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# **Promoting High-Performing Off-Grid Appliances: Opportunities for Policymakers**

9 July 2019





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# About This Policy Brief

- Explores how test methods, quality standards, and labeling programs might be used to promote high quality and energy efficient appliances in off-grid markets.
- Developed in consultation with a diverse group of stakeholders, including:
  - Energy and Petroleum Regulatory Authority (Kenya)
  - ECOWAS Centre for Renewable Energy and Energy Efficiency (ECEEE)
  - East Africa Centre of Excellence for Renewable Energy and Efficiency (EACEEE)



POLICY BRIEF

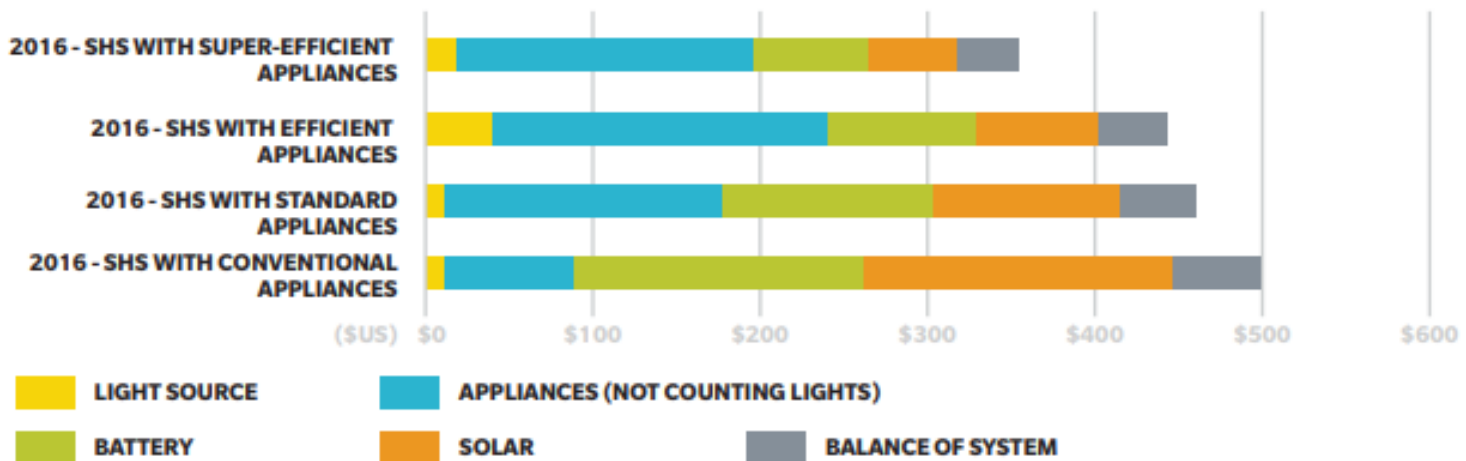
## PROMOTING HIGH-PERFORMING OFF-GRID APPLIANCES

JUNE 2019  
EFFICIENCY FOR ACCESS COALITION



# The Role of Appliances in Clean Energy Access

- Energy-efficient off-grid appliances enable energy access by allowing consumers with limited electrical supply to run more appliances for longer.
- The quality of off-grid appliances is essential to consumer protection and market health.



# Tools for Policymakers: Test Methods

- Standardized test methods form the foundation of all standards-related policies and programs.
- They enable uniform measurement and comparison of product performance.

## IEC

- [Pico solar products and SHS kits \(IEC/TS 62257-9-5\)](#)

## GLOBAL LEAP AWARDS

- [Televisions](#)
- [Fans](#)
- [Refrigerators](#)
- Solar water pumps

# Tools for Policymakers: Standards

## VOLUNTARY STANDARDS

- Establish minimum performance requirements for areas such as durability, safety, truth-in-advertising, and warranty.
- May be used in market development programs, including bulk procurement, consumer awareness campaigns, concessional loans or results-based financing.
- Allow governments to build an understanding of understanding of the market, develop a stakeholder database, establish a dialogue with dialogue with industry, and put in place the the resources needed to transition to mandatory standards.

## MANDATORY STANDARDS

- Ensure that all products manufactured or imported into a country meet minimum standards.
- May be used to keep poor-quality products out of the market.
- Require building a strong understanding of market conditions, and establishment of mechanisms to assess conformity, as well as to monitor and enforce compliance.
- Can be periodically updated to drive further improvements in quality and performance as markets mature over time.



# Tools for Policymakers: Labeling

- **Import standardisation marks (ISM)** are used to indicate that a product meets national standards.
- **Labeling programs** make comparative information about products available to businesses and consumers.
  - In mature markets, endorsement labels may be used to promote the most energy-efficient products on the market.



