

# IEA ENERGY EFFICIENCY IN EMERGING ECONOMIES

---

## TRAINING WEEK

---

20-24 May 2019

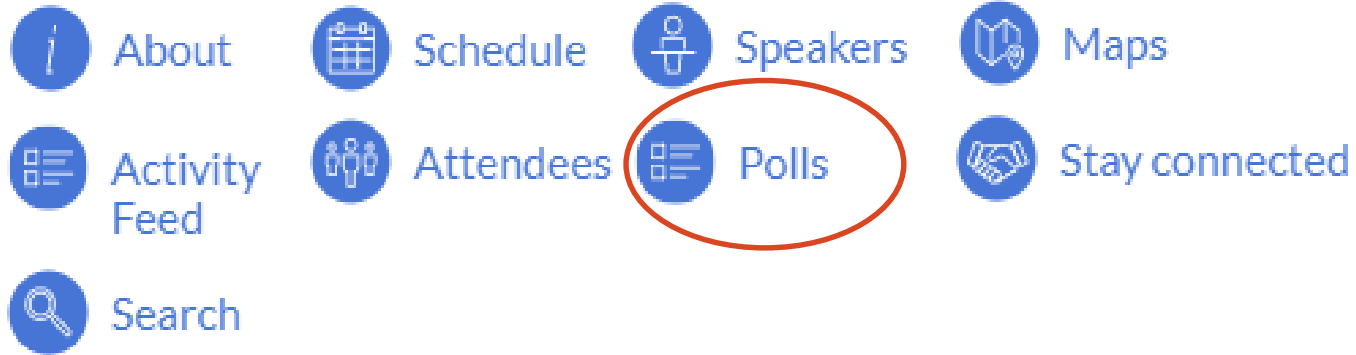
Paris, France



Tell me about **one** energy efficiency programme/policy/mechanism in **your country** and explain **how** it works.

What are some of the **impacts** that materialise **beyond energy savings** ?

# Time for polling! → IEA Events App



**How do you analyse and define the impacts of energy efficiency (e.g. air quality, employment, etc.)?**

**Select three (3) benefits that are**  
**important in your country**



# Multiple Benefits of Energy Efficiency

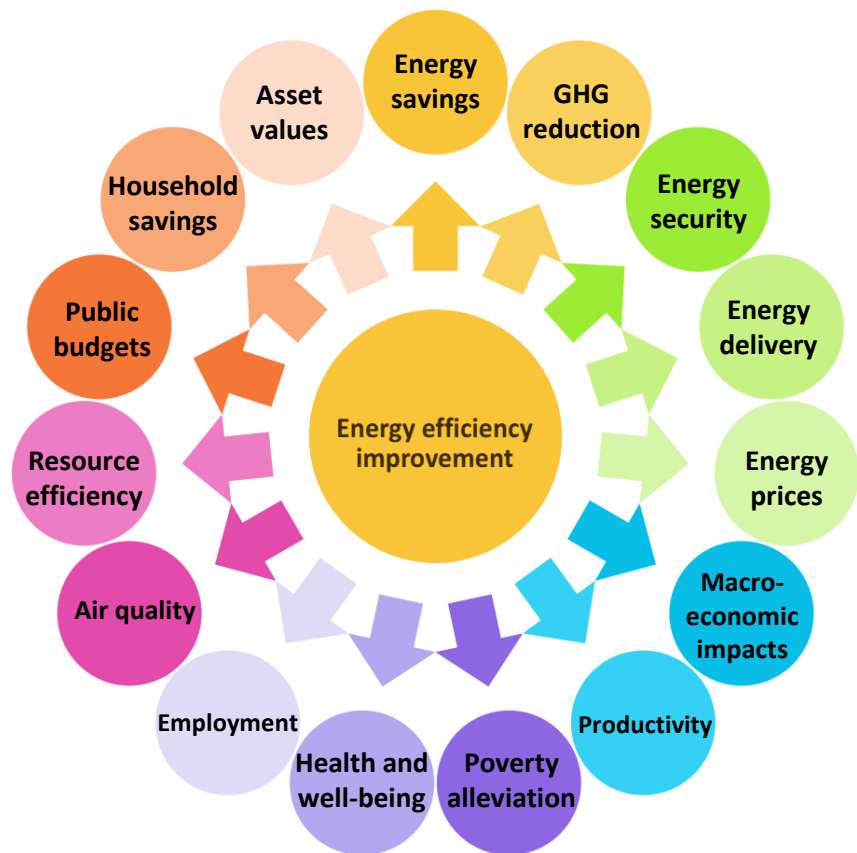
## Strategies to support energy efficiency goals

