



Ministry of Energy



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IMPLEMENTATION OF TANZANIA'S 1st ENERGY EFFICIENCY ACTION PLAN (2021-2025)

INTERM REPORT

Covering the period January – December 2024

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Acronyms and Abbreviations

AAT - Association of Architects Tanzania

AC - Air Conditioner

ATC - Arusha Technical College

BC - Building Certifier

CEA - Certified Energy Auditor

CEM - Certified Energy Manager

CoET-UDSM - College of Engineering and Technology - University of Dar es Salaam

CTI - Confederation of Tanzania Industries

DIT - Dar es Salaam Institute of Technology

EAC - East African Community

EACREEE - East African Centre of Excellence for Renewable Energy and Efficiency

EEAP - Energy Efficiency Action Plan

EEBC - Energy Efficiency Building Code

EPC - Energy Performance Certification

EU - European Union

EWURA - Energy and Water Utilities Regulatory Authority

FCC - Fair Competition Commission

HVAC - Heating, Ventilation, and Air Conditioning

IET - Institution of Engineers Tanzania

LGA - Local Government Authority

MECS - Modern Energy Cooking Services

MEPS - Minimum Energy Performance Standards

MoE - Ministry of Energy

MoW - Ministry of Works

MVE - Monitoring, Verification, and Enforcement

NACTVET - National Council for Technical and Vocational Education and Training

NBC - National Building Code

NBS - National Bureau of Statistics

NCC - National Construction Council

NEMC - National Environment Management Council

NGO - Non-Governmental Organization

PO-RALG - President's Office Regional Administration and Local Government

REA - Rural Energy Agency

SADC - Southern African Development Community

SDG - Sustainable Development Goal

SME - Small and Medium Enterprise

TANESCO - Tanzania Electric Supply Company

TBA - Tanzania Building Agency

TBC - Tanzania Broadcasting Corporation

TBS - Tanzania Bureau of Standards

TEMESA - Tanzania Electrical, Mechanical and Electronics Services Agency

TIRDO - Tanzania Industrial Research and Development Organization

ToT - Training of Trainers

TRA - Tanzania Revenue Authority

TWG - Technical Working Group

UDOM - University of Dodoma

UDSM - University of Dar es Salaam

UNDP - United Nations Development Programme

VETA - Vocational Education and Training Authority

Executive Summary

The Ministry of Energy, in collaboration with UNDP and the European Union, is spearheading Tanzania's inaugural Energy Efficiency Action Plan (EEAP), a transformative initiative aimed at institutionalising energy efficiency practices in the country. The overarching goal is to ensure universal access to affordable, reliable, sustainable, and modern energy, aligning with Tanzania's National Development Vision 2025. This 3-year project focuses on key areas such as revising the Energy Efficiency Action Plan and Strategy, establishing Minimum Energy Performance Standards (MEPS) and labelling, introducing an energy performance certification framework for large buildings, enhancing energy consumption data for major consumers, and cultivating expertise in energy management and audit. Through the implementation of seven key actions, the project aims to fortify legal, regulatory, and institutional frameworks, empower large energy consumers, enhance capacity and skills, and elevate public awareness on the benefits of energy efficiency.

In 2024 the project has marked a great milestone by launching the National Energy Efficiency Strategy (2024-2034) by the Deputy Prime Minister and Minister for Energy, Hon. Dr. Doto Mashaka Biteko (MP) as a cornerstone of this project including updated Action Plan. The strategy serves as a foundation of project key achievements this year account major milestone including finalisation of TBS lab equipment, the construction of Tanzania Bureau of Standards Energy Efficiency Labs (underway), finalisation of EEBC and EPC, finalisation of the Minimum Energy Performance Standards and Label including the technical meeting with EAC in harmonisation of regional label.

Furthermore, with additional resource provided through the Embassy of Ireland, the project was able to upscale impactful initiatives on energy audit and energy management training for over 150 individuals, and awarded 25 scholarships to young women, increasing the total from 10 to 35. Additionally, the project provided seed grants to 10 young innovators through the Energy Efficiency Challenge to foster innovation and promote energy efficiency practices.

Media engagement sessions and awareness campaigns, including the Regional Energy Efficiency Conference 2024, were conducted. The conference was officiated by the Deputy Prime Minister and Minister for Energy, Hon. Dr. Doto Mashaka Biteko, and attended by over 400 participants from the EAC and SADC regions. These efforts are part of a broader awareness-raising initiative aimed at educating the general public on industry best practices.

1. Situational Context

The global focus on energy efficiency has intensified, with significant developments occurring at both international and regional levels. The 9th Annual Global Conference on Energy Efficiency, held for the first time in Africa in Nairobi, Kenya, in May 2024, underscored the critical role of energy efficiency in sustainable development. This landmark event brought together global leaders to discuss innovative approaches and policies aimed at accelerating energy efficiency progress.

At COP29 in Baku, Azerbaijan, a major milestone was achieved with the launch of the African Union Energy Efficiency Programme and the African Energy Efficiency Alliance, along with their Strategy and Action Plan. This initiative provides a comprehensive roadmap for advancing energy efficiency across key sectors, including industry, electricity supply, appliances, buildings, transportation, and agriculture.

In East Africa, the East African Community (EAC), through the East African Centre of Excellence for Renewable Energy and Efficiency (EACREEE), is developing a new Energy Efficiency Policy for the region. A significant step in this process was the validation workshop held in Dodoma, Tanzania, on August 22-23, 2024. This workshop aimed to validate the EAC Energy Efficiency Policy, Regional Compliance Framework, and Energy Performance Label.

Tanzania has made notable progress in its energy sector. The government launched the National Energy Efficiency Strategy (2024-2034), setting the stage for targeted measures to optimize electricity and cooking energy use, reduce carbon emissions, and support environmental protection. The integration of over 1,000 MW from the Julius Nyerere Hydropower Project into the national grid has significantly enhanced electricity availability.

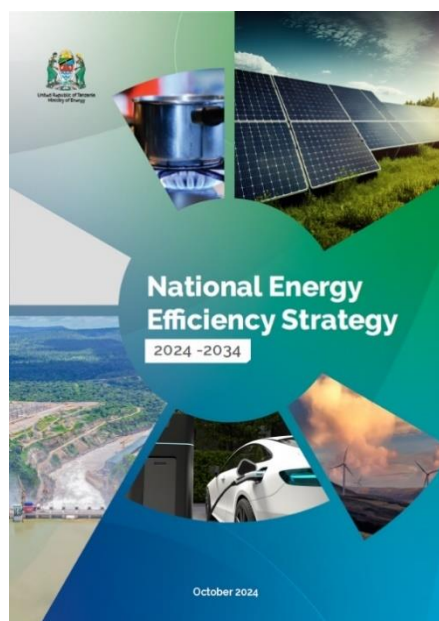
The country's commitment to energy efficiency was further reinforced at the Regional Energy Efficiency Conference 2024, which highlighted the government's dedication to advancing energy efficiency across multiple sectors. Tanzania's Energy Efficiency Action Plan addresses behavioural, market, and regulatory barriers while promoting best practices in energy efficiency. Additionally, the launch of the National Clean Cooking Strategy (2024-2034) by Her Excellency President Samia Suluhu Hassan underscores the importance of efficiency in cooking, aiming to reduce reliance on traditional biomass fuels, enhance indoor air quality, and promote sustainable cooking solutions.