Kenya Bureau of Standards  
import standardisation mark

# Tools for Policymakers: Summary

TOOL	FUNCTION	POSSIBLE OBJECTIVE
<b>TEST METHODS</b>	<ul style="list-style-type: none"> <li>Evaluate product quality and performance under specific conditions</li> </ul>	<ul style="list-style-type: none"> <li>Provide impartial information on product performance and quality, for organisations setting standards.</li> <li>Facilitate direct comparison of products.</li> </ul>
<b>VOLUNTARY STANDARDS</b>	<ul style="list-style-type: none"> <li>Establish voluntary minimum requirements relating to performance, durability, safety, truth-in-advertising or warranties.</li> </ul>	<ul style="list-style-type: none"> <li>Promote high quality products through               <ul style="list-style-type: none"> <li>Consumer awareness campaigns;</li> <li>Grants, concessional financing or results-based financing;</li> <li>Tax exemptions; and</li> <li>Other market support programmes.</li> </ul> </li> <li>Build stakeholder skills, experience and capacity prior to introducing mandatory standards.</li> </ul>
<b>MANDATORY STANDARDS</b>	<ul style="list-style-type: none"> <li>Establish mandatory minimum requirements relating to minimum energy performance (MEP), durability, safety, truth-in-advertising or warranties.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure standards fully cover both conventional and efficient versions of products.</li> <li>Reduce or eliminate lowest-performing products from the market.</li> <li>Prevent poor quality products from entering a market, and protect consumers, through               <ul style="list-style-type: none"> <li>Conformity Assessment;</li> <li>Market Surveillance; and</li> <li>Enforcement.</li> </ul> </li> </ul>
<b>LABELLING</b>	<ul style="list-style-type: none"> <li>Make information regarding performance and/or adherence to standards available to businesses or consumers.</li> </ul>	<ul style="list-style-type: none"> <li>Raise business or consumer awareness of product performance and adherence to standards, enabling more informed choices.</li> <li>Make it easier to identify products that meet standards, as part of enforcement efforts.</li> </ul>



# Considerations: Standards & labelling

- ▶ If introduced prematurely, standards can produce additional costs and market disruptions that may stifle market growth.
- ▶ When standards are developed, they need to be created for specific appliances, and phased in over time as markets mature.
- ▶ For labelling, governments should carefully consider the following:
  - Availability of comparative information
  - Mechanisms to monitor label use
  - Campaigns needed to educate consumers



# Recommendation: Conduct market research & stakeholder mapping

- ▶ **Purpose: Builds a deeper understanding of the market and confidence in the proposed measures.**
- ▶ **Market research can reveal:**
  - The availability and affordability of a product, whether there is demand for it, and the extent to which affordability is a barrier.
  - The number of products that might meet the standard and the number of suppliers.
  - The challenges businesses are likely to face when adapting their business models.
- ▶ **Stakeholder mapping can reveal:**
  - The institutional, financial and human resources available.
  - The key stakeholder groups that need to be involved.
  - The tools and resources available at the national, regional, and international level.

## Recommendation: Build on existing tools & consider a regional approach

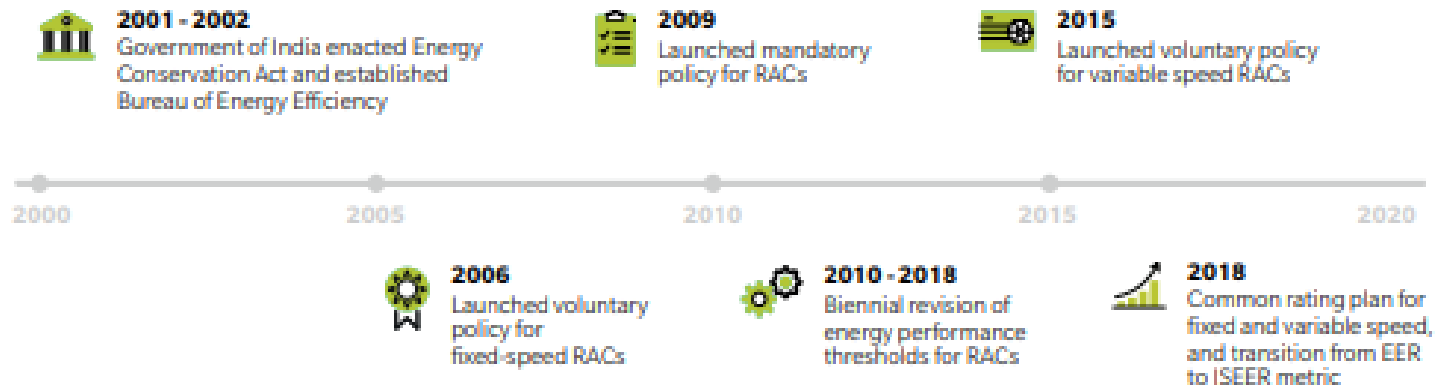
- **Purpose: Lowers testing, certification and time costs for companies. Enables more efficient compliance enforcement.**
- Alignment lowers testing, certifications and overall time cost for companies, enabling economies of scale.
- Country representatives of regional institutions are encouraged to act as champions with Member States to drive reform.
- If national standards are pursued, governments are encouraged to align with international standards and tools from the IEC, Global LEAP Awards, and others.

APPROACH	PROS	CONS
NATIONAL	Can be introduced and adopted more quickly	Create additional barriers for companies
REGIONAL	Lowers costs to companies	Can take many years to develop

# Recommendation: Develop a roadmap and engage stakeholders

- **Purpose: Minimizes risk and disruption by making the changing policy environment as predictable as possible.**
- Roadmaps outline a government's objectives, the tools they plan to use, the key stakeholders involved, and their roles.
- They allow governments to clearly state their objectives in the short- and long-term, allowing others to plan accordingly.
- Strong stakeholder engagement is essential.

## India's Air Conditioner Energy Efficiency Roadmap



# Resources

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- Policy Brief: [www.bit.ly/Promoting-OffGrid-Appliances](http://www.bit.ly/Promoting-OffGrid-Appliances)
- S&L Guidebook: [clasp.ngo/tools/s-l-guidebook](http://clasp.ngo/tools/s-l-guidebook)
- Global LEAP test methods & related reports: [efficiencyforaccess.org/publications](http://efficiencyforaccess.org/publications)
- Equip Data: [efficiencyforaccess.org/equip-data](http://efficiencyforaccess.org/equip-data)
- Policy Database: [www.clasp.ngo/policies](http://www.clasp.ngo/policies)
- Questions: [info@efficiencyforaccess.org](mailto:info@efficiencyforaccess.org)



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