---

Ailin Huang and Luis Lopez, IEA

Paris, 20 May 2019

 #energyefficientworld



## Energy Efficient Prosperity

Energy efficiency as a means to support economic and social development, while ensuring environmental sustainability

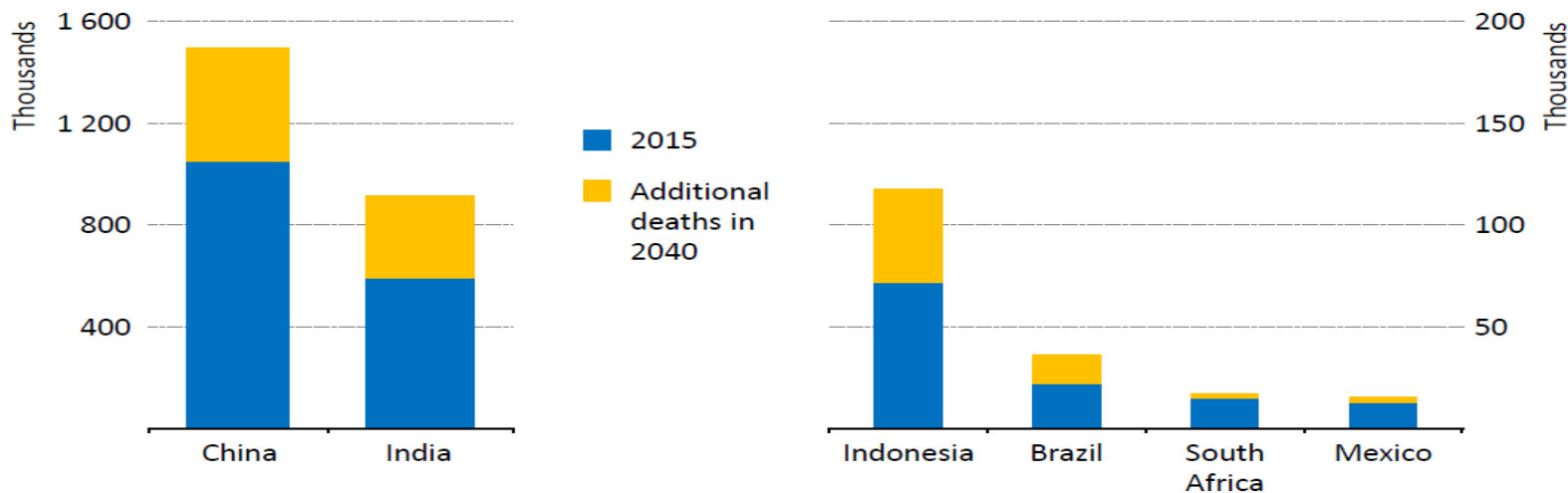
# Reduced air pollution

---





- Air pollution is the fourth largest risk to human health
- 3.5 million premature deaths are linked to energy poverty due to the use of biomass for cooking and kerosene for lighting
- 3 million premature deaths are linked to outdoor air pollution, mostly in cities



