

ECOWAS Refrigerators and Air Conditioners Initiative (ECOFRIDGES)

24 October 2019 – Accra



Presentation Overview

- ✓ *Background*
- ✓ *Project Objectives and key Components*
- ✓ *Conclusions*

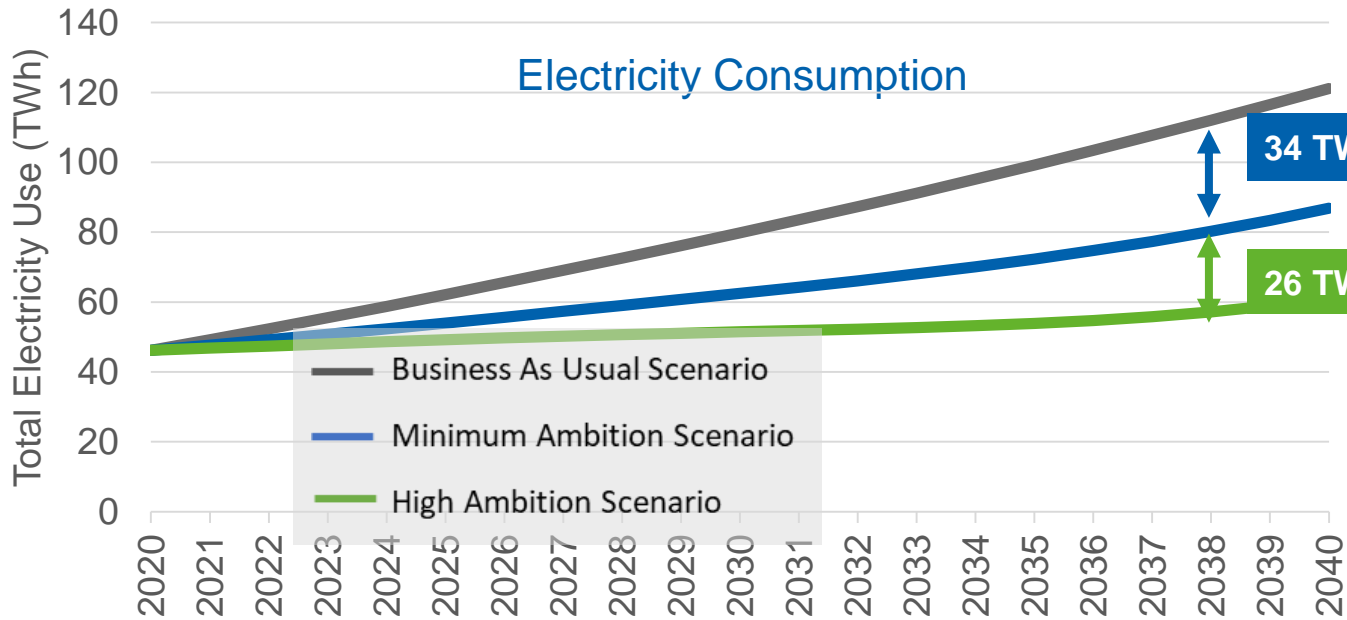
Current Situation

- ✓ *West African States (ECOWAS) are experiencing significant economic and population growth, which is driving ever greater demand for refrigerators and air conditioners.*
- ✓ *Outdated refrigerators and air conditioners consume 2 to 3 times the amount of energy as efficient options available today, and they often contain refrigerant gasses that are harmful to the planet.*
 - ✓ *Studies commissioned by UNDP, Ghana established the following baseline consumption for various categories of Air Conditioners in use:*

*CC ≤ 10,000 Btu/h: 1532.48 kWh/yr
10,000 < CC ≤ 15, 5000 Btu/h: 1,923.73 kWh/yr
15,500 < CC ≤ 20,000Btu/h: 2,139.48 kWh/yr
20,000 < CC ≤ 25,000 Btu/h: 2,680.99 kWh/yr*