These developments, along with the newly approved energy efficiency labels and standards being finalised by the Tanzania Bureau of Standards (TBS) Technical Committee, demonstrate Tanzania's comprehensive approach to sustainable energy practices. The country's efforts align with the broader regional and continental initiatives, contributing to the vision of an energy-efficient and resilient future for Africa.

2. Progress to date

Action 1: Review and update the Energy Efficiency Action Plan and Prepare the Energy Efficiency Strategy to be aligned with the Action Plan

The Energy Efficiency Strategy is a key component of this project, designed to support the implementation of the National Energy Policy and the strategic objectives of Tanzania's National Development Vision 2025. It aims to position energy efficiency as a vital contributor to the country's economic and social development. The project has facilitated multiple stakeholder consultative meetings and workshops to develop the National Energy Efficiency Strategy (2024-2034) in alignment with the Energy Efficiency Action Plan. Under the guidance of the Ministry of Energy, a technical committee was established in August 2024 who incorporated stakeholder inputs and finalised the draft strategy, which was subsequently submitted to the Ministry for internal approval.



On 4th December 2024, the project marked a key milestone with the official launch of Tanzania's first National Energy Efficiency Strategy (2024-2034). The strategy was inaugurated during the Regional Energy Efficiency Conference by the Deputy Prime Minister and Minister for Energy, Hon. Dr. Doto Mashaka Biteko (MP), who emphasised its role in providing a structured framework for enhancing energy efficiency across all sectors. This strategy marks a significant step toward promoting sustainable energy practices that support socio-economic growth and environmental sustainability.

The draft strategy outlines seven key strategic focus areas:

1. Enhancing national awareness of energy efficiency.
2. Improving efficiency in energy production, transmission, distribution, and sales.

3. Advancing energy efficiency in cooking solutions.
4. Demonstrating public sector leadership in energy efficiency.
5. Promoting energy-efficient buildings and appliances in preparation for increased electrification.
6. Developing an energy efficiency market within the private sector.
7. Encouraging modern and efficient mobility solutions.

These strategic areas aim to optimize energy use, reduce costs, lower carbon emissions, and drive sustainable economic growth in Tanzania.

Next Steps

- Building on this achievement, the project is now working to develop Tanzania's 2nd Energy Efficiency Action Plan, which will serve as a roadmap for implementing the newly launched strategy. This process will involve further stakeholder engagement, technical analysis, and alignment with national and regional energy goals.
- Additionally, with funding from the Embassy of Ireland, the project intends to conduct a gender analysis of the strategy to ensure that energy efficiency initiatives are inclusive and effectively address the needs of both men and women. This analysis will help integrate gender-responsive approaches into policy implementation, fostering equitable participation in energy efficiency programs.

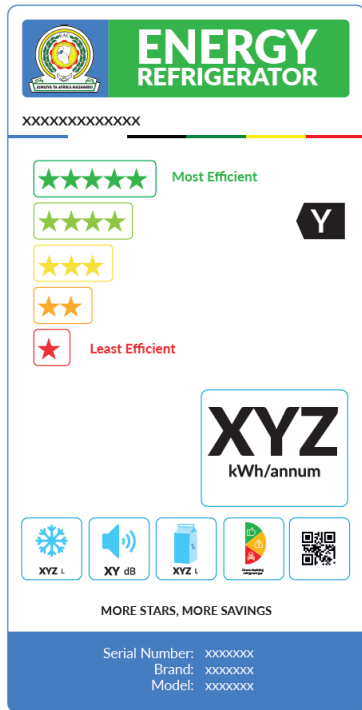
These next steps are essential in advancing Tanzania's energy efficiency agenda, strengthening institutional frameworks, and promoting sustainable energy practices for long-term economic and environmental benefits.

Action 2: Development of Minimum Energy Performance Standards (MEPS) and Labelling

i. Development of MEPS and Energy Labels

The technical committee, under the guidance of an international consultant successfully developed MEPS and energy labels for five selected appliances: electric motors, fans, televisions, air conditioners (ACs), and refrigerators. The standards underwent three consecutive reviews by technical working groups, followed by a final evaluation by the TBS technical committee and approval by the Board of Directors. The final standards will be open for public comments in Q1 2025.

The energy labels for these products were designed through consultative workshops and stakeholder meetings, specifying measurements and technical details for each appliance. During this process, EAC



member states were developing standards for cooling appliances (ACs and refrigerators). To prevent duplication of efforts, the EAC adopted the draft standards and labels developed by Tanzania’s Technical Working Groups. As a result, harmonized standards and labels for the two selected cooling appliances (refrigerators/freezers and Air Conditioners) were developed in collaboration with eight EAC member states as part of regional standardization efforts, and after being passed on public comments now under the **EAC Balloting stage**.

ii. MEPS and Label Regional Harmonisation

In December 2024, the project led the design of the Tanzania energy label, which was also adopted by EAC member states to be used as an energy label, which was approved during a technical working group meeting organised by EACREEE, with representatives from National Bureaus of Standards from eight member states. The draft standards and labels were subsequently

published for public comments, with collected inputs incorporated. The next step is for the East Africa Council of Ministers to officially publish the standards and labels in 2025.

iii. Monitoring, Verification, and Enforcement (MVE)

During the reporting period, the project engaged an international consultant to conduct desk research and propose Monitoring, Verification, and Enforcement (MVE) systems for Tanzania. As part of implementing newly developed standards for five selected appliances, the consultant identified key government institutions and their respective roles in overseeing the development and enforcement of verification systems.

TBS was identified as the lead organization, working in collaboration with:

- TIRDO for conformity assessment,
- TRA and LGAs for market surveillance,
- NEMC and TRA for enforcement, and
- The Ministry of Energy, in partnership with TBS, EWURA, and TRA, for review and evaluation.

Additionally, the report recommended that TBS, EWURA, FCC, CTI, and LGAs conduct awareness campaigns to ensure manufacturers, distributors, and importers comply with these standards.

