My appliances will be safe" (A male graduate from the Ashanti Region); "Prevents damage and loss" (A male entrepreneur from the Ashanti Region).
4.	**Comfort and Security**	Enhances quality of life, comfort, and security, especially in households.	36	15.3%	"Reduces stress and disruption" (A female entrepreneur from the Ashanti Region); "For house security purposes" (A male unemployed respondent from the Savannah Region); "I don't like to sleep in heat and darkness" (A female respondent from the Eastern Region).

5.1.3 Additional Feedback/Comments

Table 14: Summary of thematic analysis on Additional Feedback/Comments provided by participants

SN	THEME	DESCRIPTION	FREQUENCY	PERCENTAGE	SUPPORTING QUOTES
1.	**Tariff Reduction Pleas**	Calls for reduced electricity tariffs to improve affordability.	65	29.4%	"Please PURC make sure you reduce the Tariff"(A male graduate from the Upper West); "We are pleading with PURC to let the Tariff be reduced for we the poor people" (A female respondent from the Upper West Region); "Electricity should be cheaper in Ghana" (A female entrepreneur from the Upper West Region).
2.	**Improved Communication**	Requests for better communication about outages to allow planning.	45	20.4%	"ECG should give us notice through SMS when disseminating their notices" (A female Respondent from the Eastern Region); "Occasional outages should be announced" (A female Respondent in the Ashanti Region); "ECG doesn't treat customers well when it comes to communicating" (A female Respondent in the Eastern Region).
3.	**Systemic Improvements**	Suggestions for addressing inefficiencies, illegal connections, and billing issues.	42	19.0%	"Endeavor to block all revenue leakages" (A male graduate from the Volta Region); "ECG should arrest culprit indulging in illegal connection" (A male entrepreneur from the Eastern Region); "The cost of obtaining a meter is very high and the processes involved is very tedious" (A male Graduate from the Northern Region).
4.	**Reliability Enhancements**	Desire for stable and reliable electricity supply, often tied to infrastructure upgrades.	38	17.2%	"We need a stable and reliable power supplier" (A female entrepreneur from the Eastern Region); "ECG should do their possible best to provide us with stable power supply" (A male respondent from the Eastern Region); "Stable electricity supply is good" (An unemployed male respondent from the Savannah Region).
5.	**Consumer-Centric Policies**	Calls for policies considering consumer financial status and broader consultation.	31	14.0%	"The income levels of Ghanaians should be considered when pricing electricity" (A male Graduate from the Eastern Region); "PURC should consider broader consultation on tariff reviews" (A male Graduate from the Ashanti Region); "Consumer Education should be intensified" (A male Graduate from the Ashanti Region).

5.2 Summary of thematic Analysis results

The thematic analysis reveals distinct priorities and concerns among participants largely influenced by their socio-economic circumstances and electricity usage needs. The two preference groups "Constant price with fluctuations in electricity" and "Stable electricity with increasing electricity price" reflect a dichotomy between affordability and reliability, with significant implications for policy and service delivery in Ghana's electricity sector.

1. **Affordability vs. Reliability**
   i. Participants who prefer constant prices (n=167) are predominantly driven by affordability concerns (49.1%) and economic hardship (26.9%), reflecting the financial strain faced by many Ghanaians, particularly students, retirees, and low-income individuals. Quotes like "Being a student means I can't afford high electricity bills" and "My salary cannot afford higher electricity tariffs" highlight the burden of rising tariffs. The acceptance of outages (15.0%) as inevitable due to systemic or natural factors (e.g., "Outages are bound to happen") suggests a pragmatic adaptation to unreliable infrastructure, prioritizing cost stability over service reliability.

   ii. Conversely, those preferring stable electricity (n=236) prioritize business productivity (41.5%) and reliability for daily life (32.2%), often linked to professional and academic needs. For instance, "I operate a cold store and cannot work without a stable power supply" and "I need a reliable power supply for my studies" underscore the economic and educational dependence on electricity. The emphasis on appliance safety (16.1%) and comfort and security (10.2%) further indicates that reliability is seen as a safeguard against financial losses and disruptions to quality of life.