- ✓ *Best available technologies in some manufacturing countries has been found to be more than 150% efficient.*

Increasing Electricity Demand and Saving Opportunities for Cooling in West Africa



Annual Savings in 2040*:

34 TWh of electricity consumption, which is equivalent to:

- **15 Power Stations** [500 MW each]
- **21 Million tonnes of CO₂**
- **4 Billion USD on electricity bills**

✓ *High electricity consumption is a stumbling block to residential rooftop solar investment - Higher consumption leads to higher cost estimates if efficiency is not addressed.*

* With Minimum Ambition Scenario

✓ *For this reason the Energy Commission of Ghana as part of its rooftop solar project required beneficiaries to change all their lights from cfls to LED.*

OBJECTIVE OF ECOFRIDGES

UN Environment's United for Efficiency (U4E) initiative is partnering with the governments of Ghana and Senegal to implement ECOFRIDGES

(ECOWAS) Refrigerators and Air Conditioners Initiative (ECOFRIDGES) is to use innovative financial mechanisms to enable consumers to better afford high-performing, energy-efficient cooling products using more climate-friendly refrigerants

The initiative is supported by the Kigali Cooling Efficiency Program (K-CEP)

Implementation of ECOFRIDGES

- *The programme was launched in March 2019, and the financial mechanism is expected to be launched in 2020.*
- *The initiative is taking place in parallel in two countries: Ghana and Senegal.*



Inception meeting held on 20th March with the Ministry of Energy, Energy Commission and other key stakeholders.

ECOFRIDGES: Financial Mechanism

Leverage USD \$25M to deploy energy-efficient, climate-friendly cooling products

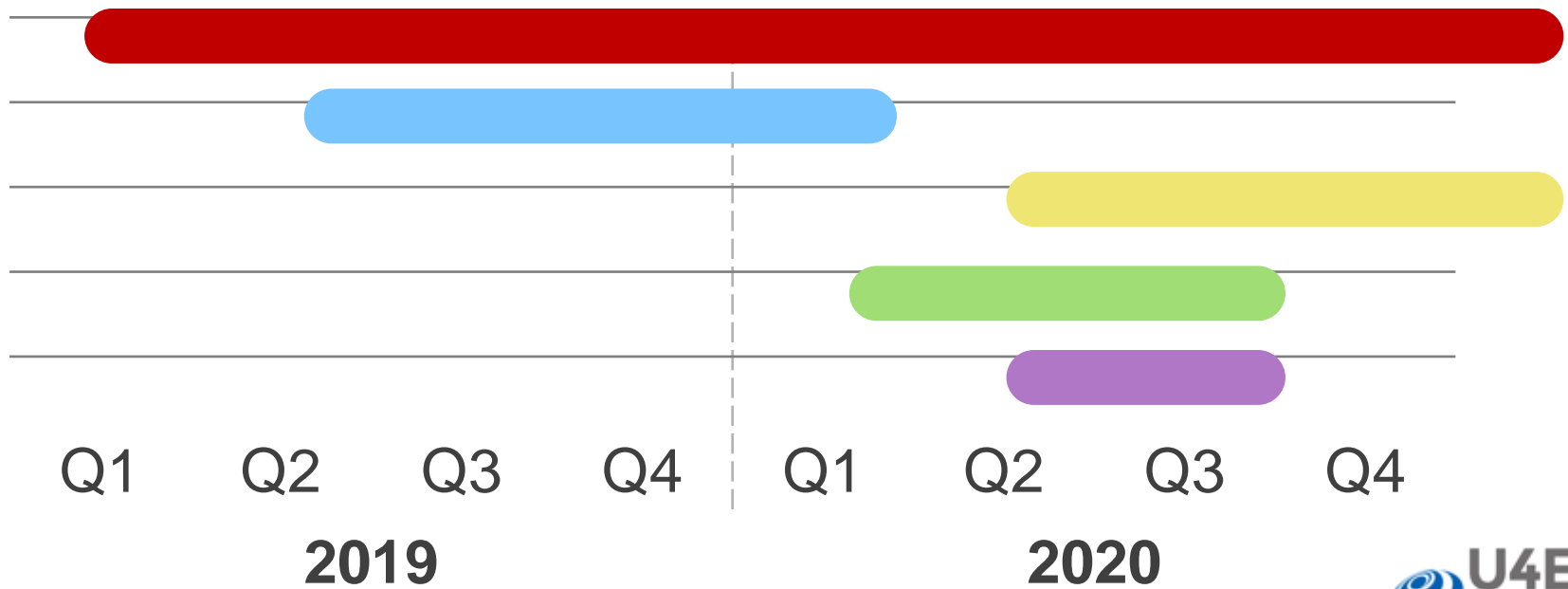
ECOFRIDGES has completed Market Study in Ghana and presently exploring several options:

