



STAKEHOLDER ENGAGEMENT ON THE NEW ENERGY EFFICIENCY REGULATIONS IN SELECTED REGIONAL CAPITALS IN GHANA

Report on Townhall Meetings and Consumer
Engagement

DECEMBER
2024



Energy Efficiency Regulations Stakeholder Engagement Report - 2024

Supervisors

Mr. Kofi Agyarko, Director, Renewable Energy, Energy Efficiency Regulations
Mr. Kennedy Amankwa – Deputy Director, Energy Efficiency Regulations

Report Prepared by Richard Donkor

Report Review Team

Mr. Kofi Agyarko
Mr. Kennedy Amankwa
Abdul-Razak Saeed (PhD)
Gyimah Mohammed
Hubert Nsoh Zan
Anita Amissah-Arthur

Contents

Forward	iv
Statement by UNDP Representative	v
Acknowledgement	vi
1.0 Introduction	1
1.1 Objectives	3
1.2 Scope of Work	3
2.0 Training of Staff of Energy Sector Stakeholders in the Energy Efficiency Regulations	4
2.1 Participants, Presenters, and Topics Covered	4
Table 2.1 Number of Training Participants and Respective Organizations	5
Figure 2.1: Pictorial Representation of Training Participants	6
2.1.1 Presentation 1: Understanding Energy Efficiency Standards	6
2.1.2 Presentation 2: Introduction and Importance of Energy Efficiency Regulations	7
2.1.3 Presentation 3: Highlights of the New Energy Efficiency Regulations.....	7
2.1.4 Presentation 4: Compliances and Enforcement of Energy Efficiency Regulations.....	8
2.1.5 Presentation 5: Introduction to Regulated Appliances Registration	9
Table 2.1.5 Regulated Appliances Registration System Users and Accessibility Options.....	11
2.1.6 Interactive Sessions, Outcomes, and Action Plan.....	11
2.1.7 Post-Training Workshop Evaluation and Feedback	12
Figure 2.1.7 Post Workshop Evaluation Results	13
3.0 Engagement with Policymakers and Regulators	13
3.1 Background	13
3.2 Objectives	14
3.3 Participants and Meeting Discussions	14
Table 3.3 Meeting Participants.....	15
Figure 3.3: Pictorial Representation of Meeting Facets	15
3.4 Interactive Sessions, Outcomes, and Action Plan	16
3.4.1 Key Points Discussed and Highlights from the Presentations:	16
3.4.2 Opportunities for Collaboration	17
Table 3.4.2: Opportunities for Collaboration - Stakeholder Mapping Matrix	18
3.4.3 Capacity Building and Awareness Campaign Strategies	19
Table 3.4.3 Proposed Strategies and Action Points.....	20
3.4.4 Next Steps and Action Plans	21
3.5 Post-Meeting Evaluation	21
Figure 3.5: Meeting Evaluation Chart.....	22
4.0 Engagement with Public and Private Institutions, Media Representatives, and The General Public	22
4.1 Background	22

4.2 Objectives	23
4.3 Approach/Scope of Work	23
4.4 Summary of Activities.....	24
4.4.1 Town Hall Meetings with Selected Consumer Groups and the Media.....	24
Table 4.4.1: Performance of participants in the town hall meeting quiz	26
Figure 4.4.1 Sectorial Breakdown of Town Hall Meetings Participants.....	26
4.4.2 Radio Public Awareness Campaign.....	27
Table 4.4.2 Number of Radio Call-in Quiz Participants.....	27
Figure 4.4.2 Share of Radio Call-in Quiz Winners by Location.....	28
4.5 Regional Distribution of Town Hall Meetings and Radio Campaigns	28
4.5.1 Regional Distribution of Town Hall Meeting Participants	28
Table 4.5.1: Number of Town Hall Meeting Participants	28
Figure 4.5.1 Regional Share of Town Hall Meeting Participants	29
4.5.2 Radio Public Awareness Campaign.....	29
Figure 4.5.2: Radio Quiz Participants and Winners	29
4.5.3 Town Hall Meeting and Radio Campaign Activities in the Western Region.....	30
4.5.4 Town Hall Meeting and Radio Campaign Activities in the Volta Region	32
4.5.5 Town Hall Meeting and Radio Campaign Activities in the Eastern Region.....	34
4.5.6 Town Hall Meeting and Radio Campaign Activities in the Ashanti Region.....	36
<i>Figure 4.5.6.1: Pictorial Representation of Town Hall Activities in Kumasi, Ashanti Region</i>	<i>37</i>
4.5.7 Town Hall Meeting and Radio Campaign Activities in the Bono Region	38
<i>Figure 4.5.7.1: Pictorial Representation of Town Hall Activities in Sunyani, Bono Region</i>	<i>39</i>
4.5.8 Town Hall Meeting and Radio Campaign Activities in the Upper East Region	41
<i>Figure 4.5.8.1: Pictorial Representation of Town Hall Activities in Bolgatanga, Upper East Region.....</i>	<i>42</i>
4.5.9 Town Hall Meeting and Radio Campaign Activities in the Northern Region.....	43
4.5.10 Town Hall Meeting and Radio Campaign Activities in the Upper West Region	45
4.5.11 Town Hall Meeting and Radio Campaign Activities in the Greater Accra Region.	47
4.5.12 Radio Campaign Activities in the Central and Savannah Regions	50
4.5.13 Post-Town Hall Meeting Feedback and Evaluation	50
4.6 Gender Representation in Town Hall Meetings and Radio Awareness Campaigns	51
Table 4.6.1 Town Hall Meeting Gender Representation	52
Table 4.6.2 Radio Public Awareness Campaign Call-in Segment Gender Participation	52
5.0 Conclusion and Recommendations	53

Forward



The stakeholder engagement on the new energy efficiency regulations marks a critical step in the implementation and enforcement of regulations for 19 regulated electrical appliances. This report provides a comprehensive account of the engagement efforts involving key stakeholders such as policymakers, regulators, ministries, departments, agencies, industry associations, the media, consumer groups, and the general public for the year 2024.

We are confident that the insights shared in this report will be valuable to a wide range of stakeholders, including policymakers, regulated appliance dealers, consumer groups, and donors, as it highlights the progress achieved in advancing energy efficiency in Ghana.

We extend our sincere gratitude to the United Nations Development Programme (UNDP) and the Ministry of Environment, Science, Technology, and Innovation (MESTI) for their collaboration and funding under Climate Promise and Partnership for Action on Green Economy (PAGE), which have been instrumental in driving meaningful impact within the energy efficiency regulatory landscape in Ghana.

We would like to extend a special recognition to the Consumer Electronics and Home Appliances Alliance Ghana for generously donating a range of energy-efficient appliances awarded as prizes during the post-engagement town hall quiz and the radio phone-in quiz segment.

We also wish to acknowledge the invaluable contributions of all participants across the various workshops. The feedback gathered through workshop evaluations has been instrumental in refining our approach and strengthening our collaboration with key organizations, driving collective efforts to regulate and improve the appliances market in Ghana.

We warmly invite feedback, comments, and suggestions from our readers, as they are crucial to the ongoing improvement of future engagements and initiatives.

Ing. Oscar Amonoo-Neizer
EXECUTIVE SECRETARY

Statement by UNDP Representative



The new energy efficiency regulations introduced by the Government of Ghana are pivotal to the country's efforts in addressing climate change and fulfilling its commitments under the United Nations Framework Convention on Climate Change (UNFCCC). These regulations are designed to promote sustainable energy use, reduce carbon emissions, and enhance the nation's resilience to energy security. However, achieving a nationwide roll-out, widespread adoption, and effective implementation of these regulations requires the active engagement of various stakeholders, including government bodies, private sector actors, civil society organizations, and the public. Awareness-raising campaigns and tailored capacity-building programs are essential to fostering understanding, ensuring buy-in, and facilitating the necessary behavioral changes across all levels of society.

Aligned with UNDP Ghana's commitment to supporting the Government of Ghana in realizing its low-carbon development priorities, we partnered with the Energy Commission and the Ministry of Environment, Science, and Technology to launch a series of stakeholder training and awareness campaigns across the country, under UNDP's Climate Promise Initiative in 2024. These initiatives aimed to educate and empower stakeholders on the importance of energy efficiency and equip them with the knowledge and tools needed for successful implementation.

Stakeholder engagement plays a crucial role in ensuring inclusivity and equitability. By involving diverse groups across society, these engagements contribute to deeper local ownership, ensuring that energy efficiency initiatives are not only accepted but also actively supported across Ghana. Stakeholder inclusion, however, demands ongoing engagement, which can be resource-intensive. As a result, it necessitates increased funding from donors to ensure sustained efforts and effective implementation.

Saeed Abdul-Razak, PhD
*Lead, Environment & Climate Cluster Programme Specialist
Env't & Climate Partnership and Resource Mobilization a.i
United Nations Development Programme (UNDP)*

Acknowledgement

The Energy Commission expresses its heartfelt gratitude to all individuals and organizations who contributed to the success of the 2024 Stakeholder Engagement initiative. Special thanks go to:

- ❖ **The United Nations Development Programme (UNDP)** and the **Ministry of Environment, Science, Technology, and Innovation (MESTI)** for their funding and technical support.
- ❖ **The Public Utilities Regulatory Commission (PURC)** for deploying key personnel across all selected regional capitals to offer valuable technical support.
- ❖ **Consumer Electronics and Home Appliances Alliance Ghana** for generously donating energy-efficient appliances as quiz prizes.
- ❖ **Participants and Facilitators:** Their active engagement and constructive feedback were instrumental in refining the program.
- ❖ **Media Partners:** For their critical role in raising public awareness through impactful radio campaigns.

Your collective efforts have significantly advanced the journey toward a more energy-efficient Ghana.

1.0 Introduction

Effective stakeholder engagement ensures that energy efficiency policies are well-rounded and address the needs and challenges of diverse groups. By involving community groups, industry leaders, and non-governmental organizations in the policy formulation process, policymakers can gather insights and feedback that result in more practical and acceptable regulations. This collaborative approach not only enhances the quality of regulations but also fosters a sense of ownership among stakeholders, which is crucial for achieving buy-in and compliance.

Many stakeholders may lack the knowledge or resources needed to comply with new energy regulations. Engaging with stakeholders provides an opportunity for capacity building and the dissemination of knowledge. Workshops, training sessions, and awareness campaigns can empower stakeholders by equipping them with the necessary skills and understanding to implement energy-saving practices. This education is pivotal for both large corporations and small household units, which may otherwise struggle to adapt to new standards.

Continuous engagement with stakeholders allows for the establishment of effective monitoring and feedback mechanisms that are integral to the enforcement of energy efficiency regulations. Stakeholders can play a critical role in reporting non-compliance or obstacles encountered during implementation, providing valuable insights for regulatory bodies to refine and enhance policies. This ongoing dialogue enhances transparency and accountability, helping to build trust and cooperation between the government and the populace.

As delineated within Section 2 (Objective and Functions of the Commission) of the Energy Commission Act, 1997 (Act 541), the Energy Commission is entrusted with the crucial responsibility of promoting energy efficiency and the judicious utilization of electricity, natural gas, and petroleum products. In alignment with this mandate, the Commission has embarked on a series of initiatives to introduce and enforce a mandatory appliance standard and labelling (S&L) regime in Ghana. The overarching objectives of this regime are twofold: to curb the influx of substandard electrical appliances into the market and to uphold the nation's commitments to international environmental treaties.

Ghana's commitment to global environmental stewardship is underscored by its status as a signatory to the 2015 Paris Agreement on Climate Change. Aligned with the Agreement's objectives of limiting global warming to 1.5 degrees Celsius, Ghana has developed and is actively implementing its Nationally Determined Contributions (NDCs) to mitigate carbon emissions and their adverse environmental impacts and contribute to the global efforts to achieve the goals of the Paris

Agreement. Additionally, Ghana is a party to several significant multilateral environmental agreements (MEAs), including the Basel Convention, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Montreal Protocol, and the Rotterdam Convention. In 2022, Ghana's Parliament approved 17 new regulations and updated three existing ones on electrical appliances, aimed at broadening the scope of the S&L regime and strengthening the enforcement of existing regulations. These regulations cover a wide array of appliances, including refrigerators, air conditioners, and microwaves. This legislation enforces compliance with MEPS, introduces star ratings, and mandates the registration of all models of regulated appliances. Ghana's regulatory efforts in the electrical appliances space underscore its dedication to environmental sustainability and energy efficiency.

To ensure widespread acceptance and compliance with these regulations, it is imperative to maintain ongoing engagement with all relevant stakeholders. This entails dispelling misconceptions and fostering awareness among key stakeholders about the content, requirements, and benefits of these Legislative Instruments (LIs) with the main goal of achieving the agenda for transforming the electrical appliances market toward a more sustainable and energy-efficient future. By engaging with stakeholders, including prospective manufacturers, importers, retailers, consumers, and policymakers, we can build a shared understanding of the importance of energy efficiency regulations and drive collective action toward the nation's effort to reduce energy consumption and combat climate change.

Following the introduction of new regulations in November 2022, a comprehensive stakeholder engagement initiative was launched in 2023. This effort targeted key groups, including regulated appliance importers, retailers, prospective manufacturers, enforcement agencies, and selected donor organizations in collaboration with GIZ. The initiative successfully reached 186 new appliance importers, 76 second-hand appliance dealers, and 287 enforcement agency personnel. Engagement activities were conducted through a range of formats, such as informative training workshops and impactful conferences, which highlighted the key aspects of the new regulations. These sessions also provided practical, hands-on training on using the appliance registration system.

The United Nations Development Programme (UNDP), committed to supporting the Government of Ghana in achieving its Nationally Determined Contributions (NDCs) targets under the 2015 Paris Agreement, partnered closely with the Energy Commission and the Ministry of Environment, Science, Technology, and Innovation to conduct essential stakeholder engagement activities in the regulated appliances sector. These efforts are part of a larger strategy to advance key initiatives that promote energy efficiency and sustainable practices in Ghana's appliance market.