The report further recommended several key measures to enhance the effectiveness of energy efficiency standards:

1. **Strengthening Regulatory Capacity:** Invest in training and capacity-building programs for regulatory agencies such as TBS and TRA to improve their ability to enforce energy efficiency standards effectively.
2. **Public Awareness Campaigns:** Conduct nationwide awareness campaigns to educate consumers on the benefits of energy-efficient appliances and increase public interest in adopting them.
3. **Incentives for Importers:** Introduce tax incentives or subsidies for importers who bring in energy-efficient appliances that meet or exceed Tanzania's MEPS.
4. **Continuous Evaluation and Improvement:** Establish a policy evaluation plan through government collaboration with key stakeholders to assess the impact of the compliance framework, identify areas for improvement, and implement solutions to enhance its effectiveness.

iv. **MEPS Testing Equipment and Laboratories Development**

a) Delivery and Installation of Testing Equipment

The project has procured testing equipment for the five selected products to be considered for MEPS. Out of the six planned testing laboratory equipment, five were delivered and installed at the TBS newly established laboratory. However, testing equipment for ACs and lamps is pending due to ongoing refurbishment/construction of the respective testing facilities at TBS.

b) ACs and Lamps Testing Laboratories

During the reporting period, construction of ACs and lamps testing laboratories at TBS, approved by the Steering Committee in 2024, progressed steadily. The lamps' testing laboratory is financed by TBS, and renovations for the electric motor testing room were also undertaken. This initiative marks a significant step in enhancing Tanzania's capacity to test and certify energy-efficient appliances, supporting national energy efficiency goals. These laboratories will be used to test the selected priority products once the standards are approved by the ministry for implementation. Testing labs are expected to be inaugurated in 2025.

v. Awareness Creation and Stakeholder Engagement

Under the guidance of an international consultant, the project organised two awareness workshops targeting private sector stakeholders, manufacturers, importers, retailers, customs officials, and government regulators.

Key topics covered:

1. **Cost Savings:** The financial benefits of adopting energy-efficient appliances.
2. **Market Competitiveness:** Enhancing product value and consumer demand.
3. **Innovation and Investment:** Encouraging research and development in energy-efficient technologies.
4. **Regulatory Compliance:** Ensuring adherence to MEPS and enforcement measures.
5. **Environmental Impact:** The role of energy efficiency in reducing carbon emissions.
6. **Public-Private Collaboration:** Strengthening partnerships for effective implementation.

Additionally, TBS provided insights into the MEPS implementation timeline and the MVE process, outlining verification measures to ensure compliance.

vi. Collaboration on e-Cooking Standards Development

The Ministry of Energy, in collaboration with UNDP, facilitated a partnership between the EEAP Project and Modern Energy Cooking Services (MECS), a UK-based organization implementing the Electric Cooking Scale and Support Programme. This two-year initiative, funded by UKAID through the British High Commission in Dar es Salaam, aims to leverage Tanzania's growing electricity access to advance clean cooking solutions. The program focuses on awareness, access to materials and infrastructure, affordability, policy development, investment, and capacity building, aligning with the Tanzania National Clean Cooking Strategy. MECS engaged with the EE Project to complement the progress made in developing **MEPS** for five priority appliances. Their objective is to collaborate on introducing **MEPS for** electric cooking (e-Cooking) appliances, including:

- Electric Pressure Cookers
- Rice Cookers
- Induction Hobs
- Air Fryers

MECS, in collaboration with the MEPS Technical Working Group (TWG) and the Ministry of Energy, has conducted multiple meetings to define draft standards for e-cooking appliances. In **Q4 2024**, the **TWG initiated the review and discussion** of draft standards and labels applicable to these appliances. In **2025**, the finalisation of draft standards and labelling will be organised before being submitted to the **TBS Technical Committee** for further processing.

This partnership strengthens the EE Project's efforts without significant financial implications, while enhancing **EU visibility and recognition** through a collaborative approach to clean energy solutions.

Next steps on Action 2:

1. Inauguration of MEPS Testing laboratories at TBS: With the final testing equipment expected to be installed at TBS by May 2025, the project intends to organise a high-level inauguration event to mark this milestone (TBC July 2025).
2. **Public Consultation and Official Publication of Standards & Labels:**
 - a. The MEPS for fans, electric motors, and TVs will be publicised for public comments over a two-month consultation period (expected between February and April 2025). Note: The MEPS for cooling appliances (ACs and refrigerators) will skip the two-month public consultation as per EAC procedures, allowing for earlier finalisation.
 - b. After the consultation period, the Board of Directors will review and approve the standards, followed by submission to the Ministry of Industry for gazetting in April/May 2025.
3. **Targeted awareness campaigns** will engage the public, large energy users, government officials, manufacturers, and retailers to ensure widespread understanding and compliance.
4. **Training sessions** will enhance the technical expertise of TBS personnel in handling and maintaining newly installed testing equipment.
5. The project will support the **completion of MEPS and labels for eCooking standards**.

Action 3: Development and Implementation of a Framework for Energy Performance Certification (EPC) in Large Buildings

- **Development of Energy Efficiency Building Codes**

Following a series of stakeholder consultations between 2023 and 2024 and multiple technical working sessions led by the National Construction Council (NCC), significant progress has been made in drafting

the Energy Efficiency Building Code (EEBC). The NCC, as mandated by the Ministry of Works (MoW) to lead the development of the National Building Code (NBC), has played a key role in this process.

In 2024, the project facilitated several technical workshops and consultation meetings with diverse stakeholders to finalise the draft EEBC. These sessions were conducted by the NCC and the technical committee in collaboration with representatives from key institutions, including:

- **Government Ministries & Agencies:** MoW, MoE, PO-RALG, TBS and NBS
- **Regulatory & Technical Bodies:** NCC, Tanzania Industrial Research and Development Organization (TIRDO), Tanzania Electric Supply Company (TANESCO), Dar es Salaam Institute of Technology (DIT)
- **Academic & Professional Institutions:** College of Engineering and Technology - University of Dar es Salaam (CoET-UDSM), Institution of Engineers Tanzania (IET), Association of Architects Tanzania (AAT)
- **Other Key Stakeholders:** Tanzania Building Agency (TBA), Tanzania Electrical, Mechanical and Electronics Services Agency (TEMESA), and representatives from the private sector, including architects, engineers, quantity surveyors, and environmental experts.

The draft EEBC is built upon existing national policies, including the National Energy Policy and the National Construction Policy, while also aligning with international building standards. These guidelines ensure that the EEBC is comprehensive, practical, and in line with global best practices. As a subset of the National Building Code (NBC), the EEBC aims to:

- Promote efficient energy use in buildings
- Integrate sustainability policies into construction practices
- Reduce operational and maintenance costs through green building designs
- Enhance the use of high-quality construction materials
- Reduce electricity demand and minimize environmental impact by lowering energy waste and harmful emissions.

A key priority of the EEBC is to promote sustainable building design and construction practices across Tanzania. If the country is to meet global Sustainable Development Goals (SDGs) and combat climate change, energy-efficient building design must be part of the solution. The draft EEBC 2024 serves as a technical guide that highlights design techniques to enhance energy performance in buildings, contributing to climate resilience and sustainability.

The EEBC establishes technical requirements for energy efficiency in new construction and additions to existing buildings, addressing critical areas such as:

1. **Building Envelope** – Insulation, windows, and walls (excluding unconditioned storage spaces or warehouses)
2. **Mechanical Systems & Equipment** – Heating, ventilation, and air conditioning (HVAC)
3. **Electric Power & Renewable Energy Systems** – Energy-efficient motors and integration of renewable energy solutions
4. **Interior & Exterior Lighting** – Use of energy-efficient lighting systems
5. **Service Water Heating** – Efficient hot water supply and conservation techniques.
6. **Waste & Water Management** – Sustainable waste disposal and water efficiency practices.