- **Vendor financing**
- **Bulk Procurement**
- **Green Credit Lines**
- **On-bill financing**
- **Positive Lists**
- **Credit Guarantees**

A stakeholder workshop has been scheduled on 25th November, 2019 for select one mechanism for deployment

Project components

- Financial Mechanism
- Product eligibility criteria and supporting policy considerations
- Monitoring and evaluation activities
- Awareness campaign
- Capacity Building for ECOWAS



Conclusion

The resources developed with Ghana and Senegal will be packaged into a toolkit, and training will be provided to other ECOWAS countries to encourage replication. Ghana and Senegal will also be recognised globally for their ambitious leadership via events and outreach by UN Environment.

Reduction in household consumption will make it more feasible for households to invest in distributed solar and wind options and open more opportunities for renewable energy companies.

U4E will make the toolkit available to inform all stakeholders on the best options to cut down household energy consumption

United for Efficiency (U4E) – Leapfrogging to Energy-Efficient Lighting, Appliances and Equipment

- Launched United for Efficiency (U4E) in 2014 at the UN Secretary General’s Climate Summit.
- The Programme combines the forces of the private and public sectors on high impact opportunities – lighting, appliances and equipment
- Supports the second goal of the UN Secretary General’s SE4ALL initiative: to double the global rate of improvement in energy efficiency



U4E Approach for Transforming Markets

Comprehensive Market Transformation

Detailed Guidance Notes Available



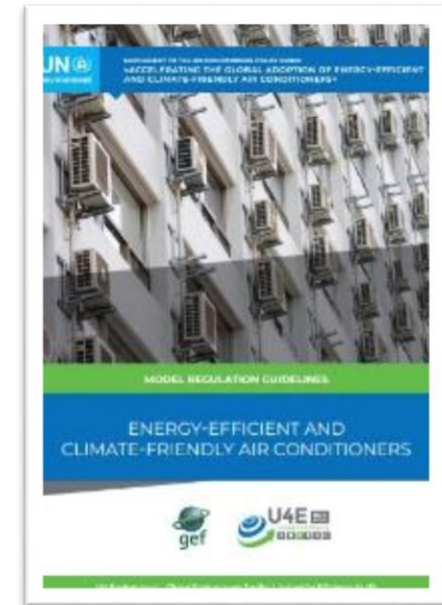
Model Regulation Guidelines

U4E Model Regulation Guidelines are:

→ intended as a guideline to help **inform regulatory authorities and policy makers** in developing and emerging economies.

→ sets a **minimum efficiency floor** to prohibit future sales of inefficient products from the market.

A range of stakeholders, including governments, manufacturers, technical institutions and environmental groups have contributed to their development.



Supporting Global Market Transformation:



THANK YOU



Contact

TRANSFORMING MARKETS TO ENERGY-EFFICIENT PRODUCTS



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**UN Environment –
U4E Cooling Lead**