Facilitated through the UNDP Ghana Country Office's Climate Promise funds, the activities undertaken included:

- ❖ Training professionals and staff from key energy and power sector stakeholders on the new energy efficiency regulations for electronics, electrical appliances, and energy transition;
- ❖ Engaging policymakers and regulators in implementing energy efficiency standards for appliances and electronics;
- ❖ Organizing outreach programs and workshops across various regions in Ghana to raise awareness about the new regulations and encourage energy efficiency in public and private institutions.

These initiatives underscore the commitment of UNDP and its partners to foster an informed, collaborative approach toward sustainable energy use in Ghana.

1.1 Objectives

The main objectives of this initiative included the following;

1. To raise awareness among stakeholders about the importance of energy efficiency regulations for electrical appliances.
2. To foster collaboration and dialogue with prospective manufacturers, retailers, consumers, policymakers, and industry associations to drive the successful implementation of energy efficiency regulations.
3. To address concerns, gather feedback, and incorporate stakeholders' perspectives in the implementation and enforcement of energy efficiency regulations.
4. To promote the benefits of energy-efficient appliances in terms of cost savings, environmental impact, and improved product performance.
5. Solicit feedback and input from stakeholders to inform refinement of regulatory frameworks and enforcement mechanisms.
6. Build capacity among stakeholders to comply with energy efficiency standards and promote the adoption of energy-efficient technologies and practices.

1.2 Scope of Work

Training sessions and capacity-building workshops were meticulously organized to enhance stakeholders' understanding of energy efficiency standards, testing procedures, and labeling requirements. These sessions equipped stakeholders with the knowledge and skills necessary for effective compliance with the new regulations.

In addition, town hall meetings were held for specific groups, including prospective regulated appliance dealers, media representatives, and consumer groups. These meetings familiarized participants with the new regulations and addressed questions or concerns.

To further amplify public awareness efforts, educational materials such as jingles, brochures, and flyers were developed and distributed to educate the general public on the importance of energy efficiency and the requirements of the new regulations.

A comprehensive radio awareness campaign was also launched across selected regions of the country, featuring technical discussions, interviews, jingles, live phone-in programs, and Q&A sessions on selected radio stations. Through these initiatives, public concerns and queries regarding the regulations were addressed, ensuring widespread understanding and support for compliance.

2.0 Training of Staff of Energy Sector Stakeholders in the Energy Efficiency Regulations

Ministries and state-owned enterprises (SOEs) are central in advancing energy efficiency initiatives by offering critical oversight, policy alignment, and resources. These ministries ensure that energy efficiency regulations are consistent with national energy policies and broader development goals, such as environmental protection and economic growth. This alignment allows energy initiatives to support sustainable energy use and emissions reduction while reinforcing national objectives. Ministries also provide regulatory authority for compliance, access government funding, secure international support, and foster collaboration across sectors, integrating efficiency standards throughout major energy-consuming areas. Their trusted public role enables broad awareness campaigns and educational programs that promote conservation and responsible consumption. Additionally, ministries help countries meet international obligations, like the Paris Agreement and UN SDGs, solidifying their position as leaders in sustainable development. The involvement of energy sector ministries is vital for cohesive, effective, and sustainable energy policies that align with both national and global goals.

The engagement with the ministries and SOEs was initiated by a three-day training workshop which was held in Koforidua at the Capital View Hotel from 7th to 10th May 2024. The workshop provided a conducive platform for knowledge-sharing, capacity-building, and networking among participants, thereby contributing to the advancement of energy efficiency initiatives in Ghana. Additionally, it facilitated discussions to gather perspectives aimed at refining Ghana's strategies and approaches to energy efficiency.

2.1 Participants, Presenters, and Topics Covered

The training brought together 30 participants representing a diverse range of stakeholders from 14 institutions within the energy sector. Of the attendees, 20 (67%) were male, and 10 (33%) were female, reflecting a balanced effort to engage professionals across genders.

The workshop featured five (5) expert presenters from the Energy Commission, who covered a wide range of topics related to energy efficiency regulations. Some of the key topics discussed during the training included:

- ❖ Understanding Energy Efficiency Standards
- ❖ Importance of Energy Efficiency Regulations
- ❖ Highlights of the New Energy Efficiency Regulations
- ❖ Compliances and Enforcement of Energy Efficiency Regulations
- ❖ Introduction to Regulated Appliances Registration
- ❖ Strengthening Institutional Collaboration in the enforcement of the Energy Efficiency Regulations.

Table 2.1 provides a detailed breakdown of the participants list and their respective organizations, while Figure 2.1 offers a visual representation of the training activities.

Table 2.1 Number of Training Participants and Respective Organizations

Organization	Number of Participants
United Nations Development Programme (UNDP)	2
Energy Efficiency Regulation Unit, Energy Commission	6
Environmental Protection Agency	2
Ministry of Environment, Science, Technology and Innovation	2
Ministry of Trade and Industry	2
Association of Ghana Industries	2
Ghana Revenue Authority - Customs Division	2
Ghana Standards Authority	2
Ministry of Energy	2
Energy Foundation	2
Council of Scientific and Industrial Research	2
Ministry of Justice and Attorney General Department	2
Renewable Energy Regulation Unit (EC)	1
Policy, Planning, Research, Monitoring and Evaluation Unit (EC)	1
Total	30

Figure 2.1: Pictorial Representation of Training Participants



2.1.1 Presentation 1: Understanding Energy Efficiency Standards

In this first presentation, participants were introduced to the critical role of standardization in mitigating ambiguity and promoting fairness within regulatory frameworks. The presenter commenced by delineating between standards and labels, elucidating the various types of energy efficiency standards, and outlining the short and long-term benefits associated with their implementation.

Key emphasis was placed on several pivotal benefits, including:

- ❖ Capital savings stemming from reduced capacity expansion of thermal power plants, as energy demand diminishes consequent to energy efficiency initiatives.
- ❖ Enhanced national economic efficiency, reflecting the optimization of resources and reduction of wastage.
- ❖ The alignment of energy efficiency standards with broader climate change mitigation objectives, thereby contributing to the attainment of environmental sustainability goals.

Additionally, participants were briefed on the critical significance of Ghana's energy efficiency standards being underpinned by robust regulatory frameworks. Such frameworks are essential to ensure the effective implementation and enforcement of these standards. This underscores the pivotal role of legislative support in enhancing the efficiency of energy-saving measures and facilitating their seamless integration into national policies and practices.

2.1.2 Presentation 2: Introduction and Importance of Energy Efficiency Regulations

The crust of this presentation provided a comprehensive overview of Ghana's journey in implementing energy efficiency initiatives, tracing its history and key milestones. It began by illustrating Ghana's energy landscape in the 1960s when it was characterized as a high-energy intensity country lacking clear energy efficiency policies. The subsequent power crises prompted the implementation of measures aimed at addressing these challenges and reducing energy demand.

This period marked the establishment of the Energy Board in 1985, later transformed into the Energy Commission in 1997. The decision to embrace standards and labeling in Ghana was taken in 2002, positioning the country as a pioneer in this regard. Notably, Ghana's proactive approach extended to conducting the first lighting retrofit project in Africa.

The presentation also underscored the significant impact of the Refrigerator Efficiency project. By 2005, the average refrigerator consumed approximately 1,200 kWh per annum, a figure drastically reduced to 333 kWh by 2022. This initiative has resulted in a cumulative substantial energy savings, amounting to approximately 580 GWh. To put this into perspective, these savings equate to more than half of the annual generation capacity of the Bui dam(1000GWh), valued at US\$790 million.

This highlights the principle that it is more economical and environmentally sustainable to conserve energy through efficiency measures than to invest in additional generation capacities. Thus, the presentation emphasized the importance of prioritizing energy conservation as a cornerstone of Ghana's energy strategy moving forward.

2.1.3 Presentation 3: Highlights of the New Energy Efficiency Regulations

Under this topic, participants were introduced to the new Energy Efficiency (EE) Standards & Labelling regulations encompassing nineteen (19) electrical appliances. The presentation underscored three key points pivotal to understanding these regulations:

1. The scope of application: The regulations pertain exclusively to electric mains-operated appliances manufactured or imported into the country for sale or use. It was emphasized that appliances relying on alternative energy sources such as solar are exempt from these regulations.
2. Prohibition of circumvention devices: The regulations explicitly prohibit the use of circumvention devices during appliance testing. This measure ensures the integrity of the testing process and the accuracy of results.
3. Importer and manufacturer responsibilities: Participants were briefed on the specific responsibilities assigned to importers and manufacturers of regulated appliances. Additionally, penalties associated with various offenses were outlined, including:

- ❖ Failure to comply with labeling requirements, providing misleading information, or failing to meet Minimum Energy Performance Standards (MEPS).
- ❖ Neglecting to register appliances, advertising without accurate information, or engaging in improper distance selling practices.
- ❖ Violating seizure orders or obstructing enforcement authorities from performing their duties.

Furthermore, the presentation delved into the comparison between the old and new yellow labels, highlighting new features such as QR codes, the adoption of a 7-star rating system, and the inclusion of Global Warming Potential (GWP) information for cooling appliances.

In the subsequent sessions, participants received instruction on determining the efficiency level of appliances through the calculation of the energy efficiency index (EEI). This index serves as an indicator that an appliance meets the minimum energy performance standard, thereby qualifying for a star rating based on its performance. Unique criteria and parameters for measuring EEI were discussed, with specific examples provided for appliances like fans, where the blade dimensions play a crucial role.

The session also informed participants of the availability of equipment for verifying the air delivery rate of fans, ensuring compliance with regulatory standards. Practical exercises were conducted to enable participants to calculate the energy efficiency index of various refrigerator models, facilitating a deeper understanding of the star rating system and its application.

Overall, these presentations provided participants with comprehensive insights into the new EE Standards & Labelling regulations, empowering them to navigate compliance requirements and contribute to energy efficiency initiatives effectively.

2.1.4 Presentation 4: Compliances and Enforcement of Energy Efficiency Regulations

This presentation involved a comprehensive overview of the enforcement processes for used appliances at the ports of entry, providing a step-by-step illustration of the procedures involved.

These steps include:

- ❖ Detection of used appliances.
- ❖ Conducting physical examinations.
- ❖ Assignment of personnel responsible for breaking down appliances at the port premises.
- ❖ Loading materials onto trucks.
- ❖ Transportation of broken-down appliances to a dumping site at designated locations.

- ❖ Dropping off materials at the site, with further actions assumed by the Environmental Protection Agency (EPA).

The impact of the enforcement of L.1.1932 (the ban on used refrigerators & air conditioners) was emphasized, with over 6 million used fridges prohibited from the market between 2013 and 2022, resulting in savings of almost 8,000 GWh.

Participants were briefed on the market surveillance and monitoring activities conducted by the Energy Commission, including nationwide surveillance of appliances in shops, showrooms, and the general market to track and remove sub-standard appliances. Compliance levels of shops and markets have consistently ranged between 97% and 99% over a five-year period (2017-2022).

An impact analysis covering the period from 2010 to 2020 was conducted to assess the performance of initiatives and associated impacts. The national and household impact of Minimum Energy Performance Standards (MEPS) on the refrigerator market, as well as energy efficiency achievements since 2006 (including CFL lighting retrofit, refrigerator rebate scheme, the ban on used fridges and ACs, electricity savings made, savings in electricity bills, import of new appliances, etc.), were highlighted.

Key enforcement challenges were also discussed, including inadequate testing facilities for all regulated appliances. It was noted that some appliances may only require portable tools such as temperature sensors for verification. The Refrigerator and Air conditioner testing facility at the Ghana Standards Authority (GSA) was recognized as the largest in West Africa.

Participants were introduced to the key features of the GH-Certified appliances application, allowing users to retrieve information about appliance status, including compliance with MEPS, by inputting model numbers. The app also provides data on the compliance status of nearby appliance retailers, empowering consumers to make well-informed decisions. It serves as a repository for model numbers of regulated appliances, categorized from one star to five stars based on their energy efficiency rating.

2.1.5 Presentation 5: Introduction to Regulated Appliances Registration

The presentation on the regulated appliances registry provided a practical demonstration of navigating the product registration system. This system serves a diverse range of stakeholders including policymakers, regulators, customs officials, manufacturers, importers (for submitting test reports), distributors, retailers, and consumers, among others. It functions as a comprehensive tool for capturing detailed information on products available in the market, facilitating effective monitoring and compliance enforcement.

In addition to theoretical discussions, a hands-on training component was integrated, focusing on the utilization of the regulated appliances product registration system. This system serves as a pivotal tool for capturing specific information related to appliances, essential for supporting policies and programs. Often employed as part of a standards and labeling program, the system is designed to compile product-specific details for all appliances available in the market.

The web-based regulated appliances registration system serves as the initial compliance gateway for products seeking entry into the market. By doing so, it plays a crucial role in ensuring that anticipated energy and greenhouse gas savings are effectively realized. In the Ghanaian context, this regulated appliance registration system stands as a national facility, encompassing a diverse range of information. From a simple list of eligible products to comprehensive datasets tailored to address various policy, market, and compliance needs, the system is a robust repository supporting the energy efficiency landscape in the country.

The overarching objective of the appliances product registration system is multifaceted, aiming to drive a transformation in the appliance market, facilitate effective monitoring and evaluation of regulated appliances, and function as a reliable data source. These objectives collectively contribute to enhancing the efficiency and sustainability of the energy landscape.

Table 2.1.5 meticulously outlines the regulated appliance registration system, delineating the various users and accessibility options associated with this pivotal tool. This structured presentation provides a comprehensive overview, ensuring clarity in understanding the roles and functionalities assigned to different stakeholders. The table serves as a valuable reference point, aligning with the strategic goals of the energy sector and emphasizing the importance of collaboration and transparency in achieving these objectives.

