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Rana Ghoneim leads the global industrial energy efficiency accelerator as part of the SEforALL's global accelerator platform. She also leads the development of programmes promoting sustainable energy use in industry in the MENA and Africa regions at the United Nations Industrial Development Organization.

She has over 15 years of international experience on the development and implementation of programmes responding to a number of multilateral environmental agreements such as Montreal protocol, Stockholm convention and the UNFCCC. She holds a Master of science in environmental economics from imperial college London.





UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



SUSTAINABLE DEVELOPMENT GOAL 9
INDUSTRY, INNOVATION AND INFRASTRUCTURE

EE appliances – UNIDO programmes and initiatives

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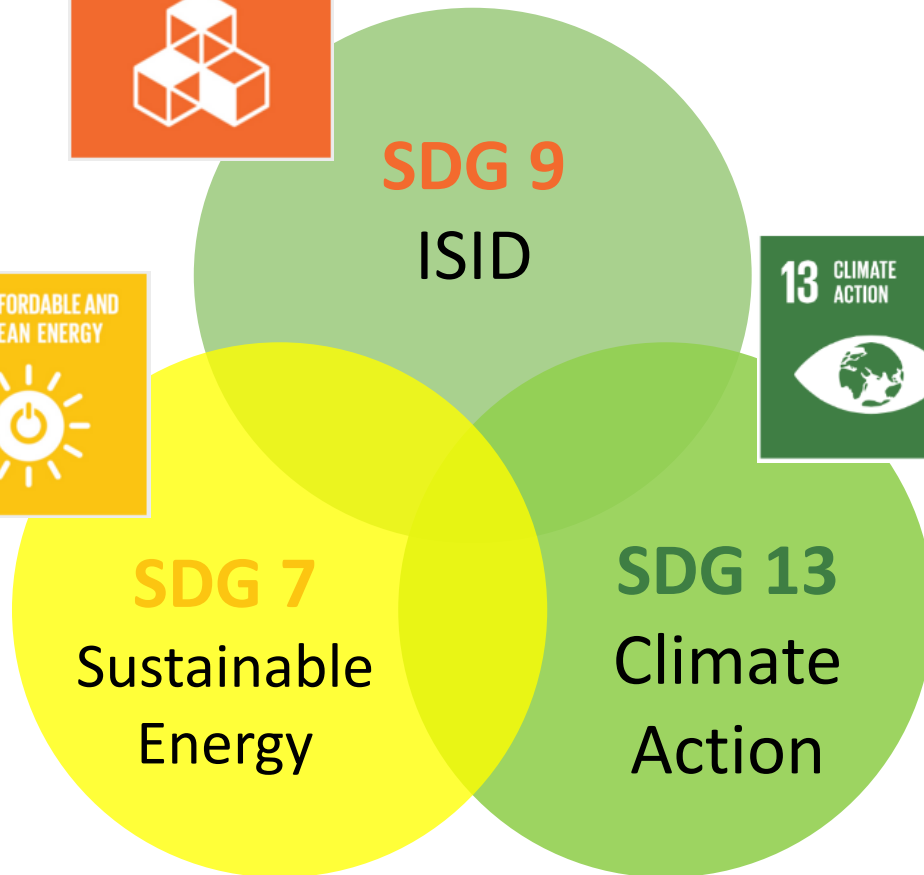


Outline

- Relevance of EE to climate change and sustainable development agenda
- Potential for EE in appliances
- Building blocks of programmes promoting EE appliances
- Example of UNIDO programme in Southern African Region
- Global initiatives supporting the deployment of EE appliances
- Conclusions