Poor visibility



More energy use

Better light quality

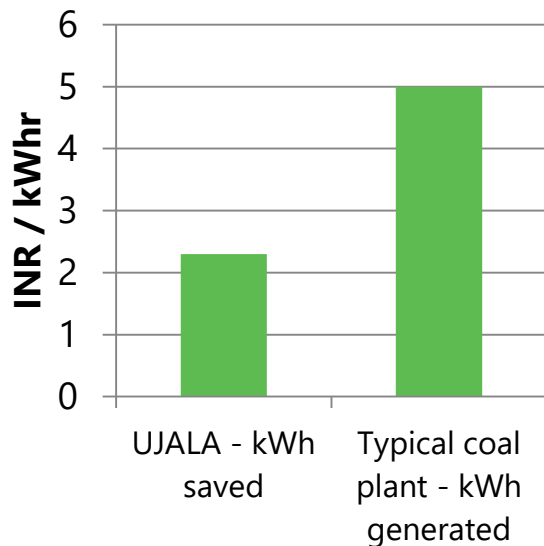


Less energy use

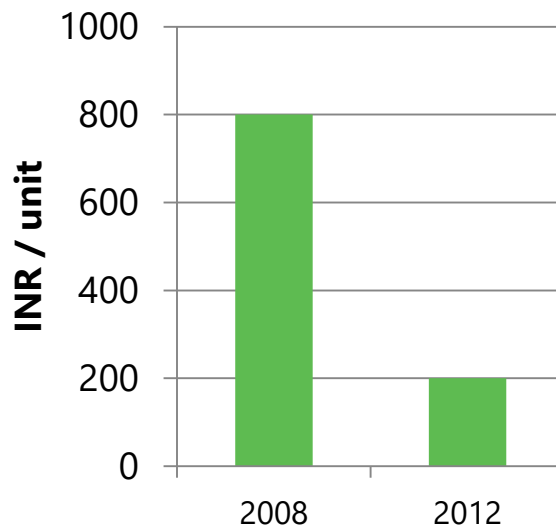
**Improved lighting has improved safety**

# Impact on jobs and emissions of India's UJALA programme

## Wiser investment – less than 50%



## Reduction of market prices for LED – 4-fold reduction in 4 years



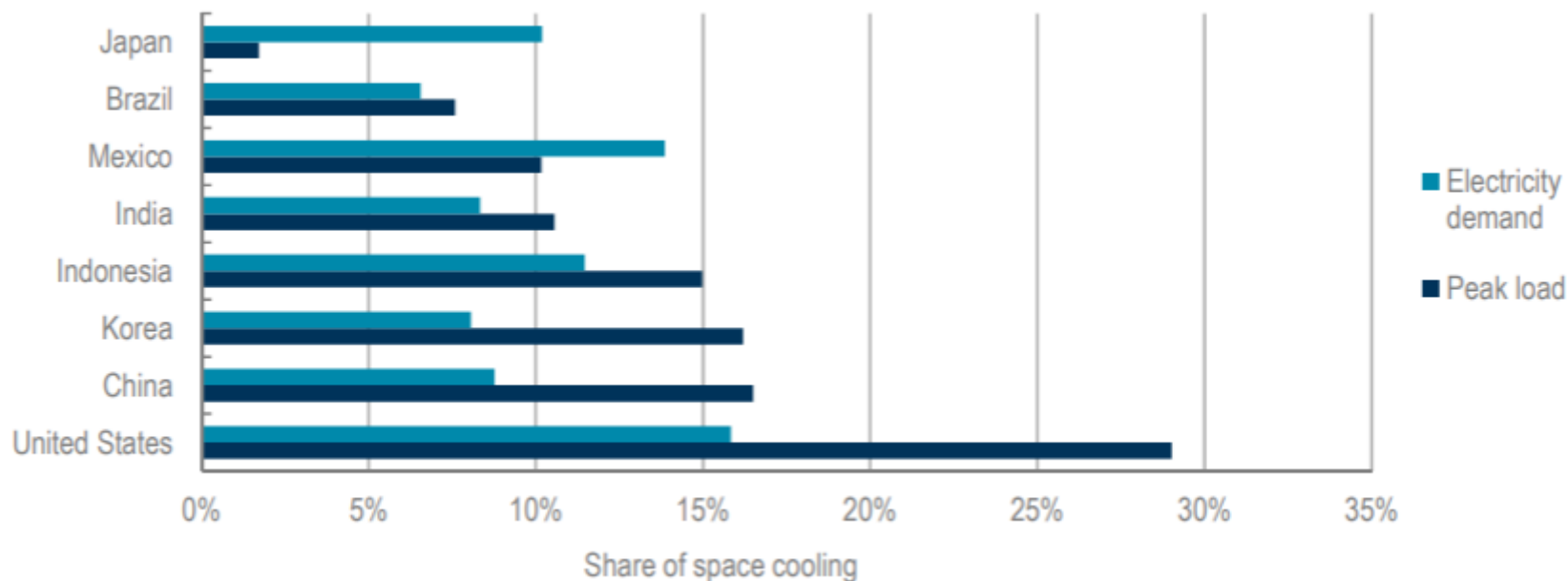
**Jobs:**  
Employment for 35,000 people