Next Steps on EEBC

- The document is currently undergoing proofreading by a technical expert, and once completed, it will be incorporated into the National Building Codes for further review and finalisation by the Ministry of Works.

- **Energy Performance Certification (EPC)**

The project has led the development of a methodology for conducting Energy Performance Certifications (EPCs). An international consultant was engaged to assist in developing the methodology and proposing a regulatory framework for EPC. In 2024, following discussions with key stakeholders, including EWURA, PO-RALG, and TIRDO, it was agreed that testing the proposed methodology would be an essential step before the formal introduction of regulations. A proposal has been made to engage an experienced short-term consultancy to provide guidance on applying the methodology effectively.

The proposal includes testing the methodology on three large buildings in Dar es Salaam, Tanzania. This pilot exercise is crucial for familiarizing public and private sector stakeholders with the EPC methodology and processes. It will help refine the proposed EPC scheme, ensuring it aligns with four key principles:

- Practicality
- Clarity
- Consistency
- Cost efficiency

The pilot will also provide critical feedback on how to improve the EPC process for larger buildings, ensuring its alignment with Tanzania's energy efficiency goals.

The ultimate goal of the pilot exercise is to ensure that the Energy Performance Certification system in Tanzania is robust, accurate, and cost-efficient. The exercise will provide key insights into the organizational model needed for EPC, as well as the mechanisms and systems required to establish an effective certification scheme. This testing phase is vital for ensuring the future EPC framework in Tanzania operates smoothly, and that the certification process will be widely adopted across sectors. The knowledge gained from this exercise will play a central role in shaping the regulatory framework and implementation strategy for EPC in the coming years.

Next Steps for EPC:

1. Recruitment of Short-Term Consultant

A short-term consultant will be recruited to guide stakeholders through the testing of the EPC methodology. This consultant will assist in overseeing the application of the methodology during the pilot exercise to ensure the process aligns with the key principles of practicality, clarity, consistency, and cost efficiency.

2. Finalisation of Regulatory Framework

Following the completion of the pilot exercise and the feedback received, the regulatory framework for Energy Performance Certification (EPC) will be finalised. This framework will incorporate insights from the testing phase to ensure the EPC scheme is effective, accurate, and aligned with Tanzania's energy efficiency goals.

Action 4: Enhance Energy Consumption Data of Large Energy Consumers

In 2023, the European Union, provided financial resources to Expertise France, who were separately contracted by the EU to implement a complementary assignment in the framework of the Financing Agreement 040-387 "Energy Sector Reform".

The project, titled "**Energy Data and Statistics**", has the overall objective is to enhance the sustainable development of the Tanzanian energy sector. More specifically, the project is expected to lead to the reinforcement of the energy sector's knowledge and analysis by stakeholders including private investors, academia, and civil society organisations. The expected outputs from the Energy Statistics activity are:

- EO1: Improved capacity of government agencies to use data to formulate policies.
- EO2: Improved data production

- EO3: Improved data management and dissemination EO4: Improved accountability and policy dialogue on the state of the energy sector and Monitoring and Evaluation of the Energy Budget Support

The "Energy Data and Statistics" project aims to contribute to the development of the energy sector in Tanzania through improved energy-related statistical systems. It is a technical project on statistics, the effects of which is on the production of energy statistics contributing to improving the performance of the energy sector, and consequently the socio-economic development the country.

Given the overlap between the Energy Data and Statistics project and Action 4 of the energy efficiency project, and to ensure effective use of resources, it was proposed to the European Union, through No-Cost Extension requested in November 2024, to remove activities under Action 4, and reallocate funding to other activities.

It is proposed to reallocate funds from Action 4 to other critical areas where they can have a more direct impact. Specifically:

- Reallocate 164,125 Euro from Action 4 to Action 2 for the development of MEPS for clean cooking.
- Reallocate 177,000 Euro from Action 4 to Action 6 for an additional 15 young women scholarships for Masters in Sustainable Energy Engineering at the Dar es Salaam Institute of Technology (DIT) in 2024.
- Reallocate 113,500 Euro from Action 4 to Action 7 to fund an additional 10 energy efficiency innovations in 2025.

The energy efficiency action plan project will continue to participate and engage in relevant activities of the energy statistics project, including, where necessary, project steering committee meetings as an observer. Relevant data and statistics generated by the Energy Data and Statistics will be used in the implementation of the energy efficiency project.

Action 5: Development and Implementation of a Framework for Management of Large Energy Consumers

Significant progress has been made in building capacities for energy management assessments and audits during the reporting period. The project engaged an international consultant to support the development

of national capacities in development and implementation of a framework for management of large energy users. The consultant work has been assessing TIRDO's competencies, identifying gaps, recommending necessary facilities and equipment, organizing in-house training for TIRDO personnel, and conducting pilot studies for energy management and audits.

Assessment of International Best Practices for Large Energy Consumers:

During the reporting period, the draft assessment of international practices and the proposed framework for managing large energy users were completed. Through a thorough analysis and desk research, a consultant provided the analysis of international practices on large energy users which can be adopted in Tanzania. The findings and recommendations were presented to key government stakeholders, including TANESCO, EWURA, and TIRDO. This collaborative review provided valuable insights for refining the framework.

Key recommendations from the assessment report;

- **Establish a National Energy Efficiency Policy and Framework**

Develop a national energy efficiency policy with a regulatory framework and implementation strategies to address challenges in energy resilience and availability.

- **Awareness and Knowledge Sharing**

Implement short-term awareness campaigns through key stakeholders including TANESCO, MEM, REA, and EWURA.

Integrate environmental and resource management topics into elementary education to build long-term energy consciousness.

- **Adopt Existing Technologies and Best Practices**

Promote the adoption of established, economically viable energy-efficient technologies and align enterprises with the Best Available Technology or average energy performance standards.

- **Strengthen Capacity for Energy Management**

Build enterprise-level energy management capacities to ensure efficiency across sectors and address the needs of large energy users.

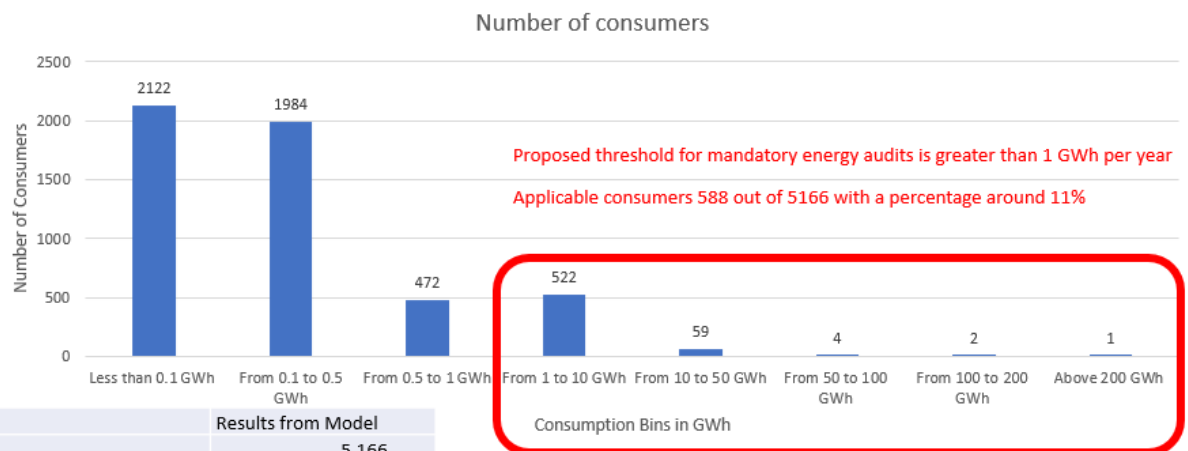
- **Policy Innovation and Market Integration**

Design focused policies incorporating capacity building, regulatory measures, and financial incentives.