Table 2.1.5 Regulated Appliances Registration System Users and Accessibility Options

User	Functionalities
Regulator/Inspector	<ul style="list-style-type: none"> • Control (regulate) the sale of energy-efficient products • Monitor compliance and identify products at risk of non-compliance. • Facilitate enforcement actions (provides evidence base) • Capture data on compliance actions undertaken. • Collect fees (as applicable)
Policy Makers (EC & Other Stakeholders)	<ul style="list-style-type: none"> • Establish product efficiency baselines. • Track trends in product efficiency over time (program evaluation). • Inform updates to MEPS levels and labels. • Facilitate reporting of national energy data to international bodies
Importers and Possible Manufacturers	<ul style="list-style-type: none"> • Easily register products. • Promote their most energy-efficient products. • Track competitors claims of performance and report instances of non-compliance
Distributors and Retailers	<ul style="list-style-type: none"> • Check the registration status of specific product models to be distributed/sold. • Access energy label data. • Track competitors claims of performance and report instances of non-compliance
Consumers / General Public	<ul style="list-style-type: none"> • Inform purchasing decisions (compare and contrast models) on a variety of topics. • Calculate lifetime energy consumption and running costs • Educate and raise public awareness of energy efficiency • Register complaints of suspected non-compliant products
Other Programmes and Project Managers	<ul style="list-style-type: none"> • Provide the basis for related incentive and/or procurement programmes intended to promote the greater use of energy-efficient products.

As a follow up to the registration system, the presentation also introduced energy conservation tips and measures applicable to both homes and workplaces. These included conducting walk-through energy audits, which can reveal insights into energy usage patterns and highlight areas for potential improvement. Implementation of audit findings may necessitate adjustments in energy consumption behavior to optimize efficiency and reduce wastage.

2.1.6 Interactive Sessions, Outcomes, and Action Plan

The training also included interactive sessions where participants had the opportunity to engage with the presenters and discuss real-life examples of energy efficiency initiatives such as stakeholder collaboration in the implementation and enforcement of energy efficiency regulations. These sessions allowed participants to share their experiences and learn from each other’s challenges in the implementation of energy efficiency projects.

At the end of the training, participants gained a deeper understanding of energy efficiency regulations and the importance of promoting energy conservation in their respective organizations. They also learned about the latest trends and best practices in energy efficiency, which they could apply in their work to drive positive change in the country.

As a continuation of the training, participants were urged to create actionable plans aimed at disseminating the acquired knowledge on the latest energy efficiency regulations within their respective institutions. Additionally, they were encouraged to outline tangible strategies for implementing energy efficiency measures within their organizations.

These action plans may encompass a variety of initiatives, including but not limited to:

- ❖ Setting specific energy conservation objectives tailored to the organization's needs and capabilities.
- ❖ Undertaking comprehensive energy audits to identify areas of inefficiency and opportunities for improvement.
- ❖ Implementing energy-saving technologies and practices aimed at curbing energy consumption and minimizing greenhouse gas emissions.

By developing and implementing these action plans, participants can play a pivotal role in driving sustainable energy practices and fostering a culture of environmental responsibility within their organizations

2.1.7 Post-Training Workshop Evaluation and Feedback

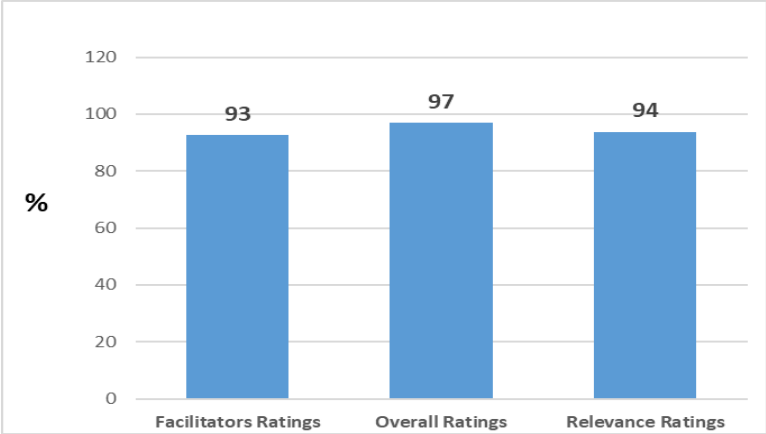
Training evaluation serves as a systematic process aimed at analyzing and assessing the impact of a training program, while also soliciting feedback to enhance its effectiveness. It endeavors to ascertain whether the training program aligns with its intended goals and objectives.

Consequently, participants were required to assess their overall training experience in three critical areas by completing structured evaluation questionnaires. These dimensions included the overall organization of the training workshop, the performance of facilitators and presenters, and the relevance of the training content.

Results from the evaluation revealed commendable performance across all three critical areas, with scores surpassing the 90% mark. Specifically, the relevance of the training received a score of 94%, the performance of facilitators and presenters garnered a score of 93%, and the overall training experience attained an impressive score of 97%.

Figure 2.1.7 illustrates the post-evaluation performance of the training workshop, depicting the favorable outcomes achieved across the evaluated dimensions.

Figure 2.1.7 Post Workshop Evaluation Results



3.0 Engagement with Policymakers and Regulators

3.1 Background

Policymakers and regulatory agencies are pivotal in the implementation of energy efficiency regulations by ensuring compliance, promoting sustainable energy use, and enhancing public awareness. These key entities develop and enforce policies aimed at improving energy efficiency across various industries and among end-users. They are responsible for setting appliance standards, conducting thorough inspections and audits, and imposing penalties for non-compliance.

In their efforts to engage the public, these agencies run educational campaigns and labeling programs to inform consumers about the energy performance of products. To further support energy conservation, they offer incentive schemes such as grants and subsidies to encourage the adoption of efficient technologies. Moreover, they collaborate with international partners to secure funding and incorporate global best practices into their local strategies. Through continuous monitoring and evaluation, these agencies refine policies to enhance the effectiveness of energy efficiency initiatives, ensuring alignment with Ghana’s broader energy and environmental goals.

As part of the implementation strategies for the new energy efficiency regulations and to maintain a continuous dialogue with key institutions, a comprehensive two-day meeting was organized with selected policymakers and regulators. This strategic initiative aimed to strengthen the involvement of professionals from various policymaking and regulatory bodies. The meeting served as a dynamic forum for participants to share their expertise, build capacity, and establish valuable connections. This collaborative approach was designed to enhance Ghana’s energy efficiency initiatives, fostering sustainable practices and accelerating progress toward the country's sustainable energy goals.

3.2 Objectives

The main objectives of this initiative included the following;

1. To discuss the current status of the energy efficiency regulations and explore opportunities for collaboration and enhancement.
2. To raise awareness among policymakers and regulatory organizations about the importance of energy efficiency regulations for electrical appliances.
3. To conceive and suggest possible policies required to address the diverse needs of stakeholders to drive the successful implementation and enforcement of the new energy efficiency regulations.
4. Solicit feedback and input from policymakers and regulatory bodies to inform the refinement of regulatory frameworks and create market opportunities for energy-efficient appliances and services.

3.3 Participants and Meeting Discussions

A total of 25 individuals from 16 distinct organizations participated in the meeting, representing a diverse array of sectors and expertise. Among the attendees, 17 were male, making up 68% of the participants, while 8 were female, accounting for the remaining 32%.

The participants were drawn from various sectors, ensuring a well-rounded dialogue. Specifically:

- ❖ Nine (9) attendees (36%) were from regulatory organizations, contributing oversight and governance perspectives.
- ❖ Ten (10) participants (40%) represented policy institutions, offering insights into strategic planning and policy development.
- ❖ Three (3) individuals (12%) came from industry stakeholders and consumer advocacy groups, ensuring that the interests of business practitioners and end-users were represented.
- ❖ The final three (3) participants were from the donor agency, UNDP, underscoring their role in supporting and facilitating the meeting's objectives.

This diverse representation enriched the discussions, fostering a holistic exchange of ideas and perspectives integrating viewpoints from regulatory, policy, and practical industry domains. Table 3.3 and Figure 3.3 below depict the number of participants with their related organizations and pictorial representation of meeting facets respectively.

Table 3.3 Meeting Participants

Organization	Category	Number of Participants
United Nations Development Programme (UNDP)	Donor	2
Energy Efficiency Regulation Unit, Energy Commission	Regulatory	5
Environmental Protection Agency	Regulatory	1
Ministry of Environment, Science, Technology and Innovation	Policy	1
Ministry of Trade and Industry	Policy	1
Ministry of Energy	Policy	1
Ministry of Justice and Attorney General Department	Policy	2
Public Utility and Regulatory Commission	Regulatory	2
Policy, Planning, Research, Monitoring and Evaluation Unit(EC)	Policy	1
United Nations Country Representative	Donor	1
Electricity Company of Ghana	Industry	1
Ministry of Finance	Policy	2
Consumer Protection Agency		1
Public Procurement Agency	Regulatory	1
Ministry of Gender, Children and Social Protection	Policy	1
Association of New Appliances Importers	Association	1
National Development Planning Commission	National Planning	1
Total		25

Figure 3.3: Pictorial Representation of Meeting Facets



3.4 Interactive Sessions, Outcomes, and Action Plan

The meeting began with a brief but engaging introduction of participants, during which attendees shared their professional backgrounds and roles in advancing energy efficiency. This interactive session set the stage for a collaborative and productive dialogue, highlighting the diverse expertise and perspectives present in the room.

The facilitator then outlined the primary objectives of the meeting, emphasizing three key goals:

1. Enhancing existing energy efficiency regulations to align with evolving needs.
2. Strengthening collaboration among regulatory bodies, policy institutions, industry stakeholders, and consumer groups, and
3. Promoting sustainable practices that reduce energy waste and support environmental conservation.

3.4.1 Key Points Discussed and Highlights from the Presentations:

Comprehensive presentations were delivered, covering both the existing and newly introduced energy efficiency regulations. The discussions provided a thorough examination of the regulatory landscape, offering valuable insights into achievements, updates, and implementation mechanisms.

1. Achievements Under Existing Regulations:

- **Improved Compliance Rates:** Demonstrating significant progress in adherence to energy efficiency standards by manufacturers, suppliers, and end-users.
- **Reduction in Energy Waste:** Showcasing measurable decreases in energy consumption through the adoption of regulated appliances and practices.
- **Successful Stakeholder Initiatives:** Highlighting collaborative programs that have fostered awareness, innovation, and alignment across various sectors.

2. Overview of New Regulations:

The presentation on the newly established regulations provided a detailed roadmap for their implementation and enforcement, focusing on the following areas:

- **Objectives:** Clearly defining what the new regulations aim to achieve, including enhancing energy savings, reducing greenhouse gas emissions, and promoting sustainable practices.
- **Roles and Responsibilities:** Identifying the duties and obligations of all stakeholders, including manufacturers, importers, distributors, and consumers.
- **Appliance Registration Process:** Outlining the step-by-step requirements for registering appliances under the new regulations, ensuring transparency and ease of compliance.
- **Expanded Scope:** Introducing new categories of electrical appliances that are now subject to energy efficiency regulations, broadening the impact of the framework.

3. Enforcement Mechanisms:

- **Authority Powers:** Detailing the enforcement authority's capabilities to monitor compliance, address non-compliance, and uphold the integrity of the regulations.
- **Petition Processes:** Explaining the procedures for stakeholders to raise concerns or petitions regarding enforcement or interpretation of the regulations.
- **Offenses and Penalties:** Clearly defining violations under the new regulations and their associated penalties, ensuring accountability and deterrence against non-compliance.

The presentations emphasized the importance of collaborative efforts among stakeholders to ensure the successful adoption and enforcement of these regulations, paving the way for a more energy-efficient future.

3.4.2 Opportunities for Collaboration

A structured brainstorming session was conducted to identify and explore potential opportunities for collaboration among key groups, including regulators, policymakers, industry stakeholders, and advocacy organizations. This interactive session aimed to uncover synergies and strategies to strengthen partnerships and enhance the effectiveness of energy efficiency regulations initiatives.

During the session, participants deliberated on ways to align regulatory frameworks with national energy efficiency goals and international commitments. The discussions emphasized the importance of cohesive strategies that leverage the strengths of various stakeholders to achieve shared objectives.

To facilitate a focused and productive brainstorming process, participants were organized into three groups. Each group was tasked with developing an "**Opportunity for Collaboration Stakeholder Mapping Matrix**" to systematically map and analyze potential areas of partnership. The development of the matrix followed clear instructions, which included the following components:

1. **Stakeholder Identification:** Listing relevant stakeholders, including their organizational roles and influence.
2. **Sector Classification:** Categorizing stakeholders by their respective sectors, such as government, private industry, or civil society.
3. **Potential Contribution:** Outlining the specific contributions each stakeholder could make, such as technical expertise, funding, or advocacy.
4. **Engagement Strategies:** Proposing tailored approaches for engaging stakeholders effectively to maximize collaboration.
5. **Level of Importance:** Prioritizing stakeholders based on their impact potential and relevance to energy efficiency goals.

At the conclusion of the session, the outputs from all three groups were consolidated into a unified **"Opportunity for Collaboration Stakeholder Mapping Matrix"**, which provided a comprehensive overview of stakeholder roles and collaborative opportunities. This consolidated matrix, as shown in Table 3.4.2, serves as a strategic tool to guide future partnerships and ensure the alignment of efforts across all sectors.