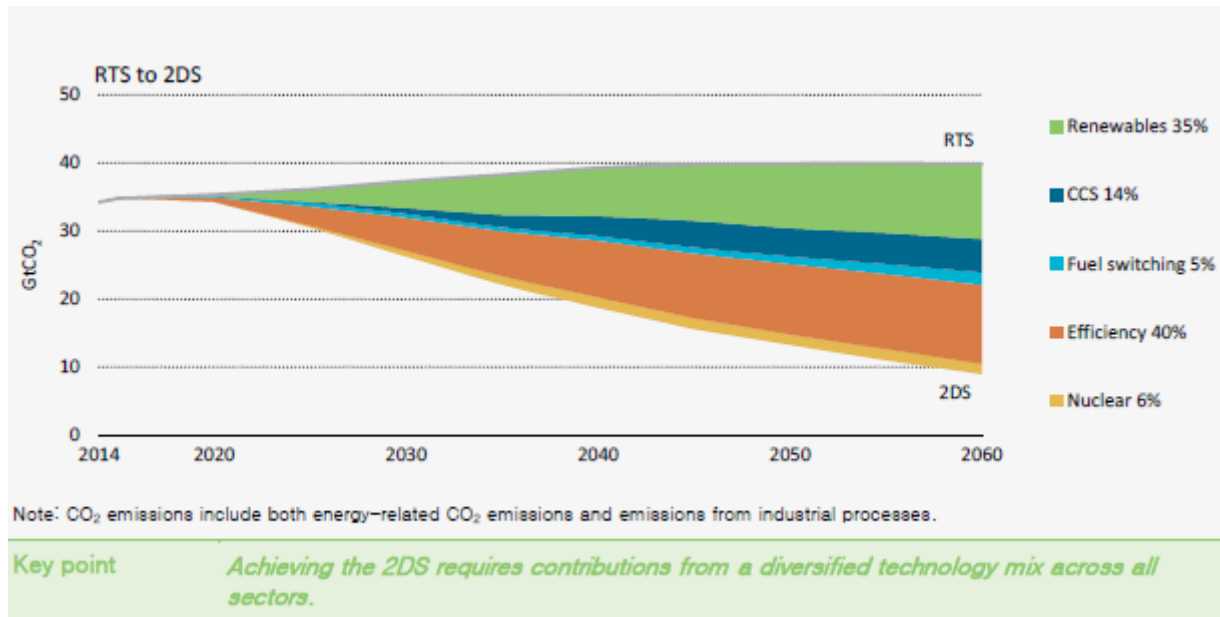


Relevance of Energy Efficiency



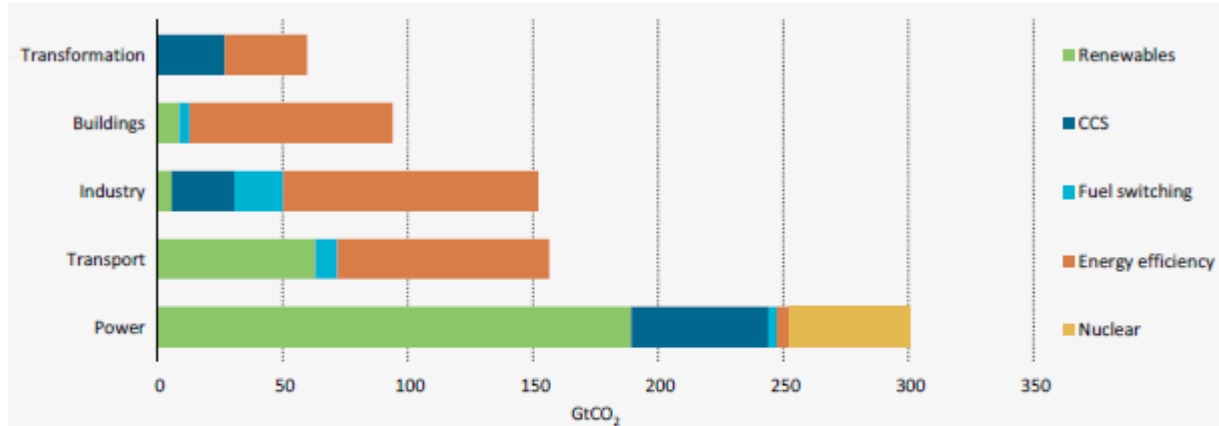
- Energy and economic savings
- Multiple benefits: Improved productivity, job creation, enhanced competitiveness
- Promoting innovation
- Sustainable Energy and Climate Agreement

Global CO₂ emission reductions by technology area: RTS to 2DS



Source: IEA - Energy Technology Perspectives 2017

Cumulative CO₂ emission reductions by sector and technology: RTS to 2DS



Note: CO₂ emissions include both energy-related CO₂ emissions and emissions from industrial processes.

Key point *Actions need to be pursued by stakeholders in all sectors to achieve an optimal technology transition strategy.*

Source: IEA - Energy Technology Perspectives 2017



Sustainable energy for all goals



Ensure universal energy access

Double the global rate of improvement in energy efficiency



Double the share of renewables in the energy mix





Why EE in appliances?

- Increasing stock of appliances and equipment as a result of economic growth
- Electricity demand is expected to more than double
- Increased GHG emissions and accelerate climate change
- Crucial to promote EE appliances to achieve the below 2 degrees scenario
- What is the potential for savings?



Share of RAC in country's total savings in 2030

Country name	Residential Refrigerators	Room Air conditioners	Annual energy savings	Electricity savings (US\$)
Mexico	36%	25%	15 TWh/35 powerplants	1 billion
Egypt	23%	8%	17 TWh/39 powerplants	830 million
Kuwait	10%	3%	3 TWh / 7 powerplants	40 million
Cameroon	25%	6%	1 TWh / 3 powerplants	120 million
Bosnia Herzegovina	24%	2%	668 GWh /2 powerplants	60 million
Albania	54%	5%	567 GWh/1 powerplant	70 million
Brazil	36%	32%	69 TWh /160 powerplants	10 billion

