Overview of Renewable Energy Technologies

(previously named: Renewable Energy Technologies – Introduction)

Study time:	Approx. 20 hours
Duration:	Approx. 2-3 weeks
Relation to other courses:	Prerequisites: Intro to energy Intro to electricity (recommended) Serves as introduction to the topic (not too technical)
Languages	English and Spanish
Content:	Overview of renewable energy sources Global status and trends in Renewable Energy use Renewable electricity generation technologies Renewable heat / cooling Renewable transport fuels
Objective:	After completion of this course, participants will be able to • Define renewable sources of energy • Know the status of global energy supply (fossil, nuclear, renewable) • Know the status of renewable energy in global energy supply • Understand the different renewable energy technologies • Distinguish renewable power, renewable heat technologies and know types of renewable transport fuels • Roughly estimate global renewable energy potential • Name the major benefits of renewables vs. conventional energy production

Co-benefits of Renewable Energy in Climate Change Mitigation - Overview

Study time:	Approx. 20 hours
Duration:	Approx. 2-3 weeks
Relation to other courses:	Co-benefits Policies: Climate policies to mobilise a renewable energy future Co-benefits Assessment: Methodologies for co-benefits evaluation Overview of renewable energy technologies Integrated Power System Planning (Power System Planning with Co-benefits) PV Business Models (extension- under construction)
Languages	English
Content:	Co-benefits of climate change mitigation Climate and environmental related co-benefits Economic co-benefits Social co-benefits

	Political / Institutional co-benefits Indicators of co-benefits
Objective:	After completion of this course, participants will be able to: • Develop causal chains for an assessment • Interpret, communicate and commission methods for quantitative assessment of co-benefits • Interpret findings of co-benefit analyses considering possible unwanted impacts and identifying the net-effects • Identify indicators and data sources for quantification of key co-benefits (Jobs/employment, air pollution, health, energy access, local economic development, energy security) • Commission and interpret co-benefit analyses and effectively communicate its results • Prepare schematic cost-benefit analyses • Interpret the findings of co-benefit analyses for re-formulating RE policies

Introduction to Energy

Study time:	Approx. 10 hours
Duration:	Approx. 1 week
Relation to other courses:	No prerequisites This course serves as an introduction to all online courses (except economic topics)
Languages	English and Spanish
Content:	Development of energy demand Physical basics Units and conversions
Objective:	After completing these participants will be able to: • Describe the global situation of energy supply and demand • Differentiate forms of energy as well as energy and power • Name fundamental parameters, units and conversion factors related to energy topics