2. **Systemic Challenges**
   i. Both groups express frustration with systemic issues, but the "constant price" group is more vocal about distrust in institutions like ECG and PURC (6.0% in relevance reasons), as seen in "I don't trust ECG nor VRA". This distrust stems from perceptions of inefficiency, unfair billing and unfulfilled promises of reliability despite payments. The "stable electricity" group, while also critical, focuses more on systemic improvements (19.0% in feedback), such as addressing illegal connections and revenue leakages (e.g., "ECG should arrest culprit indulging in illegal connection").

   ii. The recurring theme of improved communication (20.4% in feedback) across both groups highlights a critical gap in ECG's customer engagement. Participants repeatedly request advance notifications of outages (e.g., "ECG should give us notice through SMS"), suggesting that transparency could mitigate dissatisfaction with fluctuations.

3. **Socio-Economic Context**
   i. The "constant price" group's focus on affordability aligns with broader economic challenges, such as low disposable income and high cost of living, as evidenced by "Economic hardship". This group includes students, retirees, and unemployed individuals who prioritize budget predictability (e.g., "That will help budget properly").

   ii. The "stable electricity" group, often comprising business owners, professionals, and students with high electricity dependency, values reliability for economic and academic success. Quotes like "My work depends solely on electricity" and "It's relevant for my studies" reflect the critical role of electricity in enabling productivity and education, particularly in urban and semi-urban settings.

4. **Policy Implications:**
   i. The tariff reduction pleas (29.4% in feedback) and consumer-centric policies (14.0%) underscore the need for pricing models that consider income levels, as suggested by "The income levels of Ghanaians should be considered when pricing electricity". Subsidies or tiered pricing could also address affordability concerns for low-income groups.

   ii. The demand for reliability enhancements (17.2%) and systemic improvements (19.0%) indicates a need for infrastructure investment and stricter enforcement against illegal connections, as seen in "Endeavor to block all revenue leakages". The suggestion to use alternative energy sources like solar highlights potential for innovative solutions in regions with unreliable grid access.

   iii. The call for improved communication suggests that ECG especially could enhance trust and satisfaction by implementing proactive outage notifications and transparent billing practices.

6.0 SUMMARY OF RESEARCH FINDINGS, IMPLICATIONS FOR POLICY AND CONCLUSIONS

This section consolidates the key findings from the study. By integrating quantitative analyses, including descriptive and inferential statistics, with qualitative thematic insights, the study makes clear demographic, socio-economic and regional factors influence electricity preferences. The summary highlights the predominant demand for reliable electricity, variations in priorities and qualitative themes such as affordability concerns and systemic challenges. Based on these findings, the policy implications propose actionable strategies to balance reliability and affordability while addressing disparities and enhancing service delivery. The conclusion wraps up the findings and underscores the need for targeted interventions/solutions to support Ghana's socio-economic development through an equitable and reliable electricity sub-sector.

6.1 Summary of Research findings

The findings confirm a strong public demand for reliable electricity, with 61.88% preferring stability despite higher costs and 84.73% rating it as "very" or "somewhat important." This aligns with global trends where electricity reliability is critical for economic and social development. Urban regions and high spenders (>GHS 1,000) prioritise reliability due to business and academic needs, while rural regions and low-income groups (students, unemployed) show price sensitivity, tolerating fluctuations.

Moreso, Gender differences indicate males prioritise stability (64.2%) more than females (57.5%), who are more cost-conscious, potentially reflecting income or access disparities. In terms of education, higher education correlates with reliability prioritisation, likely due to professional and academic demands.

Further, the thematic analysis reveals a variation between affordability and reliability. The "Constant price" group (n=167) is driven largely by affordability concerns (49.1%) and economic hardship (26.9%), accepting outages (15.0%) due to systemic distrust (6.0%). Quotes like "My salary cannot afford higher electricity tariffs" highlight financial constraints among students, retirees and low-income individuals. On the other hand, the "Stable electricity" group (n=236) prioritises business productivity (41.5%) and daily life reliability (32.2%), with appliance safety (16.1%) and comfort (10.2%) as key motivators, as seen in "My shop depends on electricity to operate". Additional feedback obtained from participants underscores systemic challenges, including operational inefficiencies, illegal connections and poor communication (20.4%), with calls for tariff reductions (29.4%) and consumer-centric policies (14.0%).

It is important to also report that regional variations suggest urban-rural divides, with urban areas demanding reliability and rural areas prioritising affordability. The high prepaid meter adoption (68.00%) indicates a shift towards pay-as-you-go systems, but affordability remains a barrier for low-income groups. Systemic distrust, as evidenced by "I don't trust ECG nor VRA", underscores the need for enhanced transparency and accountability in electricity provision.