Table 3.4.2: Opportunities for Collaboration - Stakeholder Mapping Matrix

Stakeholder Name	Stakeholder focus (industry/sector)	Potential Contribution(s) What could they do?	Engagement Approach- How can we engage them?	Importance (High, Medium, Low)
Ghana Union of Traders' Association (GUTA)	Trade Association	Education, Awareness raising	Consultation	High
Public Utilities Regulatory Commission (PURC)	Regulators, Appliance Industry, End-User	Education, Awareness raising	Consultation	Medium
Importers Association (including those who import electrical appliance)	Importers Association	Standardization, Education, Awareness raising	Consultation, MoU	High
Consumer protection Agency	Advocacy Agency	Education, Awareness raising	Consultation	Medium
Public Procurement Authority (PPA)	Procurement Authority	Enforcement (influence adoption via all government agencies), Education, Awareness raising	Consultation	High
Ministry of Local Government, Decentralization and Rural Development (MLGDRD)	Policy formulation	Education, Awareness raising	Consultation	Medium
Local Governments (District Assemblies)	Local government	Education, Awareness raising	Consultation	Medium
National Development Planning Commission (NDPC)	Policy formulation and Coordination	Mainstreaming into planning processes, Education, Awareness raising	Consultation	High
Environmental Protection Agency (EPA)	Regulators, Appliance Industry	Standardization, enforcement, Education, Awareness raising	Consultation, MoU	High
Ministry of Energy	Policy formulation and Coordination	Standardization, Education, Awareness raising	Consultation	High
Ministry of Trade and Industry	Policy formulation	Standardization, Education, Awareness raising	Consultation	High
Ministry of Finance	Policy formulation	Education, Awareness raising, Resource Mobilization, Tax Incentives	Consultation. MoU	High
Ghana Revenue Authority (GRA)	Revenue of Mobilization	Education, Awareness raising,	Consultation	High
Ghana Standards Authority (GSA)	Regulators, Appliance Industry	Standardization, enforcement, Education, Awareness raising	Consultation, MoU	High
Ghana Ports and Harbor Authority (GPHA)	Regulators, Appliance Industry	Enforcement, Education, Awareness raising	Consultation	High

Stakeholder Name	Stakeholder focus (industry/sector)	Potential Contribution(s) What could they do?	Engagement Approach- How can we engage them?	Importance (High, Medium, Low)
Ghana Institution of Engineering (GhIE)	Professional body	Education, Awareness raising	Consultation	Medium
Ghana Institute of Architects (GIA)	Professional body	Education, Awareness raising	Consultation	Medium
Ghana Institute of Planning (GIP)	Professional body	Education, Awareness raising	Consultation	Medium
Electricity Company of Ghana (ECG)	Service Provider	Education, Awareness raising	Consultation	High
Media	Media	Education, Awareness raising	Consultation, MoU	High
National Commission for Civic Education (NCCE)	Civic Education	Education, Awareness raising	Consultation, MoU	High

3.4.3 Capacity Building and Awareness Campaign Strategies

The concluding group-brainstorming sessions focused on identifying targeted strategies to enhance stakeholder capacity-building initiatives. These strategies included the design and implementation of **specialized training programs** tailored for policymakers, regulators, and industry practitioners to strengthen their expertise and promote effective adoption of energy efficiency measures.

Workshops and seminars emerged as key activities, aimed at disseminating best practices in energy efficiency and increasing awareness of the new regulations. These interactive platforms are intended to equip stakeholders with the knowledge and tools required to align with updated standards and contribute to the achievement of national energy efficiency goals.

Sensitization and awareness programs were identified as critical for reaching a diverse audience. These programs will aim to educate all segments of the public—ranging from individual households to businesses—on the economic, health, and environmental benefits of energy efficiency initiatives. Special emphasis will be placed on engaging underserved communities to ensure inclusive awareness.

The final segment of the session examined opportunities for collaboration in **financing and implementing** these capacity-building initiatives. Participants discussed potential partnerships with development agencies, private sector entities, and civil society organizations to secure funding, share technical expertise, and ensure the sustainability of these efforts.

Table 3.4.3 consolidates the inputs from all participants, providing a detailed summary of the proposed strategies and action points discussed during the session.

Table 3.4.3 Proposed Strategies and Action Points

Question	Recommendations
Based on your experience, what major gaps or weaknesses exist in the current energy efficiency regulations for electrical appliances that need to be addressed?	<ul style="list-style-type: none"> • Limited consumer awareness about energy efficiency options • No specific direction on undertaking energy audits
What challenges have you encountered in effectively implementing and monitoring existing regulations or policies?	<ul style="list-style-type: none"> • Limited collaboration and coordination between relevant stakeholders • Interference from interested parties (politicians, family and friends, traditional authorities, agencies, etc.) • Financial and resource mobilization constraints • Limited capacity (staff, logistics) for monitoring nationwide
From a policy or regulatory standpoint, which areas require stricter enforcement or clearer guidelines?	<ul style="list-style-type: none"> • Compliance with regulatory measures • The application process needs to be explicitly clear and straightforward
Are there specific aspects of the current energy efficiency regulations that need immediate attention from a regulatory or policy perspective?	<ul style="list-style-type: none"> • There's a need to increase public education and sensitization activities • From a policy perspective, all government entities should be directed to only procure appliances that meet the minimum energy performance standards. • Also, government entities should come up with a plan to phase out outdated/ inefficient appliances, with technical support from the Energy Commission.
How do you communicate with stakeholders and the public about policies and regulations? What methods or channels do you use, and how effective are they?	<ul style="list-style-type: none"> • Social Media (including Instagram, Facebook, X (Twitter), etc.) – paid advertisements • Public fora and Sensitisation Workshops (with the sub-structures at the local government level) • Engagement of educational institutions (advocate for its inclusion in the basic school curriculum) • Partnership with industry associations (e.g. GhIE, GIP, GIA, etc.) through webinars • Policy dialogues with stakeholder agencies
What barriers do you face in disseminating information, and how could communication be improved to ensure better understanding and compliance among stakeholders?	<ul style="list-style-type: none"> • Language barriers, particularly at the community level – translating messages to the local languages, and training community/local persons for effective dissemination • Limited resources for public awareness campaigns – through strategic partnerships with public and private institutions (including development partners, NGOs and CSOs, Academia)

3.4.4 Next Steps and Action Plans

- ❖ The Energy Commission to conduct a comprehensive appliance ownership survey across all sectors of the economy to assess the penetration of regulated appliances and identify the prevalence of inefficient devices. Based on the findings, the Commission will develop targeted programs and financial incentive mechanisms to create a supportive environment for replacing obsolete appliances and promoting the adoption of energy-efficient alternatives.
- ❖ The Energy Commission will collaborate with relevant institutions to implement focused and impactful activities to raise awareness and sensitization among the general public, ensuring outreach extends to even the most remote areas of the country. Leverage all available communication channels, including digital platforms, traditional media, and community-based networks, to effectively disseminate information about the new energy efficiency regulations.
- ❖ The Energy Commission to collaborate with the Public Procurement Authority (PPA) to integrate green procurement policies into existing procurement laws and regulations. Establish clear guidelines and criteria for identifying and prioritizing clean and efficient technologies during procurement.

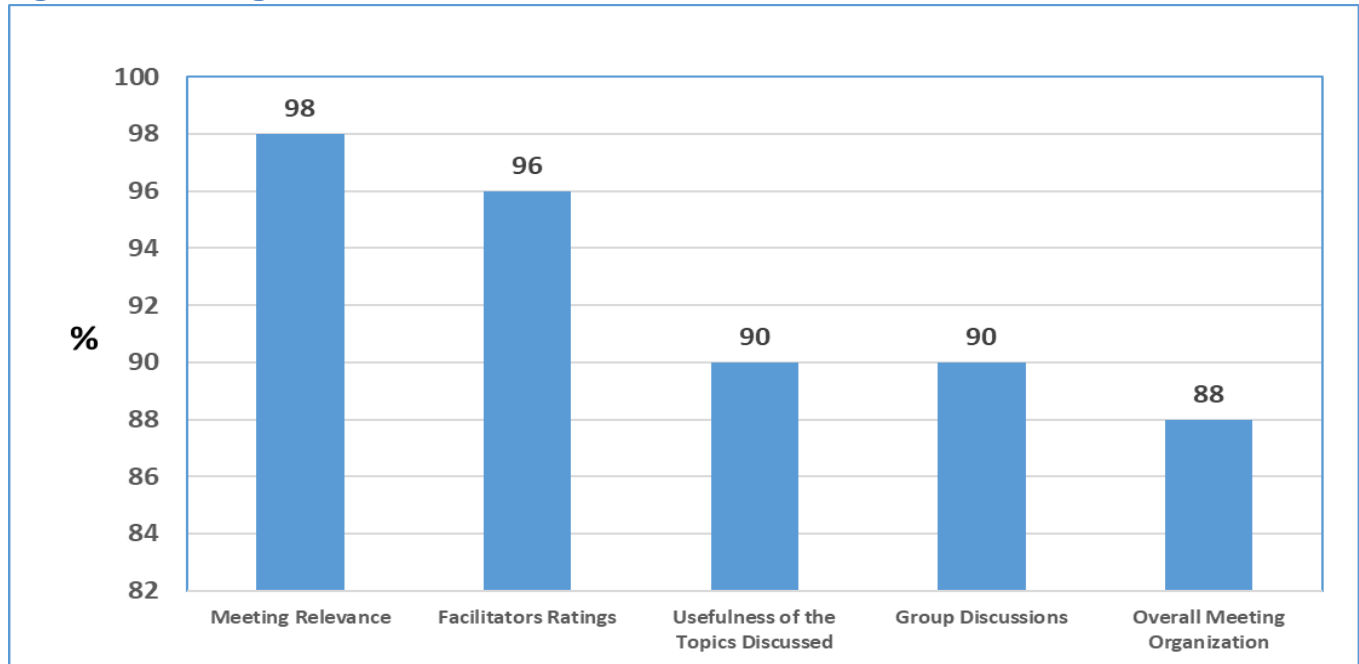
3.5 Post-Meeting Evaluation

Post-meeting evaluation is an essential step in ensuring that meetings are productive, efficient, and aligned with their objectives. It enables organizations to assess the effectiveness of a meeting, identify strengths and weaknesses, and implement improvements for future sessions. By evaluating outcomes, addressing challenges, and incorporating feedback, organizations can refine their processes to make meetings more purposeful and impactful. This practice not only enhances the efficiency of individual meetings but also supports the achievement of broader organizational goals and long-term initiatives.

In this context, meeting participants were invited to evaluate their overall experience using structured questionnaires focusing on five key dimensions. These dimensions included the relevance of the meeting, the usefulness of the topics discussed, the performance of facilitators and presenters, the effectiveness of group discussions, and the overall organization of the meeting.

The evaluation results highlighted strong performance across all five areas. The relevance of the meeting achieved an impressive score of 98%, while the usefulness of the topics discussed received 90%. The facilitators and presenters were rated highly, earning a score of 96%, and the effectiveness of group discussions also scored 90%. Lastly, the overall meeting experience was rated at 88%. Figure 3.5 below illustrates the meeting evaluation chart, providing a visual representation of these scores.

Figure 3.5: Meeting Evaluation Chart



4.0 Engagement with Public and Private Institutions, Media Representatives, and The General Public

4.1 Background

This initiative aimed to educate key personnel from the media, public and private institutions, as well as the general public, on the new energy efficiency regulations and the importance of energy conservation. It sought to promote behavioral changes toward energy-efficient practices and foster a culture of sustainability.

Consumers both public and private, play a critical role in driving energy efficiency and sustainability efforts. Their decisions, behaviors, and levels of awareness significantly impact overall energy consumption, greenhouse gas emissions, and the adoption of cleaner technologies. Informed consumers drive demand for approved appliances, leading to market transformation. They can also advocate for energy-efficient policies and regulations at local, regional, and national levels, influencing decision-making processes that affect energy efficiency standards and incentives. Additionally, consumers often educate their peers, family members, and communities about the benefits of energy efficiency. Through their choices, behaviors, and advocacy, consumers can drive a significant shift towards energy efficiency and sustainability, contributing to a more sustainable and resilient energy future.

The media's role in promoting the adoption of energy-efficient options is multifaceted. It involves informing, inspiring, advocating, and fostering public engagement to drive positive changes in energy consumption patterns, production methods, and policy frameworks. By leveraging its reach and

influence, the media contributes to a more sustainable and environmentally conscious energy future. When media personnel are adequately informed about the new regulations for electrical appliances and their related benefits, they can provide accurate and comprehensive information, raise awareness, dispel myths and misinformation, and monitor and report on the transformation of the appliances market. Furthermore, the media shapes public opinion, which in turn influences consumer preferences. Positive media coverage of the new regulations has the potential to increase public support and demand for energy-efficient appliances.

4.2 Objectives

The main objectives of this exercise included;

- To raise awareness among public and private consumers about the energy efficiency regulations for electrical appliances including its importance to the environment and energy consumption.
- To address concerns, gather feedback, and incorporate stakeholders' perspectives in the implementation and enforcement of energy efficiency regulations.
- To promote the benefits of energy-efficient appliances in terms of cost savings, environmental impact, and improved product performance.
- Build capacity among key media personnel to help the general public comply with energy efficiency standards and promote the adoption of energy-efficient technologies and practices.

4.3 Approach/Scope of Work

Representatives from consumer groups for regulated appliances, along with key media personnel, were invited to town hall meetings in selected regional capitals (Accra, Takoradi, Ho, Koforidua, Kumasi, Sunyani, Tamale, Bolgatanga, and Wa). These meetings provided opportunities for face-to-face interactions on key aspects of the regulations. A key highlight of the town hall meeting was a brief quiz designed to assess participants' understanding of the regulations and other topics discussed during the session. The top-performing participants were recognized and rewarded with energy-efficient appliances, reinforcing the importance of their engagement and promoting the adoption of sustainable practices. Following the town hall meetings, a radio public awareness campaign was launched on both high-listenership radio stations in the selected regional capitals and community radio stations.

The radio awareness campaign included technical discussions, interviews, jingles, live promotional messages (LPM), and question-and-answer sessions with the general public. A key component of the question-and-answer session was a call-in quiz that tested consumers' understanding of key aspects

of the new regulations as well as energy efficiency and conservation practices. Winners of the call-in quiz were rewarded with energy-efficient appliances, and informative brochures and flyers on energy conservation.

Upon completion of this phase, the general public reached was anticipated to be well-informed about the key aspects of the new regulations and their associated benefits, ultimately leading to increased market uptake of energy-efficient appliances.

