

Model Regulation Guidelines to accelerate Market Transformation for Energy Efficient Appliances and Equipment

*Energy Efficiency Appliances & On-Bill Financing Virtual Workshop
29th July 2021*

Soledad GARCIA, United for Efficiency



Supporting Countries to Save 20% of their Electricity

By accelerating the Global Transition to much more energy efficient lighting and appliance technologies by strengthening country capacities around the world, as well as ensuring environmentally sound management practices. Building synergies among stakeholders, sharing knowledge and information, helping create strategic policy and regulatory frameworks, and addressing technical and quality issues.



Electric
Motors



Light
Bulbs



Residential Refrigerators



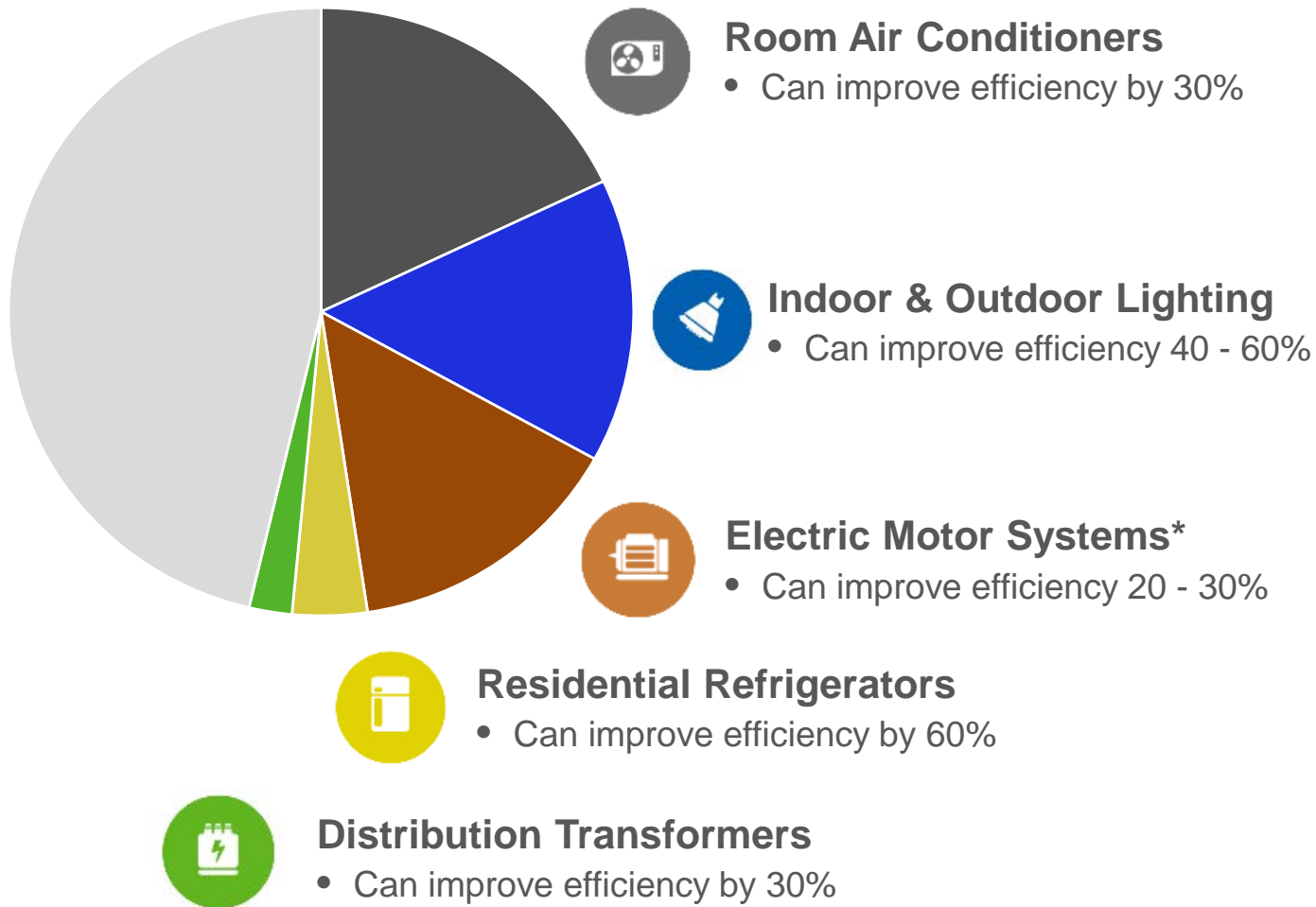
Room Air
Conditioners



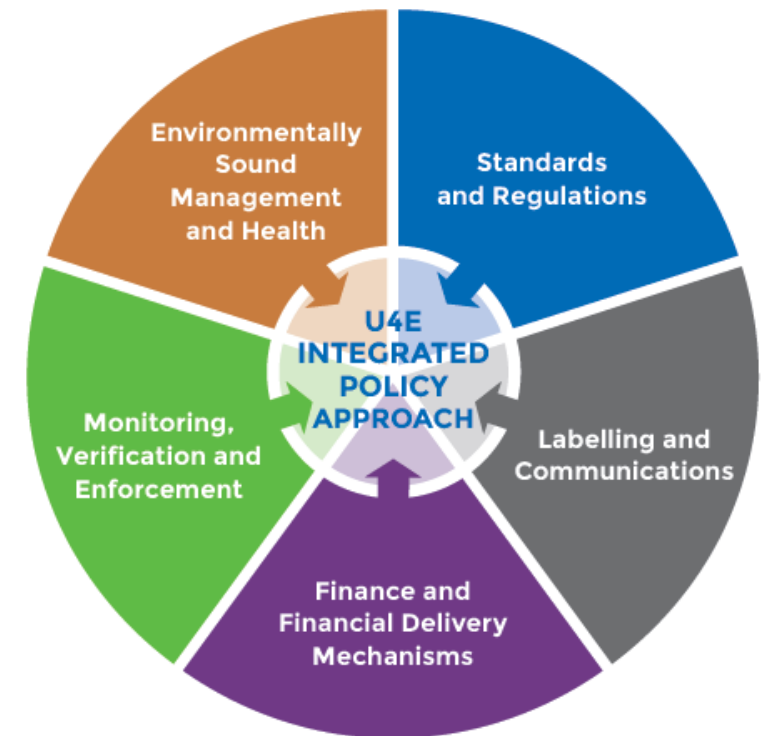
Distribution
Transformers

HOW DO WE FULFILL OUR MISSION?

We tackle the 5 products that use more than 50% of global electricity:



U4E implements a proven Integrated Policy Approach for product market Transformation:



Energy Efficiency of Products in the Market



Energy Efficiency of Products in the Market

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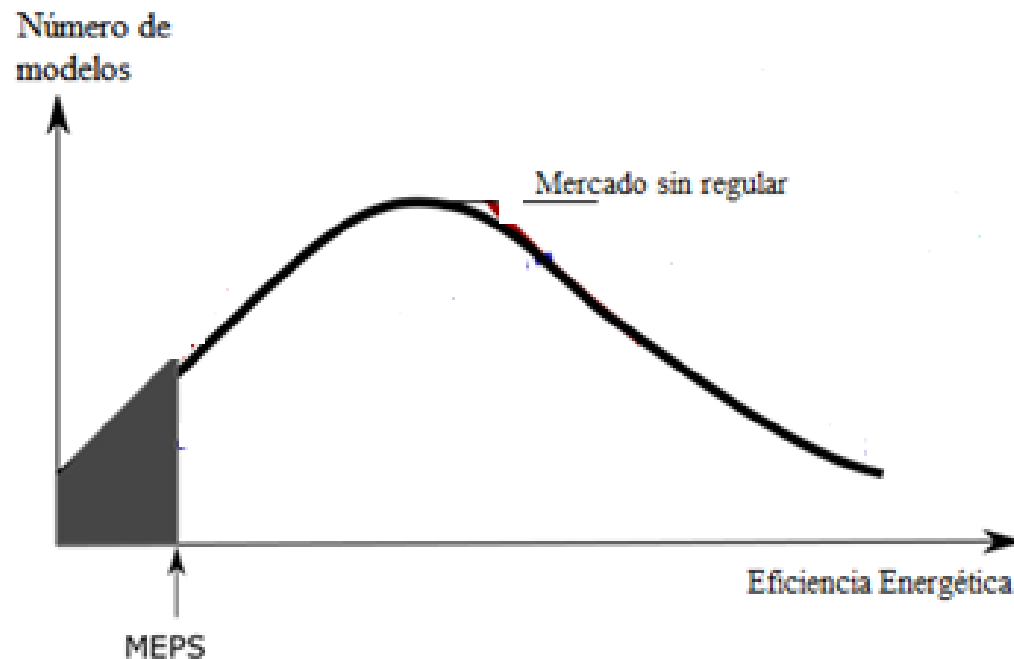