Governments should lead by example with demonstration projects, procurement policies, and integrating the value chain for energy efficiency technology suppliers.

Consultative Meetings to Development of Regulatory Framework for Large Energy

In partnership with EWURA, TANESCO, and TIRDO, an international consultant conducted surveys and interviews with a sample of large energy users to support the development of a regulatory framework tailored to Tanzania. These efforts focused on establishing criteria for identifying large energy users and outlining procedures for their classification. The consultancy aimed to propose a framework for managing large power users in Tanzania, guiding stakeholders and the project in designing and implementing an effective regulatory framework. This consultative work included site visits to sampled large energy users and proposed a classification system for large power users based on annual electricity consumption. The survey covered various regions of Tanzania, including Tanga, Dar es Salaam, and Arusha, targeting major energy consumers such as industries, public buildings, and water utilities.



Category	Results from Model
Number of Customers analyzed	5,166
Number of Customers under T3 as per Tanesco	1,068
Number of Customers under T3 as per analysis	665
Number of Customers under T2 as per Tanesco	3,486
Number of Customers under T2 as per analysis	2,730
Number of Customers under T1 as per Tanesco	612
Number of Customers under T1 as per analysis	1,771
Applicable customers for mandatory energy audits	616
Average kWh threshold	80,000
Peak Demand Threshold	200

The graph above shows the proposed classification of large power users based on their annual electricity consumption, as determined by a machine learning model. It highlights the distribution of 5,166 customers across different consumption bins, with the largest groups in the categories of less than 0.1 GWh (2,122 customers) and between 0.1 to 0.5 GWh (1,984 customers).

The model identifies 588 customers (approximately 11% of the total) who meet the proposed threshold for mandatory energy audits, which is greater than 1 GWh of annual consumption. These applicable customers fall in the 1 to 10 GWh and 10 to 50 GWh bins, with 522 and 59 customers in those categories, respectively. The remaining categories (from 50 to 100 GWh, 100 to 200 GWh, and above 200 GWh) contain very few customers, reflecting the higher consumption thresholds. This classification helps identify large energy users, ensuring that those with the highest consumption are prioritized for mandatory energy audits and better management in Tanzania's energy efficiency efforts.

The culmination will be a final report that outlines recommendations for policy enhancements, capacity building initiatives, lessons learned, and a proposed roadmap for establishing a robust regulatory framework.

Next steps;

1. Development of Large energy user's regulatory framework based on International Best Practices Assessment report in comparison with local practices.
2. Identification and recommendations of suitable energy efficiency measures for large energy users
3. Implementation of developed larger regulatory framework for large energy consumers.
4. Capacity building/training on energy audit and energy management for selected professionals and TIRDO to support energy assessment for large energy users.
5. Develop monitoring and verification systems for large energy consumers.

Action 6: Development of Professional Qualifications and Skills in Energy Management and Audit

Action 6 focuses on enhancing the skills of Tanzanian professionals, with a strong emphasis on women's empowerment, to align with global standards in Energy Management and Auditing. The initiative aims to establish a regulatory framework for professional qualifications and certification in Energy Management, Energy Auditing, and Building Energy Performance Certification, defining the necessary procedures and methodologies. Additionally, it includes Training of Trainers (ToT), curriculum development, and procurement of essential equipment, manuals, and practical materials to support capacity building.

The project has made significant progress in strengthening Tanzania's energy workforce, including:

1. **Development of a New Regulatory Framework** – A draft framework for professional qualifications and certification in **Energy Management and Auditing** was established, covering procedures and methodologies for **Certified Energy Managers (CEM), Certified Energy Auditors (CEA), and Building Certifiers (BC)**.
2. **Stakeholder Engagement & Capacity Needs Assessment** – Consultative meetings were held with key stakeholders, in collaboration with an international consultant, to assess training and examination needs for CEM and CEA certifications.
3. **Intensive Training Programs** – The project conducted both classroom and field-intensive training for 142 personnel (44 women, 98 men) from both the government and private sector to enhance their expertise in energy management and audits.
4. **Bridging the Gender Gap in the Energy Sector** – To promote women's participation in energy, the project awarded 25 scholarships to young women for postgraduate studies in sustainable energy engineering, building on 10 scholarships awarded in 2023, bringing the total to **35 young women** supported under this initiative.

i. Stakeholders' Consultations and Training Needs Assessment

During the reporting period, the project, in collaboration with an international consultant, conducted a series of stakeholder consultative and training needs assessment meetings in Dar es Salaam, Arusha, and Dodoma. These sessions engaged 10 key institutions (Ministry of Energy, DIT, UDSM, TBS, TIRDO, VETA, EWURA, NACTVET, UDOM and ATC) to gather inputs, ideas, and feedback on the training and certification of energy professionals.

The consultations focused on:

- Reviewing the mandates, applicable Acts, and regulations relevant to professional certification.
- Assessing the existing capacity, including human resources and infrastructure, to provide training and certification.
- Exploring opportunities for the development of energy efficiency professionals.

The report recommended the following:

1. **Capacity Requirements for the Ministry** – Establish an Energy Efficiency Unit within the ministry of energy to coordinate and oversee the implementation of energy efficiency practices.

2. **Capacity Building for Training Institutions** – Strengthen training institutions by enhancing human resources, upgrading training facilities, and providing energy audit equipment.
3. **Sustainable Business Plans for Energy Efficiency Centers** – Develop business plans, including bankable projects, to ensure the long-term sustainability of selected or mandated training institutions.

The Capacity Needs Assessment assignment aims to identify gaps and opportunities within selected key institutions to support training, accreditation, and certification for energy auditors and energy managers. Participating institutions shared their perspectives, presenting on their roles and proposing ways their mandates could contribute to the national energy efficiency initiative.

ii. Practical Field Visit to Geothermal Power Plant Projects in Mbeya

In July 2024, the 1st cohort of the Tanzania Young Women Scholars conducted a field visit to three geothermal plant sites in Mbeya, gaining firsthand experience and practical insights into geothermal energy development. The students' practical field visit to the geothermal power plant projects in Songwe, Kiejo-Mbaka, and Ngozi provided valuable insights into Tanzania's ongoing efforts to expand its renewable energy portfolio. These projects hold great promise in enhancing the country's energy security by reducing dependence on fossil fuels while promoting a cleaner, more sustainable power supply. During the visit, students gained firsthand exposure to geothermal exploration processes, power generation techniques, and the environmental and technical considerations involved in developing such projects. However, they also observed several key challenges, including financial constraints, technical expertise gaps, and regulatory hurdles that could impede the full realization of Tanzania's geothermal potential.