**Avoided Emissions:**  
3 million tonnes of CO<sub>2</sub> a year or 2.7 million cars taken off the roads

**UJALA ≡ Affordable LEDs and Appliances for All**

# Reducing peak demand via efficiency can help reduce costs

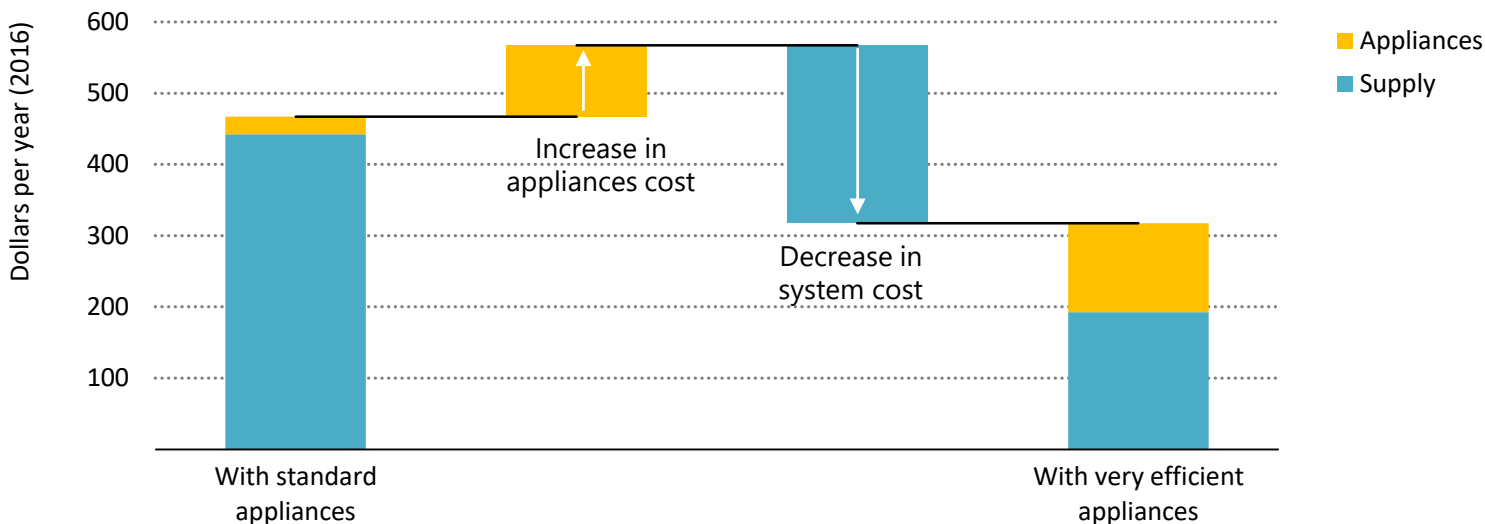
Share of cooling in peak load and total electricity demand by country/region, 2016



**Cooling appliances take a major share of peak load that gets passed on to consumers**

# Energy efficiency reduces the cost of increasing energy access

Cost of providing electricity access through off-grid solar PV, with and without efficient appliances, 2030

