

# Synergies between energy efficiency and renewable energy – methodology and applications



## 1 – Introduction

- 1 Learning objectives of the course
- 2 Introduction

## 2 – Framing the link between EE and RE

- 1 How to frame the synergy between EE and RE

## 3 – Synergies from implementing EE and RE measures at the same time

- 1 Synergies between RE and EE technologies
- 2 Leverage from joint implementation of EE and RE

## 4 – A methodology to measure synergies between EE and RE

- 1 Indicators to identify high-impact measures for achieving synergies between EE and RE
- 2 Structure of energy system models to identify high-impact measures for achieving synergies between EE and RE
- 3 Example of energy system models in the field of RE and EE
- 4 Results from the IRENA energy system model for evaluating the indicators of synergy between EE and RE
- 5 Strengths and weaknesses of energy system models

## 5 – Examples of synergy between EE and RE

- 1 Countrywide
- 2 Commercial buildings
- 3 Industrial processes

## 6 – Indicators to track synergy between EE and RE

- 1 Methods of energy accounting
- 2 Advantages/disadvantages of indicators using TPES or TFEC

# Synergies between energy efficiency and renewable energy – methodology and applications

## 7 – Interpretation of various graphs

- 1 Energy intensity against energy consumption per capita
- 2 Pseudo-Gini coefficients based on the cumulative percentage of energy demand
- 3 High energy demand with high energy intensity

## 8 – Decomposition analysis for EE

- 1 What is EE decomposition analysis?
- 2 Why is EE decomposition analysis useful?

## 9 – Summary

- 1 References
- 2 Further Reading