

International Energy Agency

#### Session 1 Introduction to Energy Efficiency Indicators

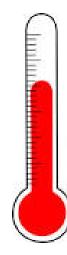
Emer Dennehy Energy Analyst (Energy Efficiency Indicators) Energy Technology Policy Division



#### What is an indicator?













#### What is Energy Efficiency?

Energy savings
Or
Energy not used

... the hidden fuel... the first fuel

Curtailing demandMonetary and emissions savings



#### **Definition of Energy Efficiency**

Energy efficiency is doing more with the same amount of energy

Doing the same with less energy

Or

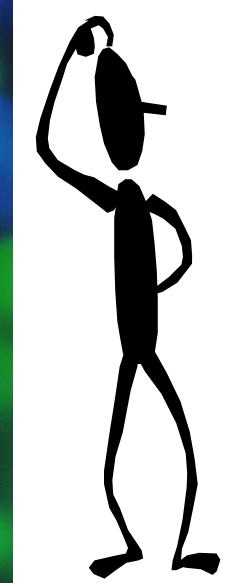
Energy efficiency is realised at end use level

Energy efficiency saves energy, money, emissions, delays capacity additions

Readily available cost effective technologies



# What is an energy efficiency indicator?



energy efficiency indicator (EEI)



#### energy consumption

activity



#### **Intensity V Efficiency**

- Relating the activity and energy consumption
- Monetary or physical activities
  - Energy per unit GDP
  - Energy per tonne/floor area/vehicle kilometre
- Try to use as disaggregated activity as possible to get 'technical' energy efficiency indicators
- Intensities are often used as a proxy for energy efficiency



### Why is energy efficiency important?

- Contributes to energy security in both energyimporting and energy-exporting countries
- The first fuel in any resource portfolio restraining energy demand
- Avoided investments in new generation capacity
- Provides additional non-energy benefits for the economy and society
- A central part of any climate change policy



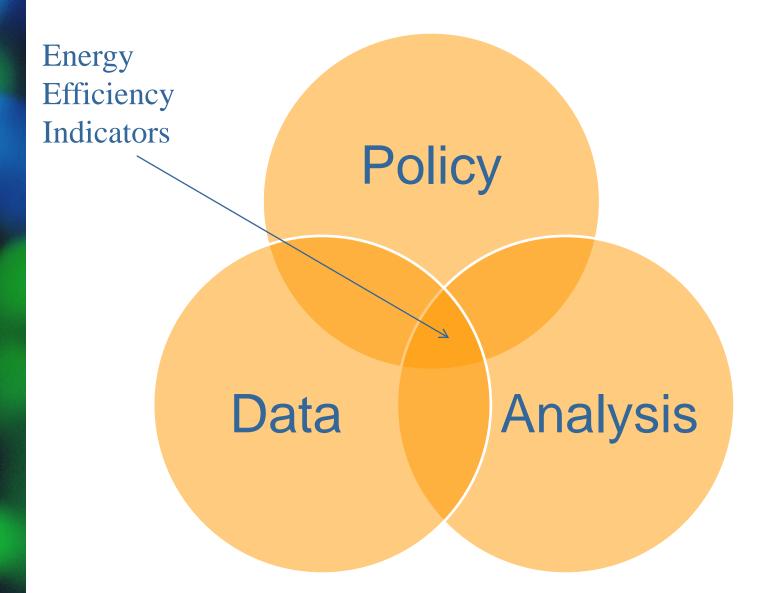
Why are energy efficiency indicators important?

- Understand how energy is used
  - Understand the main factors influencing trends in energy use
  - Evaluate the role of energy efficiency to restrain growth in energy consumption

Evaluate the impact of existing and future energy efficiency policies and programmes



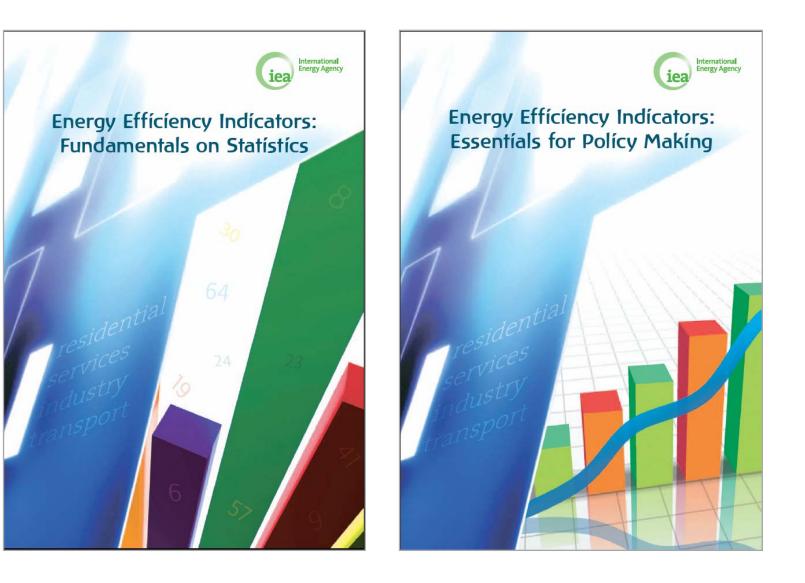
#### **IEA Energy Efficiency Indicators**



© OECD/IEA 2014



#### **Energy Efficiency Indicator Manuals**





#### Group Discussion: What indicators to have?

- What energy efficiency indicators currently calculated in the Ukraine?
- How are these energy efficiency indicators used?
- What is the most significant energy questions that EEIs need to answer in the Ukraine?
- What would you like to walk away with from this training?

The views expressed in this presentation do not necessarily reflect the views or policy of the International Energy Agency (IEA) Secretariat or of the individual IEA member countries. The IEA makes no representation or warranty, express or implied, in respect to the presentation's content (including its completeness or accuracy) and shall not be responsible for any use of, or reliance on, the presentation.

## Thank you

Energyindicators@iea.org