4.4 Summary of Activities

4.4.1 Town Hall Meetings with Selected Consumer Groups and the Media

Representatives from consumer groups (both public and private) for regulated appliances, along with key media personnel, were invited to town hall meetings in selected regional capitals (Takoradi, Ho, Koforidua, Kumasi, Sunyani, Tamale, Bolgatanga, Wa, and Accra). These meetings provided opportunities for face-to-face interactions on key aspects of the regulations. During the meeting, five presentations were delivered in the following areas:

Presentation 1: Climate Change and Its Impact on Ghana – The presentation provided an overview of climate change, its causes, and its impacts on key sectors in Ghana, such as agriculture, water, health, and energy. It emphasized greenhouse gas emissions from human activities, like burning fossil fuels and deforestation, as primary drivers of climate change, exacerbating environmental challenges. It served as a foundational step toward implementing Ghana's energy efficiency regulation regime, linking the importance of climate action to sustainable energy practices. Concluding with a call to action, it highlighted the importance of collective efforts, energy efficiency, robust policies, and community engagement to mitigate climate change and secure Ghana's future.

Presentation 2: Previous Energy Efficiency Regulations in Ghana - The presentation detailed the enforcement of regulations on three appliances (refrigerators, air conditioners, and lighting appliances) and used obsolete appliances in Ghana, emphasizing challenges, achievements, and the impact of L.I. 1932, which prevented over 6 million used refrigerators and air conditioners entry onto the Ghanaian market since 2013, resulting in significant energy savings. The presentation also highlighted a high compliance rate (97-99%) among appliance retailers and promoted the GH-Certified Appliances App as a valuable tool for consumers to identify energy-efficient appliances, supporting Ghana's energy conservation efforts.

Presentation 3: Overview of New Energy Efficiency Regulations – This presentation provided a comprehensive overview of the new energy efficiency standards and labeling regulations covering 19 electrical appliances. Key highlights included:

- ❖ **Scope of Regulations:** Applicable to electric mains-operated appliances, ensuring all relevant devices meet the stipulated standards.
- ❖ **Prohibition of Circumvention Devices:** Emphasis on preventing the use of circumvention devices during appliance testing to ensure accurate and reliable results.
- ❖ **Responsibilities and Penalties:** Detailed roles of importers and manufacturers were outlined, with specific penalties for non-compliance to promote accountability and adherence to the regulations.

Additionally, participants were introduced to updates on energy efficiency labels, now featuring a 7-star rating system to provide clearer information on efficiency levels. The labels also include Global Warming Potential (GWP) metrics, offering consumers critical insights into the environmental impact of appliances.

Presentation 4: Energy Efficiency, Energy Conservation, and Energy Management – This presentation provided a clear distinction between key concepts: energy efficiency, energy conservation, and energy management. Practical strategies for energy savings were highlighted, including the adoption of energy-efficient technologies such as inverter air conditioners, LED lighting, and motion sensors to optimize energy use. The discussion also underscored the critical role of energy management in enhancing energy security, lowering costs, and supporting sustainable practices.

The session was enriched with case studies and real-world examples of successful energy efficiency initiatives, providing participants with actionable insights and demonstrating the tangible benefits of these practices in various sectors.

Presentation 5: Tariff Reckoner and Electricity Consumption Estimator - This presentation by a representative of PURC in all the selected regions to the PURC Tariff Reckoner App, a user-friendly tool designed to help consumers estimate their energy consumption and associated costs accurately. The presentation offered a comprehensive overview of the app's features, functionalities, and benefits.

Participants were guided through the app's interface, which is organized into distinct tabs for electricity, water, and net consumption estimation. The demonstration showcased how users can input data to generate real-time cost estimates and gain visual insights into their usage patterns.

The session emphasized the app's potential to empower consumers by identifying opportunities for energy conservation and cost savings, making it an invaluable resource for promoting energy efficiency and informed decision-making.

A total of 293 participants attended the town hall meetings. Of these, 44 participants (15.02%) were from public institutions, 56 (19.11%) represented private companies and associations, 96 (32.76%) were media personnel, 48 (16.38%) came from security agencies, and 49 (16.72%) were from

regulatory institutions. Of the 293 participants, 222 were male, representing 75.77%, while 71 were female, accounting for 24.23%.

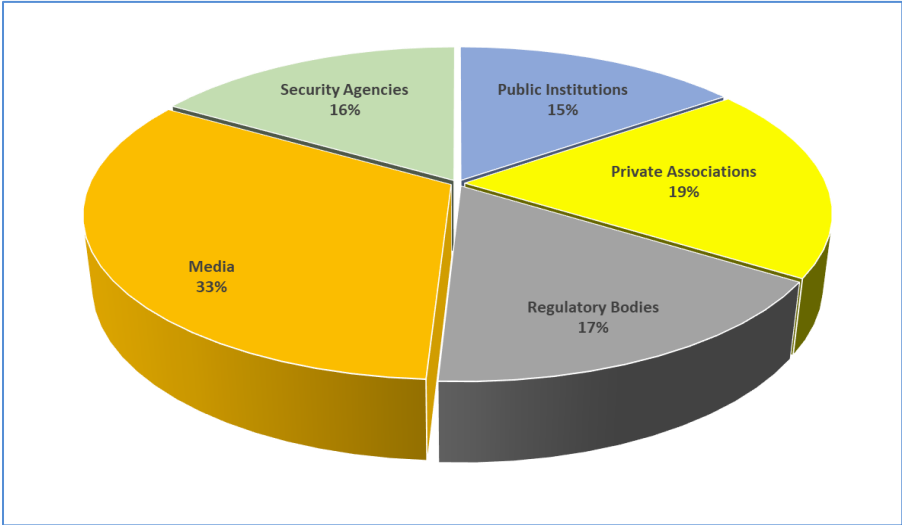
To ensure maximum concentration and participation of attendees and to assess participants' knowledge following the town hall meeting, a post-meeting quiz was conducted. A total of 229 out of the 293 individuals participated, answering 10 questions on topics such as energy efficiency regulations, energy conservation, and energy management. Energy-efficient appliances, including microwave ovens, rice cookers, electric kettles, irons, blenders, and LED bulbs, were offered as prizes. Winners were selected based on the "fastest highest scorers" criteria. Personnel from regulatory bodies and donor agencies were exempt from participating in the quiz. at the town hall meetings.

Table 4.4.1 and Figure 4.4.1 depict the performance of the participants in the town hall meeting quiz and the sectorial breakdown of the personnel who attended the town hall meetings in the selected locations respectively.

Table 4.4.1: Performance of participants in the town hall meeting quiz

Town	Number of Participants	No. Males	No. Females	Average Score (%)	Average Score of Winners (%)
Takoradi	20	9	11	88	100
Koforidua	24	15	9	90	100
Bolgatanga	20	15	5	85	100
Tamale	24	20	4	85	100
Sunyani	17	16	1	87	94
Kumasi	22	19	3	85	100
Wa	31	29	2	89	100
Ho	37	28	9	87	100
Accra	34	28	6	89	97
Total	229	179	50	87	99

Figure 4.4.1 Sectorial Breakdown of Town Hall Meetings Participants



4.4.2 Radio Public Awareness Campaign

As part of the strategy to engage the general public, a comprehensive radio awareness campaign was launched across both high-listenership radio stations in selected regional capitals and community radio stations. This campaign featured technical discussions, interviews, jingles in five languages for a period of one-month, live presenter mention (LPMs), and interactive question-and-answer sessions. A key highlight of the campaign was the call-in quiz during the technical discussions, designed to test consumers' knowledge of the new regulations and energy efficiency and conservation practices. Participants who excelled in the quiz were rewarded with energy-efficient appliances, along with informative brochures and flyers on energy efficiency and conservation reinforcing the importance of adopting sustainable energy practices and promoting continued engagement with the subject matter. These interactive quizzes not only served as a means to assess listeners' comprehension of the key messages but also encouraged active participation. The high active participation and success rates of about 70% in the selected locations underscore the effectiveness of the campaign in fostering awareness about energy efficiency and its benefits.

A total of 206 consumers took part in the radio call-in quiz by the conclusion of the campaign. Out of the total participants, 161 (78.16%) were male, while 45 (21.84%) were female. Out of the total number of participants, 123 individuals, accounting for an average of 61.25% of the total, answered at least one question correctly and were designated as winners of the quiz.

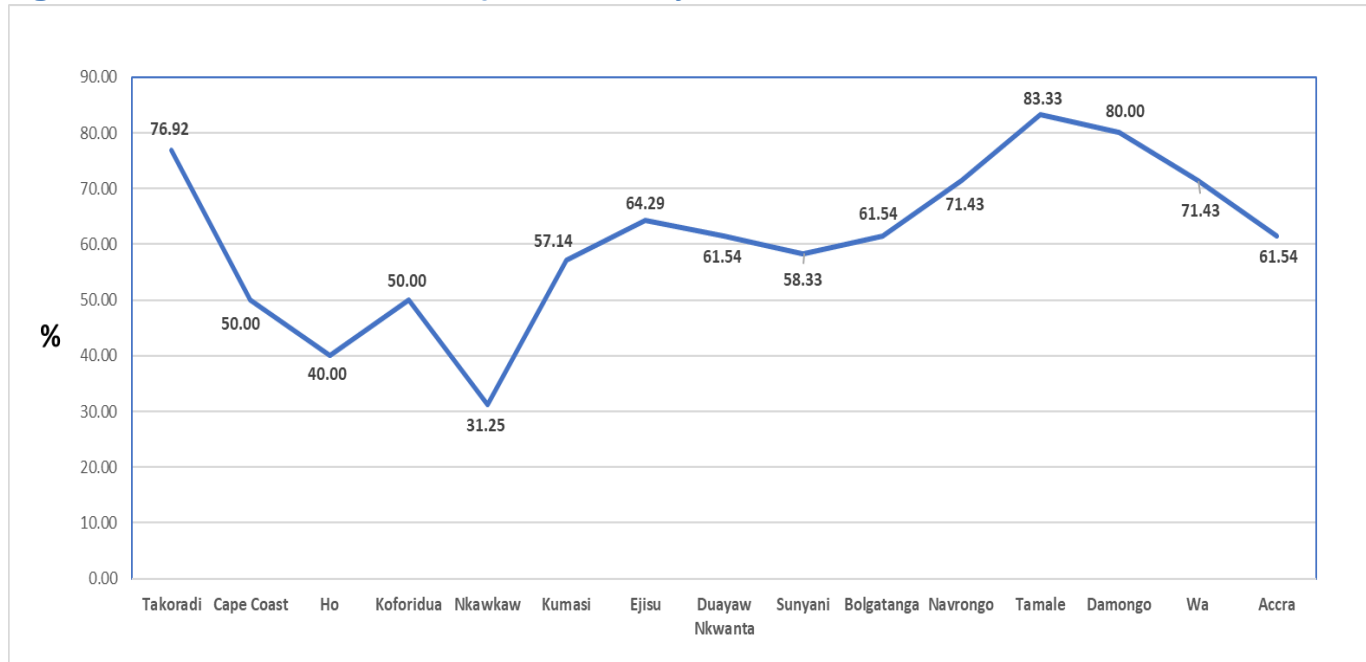
This campaign highlighted the impact of using region-specific platforms to disseminate information and engage diverse audiences in meaningful conversations about energy efficiency.

Table 4.4.2 and Figure 4.4.2 present a comprehensive analysis of the number of participants and the geographical distribution of winners respectively.

Table 4.4.2 Number of Radio Call-in Quiz Participants

Location	Radio Station	Number of Calls	Number of Winners	Share of Winners (%)
Takoradi	Sky Power FM	13	10	76.92
Cape Coast	Yes FM	14	7	50.00
Ho	Ho FM	20	8	40.00
Koforidua	Bryt FM	14	7	50.00
Nkawkaw	Obuoba FM	16	5	31.25
Kumasi	Abusua FM	14	8	57.14
Ejisu	OKESE FM	14	9	64.29
Duayaw Nkwanta	Jewel FM	13	8	61.54
Sunyani	SOMPA FM	12	7	58.33
Bolgatanga	Word FM	13	8	61.54
Navrongo	Nabinna FM	14	10	71.43
Tamale	Fiila FM	12	10	83.33
Damongo	PAD FM	10	8	80.00
Wa	Home FM	14	10	71.43
Accra	Citi FM	13	8	61.54
Total	14	206	123	61.25

Figure 4.4.2 Share of Radio Call-in Quiz Winners by Location



4.5 Regional Distribution of Town Hall Meetings and Radio Campaigns

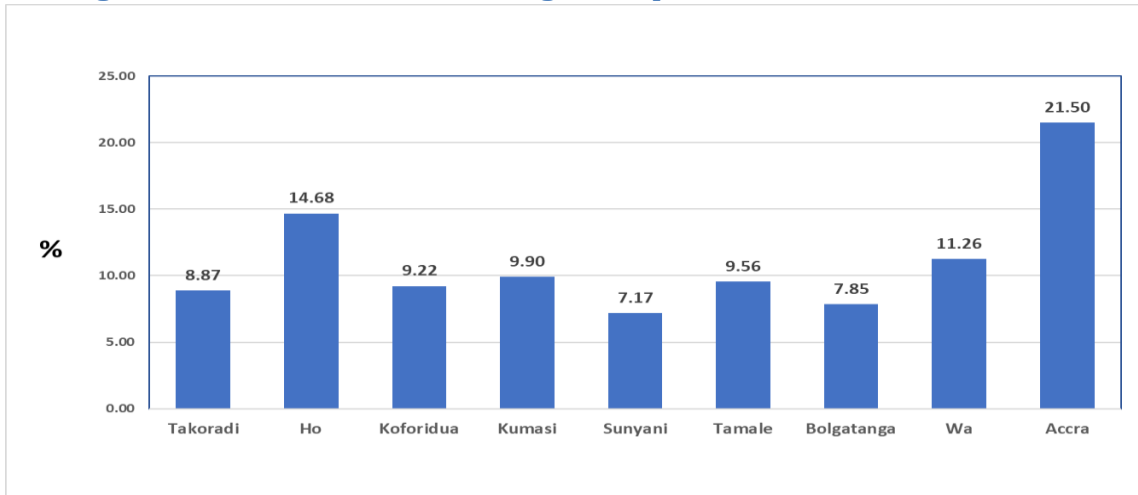
4.5.1 Regional Distribution of Town Hall Meeting Participants

An average attendance of 25 participants was expected for each town hall meeting. However, the data shows that Accra in the Greater Accra Region had the highest turnout, with 63 participants out of 293. Conversely, Sunyani recorded the lowest attendance, with 21 participants, representing 7.17% of the total. Table 4.5.1 and Figure 4.5.1 below illustrate the participant numbers and the regional distribution of attendees, respectively.