To accelerate the successful implementation of geothermal energy projects, a strategic and multi-faceted approach is required. Strengthening financial support through domestic funding and international investments will be critical in ensuring steady project development. Additionally, integrating advanced geothermal technologies and enhancing local capacity through specialized training programs will boost operational efficiency. Environmental sustainability must remain a priority, with rigorous management plans and meaningful community engagement to ensure responsible resource utilization. Furthermore, streamlining regulatory frameworks and introducing attractive investment incentives will create a more enabling environment for investors. By addressing these challenges and implementing these

recommendations, Tanzania can maximize its geothermal resources and take significant strides toward a sustainable energy future.

vii. 2nd Cohort of Tanzania Young Women Energy Efficiency Scholarship

During the reporting period, the project successfully launched the second cohort of the Tanzania Young Women Energy Efficiency Scholarship Program at DIT. The number of scholarship recipients increased from 10 in the first cohort to 25 in this round, reflecting the program's success and the growing interest among young women in pursuing careers in sustainable energy. This expansion highlights the initiative's positive impact and its potential to drive meaningful transformation in Tanzania's energy sector.

The Embassy of Ireland's support for this expansion demonstrates the strong partnership between the EU and the Embassy of Ireland in empowering young women to contribute to climate change mitigation and sustainable energy solutions.

As these 35 scholars embark on their academic journey, they are poised to become pioneers in energy efficiency and sustainable practices, playing a vital role in advancing Tanzania's goal of ensuring affordable, reliable, and sustainable energy access for all.

Furthermore, in 2024, some scholars from the first cohort underwent intensive classroom and practical training in energy auditing and energy management. These young women are expected to drive transformative changes in the energy sector by applying their expertise to energy audits and management, contributing to a more efficient and sustainable energy landscape in Tanzania.

viii. Energy Audit and Energy Management Training Program

In 2023, the project secured additional funding from the Embassy of Ireland, earmarked in part for capacity building in energy management and audit. Through this support, the project managed to conduct international certification training and examinations in Energy Management and Audit for 150+ personnel from both the private and government sectors. Subsequently, the training of trainers was conducted to enhance the internal capacity of government institutions such as TIRDO and DIT to be able to conduct CEA and CEM training.

During the reporting period, the Ministry of Energy officially launched the 2nd **Certified Energy Auditor (CEA)** and **Certified Energy Manager (CEM)** training program at the DIT. The launch event was attended by representatives from the Ministry of Energy, the European Union, the Embassy of Ireland, and DIT who delivered remarks during the opening session. Other participants included TIRDO, media houses and Energy Efficiency scholars.

The event's Guest of Honour, Eng. Styden Rwebangila, representing the Permanent Secretary of the Ministry of Energy, congratulated the trainees and underscored the program's importance. He highlighted the role of the training, supported by the European Union and the Embassy of Ireland, in building on previous successes (2022–2023) while expanding to include private sector participants. Delivered by the Institute of Energy Professionals Africa, the program aims to strengthen Tanzania's energy efficiency capacity and contribute to the country's climate goals by reducing greenhouse gas emissions.

A total of 126 participants from government institutions, academia, the private sector, and the Energy Efficiency Scholarship beneficiaries took part in the Certified Energy Auditor (CEA) and Certified Energy Manager (CEM) trainings. The program combined classroom instruction with practical field exercises and concludes with certification exams. The growing number of trained professionals highlights the government's commitment to addressing skills gaps and building capacity in the energy efficiency sector. These certified experts are expected to work across various organizations to establish effective energy management systems, provide technical expertise, and raise awareness on the importance of conducting regular energy assessments. The ultimate goal of this initiative is for organizations, industries, and public buildings to adopt energy efficiency measures that reduce carbon emissions, operational costs, and energy bills. This will deliver significant environmental benefits while contributing to the country's economic growth.

Next steps on Action 6:

1. Complete the assessment of technical instruments and capacity requirements. Ensure thorough analysis to address all essential aspects for effective implementation.
2. Conduct additional training sessions for Certified Energy Auditors (CEA) and Certified Energy Managers (CEM).
3. Organise international and local study tour(s) for EE Scholarship beneficiaries.
4. Develop a comprehensive 'Training of Trainers' (ToT) program tailored for energy efficiency professionals.

Action 7: Create Energy Efficiency Awareness of the Public

Public awareness creation on benefits of energy efficiency practices is key across all 6 actions of the project. This action aims to create awareness on energy efficiency measures to general public, energy-policy makers, government and public institutions officials, importers, manufacturers, retailers, dealers, distributors, large energy users, and students.

i. Regional Energy Efficiency Conference 2024:

- As part of the awareness raising, the project successfully organized the first Regional Energy Efficiency Conference, bringing together key energy stakeholders from the East African Community (EAC) and Southern African Development Community (SADC) regions in Arusha, Tanzania. The conference was officially graced by the Deputy Prime Minister and Minister for Energy, Hon. Dr. Doto Mashaka Biteko, alongside other government officials, representatives from the EU, the Embassy of Ireland, UNDP, the World Bank, EACREEE, SACREEE, academia, CSOs, NGOs, students, entrepreneurs, and media houses.
- The conference welcomed over 400 participants from EAC and SADC member states, fostering knowledge exchange and experience-sharing on energy efficiency practices across various sectors. Presentations from key government officials and development partners emphasized the importance of energy efficiency and the need for harmonized frameworks to effectively implement energy efficiency measures across the regions.
- **Exhibitions and Performances:** As part of awareness-raising efforts, the conference featured a three-day exhibition and live performances to promote energy efficiency solutions. The exhibition showcased innovative energy-efficient products and best practices, including demonstrations of e-mobility solutions such as electric vehicles and e-bikes. Entrepreneurs, including women-led businesses, displayed energy-efficient products and services, attracting significant public interest. Artistic performances were strategically designed to educate the audience, with more than 400 attendees actively engaging in the sessions.
- **Media Coverage:** Over 100 media outlets, including television, radio, local newspapers, online TV platforms, and social media influencers, were invited to cover the event. Their extensive coverage reached over 5 million people across the country, as well as in the EAC and SADC regions. Additionally, the event was livestreamed on national television (TBC) and social media platforms, garnering over 1 million viewers.

ii. Energy Efficiency Advisory Services - Toolkit:

- During the reporting period, the online energy efficiency advisory toolkit was finalised in collaboration with an international consultant. The toolkit is designed and will be made available to companies (large energy consumers, SMEs, households, public buildings etc) for the assessment of energy usage and possible energy-saving opportunities – including quick

calculation of Pay Back Time (Years), Internal Rate of Return (%age), Energy Savings (MWh) and other indicators in the industry.