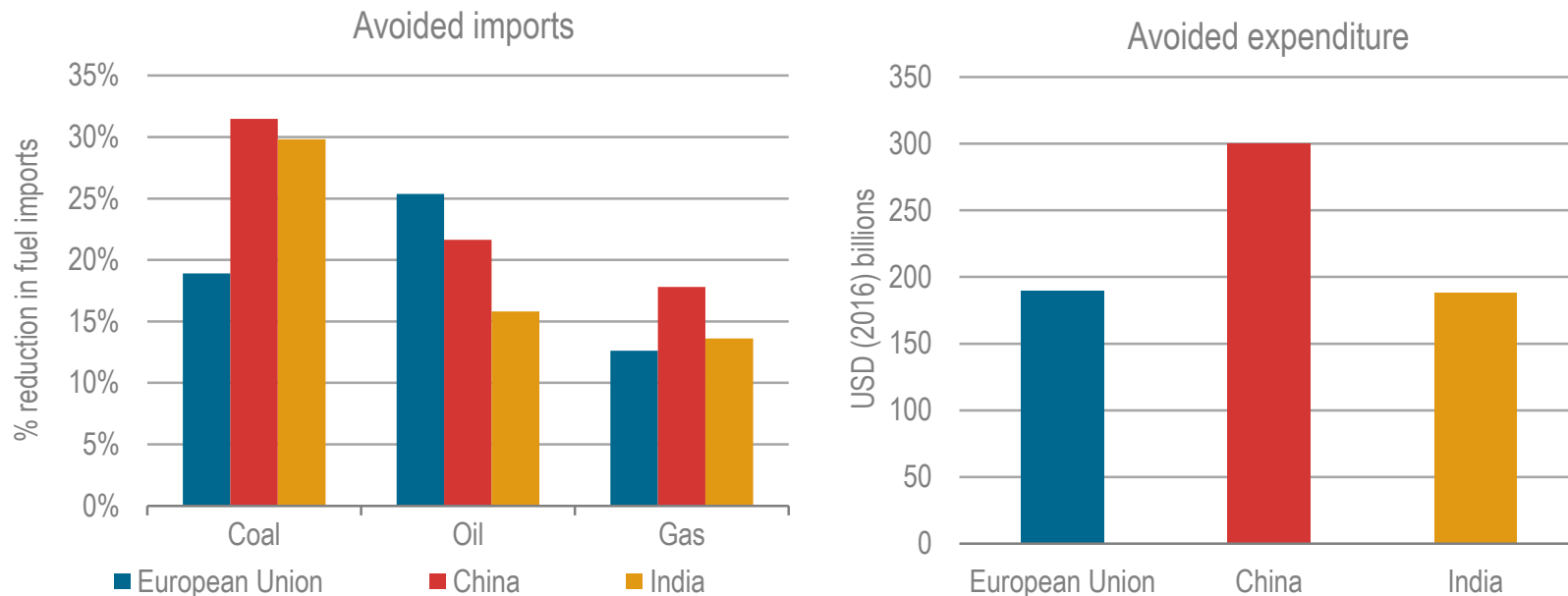


Source: Energy Access Outlook 2017

**The use of efficient appliances reduces the amount of energy required to meet demand for energy services, reducing the cost of improving energy access.**

# Efficiency can further enhance security in major importing regions

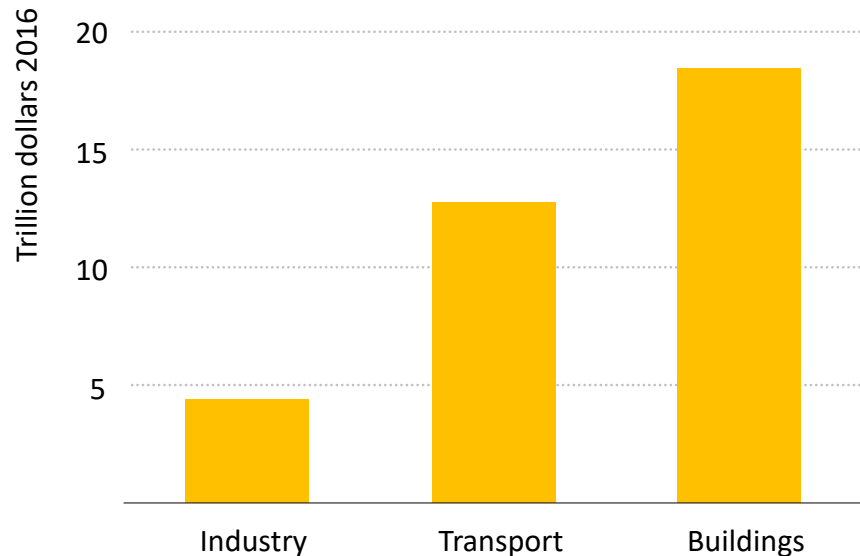
Avoided imports (left) and reduction in fossil-fuel net-import bills (right) in the Efficient World Scenario compared with the New Policies Scenario in 2040