6.2 Implications for Policy

The findings highlight a strong public demand for reliable electricity, particularly among employed, tertiary-educated, and urban respondents. Key policy implications include:

A. **Enhance Grid Reliability:** There is the need for players in the electricity sub-sector and government to invest in infrastructure in order to meet the high stability demands in especially urban regions.

B. **Support Prepaid Meter Adoption:** The dominance of prepaid meters (68.00%) suggests continued policy support for pay-as-you-go systems, but affordability measures are needed for low-income households.

C. Recognize and address the distinct preferences across regions. While urban areas may require enhanced reliability, rural areas might benefit more from affordability measures or support for alternative energy solutions (like solar) where grid access is challenging.

6.3 Conclusion

The findings show that Ghanaians place a high premium on stable and reliable electricity, even if it means paying more. This aligns favourably with the increasing role of electricity in modern life, affecting everything from domestic comfort to business operations. The high level of education and employment among respondents also indicates a capacity and willingness to pay for improved services. The regional spread and diversity of preferences suggest that a one-size-fits-all policy may not be effective. Instead, regional electricity strategies that consider local socio-economic dynamics may yield better outcomes. This study confirms a strong public demand for reliable electricity in Ghana, with a majority willing to pay higher prices for stability. The energy sector stakeholders should prioritise investments in infrastructure to enhance supply reliability, particularly in underserved regions. Additionally, policies should address affordability for low-income households and promote equitable access across genders and regions

APPENDICES: CROSSTABULATIONS AND STATISTICAL TESTS

Appendix 1: Gender and most preferred Electricity and Pricing Option

			MOST PREFERRED ELECTRICITY AND PRICING OPTION						Total
			Stable electricity with increasing electricity price	Constant price with fluctuations in electricity	Fluctuations in electricity and decreasing price	Frequent power outages with decreasing price	Do not pay even if it means inconsistent power supply or outages	Other	
Gender	Male	frequency	1586	418	176	75	149	67	2471
		% within Gender	64.2%	16.9%	7.1%	3.0%	6.0%	2.7%	100.0%
	Female	frequency	740	301	132	40	46	29	1288
		% within Gender	57.5%	23.4%	10.2%	3.1%	3.6%	2.3%	100.0%
Total		frequency	2326	719	308	115	195	96	3759
		% within Gender	61.9%	19.1%	8.2%	3.1%	5.2%	2.6%	100.0%

Appendix 2: Gender and relevance of stable and reliable electricity

			RELEVANCE OF STABLE AND RELIABLE ELECTRICITY				Total
			Very important	Somewhat important	Not important	Other	
Gender	Male	frequency	1586	418	176	67	2471
		% within Gender	64.2%	16.9%	7.1%	2.7%	100.0%
	Female	frequency	740	301	132	29	1288
		% within Gender	57.5%	23.4%	10.2%	2.3%	100.0%
Total		frequency	2326	719	308	96	3759
		% within Gender	61.9%	19.1%	8.2%	2.6%	100.0%

Appendix 3: Education Level and Preferred Electricity and Pricing Option

			MOST PREFERRED ELECTRICITY AND PRICING OPTION						Total
			Stable electricity with increasing electricity price	Constant price with fluctuations in electricity	Fluctuations in electricity and decreasing price	Frequent power outages with decreasing price	Do not pay even if it means inconsistent power supply	Other	
Highest Level of Education	No Formal Education	frequency	89	37	16	17	17	5	181
		% within Highest Level of Education	49.2%	20.4%	8.8%	9.4%	9.4%	2.8%	100.0%
	Basic Education	frequency	218	99	51	15	20	7	410
		% within Highest Level of Education	53.2%	24.1%	12.4%	3.7%	4.9%	1.7%	100.0%
	Secondary Education	frequency	538	237	84	31	35	21	946
		% within Highest Level of Education	56.9%	25.1%	8.9%	3.3%	3.7%	2.2%	100.0%
	Tertiary	frequency	1481	346	157	52	123	63	2222
		% within Highest Level of Education	66.7%	15.6%	7.1%	2.3%	5.5%	2.8%	100.0%
Total		frequency	2326	719	308	115	195	96	3759
		% within Highest Level of Education	61.9%	19.1%	8.2%	3.1%	5.2%	2.6%	100.0%