- The Ministry of Energy will advise on where (which government institution) the toolkit will be hosted. The potential institutions are the Dar es salaam Institute of technology (DIT), the Tanzania Industrial Research Organization (TIRDO) and the Ministry of Energy (MoE).
- As part of awareness raising and decision making, the toolkit will be capable of performing economic and financial analysis and assessing greenhouse gas emissions in order to promote, energy efficiency practices, resilience, and climate change objectives.

iii. 2nd cohort of the Energy Efficiency Scholarship Awareness Sessions

The project in collaboration with DIT organized a series of online webinars to guide potential applicants on the scholarship program. These sessions covered the application process, selection criteria, and benefits, with a particular focus on promoting gender equality in the energy sector.

The webinars significantly raised awareness, attracting over 120 applications from young women interested in pursuing a master's degree in Sustainable Energy Engineering at DIT. Many of these applicants had previously been admitted to the program but were unable to afford the tuition fees. This year, the project will award fully funded scholarships to 25 young women, a notable increase from the 10 scholarships provided last year.

Next Steps:

- Develop and conduct comprehensive/massive awareness campaigns on energy label to general public, manufacturers, importers and regulatory authorities such as TRA, TANESCO, EWURA etc..
- Energy efficiency benefits and opportunities awareness campaigns to consumers (priority to women) on the importance of saving energy.
- Develop articles, workshops, leaflets, and other publications to foster procurement of energy efficient appliances and devices.
- Design and implement innovation challenge/hackathon for high-school and university students to encourage them to study energy efficiency related matters and start new businesses.

Challenges and lesson learned

i. Ministry Capacity in coordinating Energy Efficiency initiatives

A key challenge in advancing energy efficiency efforts has been the absence of a dedicated Energy Efficiency Unit within the Ministry of Energy and the lack of technical platforms or events to effectively coordinate stakeholders in adopting and implementing energy efficiency initiatives nationwide. The newly launched National Energy Efficiency Strategy (2024-2034) recognizes the need to establish a dedicated Energy Efficiency Unit within the Ministry to oversee and coordinate energy efficiency initiatives. Strengthening the capacity of this unit is crucial to ensuring the effective implementation of activities outlined in the strategy and enhancing coordination among key stakeholders. The presence of a dedicated Energy Efficiency unit/desk and functional energy efficiency technical platforms and events are of paramount importance in bringing about not only formal structural changes but also changes in attitude and support for reforms by responsible institutions.

ii. TBS participation in Regional MEPS Coordination Meetings:

In 2024, East African Member States organized a series of meetings to develop harmonized regional standards for cooling appliances, including refrigerators and air conditioners. However, TBS faced challenges in actively participating in these efforts due to limited resources. TBS's involvement in the national technical committee was constrained by a lack of funding to organize national meetings before the regional discussions. Additionally, financial constraints prevented TBS from attending the meetings in person, forcing virtual participation. This arrangement was challenging due to unstable internet connectivity at TBS and for individual participants. Securing adequate funding will enable TBS to organize national technical meetings and actively contribute to the harmonization of regional standards for electric motors, fans, and televisions, further strengthening energy efficiency initiatives across the region.

iii. Capacity Building and Skills Development

Strengthening capacity and enhancing skills among professionals in energy management, auditing, and certification is essential for advancing energy efficiency efforts. In 2024, the number of trained professionals increased from 16 (**6 female and 10 male**) to 132 (**38 female and 88 male**), highlighting the growing demand from both government and private institutions for expertise in energy auditing and management.

To maximize their impact, these professionals should be equipped with the necessary tools and resources to conduct energy audits effectively. Additionally, raising public awareness about the benefits of energy efficiency including cost savings, new opportunities, and reduced carbon emissions will further drive the adoption of sustainable energy practices.

iv. Creating Awareness to General Public

Energy efficiency is a relatively new concept in Tanzania, requiring comprehensive public awareness on its benefits and best practices. During the reporting period, the project recognized that awareness campaigns are essential for a diverse group of stakeholders, including media, decision-makers, students, regulatory authorities, and government officials.

However, budget limitations restricted the project's ability to reach all stakeholders effectively during implementation. With the availability of Energy Labels, Building Codes, and the National Energy Efficiency Strategy, there is now a clear need for widespread awareness campaigns and active stakeholder engagement.

As MEPS and Labels, Building Codes, frameworks for large energy users, and skills and qualification frameworks are finalized, it is crucial to integrate awareness activities into each stage of the process to ensure successful adoption and implementation.

v. Women Participation in the Energy-related Initiatives

Despite efforts to achieve at least **50% female participation** in training and events, including the intensive CEA and CEM programs, increasing women's involvement remained challenging due to the male-dominated nature of institutions and the Ministry of Energy.

To address this, the project prioritized women through various initiatives, such as energy efficiency scholarships, giving women opportunities to speak into different energy forums and the energy efficiency innovation challenge, aiming to create more opportunities and encourage greater female participation.

There is a pressing need to further empower women and expand their opportunities in the energy sector. This includes conducting a comprehensive gender analysis to identify existing gaps and opportunities, ensuring that women can fully benefit from and contribute to the sector's growth.

Communication and Visibility

During the reporting period, the project effectively enhanced its visibility and communication by promoting project activities, engaging digital media, strengthening media partnerships, and producing both electronic and physical visibility materials.

Key Achievements:

1. Launch Events & Stakeholder Engagement

Organized and promoted key launch events, including:

- Second Cohort of Tanzania Young Women Energy Efficiency Scholarships
- Regional Energy Efficiency Conference 2024
- Certified Energy Auditors (CEA) & Certified Energy Managers (CEM) Training
- Energy Efficiency Innovation Challenge
- Renewable Energy Week exhibition

The project ensured donor, partner, and government visibility across all materials produced for these events and workshops.

2. Digital Media & Online Promotion

Shared key project events on the social media accounts of the Ministry of Energy, UNDP, and the project's official platforms and website to increase outreach and engagement.

3. Media Engagement

Established strong partnerships with **over 50 media houses**, including newspapers, TV, online TV, blogs, and radio raising awareness and educating people on energy efficiency benefits and opportunities.

Facilitated extensive media coverage to educate the public on energy efficiency practices and promote project activities.

4. Newsletters & Publications

During the reporting period, the project produced four quarterly newsletters featuring key events and energy efficiency messages to general public and decision makers. Furthermore, the project distributed stories and articles through UNDP, UN newsletters and in-flight magazine reaching a diverse range of stakeholders.

5. Promotional & Visibility Materials

Developed various branded materials, including annual calendars, t-shirts, caps, pens, water bottles, banners, and bags. Project brochures, scholarship booklets, energy-saving stickers, and energy efficiency innovation challenge brochures. These visibility materials were distributed to the project partners, students, decision-makers, manufacturers, importers, and dealers in different occasions, including the Regional Energy Efficiency Conference 2024 which brought more than 400 participants.