Table 4.5.1: Number of Town Hall Meeting Participants

Location/Region	Number of Participants	Share (%)
Takoradi (Western Region)	26	8.87
Ho (Volta Region)	43	14.68
Koforidua (Eastern Region)	27	9.22
Kumasi (Ashanti Region)	29	9.90
Sunyani (Bono Region)	21	7.17
Tamale (Northern Region)	28	9.56
Bolgatanga (Upper East Region)	23	7.85
Wa (Upper West Region)	33	11.26
Accra (Greater Accra Region)	63	21.50
Total	293	100

Figure 4.5.1 Regional Share of Town Hall Meeting Participants

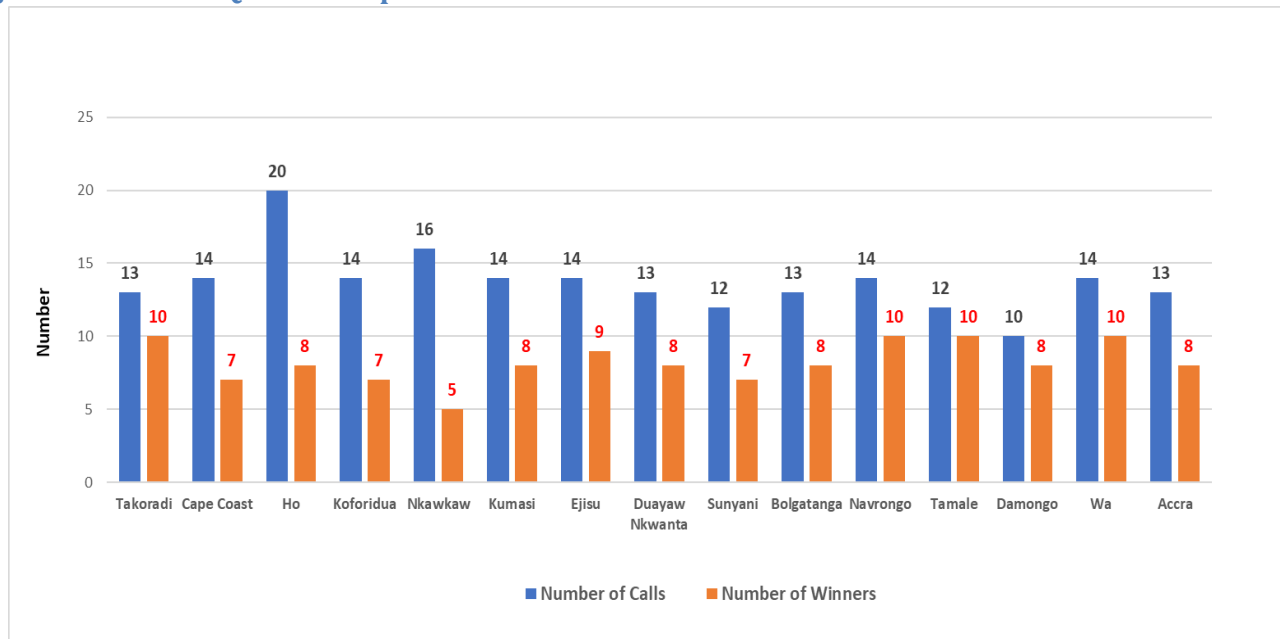


4.5.2 Radio Public Awareness Campaign

The radio public awareness campaign garnered significant consumer interest, particularly due to the highly anticipated phone-in quiz segment. This segment offered prizes to participants who excelled in the quiz, with rewards including 20-liter microwaves, rice cookers, blenders, kettles, LED bulbs, and more.

A total of 206 individuals participated by making call attempts, with 123 participants (61.25%) successfully answering one or more questions to win prizes. The Volta Region recorded the highest number of call attempts (20), while Damongo had the fewest (10). Tamale in the Northern Region achieved the highest winner rate at 83.33%, whereas Nkawkaw in the Eastern Region had the lowest winner rate at 31.24%. Figure 4.5.2 below illustrates the regional distribution of radio quiz participants and winners per location.

Figure 4.5.2: Radio Quiz Participants and Winners



4.5.3 Town Hall Meeting and Radio Campaign Activities in the Western Region

4.5.3.1 Town Hall Meeting Activities in Western Region

Takoradi, the capital city of the Western Region, was selected as the venue for the town hall meeting and the accompanying radio awareness campaign in the region. The town hall meeting was held at the Naakoff Hotel Annex and was attended by 26 participants. Among them, 14 were male (53.85%), while 12 were female (46.15%).

The participants represented diverse groups:

- 8 participants (30.77%) were from media institutions,
- 5 participants (19.23%) were from security agencies, and
- 7 participants (26.92%) were from private consumer group associations.

At the conclusion of the meeting, 20 participants (77%) took part in the post-town hall meeting quiz, which aimed to assess their understanding of the topics discussed. The average score recorded was an impressive 88%. The scores ranged from a minimum of 50% to a maximum of 100%, with the following breakdown:

- 7 participants (35%) scored 100%,
- 6 participants (30%) scored 90%,
- 5 participants (25%) scored 80%,
- 1 participant (5%) scored 70%, and
- 1 participant (5%) scored 50%.

The five fastest participants who achieved a perfect score of 100% were recognized for their outstanding performance and awarded energy-efficient appliances. The list of the five (5) fastest highest scores can be found in Table 4.5.3.1 below.

Table 4.5.3.1: Fastest Highest Scorers in the Town Hall Meeting in Takoradi

Name	Institution	Gender	Score (%)	Position
Nana Yaa Konadu	Ghana Enterprise Agency	Female	100	1 st
Henry Yeledour	Ghana Tourism Authority	Male	100	2 nd
Fredrica Mensah	Ghana Television	Female	100	3 rd
Victoria Frimpomaa Oduro	Ghana National Fire Service	Female	100	4 th
Mildred Sabi-Mensah	Ghana News Agency	Female	100	5 th

Figure 4.5.3.1: Pictorial Representation of Town Hall Activities in Takoradi



4.5.3.2 Radio Campaign Activities in Western Region

SKYY Power FM, a station with an average listenership of 150,000, was selected as the platform for the radio sensitization and awareness campaign. The discussion was broadcast during the station's popular morning show at approximately 8:00 AM, a time when the audience engagement was at its peak.

Following the discussion, a total of 13 listeners participated in the radio phone-in quiz. Of these, 10 callers (76.9%) successfully answered one or more questions and were rewarded with designated energy-efficient appliances for their participation.

The list of selected winners from the radio phone-in quiz is presented in Figure 4.5.3.2 below

Figure 4.5.3.2: Selected Winners of Radio Phone-in Quiz in Takoradi



4.5.4 Town Hall Meeting and Radio Campaign Activities in the Volta Region

4.5.4.1 Town Hall Meeting Activities in Volta Region

Ho, the capital city of the Volta Region, was selected as the venue for the town hall meeting and the accompanying radio awareness campaign in the region. The town hall meeting was held at the Hotel Stevens and was attended by 43 participants. Among them, 31 were male (72%), while 12 were female (28%).

The participants represented diverse groups:

- 10 participants (23%) were from media institutions,
- 12 participants (28%) were from public institutions,
- 5 participants (12%) were from regulatory bodies
- 10 participants (23%) were from security agencies, and
- 6 participants (14%) were from private consumer group associations.

After the meeting, 37 participants (86%) took part in the post-town hall meeting quiz, which aimed to assess their understanding of the topics discussed. The average score recorded was an impressive 87%. The scores ranged from a minimum of 50% to a maximum of 100%, with the following breakdown:

- 12 participants (32%) scored 100%,
- 11 participants (30%) scored 90%,
- 9 participants (24%) scored 80%,
- 3 participants (8%) scored 70%,
- 1 participant (3%) scored 60%, and
- 1 participant (3%) scored 50%.

The five fastest participants, who all achieved a perfect score of 100% were recognized for their outstanding performance and awarded energy-efficient appliances. The list of the five (5) fastest highest scores can be found in Table 4.5.4.1 below.

Table 4.5.4.1: Fastest Highest Scorers in the Town Hall Meeting in Ho

Name	Institution	Gender	Score (%)	Position
Brian Yaw Entsiey Nyarko	Ministry of Health	Male	100	1 st
Woamekpor Sherita Kekeli	Ministry of Health	Female	100	2 nd
Seraphine Nyuiemedi	Volta Star Radio	Female	100	3 rd
Margaret Lamptey	Ghana Police Service	Female	100	4 th
Gabriel Asempa	Metro TV	Male	100	5 th

Figure 4.5.4.1: Pictorial Representation of Town Hall Activities in Ho, Volta Region



4.5.4.2 Radio Campaign Activities in Volta Region

The radio sensitization and awareness campaign was conducted on Ho FM, a station with an average listenership of 150,000. The discussion aired at approximately 8:30 AM during the station's popular morning program, a time of peak audience engagement.

Following the discussion, 20 listeners participated in the radio phone-in quiz. Of these, eight (8) callers (40%) successfully answered one or more questions and were rewarded with designated energy-efficient appliances in recognition of their participation and knowledge. The list of selected winners from the radio phone-in quiz is presented in Figure 4.5.4.2 below.

Figure 4.5.4.2: Selected Winners of Radio Phone-in Quiz in Ho



4.5.5 Town Hall Meeting and Radio Campaign Activities in the Eastern Region

4.5.5.1 Town Hall Meeting Activities in Eastern Region

Koforidua, the capital city of the Eastern Region, was selected as the venue for the town hall meeting and the accompanying radio awareness campaign in the region. The town hall meeting was held at the Capital View Hotel and was attended by 27 participants. Among them, 15 were male (56%), while 12 were female (44%).

The participants represented diverse groups:

- 8 participants (35%) were from media institutions,
- 3 participants (13%) were from public institutions,
- 3 participants (13%) were from regulatory bodies
- 4 participants (17%) were from security agencies, and
- 5 participants (22%) were from private consumer group associations.

After the meeting, 24 participants (89%) took part in the post-town hall meeting quiz, which aimed to assess their understanding of the topics discussed. The average score recorded was an impressive 90% making it the highest among all the regions where town hall meetings were held. The scores ranged from a minimum of 50% to a maximum of 100%, with the following breakdown:

- 8 participants (33%) scored 100%,
- 10 participants (42%) scored 90%,
- 5 participants (21%) scored 80%, and
- 1 participant (4%) scored 50%.

The five fastest participants, who all achieved a perfect score of 100% were recognized for their outstanding performance and awarded energy-efficient appliances. The list of the five (5) fastest highest scores can be found in Table 4.5.5.1 below.

Table 4.5.5.1: Fastest Highest Scorers in the Town Hall Meeting in Koforidua

Name	Institution	Gender	Score (%)	Position
Jonathan Twum-Osae	Ghana Tourism Authority	Male	100	1 st
Frank Dorkenoo	Ghana TVET Service	Male	100	2 nd
Linda Nsiah	National Malaria Elimination Program	Female	100	3 rd
Asare Nyarkoa Abigail	Freedom Radio	Female	100	4 th
Tenkorang Ernest	Koforidua Technical University	Male	100	5 th

Figure 4.5.5.1: Pictorial Representation of Town Hall Activities in Koforidua, Eastern Region



4.5.5.2 Radio Campaign Activities in Eastern Region

The radio sensitization and awareness campaign in the Eastern Region was conducted on Bryte FM in Koforidua and Obuoba FM in Nkawkaw, with an average listenership of 120,000 and 80,000 respectively. The discussion aired at approximately 8:30 AM on Bryte FM during the station's popular morning program, ensuring peak audience engagement, while on Obuoba FM, it was broadcast at 2:00 PM.

In Koforidua, a total of 14 listeners participated in the radio phone-in quiz following the discussion. Of these, seven (7) callers (50%) successfully answered one or more questions. In Nkawkaw, 16 listeners participated in the quiz, with five (5) callers (31%) successfully responding to the questions posed.

All winners were rewarded with designated energy-efficient appliances in recognition of their participation and knowledge, further reinforcing the importance of adopting energy-efficient practices. The list of selected winners from the radio phone-in quiz in both locations is presented in Figure 4.5.5.2 below.

Figure 4.5.5.2: Selected Winners of Radio Phone-in Quiz in Koforidua and Nkwakaw



4.5.6 Town Hall Meeting and Radio Campaign Activities in the Ashanti Region

4.5.6.1 Town Hall Meeting Activities in the Ashanti Region

Kumasi, the capital city of the Ashanti Region, was selected as the venue for the town hall meeting and one accompanying radio awareness campaign in the region. The town hall meeting was held at the Miklin Hotel and was attended by 29 participants. Among them, 26 were male (90%), while 3 were female (10%).

The participants represented diverse groups:

- 9 participants (31%) were from media institutions,
- 3 participants (10%) were from public institutions,
- 4 participants (14%) were from regulatory bodies
- 6 participants (21%) were from security agencies, and
- 7 participants (24%) were from private consumer group associations.

After the meeting, 22 participants (76%) took part in the post-town hall meeting quiz, which aimed to assess their understanding of the topics discussed. The average score recorded was 85% making it the lowest together with two (2) additional regions where town hall meetings were held. The scores ranged from a minimum of 60% to a maximum of 100%, with the following breakdown:

- 7 participants (32%) scored 100%,
- 7 participants (32%) scored 90%,
- 2 participants (9%) scored 80%,
- 3 participant (14%) scored 70%, and
- 3 participant (14%) scored 60%.