Appendix 4: Education Level and Preferred Electricity and Pricing Option

			PREFERENCE FOR STABLE AND RELIABLE ELECTRICITY				Total
			Very important	Somewhat important	Not important	Other	
Highest Level of Education	No Formal Education	frequency	80	51	43	7	181
		% within Highest Level of Education	44.2%	28.2%	23.8%	3.9%	100.0%
	Basic Education	frequency	220	142	37	11	410
		% within Highest Level of Education	53.7%	34.6%	9.0%	2.7%	100.0%
	Secondary Education	frequency	497	342	80	27	946
		% within Highest Level of Education	52.5%	36.2%	8.5%	2.9%	100.0%
	Tertiary	frequency	1195	658	114	255	2222
		% within Highest Level of Education	53.8%	29.6%	5.1%	11.5%	100.0%
Total		frequency	1992	1193	274	300	3759
		% within Highest Level of Education	53.0%	31.7%	7.3%	8.0%	100.0%

Appendix 5: Electricity Expenditure and Most Preferred Electricity and pricing Option

			MOST PREFERRED ELECTRICITY AND PRICING OPTION						
			Stable electricity with increasing electricity price	Constant price with fluctuations in electricity	Fluctuations in electricity and decreasing price	Frequent power outages with decreasing price	Do not pay even if it means inconsistent power supply or outages	Other	Total
Average Monthly Electricity Expenditure	Less than GHS 50	frequency	88	57	19	20	14	3	201
		% within Average Monthly Expenditure	43.8%	28.4%	9.5%	10.0%	7.0%	1.5%	100.0%
	GHS 50-300	frequency	1258	467	185	75	64	58	2107
		% within Average Monthly Expenditure	59.7%	22.2%	8.8%	3.6%	3.0%	2.8%	100.0%
	GHS 301-600	frequency	621	26	75	9	95	24	850
		% within Average Monthly Expenditure	73.1%	3.1%	8.8%	1.1%	11.2%	2.8%	100.0%
	GHS 601-1000	frequency	171	143	21	4	10	2	351
		% within Average Monthly Expenditure	48.7%	40.7%	6.0%	1.1%	2.8%	0.6%	100.0%
	More than GHS 1000	frequency	130	0	5	6	0	3	144
		% within Average Monthly Expenditure	90.3%	0.0%	3.5%	4.2%	0.0%	2.1%	100.0%
	I do not pay electricity bills directly	frequency	58	26	3	1	12	6	106
		% within Average Monthly Expenditure	54.7%	24.5%	2.8%	0.9%	11.3%	5.7%	100.0%
Total		frequency	2326	719	308	115	195	96	3759
		% within Average Monthly Expenditure	61.9%	19.1%	8.2%	3.1%	5.2%	2.6%	100.0%

Appendix 6: Electricity Expenditure and Relevance of stable and reliable electricity

			RELEVANCE FOR STABLE AND RELIABLE ELECTRICITY				Total
			Very important	Somewhat important	Not important	Other	
Average Monthly Electricity Expenditure	Less than GHS 50	frequency	69	87	38	7	201
		% within Average Monthly Electricity Expenditure	34.3%	43.3%	18.9%	3.5%	100.0%
	GHS 50-300	frequency	1128	718	133	128	2107
		% within Average Monthly Electricity Expenditure	53.5%	34.1%	6.3%	6.1%	100.0%
	GHS 301-600	frequency	494	181	59	116	850
		% within Average Monthly Electricity Expenditure	58.1%	21.3%	6.9%	13.6%	100.0%
	GHS 601-1000	frequency	150	160	21	20	351
		% within Average Monthly Electricity Expenditure	42.7%	45.6%	6.0%	5.7%	100.0%
	More than GHS 1000	frequency	100	25	2	17	144
		% within Average Monthly Electricity Expenditure	69.4%	17.4%	1.4%	11.8%	100.0%
	I do not pay electricity bills directly	frequency	51	22	21	12	106
		% within Average Monthly Electricity Expenditure	48.1%	20.8%	19.8%	11.3%	100.0%
Total		frequency	1992	1193	274	300	3759
		% within Average Monthly Electricity Expenditure	53.0%	31.7%	7.3%	8.0%	100.0%

Appendix 7: Gender and Electricity Preference

	VALUE	df	ASYMPTOTIC SIGNIFICANCE (2-SIDED)
Pearson Chi-Square	45.310[a]	5	.000
Likelihood Ratio	45.151	5	.000
Linear-by-Linear Association	.031	1	.859
N of Valid Cases	3759		