MEPS and Labelling schemes



Objective

- ✓ **MEPS (Minimum Energy Performance Standard)** → Indicates the maximum energy consumption allowed for a product to be commercialized in a country/region. Therefore, it bans those products that are obsolete or inefficient.
- ✓ **Labelling scheme** → Indicate the efficiency level for the products marketed in the country/region to compare them between each other. Provides information to the end user to make informed purchasing decisions. Promotes the most energy efficiency products from the market.

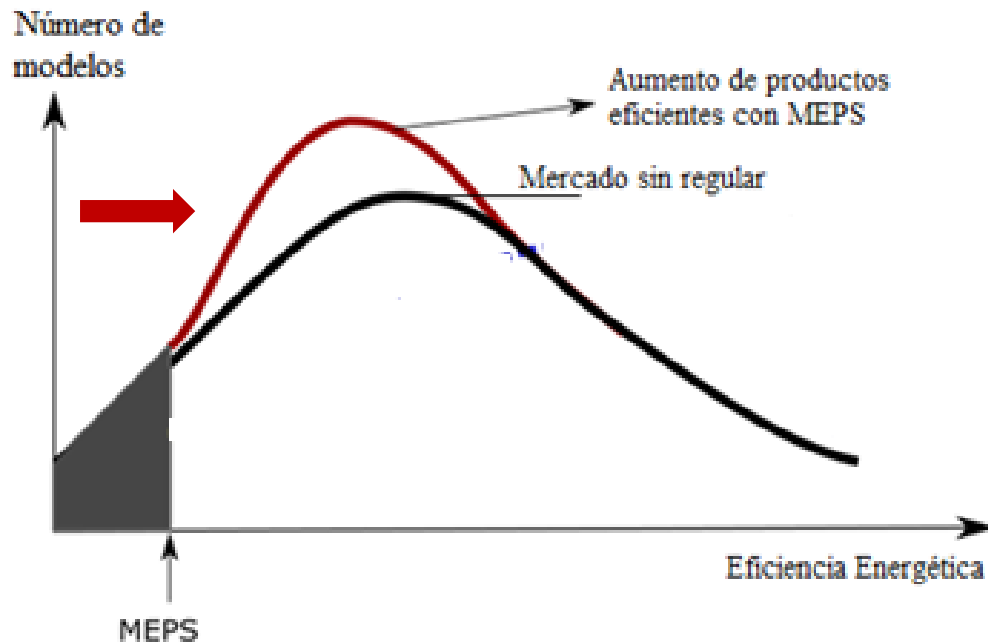


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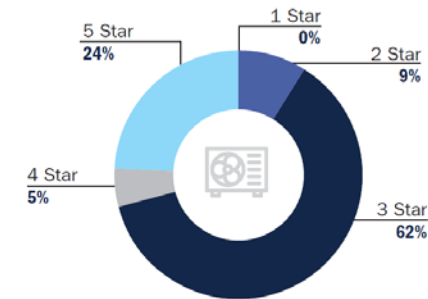
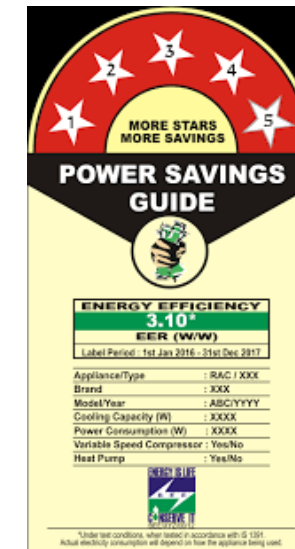
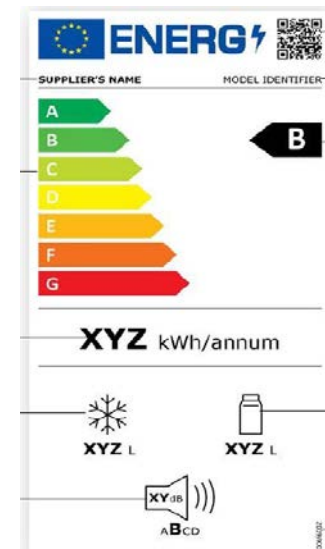
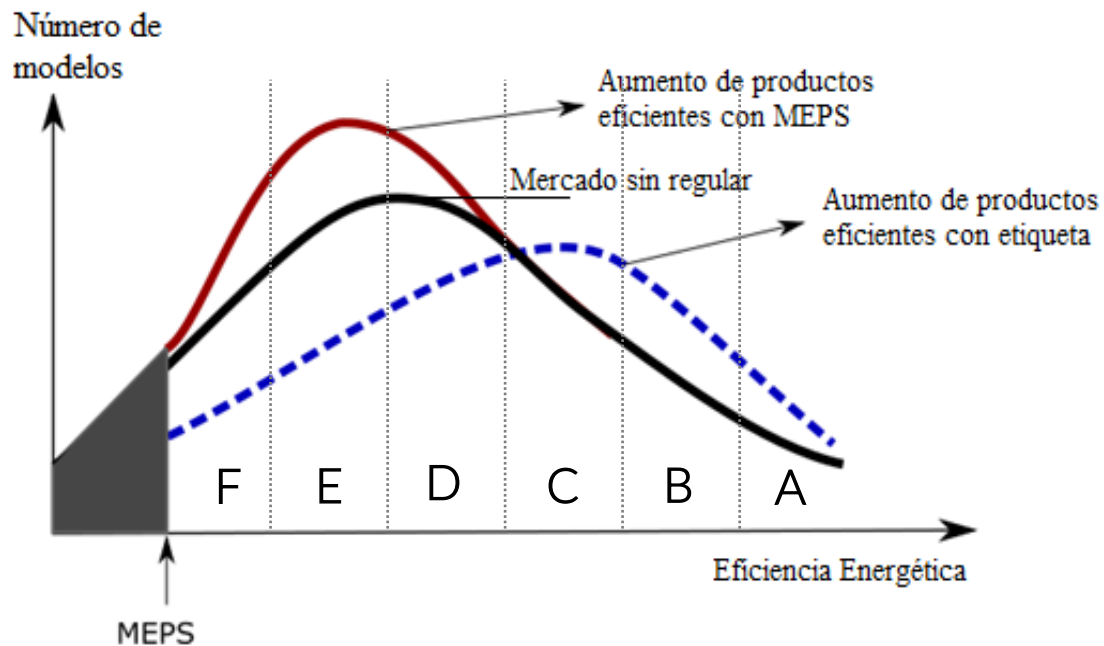


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MEPS and Labelling schemes



Challenges

- ✓ **Lack of data from both local and global markets.**
- ✓ **Where the Global market is heading in terms of technologies available, best practices, policies, etc.**
- ✓ **Absence of harmonized regulations among countries and lack of framework that foster it.**
- ✓ **No reference to update policies regularly.**
- ✓ **Technical limitations to respond to common questions, such as:**
 - What is the scope of products that have to be included in the norm?
 - What is the metric that I should use to calculate energy efficiency?
 - What are the test methods that I should use to measure energy consumption?
 - What is a good level of efficiency to be used as MEPS?
 - What should be the efficiency levels that define the efficiency classes on the label?
 - Should I regulate the refrigerant gases, up to what GWP value?