6. Audio-Visual Content & Documentation

Produced documentaries and interviews during key events, such as the Regional Energy Efficiency Conference, CEA and CEM launch and practical events, Tanzania Young Women Scholarships, to capture insights and lessons learned.

Captured high-quality photos of all events and activities, utilizing them for reports, newsletters, banners, and promotional materials, including annual calendars.

These communication efforts significantly enhanced the project's outreach, strengthened public awareness of energy efficiency, and ensured effective visibility for partners, donors, and stakeholders.

Action 8: Project Management, which include Project Coordination Unit and Project Management Unit, coordinating and facilitating the implementation of the seven Actions.

This initiative focuses on project coordination, management, and facilitating the implementation of seven key actions. To strengthen its presence, the project established an office in the capital city in 2022, which was officially inaugurated in May 2024 by the Deputy Prime Minister and Minister for Energy, Hon. Dr. Doto Mashaka Biteko.

The inauguration of the project office highlights energy efficiency best practices, as it has integrated two electric vehicles powered by solar PV systems. These vehicles support project operations while contributing to reducing carbon footprints and promoting energy savings.

Additionally, in 2024, the project received support from the UNDP country office, assisting in organizing meetings, workshops, and conferences, as well as managing procurement, utilities, financial operations, and executive oversight to ensure effective project implementation.

Challenges/Issues Overall and Measures taken:

- **Resignation of the Action 7 Energy Efficiency Analyst:** The Action 7 focal point resigned from his position due to personal reasons. In response, the project has taken necessary measures to ensure continuity, with Action 1 and other project colleagues stepping in to support the planned activities. Over the past two years, Action 7's progress has faced challenges, as its implementation depended on the completion of other key actions. For example, MEPS and labeling awareness could not be effectively conducted until the standards and labels were officially approved similar to other actions.
- **Regional Conference Budget Constrain:** Regional Energy Efficiency Conference 2024 was successfully organized; however, the initial budget estimation fell short due to unforeseen costs that arose during planning and execution. The annual budget allocation for the conference was \$50,000, which proved insufficient for organizing such a large-scale event. To address this challenge, the project accumulated the budget over three years (2022-2024), totaling \$150,000. Additionally, the Embassy of Ireland provided extra funding, which played a crucial role in ensuring the event's success.
- **Capacity and Human Resource Challenges at the Ministry of Energy:** During the reporting period, the project faced challenges related to the availability and capacity of ministry personnel, which led to delays in executing some planned activities on time. To address this, the project took necessary measures to ensure the ministry's active participation and involvement in all activities. Additionally, the newly launched National Energy Efficiency Strategy proposes the establishment of a dedicated Energy Efficiency Unit within the ministry to support and coordinate energy efficiency initiatives more effectively.

C Cross-Cutting Issues:

Gender Mainstreaming

- **Bridging the Gender Gap in the Energy Sector:** To promote gender inclusion in the energy sector, the project expanded the Tanzania Young Women Scholarship Program, increasing the number of recipients from 10 to 25, bringing the total to 35 young women currently benefiting from a fully funded postgraduate scholarship in Sustainable Energy Engineering at DIT. These scholars actively participated in key project activities, including the Regional Energy Efficiency Conference, the scholarship launch event, and Renewable Energy Week. They contributed as speakers and moderators across various platforms, sharing their experiences, highlighting the support received from the project, and advocating for other

young women to explore careers and opportunities in the sustainable energy sector in Tanzania.

- The CEA and CEM training promoted gender inclusivity, with **30.2% female (38) and 69.8% male (88)** participants, including the 1st cohort scholarship recipients, receiving intensive classroom and practical training and attempting energy auditing and management certifications. This marks a significant increase from **2022, when only 6 female (37.5%) and 10 male (62.5%)** were trained. The growing interest and participation of women in energy auditing and management underscores the project's impact and emphasize the need to further empower women in the energy efficiency sector. Their involvement is particularly crucial in household-level energy management, where they play a key role in reducing carbon emissions and promoting sustainable practices.

The monitoring framework for this project prioritizes capturing gender-specific benefits and gathering feedback from beneficiaries on the project's interventions. Despite these efforts, challenges remain in engaging women in training and capacity-building activities, as the energy sector continues to be male-dominated, particularly within government institutions and key stakeholder groups.

Additionally, SDG 7 lacks a strong gender perspective, highlighting the need for a comprehensive gender analysis in the sector. To address this gap, the project has secured additional funding from the Embassy of Ireland, which will be utilized to conduct a gender assessment in the energy sector, ensuring more inclusive and equitable participation.

Lessons Learned

- **Enhancing Government Capacity for Energy Efficiency:** Strengthening institutional capacity within the energy sector is crucial for addressing Tanzania's energy challenges. The project has supported the Ministry of Energy in developing key frameworks and a national energy efficiency strategy. These include Minimum Energy Performance Standards (MEPS) and labeling, the Energy Efficiency Building Code (EEBC), Energy Performance Certification (EPC), classification of large energy users, and a framework for training and skills qualifications. To ensure effective implementation, responsible institutions need additional support to align these regulatory

frameworks with the National Energy Policy and the National Energy Efficiency Strategy and Action Plan.

- **Building Capacity in the Public and Private Sectors:** There is a critical need to raise awareness and build capacity on the benefits of energy efficiency across both public and private sectors. As the project finalizes key frameworks such as **MEPS and labeling, EEBC, EPC, and large energy user regulations**, targeted awareness campaigns must be conducted. These campaigns should engage regulatory authorities, importers, manufacturers, distributors, line ministries, businesses, the private sector, and media to enhance understanding of energy efficiency's cost-saving potential, carbon reduction benefits, job creation, and economic opportunities.
- **The Importance of Effective Communication:** Strong communication and coordination between PMU, PCU, the EU, Embassy of Ireland and implementing partners (IPs) played a key role in addressing project challenges. Regular engagement, flexibility in scheduling meetings, and ensuring the availability of key stakeholders facilitated smoother decision-making. Additionally, embracing diverse perspectives and adapting project plans when necessary proved essential in overcoming obstacles and ensuring progress..

Annexes

Annex I: National Energy Efficiency Strategy 2024-2034

Annex II: National Roadmap for Standards and Labelling Report

Annex III: Monitoring, Verification and Enforcement (MVE) Report

Annex IV: Draft Energy Efficiency Building Code (EEBC)

Annex V: Draft Proposed Methodology for Energy Performance Certification (EPC)

Annex VI: Report International Best Practices for Large Energy Users and Proposed Framework for Tanzania

Annex VII: Capacity Needs Assessment Report

Annex VIII: Draft Regulatory Framework for Training, Certification, and Licencing of Energy Efficiency Professionals

Annex IX: Draft Final Operational Guidelines

Annex X: Energy Efficiency Awareness Plan

Annex XI: Regional Energy Efficiency Conference Report

Annex XII: Energy Efficiency Innovation Challenge Report

Annex XVI: ROAR Newspapers Clippings

Annex XVII: Photos

Annex XVIII: Log Frame