

Module Handbook

TUK MODHB Homepage

Course WIW-RE-FRT-K-7

Financing of Renewable Energy Technologies (2V, 2.0 LP)

Course Type

SWS	Type	Course Form	CP (Effort)	Presence-Time / Self-Study
2	V	Lecture	2.0 CP	30 h 15 h
(2V)			2.0 CP	30 h 15 h

Basedata

SWS	2V
CP, Effort	2.0 CP = 45 h
Position of the semester	1 Sem. in SuSe
Level	[7] Master (Advanced)
Language	[EN] English
Lecturers	Kandpal, Tara, Prof. Dr. (EXT DEPT: WIW)
Lifecycle-State	[NORM] Active

Contents

- Brief overview of renewable energy technologies
- Costs of renewable energy technologies and investment requirements
- Need for financing of renewable energy technologies and basic issues in financing
- Debt and Equity modes of financing
- Incentives (Feed-in-Tariffs, Renewable Quota Obligations, Investment and Production Tax Credits, Subsidies, Carbon Credits etc.) and their impacts on modalities and cost of financing renewable energy technologies
- Assessment and allocation of Risk in financing renewable energy technologies
- Financing issues for Lenders, Equity Investors, Project Developers and Policy Makers

- Public finance mechanisms to mobilize investments in renewable energy technologies
- Effect of modalities of financing on the financial viability of renewable energy projects
- Evaluating financing instruments
- New financial models for renewable energy investment including Energy Service Companies, Micro-Credit Schemes etc.
- Case studies on financing renewable energy projects

Literature

- Chan S. Park “Contemporary Engineering Economics”, Fifth Edition, Pearson Prentice Hall (2011)
- Gerald J. Thuesen and W. J. Fabrycky, Engineering Economy, Prentice Hall Inc. (2001)
- Harry Campbell and Richard Broron, Benefit – Cost Analysis, Cambridge University Press (2003)
- or any other standard text book on engineering economics
- T. C. Kandpal and H. P. Garg, “Financial Evaluation of Renewable Energy Technologies” Macmillan India Ltd. (2003) (soft scanned version of relevant portions can be made available to the students)
- Relevant literature from Research Journals, Reports etc (soft version shall be made available to the students)
- John Twidell and Tony Weir, Renewable Energy Resources, Taylor and Francis (2006).
- Godfrey Boyle, Renewable Energy: Power for a Sustainable Future, Oxford University Press (2004)

Requirements for attendance (informal)

None

Requirements for attendance (formal)

None

References to Course [WIW-RE-FRT-K-7]

Module	Name	Context	
[WIW-RE-ERT-M-7]	Economics and Financing of Renewable Energy	WP: Obligation to choose	2V, 2.0 LP