The U4E Model Regulation Guidelines can help regulatory authorities and policy makers with some of these questions and concerns



Aims of the Global Model Regulation Guidelines

- Simplify the **adoption of new robust regulation /enhance** existing one in terms of MEPS and Labels for developing and emerging economies.
- Guidance on setting a **minimum efficiency energy floor**, but also **define other key performance requirements simultaneously** (eg. GWP refrigerants for cooling products).
- Use proven **best practices** and **tap into global policy and technology trends** to catalyze product innovation, and give consumer more choices.
- **Harmonize requirements** to reduce trade barriers and unlock economies of scale to make products more affordable

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



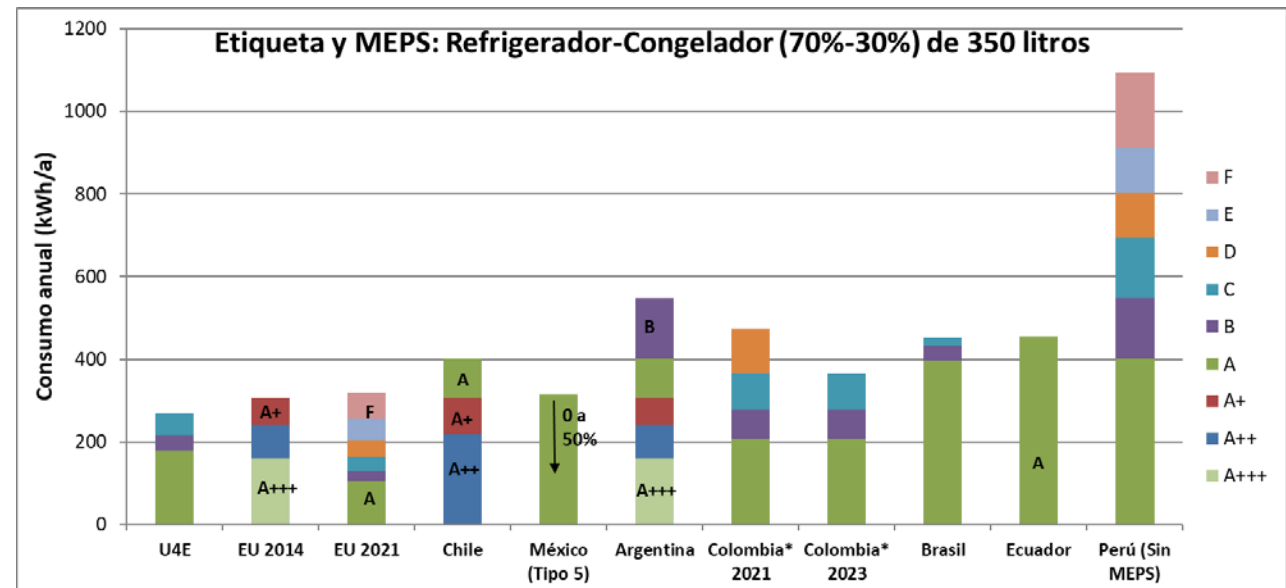
Facilitate National adoption and harmonization across countries



Benefits

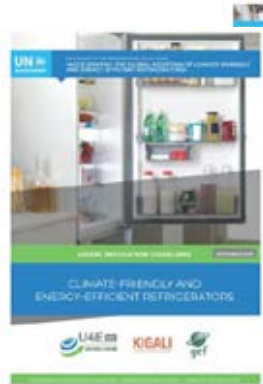
- ✓ **Reduction of commercial barriers** that impede for a much bigger market demand. Larger markets make products more affordable and attractive for investments, for consumers and institutional procurers.
- ✓ **Encouragement for countries lagging behind** on their policies and regulations to bridge the gap regarding their neighbors and accelerate policy adoption process to avoid becoming dumping grounds for inefficient products which end up costing more in the long run.
- ✓ **Efficient use of limited resources** by spreading the market surveillance costs or share testing infrastructure, information and tools.

- **Peru** has no MEPS.
- Label in **Mexico** has no EE classes, is based on percentage improvement with MEPS baseline.
- **Ecuador** MEPS only allow A products, making the Label obsolete.
- **Argentina** MEPS allow consumption of 40% greater than Chile.