Source:<http://united4efficiency.org/countries/country-assessments/>

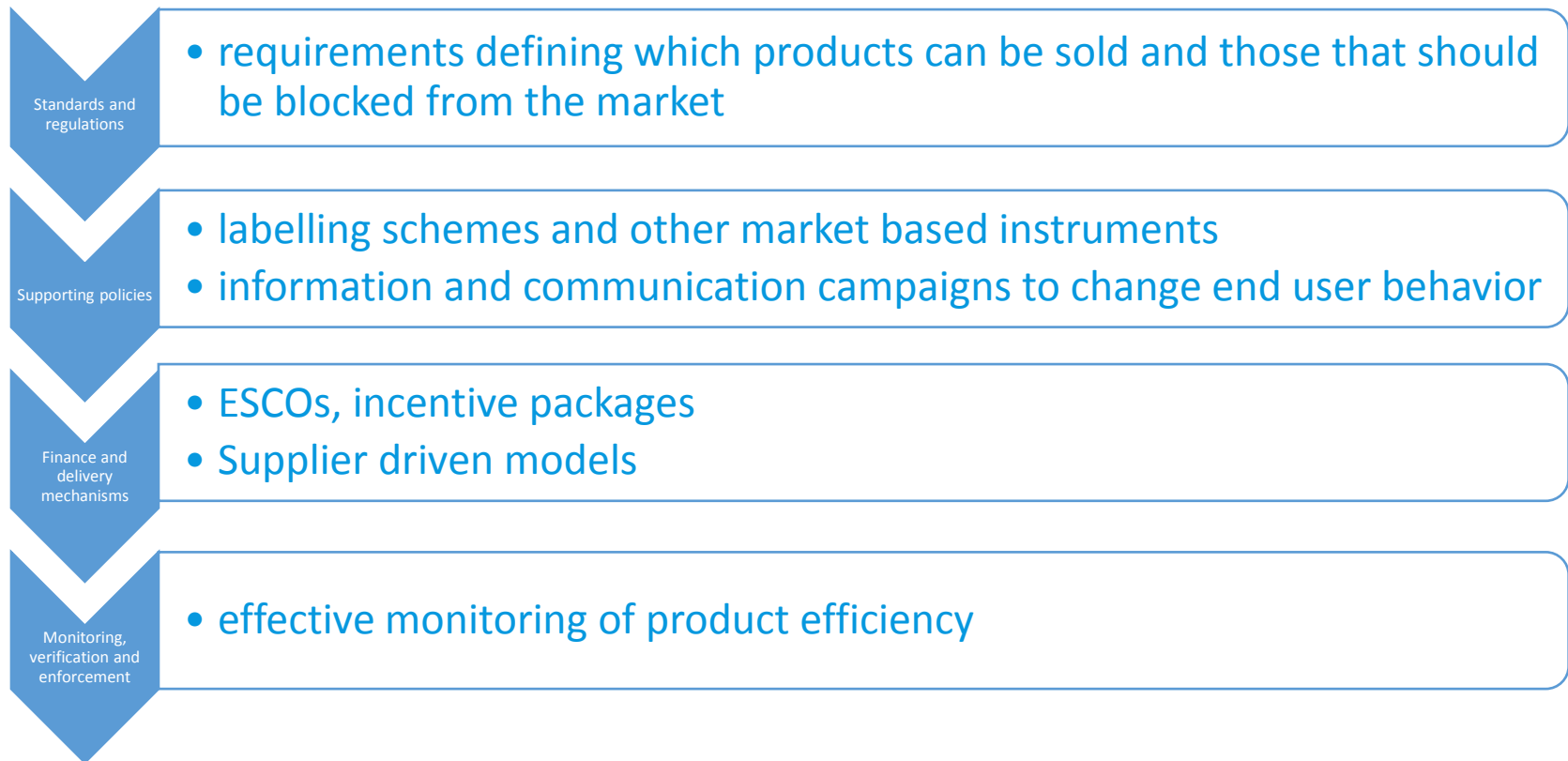


Barriers for the deployment of EE appliances

- Absence of minimum energy standards
- Lack of awareness of the consumer on the energy consumption of appliances
- Inefficient supply chain for sales, after-sale and maintenance
- High upfront cost of equipment and absence of low cost finance



Building blocks for EE appliances programme



Promote the market transformation for EELA

- Sub-regional cooperation across SADC, EAC and ECOWAS
- Promote South-South collaboration and sharing of best practices
- Achieve harmonization at regional level
- Establish sub-regional capacities for testing

Objective: Stimulate the demand for EELA in SADC and EAC

Policy support

- Adopt regional policy and strategy for EELA
- Develop Minimum Energy Performance (MEPs)
- Suggest incentives for local production

Strengthening the testing capacities

- Provide testing equipment & Establish testing procedures
- Build the capacity of lab personnel & key institutions

Awareness raising

- Develop the tools and various media for a national programme
- Encourage sub-regional and regional coordination
- Design EE label and requirements

Delivery mechanisms

- Forge partnerships with international/national appliance manufacturers
- Create credit guarantee facilities to support integration of local private sector & ESCOs



Global Initiatives



SEforALL Appliances Energy Efficiency Accelerator:
Multi-stakeholder platform to accelerate the deployment
of EE appliances: Lighting, Refrigerators, ACs,
industrial motors and ICTs(coming soon)!

Clean Energy Ministerial - Advanced Cooling Challenge



Conclusions

- Large potential for energy saving in appliances
- Many ongoing efforts and initiatives

Let's work together on creating synergies and maximizing impact!

THANK YOU