The five fastest participants, who all achieved a perfect score of 100% were recognized for their outstanding performance and awarded energy-efficient appliances. The list of the five (5) fastest highest scores can be found in Table 4.5.6.1 below.

Table 4.5.6.1: Fastest Highest Scorers in the Town Hall Meeting in Kumasi

Name	Institution	Gender	Score (%)	Position
Abel Kwame Kusi	Abusua FM	Male	100	1 st
Ishmael Gyamfi	ASH FM	Male	100	2 nd
Richard Bukari	Ghana Prisons Service	Male	100	3 rd
Dominic Zagkum	Ghana National Fire Service	Male	100	4 th
Aguuri Samuel	Hello FM	Male	100	5 th

Figure 4.5.6.1: Pictorial Representation of Town Hall Activities in Kumasi, Ashanti Region



4.5.6.2 Radio Campaign Activities in Ashanti Region

The radio sensitization and awareness campaign in the Ashanti Region was conducted on Abusua FM in Kumasi and Okese FM in Ejisu, with an average listenership of 84,000 and 80,000 respectively. The

discussion aired at approximately 8:00 AM on Abusua FM during the station's popular morning program, ensuring peak audience engagement, while on Okese FM, it was broadcast at 10:00 AM. In Kumasi, a total of 14 listeners participated in the radio phone-in quiz following the discussion. Of these, seven (8) callers (57%) successfully answered one or more questions. In Ejisu, 14 listeners participated in the quiz, with nine (9) callers (64%) successfully responding to the questions posed.

Collectively, these 17 successful callers were awarded energy-efficient appliances in appreciation of their active participation and demonstrated knowledge.

Figure 4.5.6.2: Selected Winners of Radio Phone-in Quiz in Ashanti Region



4.5.7 Town Hall Meeting and Radio Campaign Activities in the Bono Region

4.5.7.1 Town Hall Meeting Activities in the Bono Region

Sunyani, the capital city of the Bono Region, was selected as the venue for the town hall meeting and one accompanying radio awareness campaign in the region. The town hall meeting was held at the TYCO City Hotel and was attended by 21 participants. Among them, 18 were male (86%), while 3 were female (14%).

The participants represented diverse groups:

- 8 participants (38%) were from media institutions,
- 2 participants (10%) were from public institutions,
- 3 participants (14%) were from regulatory bodies
- 6 participants (29%) were from security agencies, and

- 2 participants (10%) were from private consumer group associations.

After the meeting, 17 participants (81%) took part in the post-town hall meeting quiz, which aimed to assess their understanding of the topics discussed. The average score recorded was 87%. The scores ranged from a minimum of 50% to a maximum of 100%, with the following breakdown:

- 2 participants (12%) scored 100%,
- 11 participants (65%) scored 90%,
- 3 participants (18%) scored 80%, and
- 1 participant (6%) scored 50%.

The five fastest participants, who achieved an average score of 94% making it the lowest in comparison to other regions were recognized for their outstanding performance and awarded energy-efficient appliances. The list of the five (5) fastest highest scores can be found in Table 4.5.7.1 below.

Table 4.5.7.1: Fastest Highest Scorers in the Town Hall Meeting in Sunyani

Name	Institution	Gender	Score (%)	Position
Nana Kwame Owusu Nkwantabisa	SOMPA FM	Male	100	1 st
Christopher Tetteh	Ghana News Agency	Male	100	2 nd
Atigah Maxwell	Moonlite FM	Male	90	3 rd
Lucious Banguu W.	Ghana Prisons Service	Male	90	4 th
Anthony Goode	Radio BAR (GBC)	Male	90	5 th

Figure 4.5.7.1: Pictorial Representation of Town Hall Activities in Sunyani, Bono Region



4.5.7.2 Radio Campaign Activities in Bono Region

The radio sensitization and awareness campaign in the Bono Region was conducted on SOMPA FM in Sunyani and Jewel FM in Duayaw Nkwanta, with an average listenership of 120,000 and 50,000 respectively. The discussion aired at approximately 8:00 AM on SOMPA FM during the station's popular morning program, ensuring peak audience engagement, while on Jewel FM, it was broadcast at 2:00 PM.

In Sunyani, a total of 12 listeners participated in the radio phone-in quiz following the discussion. Of these, seven (7) callers (58%) successfully answered one or more questions. In Duayaw Nkwanta, 13 listeners participated in the quiz, with nine (8) callers (62%) successfully responding to the questions posed.

All winners were rewarded with designated energy-efficient appliances in recognition of their participation and knowledge, further reinforcing the importance of adopting energy-efficient practices. The list of selected winners from the radio phone-in quiz from both locations is presented in Figure 4.5.7.2 below.

Figure 4.5.7.2: Selected Winners of Radio Phone-in Quiz in Bono Region



4.5.8 Town Hall Meeting and Radio Campaign Activities in the Upper East Region

4.5.8.1 Town Hall Meeting Activities in the Upper East Region

Bolgatanga, the capital city of the Upper East Region, was selected as the venue for the town hall meeting and one accompanying radio awareness campaign in the region. The town hall meeting was held at the TAP Hotel and was attended by 23 participants. Among them, 18 were male (78%), while 5 were female (22%).

The participants represented diverse groups:

- 8 participants (35%) were from media institutions,
- 3 participants (13%) were from public institutions,
- 3 participants (13%) were from regulatory bodies
- 4 participants (17%) were from security agencies, and
- 5 participants (22%) were from private consumer group associations.

At the end of the meeting, 20 participants (87%) took part in the post-town hall meeting quiz, which aimed to assess their understanding of the topics discussed. The average score recorded was 85%. The scores ranged from a minimum of 50% to a maximum of 100%, with the following breakdown:

- 6 participants (30%) scored 100%,
- 6 participants (30%) scored 90%,
- 4 participants (20%) scored 80%,
- 2 participants (10%) scored 70%, and
- 2 participants (10%) scored 50%.

The five fastest highest participants, who achieved an average score of 100% were recognized for their outstanding performance and awarded energy-efficient appliances. The list of the five (5) fastest highest scores can be found in Table 4.5.8.1 below.

Table 4.5.8.1: Fastest Highest Scorers in the Town Hall Meeting in Bolgatanga

Name	Institution	Gender	Score (%)	Position
James Nana Tsiquaye	Dreamz FM	Male	100	1 st
Nii Lante Lamptey	Ghana Enterprise Agency	Male	100	2 nd
Godfred Polkuu	Ghana News Agency	Male	100	3 rd
Elvis Seyram Tsogbe	Ghana Tourism Authority	Male	100	4 th
Emmanuel Kolog	Word FM	Male	100	5 th

Figure 4.5.8.1: Pictorial Representation of Town Hall Activities in Bolgatanga, Upper East Region

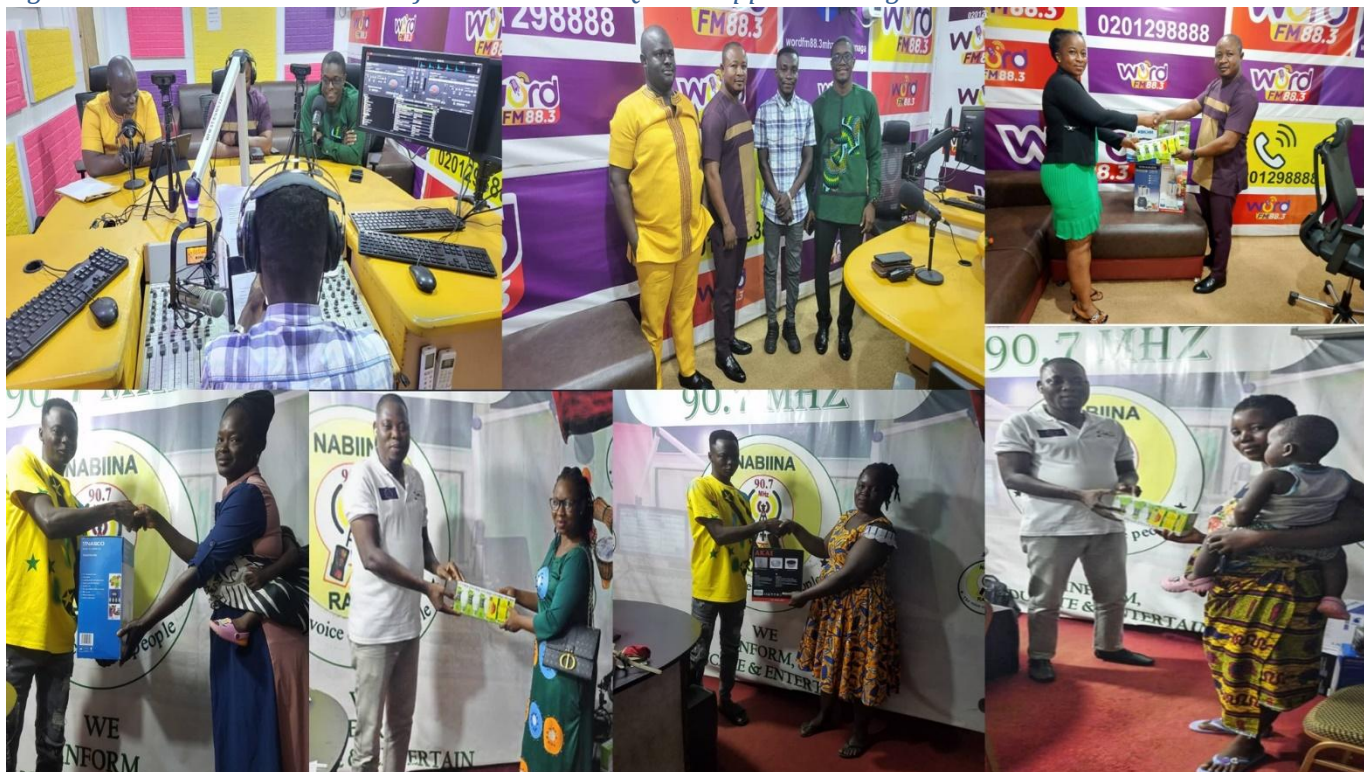


4.5.8.2 Radio Campaign Activities in Upper East Region

The radio sensitization and awareness campaign in the Upper East Region was strategically conducted on Word FM in Bolgatanga and Nabina FM in Navrongo, leveraging their strong regional presence and audience reach. Word FM, with an average listenership of 120,000, aired the discussion at approximately 8:00 AM during its popular morning program, capitalizing on peak audience engagement. Meanwhile, Nabina FM, which boasts an average listenership of 50,000, the campaign was conducted at 2:00 PM, ensuring accessibility for a different segment of the audience.

In Bolgatanga, the campaign generated significant interest, with 13 listeners participating in the radio phone-in quiz following the discussion. Of these, eight (62%) successfully answered one or more questions, demonstrating a strong understanding of the topics discussed. Similarly, in Navrongo, 14 listeners engaged in the quiz, with 10 participants (71%) successfully responding to the questions posed, reflecting an impressive level of awareness and engagement. The list of selected winners from the radio phone-in quiz from both locations is presented in Figure 4.5.8.2 below.

Figure 4.5.8.2: Selected Winners of Radio Phone-in Quiz in Upper East Region



4.5.9 Town Hall Meeting and Radio Campaign Activities in the Northern Region

4.5.9.1 Town Hall Meeting Activities in the Northern Region

Tamale, the capital city of the Northern Region, was selected as the venue for the town hall meeting and the accompanying radio awareness campaign in the region. The town hall meeting was held at the Modern City Hotel and was attended by 28 participants. Among them, 23 were male (82%), while 5 were female (18%).

The participants represented diverse groups:

- 9 participants (32%) were from media institutions,
- 3 participants (11%) were from regulatory bodies
- 4 participants (14%) were from security agencies, and
- 12 participants (43%) were from private consumer group associations.

After the meeting, 23 participants (82%) took part in the post-town hall meeting quiz, which aimed to assess their understanding of the topics discussed. The average score recorded was 88%. The scores ranged from a minimum of 70% to a maximum of 100%, with the following breakdown:

- 5 participants (22%) scored 100%,
- 12 participants (52%) scored 90%,

- 3 participants (13%) scored 80%, and
- 3 participants (13%) scored 70%,

The five fastest participants, who all achieved a perfect score of 100% were recognized for their outstanding performance and awarded energy-efficient appliances. The list of the five (5) fastest highest scores can be found in Table 4.5.8.1 below.

Table 4.5.9.1: Fastest Highest Scorers in the Town Hall Meeting in Tamale

Name	Institution	Gender	Score (%)	Position
Akosua Boakye	Fiila FM	Female	100	1 st
Abdul-Mumin Abdul-Razak	Sagani TV	Male	100	2 nd
Michael V. Addae	Vinmak Consult	Male	100	3 rd
Earl Samuels	Vinmak Consult	Male	100	4 th
Noufal Yamusah	NARWOA	Male	100	5 th

Figure 4.5.9.1: Pictorial Representation of Town Hall Activities in Tamale, Northern Region



4.5.9.2 Radio Campaign Activities in the Northern Region

The radio sensitization and awareness campaign was conducted on Fiila FM, a station with an average listenership of 150,000. The discussion aired at approximately 11:00 AM during the station's popular mid-morning program.

Following the discussion, 12 listeners participated in the radio phone-in quiz. Of these, ten (10) callers (83%) successfully answered one or more questions making it the highest success scoring rate among radio quiz participants. The list of selected winners from the radio phone-in quiz is presented in Figure 4.5.9.2 below.

Figure 4.5.9.2: Selected Winners of Radio Phone-in Quiz in the Northern Region



4.5.10 Town Hall Meeting and Radio Campaign Activities in the Upper West Region

4.5.10.1 Town Hall Meeting Activities in the Upper West Region

Wa, the capital city of the Upper West Region, was selected as the venue for the town hall meeting and the accompanying radio awareness campaign in the region. The town hall meeting was held at the Nuoyong Hotel and was attended by 33 participants. Among them, 30 were male (91%), while 3 were female (9%).