Key elements of the Global Model Regulation Guidelines



Scope and definitions, exemptions

- ✓ **Lighting:** LED General Service Lamps (non-directional and directional/spot light bulbs) and Linear fluorescent tubes and linear fluorescent luminaires.
- ✓ **Refrigerators:** refrigerating appliances (refrigerators, freezers and combination) of the vapor compression type, volume between 10 Liters (L) to 1,500 L. **Upcoming for Commercial Refrigerators.**
- ✓ **Room Air Conditioners:** Non-ducted single splits, self contained, portable and reversible heat pumps upto 16 KW.
- ✓ **Electric Motors:** three-phase electric induction motors with two, four, six and eight poles; rated output between 0.75 kW-375 kW.
- ✓ **Distribution Power Transformers:** Liquid Filled and Dry type DT's in the 5 to 3120 kVA power range.

Applicable Test Methods

Energy Efficiency Regulation (MEPS)

Other Performance Requirements

Performance Labelling (levels that exceeds the minimum)

Product Information requirements

Refrigerant and foam Blowing agent regulations



Complementary Tools & Resources

12

+155 Country Saving Assessment



Public Procurement Specifications Guideline



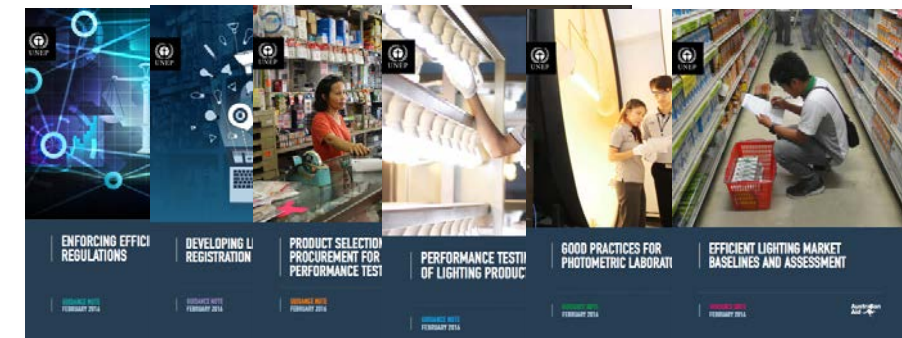
5 Policy Guides for selected products



Supporting Guidelines



Monitoring, Verification and Enforcement Guides





Sustainable Public Procurement Guidelines

- **Green Public Procurement Guidelines and Specifications** (launched Q2 2021).
- **Intended for:** Public Procurers, Lighting and Cooling Technical Personnel, Policy Makers and related officers involved in procurement activities.
- **Scope**
 - ✓ **Lighting:** Office / Large Buildings lighting luminaires (LED luminaires and LED tubes) and all Street/ Outdoor lighting luminaires.
 - ✓ **Refrigerator appliances:** Domestic Refrigerators and Freezers, Commercial / Professional Refrigeration Appliances, Vending Machines, Laboratory Grade Refrigerators.
 - ✓ **Toolkit:** Key sustainable considerations (environmental, social and economic), current barriers for its deployment (financial, awareness, capacity and regulatory), Economic analysis of delivery models and overall recommendations for the tendering process.
- **Technical Criteria Included:**



Efficacy of the Luminaire

Lifetime

Quality of light
(e.g CCT, CRI,
Tolerances)

Electrical parameters
(e.g. Fundamental
Power Factor,
Standby Power)

Health
criteria

Dimming,
Performance
criteria
(installation)

Environmental
Sound
Management



Energy
Efficiency

Lifetime

Volume

Refrigerants

Food
Preservation

Smart Controls
and Lighting

Reparability



KNOW MORE ABOUT U4E AND JOIN US:

Check our websites

Find out tools, policy guides and policy briefs, webinars, model regulations, country assessments and news releases on our official website.

<http://united4efficiency.org/>

U4E introduction video

Need a quick introduction to our project? Our three minute general video is at:

[EN http://united4efficiency.org/accelerating-the-transition-to-high-efficiency-products/](http://united4efficiency.org/accelerating-the-transition-to-high-efficiency-products/)

Model Regulation Guidelines

Check U4E's Model Regulation Guidelines at:

<https://united4efficiency.org/resources/model-regulation-guidelines/>



WE NEED MORE
ENERGY EFFICIENCY
TO COOL THE WORLD





Contact

TRANSFORMING

MARKETS

TO ENERGY-EFFICIENT

PRODUCTS



PHONE



EMAIL

Soledad Garcia

Soledad.garcia@un.org



WEBSITE

united4efficiency.org