Appendix 8: Gender and Relevance of Stable and reliable electricity

	VALUE	df	ASYMPTOTIC SIGNIFICANCE (2-SIDED)
Pearson Chi-Square	61.651[a]	3	.000
Likelihood Ratio	68.730	3	.000
Linear-by-Linear Association	13.862	1	.000
N of Valid Cases	3759		

Appendix 9: Education Level and Preferred Electricity and Pricing Option

	VALUE	df	ASYMPTOTIC SIGNIFICANCE (2-SIDED)
Pearson Chi-Square	234.144[a]	15	.000
Likelihood Ratio	219.333	15	.000
Linear-by-Linear Association	1.687	1	.194
N of Valid Cases	3759		

Appendix 10: Education Level and Relevance of Electricity

	VALUE	df	ASYMPTOTIC SIGNIFICANCE (2-SIDED)
Pearson Chi-Square	234.144[a]	15	.000
Likelihood Ratio	219.333	15	.000
Linear-by-Linear Association	1.687	1	.194
N of Valid Cases	3759		

Appendix 11: Electricity Expenditure and Electricity Preference

	VALUE	df	ASYMPTOTIC SIGNIFICANCE (2-SIDED)
Pearson Chi-Square	478.063[a]	25	.000
Likelihood Ratio	537.168	25	.000
Linear-by-Linear Association	4.423	1	.035
N of Valid Cases	3759		

Appendix 12: Chi-Square Test: Electricity Expenditure and Relevance of electricity

	VALUE	df	ASYMPTOTIC SIGNIFICANCE (2-SIDED)
Pearson Chi-Square	234.144[a]	15	.000
Likelihood Ratio	219.333	15	.000
Linear-by-Linear Association	1.687	1	.194
N of Valid Cases	3759		

Our Contacts

HEAD OFFICE
2nd Floor
Ghana Olympic Committee Building
No. 53, Liberation Road, Ridge
P. O. Box CT 3095 Cantonments, Accra
Digital Address: GA-052-9469
Tel: (+233) 302 218300
WhatsApp: (+233) 558 082547
Email: info@purc.com.gh
Website: www.purc.com.gh

ACCRA REGIONAL OFFICE
Ground Floor, GNAT Heights
Opposite Zenith Bank, Liberation Road
Tel: (+233) 302 240046
WhatsApp: (+233) 540 126201

KUMASI
1st Floor, Cocobod Jubilee House
P. O. Box 1001, KNUST
Kumasi, Ashanti Region
Tel: (+233) 322 037510
WhatsApp: (+233) 540 126202

TAKORADI
2nd Floor, GPHA Credit Union House
Behind Bank of Ghana
P. O. Box AX 1985
Takoradi, Western Region
Tel: (+233) 540 126203
WhatsApp: (+233) 540 126203

TAMALE
1st Floor, NCA Building
Opposite Regional Coordinating Council
P. O. Box TL 1870
Tamale, Northern Region
Tel: (+233) 372 026380
WhatsApp: (+233) 540 126204

TECHIMAN
1st Floor, Williams Residence
Close to TMA, Pomaakrom
P. O. Box TH 316, Techiman
Bono East Region
Tel: (+233) 503 522089
WhatsApp: (+233) 531 031443

HO
,2nd Floor, GERCO Plaza
Opposite SG-Bank
P. O. Box HP 1373
Ho, Volta Region
Tel: (+233) 362 028607
WhatsApp: (+233) 540 126206

SUNYANI
Plot 15/16 South Industrial Estate
Sunyani Magazine
P. O. Box SY 1003
Sunyani, Bono Region
Tel: (+233) 352 021653
WhatsApp: (+233) 540 126207

CAPE COAST
First Floor, Data Bank Building
Tantri Road
P. O. Box CC 453
Cape Coast, Central Region
Tel: (+233) 332 137926
WhatsApp: (+233) 540 126208

WA
Katee Plaza, Wa Polytechnic Road
Adjacent Winners Chapel
P. O. Box 445
Wa, Upper West Region
Tel: (+233) 392 024275
WhatsApp: (+233) 540 126209

BOLGATANGA
Ground Floor, NCA Building
Opposite the Regional Hospital
P. O. Box BG 273
Bolgatanga, Upper East Region
Tel: (+233) 382 024524
WhatsApp: (+233) 540 126210

KOFORIDUA
Ground Floor, PURC Building
Galloway, Near Jubilee Park
P. O. Box KF 2781
Koforidua, Eastern Region
Tel: (+233) 342 020770
WhatsApp: (+233) 540 126205

PURC Ghana