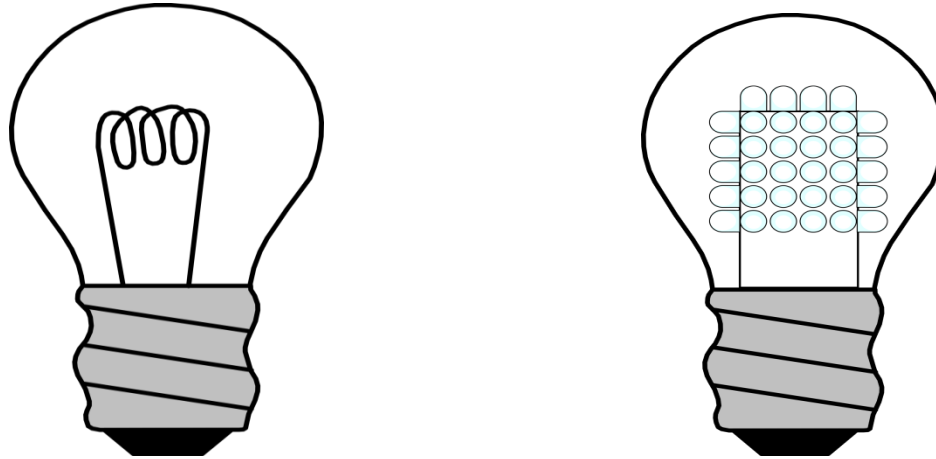
**The EU, China and India, could avoid nearly USD 700 billion in fossil fuel imports by 2040.**

# Fuel cost savings outweigh investment needs by a factor of three

Cumulative investments needs in energy efficiency in a clean energy transition scenario, 2017-2050



**Energy efficiency investments needs in end-use sectors are large, but are outweighed by fuel cost savings; on average, each dollar invested saves three dollars over technology lifetimes.**



**Energy efficient prosperity is about getting more out of the energy we use**

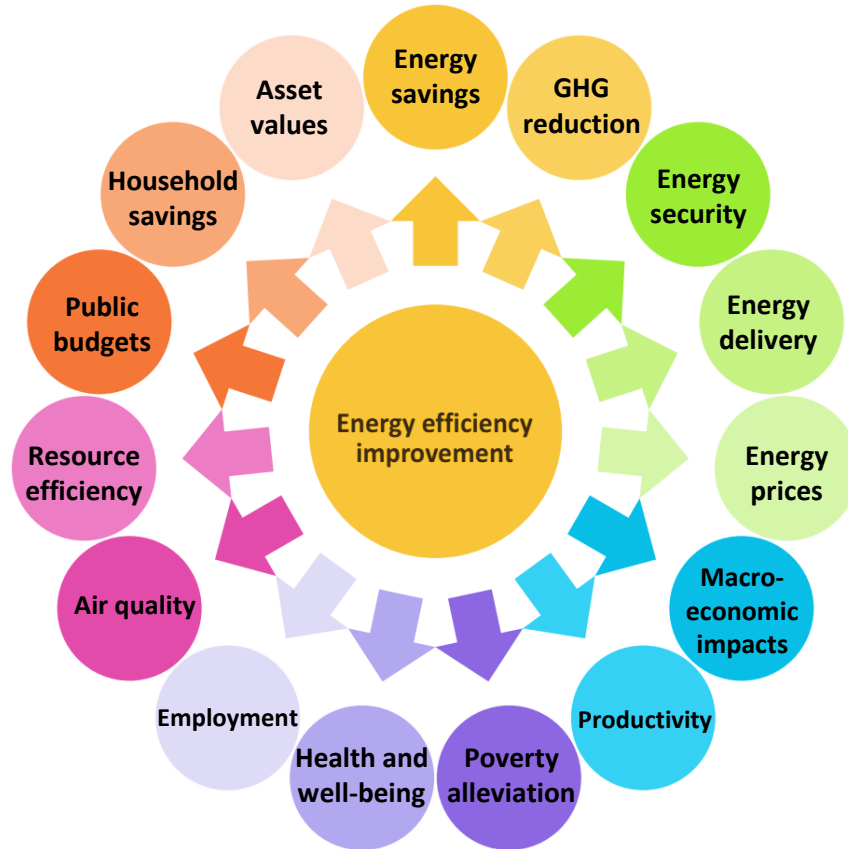


# Energy efficiency as an enabler for at least a third of the SDGs

## Sustainable Development Goals



# Multiple benefits of energy efficiency



**How strong is the awareness about  
multiple benefits of energy efficiency  
in your country?**

# GROUP ACTIVITY

---



Using multiple benefits, provide some recommendations on how to improve the design/communication and implementation of the EE programme/policy/mechanism.



# IEA ENERGY EFFICIENCY IN EMERGING ECONOMIES

---

## TRAINING WEEK

---

20-24 May 2019

Paris, France