The participants represented diverse groups:

- 8 participants (24%) were from media institutions,
- 5 participants (15%) were from public institutions
- 6 participants (18%) were from regulatory bodies
- 6 participants (18%) were from security agencies, and
- 8 participants (24%) were from private consumer group associations.

After the meeting, 31 participants (94%) took part in the post-town hall meeting quiz, which aimed to assess their understanding of the topics discussed. The average score recorded was 89%. The scores ranged from a minimum of 40% to a maximum of 100%, with the following breakdown:

- 10 participants (32%) scored 100%,
- 16 participants (52%) scored 90%,
- 1 participant (3%) scored 80%,
- 2 participants (6%) scored 70%,
- 1 participant (3%) scored 50%, and
- 1 participant (3%) scored 40%.

The five fastest participants, who all achieved a perfect score of 100% were recognized for their outstanding performance and awarded energy-efficient appliances. The list of the five (5) fastest highest scores can be found in Table 4.5.10.1 below.

Table 4.5.10.1: Fastest Highest Scorers in the Town Hall Meeting in Wa

Name	Institution	Gender	Score (%)	Position
A-Rahaman Maomin	Ghana Enterprise Agency	Male	100	1 st
Kanyor B. Henry	GN Media	Male	100	2 nd
Zakaria Kamaf Deen	Ghana Enterprise Agency	Male	100	3 rd
Nuhu Salifu	Sungmaale Fm	Male	100	4 th
Joseph Kpiriko	Ghana Prisons Service	Male	100	5 th

Figure 4.5.10.1: Pictorial Representation of Town Hall Activities in Wa, Upper West Region



4.5.10.2 Radio Campaign Activities in the Upper West Region

The radio sensitization and awareness campaign was conducted on Home Radio in Wa, a station with an average daily listenership of 120,000. The discussion aired at approximately 8:00 AM during the station's popular morning program.

Following the discussion, 14 listeners participated in the radio phone-in quiz. Of these, ten (10) callers (71%) successfully answered one or more questions. The list of selected winners from the radio phone-in quiz is presented in Figure 4.5.10.2 below.

Figure 4.5.10.2: Selected Winners of Radio Phone-in Quiz in the Upper West Region



4.5.11 Town Hall Meeting and Radio Campaign Activities in the Greater Accra Region.

4.5.11.1 Town Hall Meeting Activities in the Greater Accra Region

Accra, the capital city of the Greater Accra Region, was selected as the venue for the town hall meeting and the accompanying radio awareness campaign in the region. The town hall meeting was held at the Best Western Premier Hotel and was attended by 63 participants. Among them, 47 were male (75%), while 16 were female (25%).

The participants represented diverse groups:

- 26 participants (41%) were from media institutions,
- 11 participants (17%) were from public institutions
- 16 participants (25%) were from regulatory bodies
- 3 participants (5%) were from security agencies, and
- 7 participants (11%) were from private consumer group associations.

After the meeting, 34 participants (54%) took part in the post-town hall meeting quiz, which aimed to assess their understanding of the topics discussed. The average score recorded was 89%. The scores ranged from a minimum of 50% to a maximum of 100%, with the following breakdown:

- 7 participants (21%) achieved a perfect score of 100%,
- 20 participants (59%) scored 90%,
- 4 participants (12%) scored 80%,
- 2 participants (6%) scored 70%, and
- 1 participant (3%) scored 50%.

There were 12 prizes allocated for the 12 fastest participants. Seven participants achieved a perfect score of 100%, securing the top positions. The remaining five slots were filled by the next fastest participants, each scoring 90%. The complete list of the 12 fastest and highest-scoring participants is presented in Table 4.5.11.1 below

Table 4.5.11.1: Fastest Highest Scorers in the Town Hall Meeting in Accra

Name	Institution	Gender	Score (%)	Position
Aboagye Nti Silas	Oman FM	Male	100	1 st
Patrick Ofoe Nudzi	Ghana News Agency	Male	100	2 nd
John Brown Quintin-Cofie	NARWOA	Male	100	3 rd
Emmanuel Azuma Ayamba	Ghana Police Service	Male	100	4 th
Sefah-Danquah S.	Happy FM	Male	100	5 th
Juliet Abla Etefe	B&FT	Female	100	6 th
Prince Essien	GHONE TV	Male	100	7 th
Evans Adjei	AMA	Male	90	8 th
Joshua Kojo Mensah	Starr FM	Male	90	9 th
Anku Morkpokpor	Ghana News Agency	Male	90	10 th
Daniel Oduro-Mensah	Citi FM	Male	90	11 th
Estella Araba Ofori	Ghana Enterprise Agency	Female	90	12 th

Figure 4.5.11.1: Pictorial Representation of Town Hall Activities in Accra, Greater Accra Region



4.5.11.2 Radio Campaign Activities in the Greater Accra Region

The radio sensitization and awareness campaign was conducted on Citi FM in Accra, a station with an average daily listenership of 470,000. The discussion aired at approximately 11:00 AM during the station's popular mid-morning program.

Following the discussion, 13 listeners participated in the radio phone-in quiz. Of these, eight (8) callers (62%) successfully answered one or more questions.

Figure 4.5.11.2: Selected Winners of Radio Phone-in Quiz in the in Accra



4.5.12 Radio Campaign Activities in the Central and Savannah Regions

Two of the seven selected community radio stations were located in Ghana's Central and Savannah regions. Yes FM in Cape Coast and PAD FM in Damongo were chosen as venues for the campaign.

At Yes FM in Cape Coast, the discussion aired at approximately 8:30 AM during the station's popular morning program. Following the discussion, 14 listeners participated in a radio phone-in quiz, with seven (50%) successfully answering one or more questions.

At PAD FM in Damongo, the discussion took place at around 11:00 AM during the station's mid-morning program. During the subsequent phone-in quiz, 10 participants called in, and eight (80%) successfully answered one or more questions. The list of selected winners from the radio phone-in quiz from both locations is presented in Figure 4.5.12 below.

Figure 4.5.12: Selected Winners of Radio Phone-in Quiz in Cape Coast and Damongo



4.5.13 Post-Town Hall Meeting Feedback and Evaluation

As part of the process to ensure that the town hall meetings were productive, efficient, and aligned with their objectives, post-meeting evaluations were conducted. They helped assess the effectiveness, identify areas for improvement, and refine processes for more impactful sessions.

Participants assessed their experience using structured questionnaires across three (3) dimensions: meeting relevance, facilitator performance, and overall meeting organization. Evaluation results revealed strong performance, with relevance scoring 99%, facilitator performance 95%, and overall meetings experience 93%. Additional comments were obtained from participants at both the town hall meetings and the radio awareness campaigns.

In Takoradi in the Western Region, Portia Narkie Narh, a western regional protocol officer of the Ghana National Fire Service said, *"The meeting was highly relevant and provided valuable insights that have significantly enhanced my understanding of energy conservation. The discussions and presentations were well-structured, addressing key aspects of energy efficiency and practical measures to implement it in everyday life. The knowledge gained from this session has deepened my awareness of the importance of conserving energy, its benefits for sustainability, and the impact it can have on reducing costs and protecting the environment. I found the meeting both informative and inspiring, and it has motivated me to adopt more energy-conscious practices moving forward"*

In Ho in the Volta Region, Sherita Woamkpor Kekeli a nurse with Ghana Health Services said, *"The workshop presentations significantly enhanced my understanding of energy consumption and efficiency, particularly the session on practices to avoid at home that increase energy usage. I also gained valuable insights into identifying gadgets and appliances that are not energy-efficient and their long-term environmental impact.*

The quiz at the end of the workshop was a highlight for me. It kept me engaged throughout, and winning a blender and five LED bulbs was an added bonus. I was thrilled because the blender was something I genuinely needed, and it would greatly benefit me and my family. Moreover, knowing that I'll be saving energy while using it makes the reward even more meaningful."

In Koforidua in the Eastern Region, Frank Dorkenoo, a Deputy Director with the Ghana TVET said, *"Attending the workshop has been immensely beneficial and truly eye-opening for me. It has significantly enhanced my understanding of the latest technologies and strategies in energy efficiency and conservation. I also learned how adopting energy-efficient practices can improve indoor air quality, contributing to better health and overall well-being.*

Moreover, the workshop provided valuable insights into reducing carbon footprints and supporting environmental sustainability. I now have a better understanding of regulations and incentives related to energy efficiency, which will aid in compliance and decision-making.

Equally important were the networking opportunities the workshop offered. Connecting with professionals and experts in the field has opened doors to potential collaborations and new opportunities, further enriching the overall experience."

4.6 Gender Representation in Town Hall Meetings and Radio Awareness Campaigns

Both the town hall meetings and radio public awareness campaigns drew participation from both men and women. According to the captured data, 223 out of 293 participants in the town hall

meetings were men, representing 76%, while 70 participants were women, accounting for 24%. In the southern zone (Accra, Takoradi, Koforidua, Ho), women's participation in town hall meetings averaged approximately 36%, while in the middle belt and northern zones, it averaged around 14%.

During the radio call-in segment on fifteen (15) radio stations, 206 call attempts were made, with 161 (78%) by men and 45 (22%) by women. Among the 123 winners, 93 (76%) were men, and 30 (24%) were women. Notably, no call attempts were made by women in locations such as Kumasi, Ejisu, and Damongo. However, the success rate for women who participated was 67%, compared to 58% for men.

Tables 4.6.1 and 4.6.2 provide detailed information on gender representation in the town hall meetings and radio awareness campaigns, respectively.

Table 4.6.1 Town Hall Meeting Gender Representation

Location	Number of Participants	Number of Men	Number of Women	Share of Men (%)	Share of Women (%)
Takoradi	26	14	12	54	46
Ho	43	31	12	72	28
Koforidua	27	15	12	56	44
Kumasi	29	26	3	90	10
Sunyani	21	18	3	86	14
Tamale	28	23	5	82	18
Bolgatanga	23	18	5	78	22
Wa	33	31	2	94	6
Accra	63	47	16	75	25
Total	293	223	70	76	24

Table 4.6.2 Radio Public Awareness Campaign Call-in Segment Gender Participation

Location	Radio Station	Number of Calls	Number of Winners	Share of Winners (%)	Number of Calls		Number of Winners		Share of Winners	
					Males	Females	Males	Females	Males	Females
Takoradi	Skyy Power FM	13	10	76.92	11	2	8	2	72.73	100.00
Cape Coast	Yes FM	14	7	50.00	11	3	5	2	45.45	66.67
Ho	Ho FM	20	8	40.00	11	9	5	3	45.45	33.33
Koforidua	Bryt FM	14	7	50.00	13	1	6	1	46.15	100.00
Nkwakaw	Obuoba FM	16	5	31.25	13	3	3	2	23.08	66.67
Kumasi	Abusua FM	14	8	57.14	14	0	8	0	57.14	0.00
Ejisu	OKESE FM	14	9	64.29	14	0	9	0	64.29	0.00
Duayaw Nkwanta	Jewel FM	13	8	61.54	12	1	8	0	66.67	0.00
Sunyani	SOMPA FM	12	7	58.33	10	2	5	2	50.00	100.00
Bolgatanga	Word FM	13	8	61.54	9	4	7	1	77.78	25.00
Navrongo	Nabinna FM	14	10	71.43	6	8	4	6	66.67	75.00
Tamale	Fiila FM	12	10	83.33	5	7	4	6	80.00	85.71
Damongo	PAD FM	10	8	80.00	10	0	8	0	80.00	0.00
Wa	Home FM	14	10	71.43	13	1	9	1	69.23	100.00
Accra	Citi FM	13	8	61.54	9	4	4	4	44.44	100.00
Total	14	206	123	61.25	161	45	93	30	57.76	66.67

5.0 Conclusion and Recommendations

Conclusion

The stakeholder engagement initiatives for energy efficiency regulations have demonstrated a significant stride in fostering awareness and collaboration among key participants in Ghana's energy landscape. The activities, including town hall meetings, training workshops, and media campaigns, effectively provided platforms for sharing knowledge, aligning stakeholder efforts, and addressing implementation and enforcement challenges. The successes recorded, such as increased awareness, and strengthened partnerships, underscore the importance of inclusive and participatory approaches to policy implementation.

The involvement of diverse stakeholders—regulatory bodies, industry players, policymakers, and the general public—ensured a well-rounded dialogue and collective ownership of the regulations. This inclusivity is pivotal in driving compliance and promoting the adoption of energy-efficient technologies. However, challenges such as limited capacity for monitoring, financial constraints, and language barriers at the community level were highlighted, necessitating targeted interventions to sustain progress.

Recommendations

1. Enhance Public Awareness and Sensitization

- ❖ Energy Commission to strengthen outreach programs by leveraging digital platforms, traditional media, and community networks to reach underserved populations.
- ❖ Expand the scope of the awareness and sensitization initiative on the new energy efficiency regulations to encompass the remaining regional capitals and underserved communities across Ghana.
- ❖ Integrate energy efficiency education into school curricula to build early awareness among younger generations.

2. Capacity Building for Stakeholders

- ❖ Expand training initiatives to equip enforcement agencies, and retailers with the technical expertise required for compliance and enforcement.
- ❖ Offer tailored support to local governments to enable effective implementation at the grassroots level.

3. Strengthen Policy and Regulatory Frameworks

- ❖ Collaborate with the Public Procurement Authority to institutionalize green procurement practices, ensuring government agencies prioritize energy-efficient technologies.

4. Address Monitoring and Resource Gaps

- ❖ Mobilize resources through partnerships with private sector entities, donor agencies, and international organizations to fund monitoring and compliance activities.
- ❖ Conduct regular energy audits and appliance ownership surveys to identify and address inefficiencies.

5. Foster Partnerships and Collaboration

- ❖ Establish strategic alliances with industry associations, civil society, and advocacy groups to create a robust support system for energy efficiency initiatives.
- ❖ Promote multi-stakeholder dialogues to refine strategies and align efforts with international environmental commitments.