

Modul 27: Investment Analysis and Financing of Energy Projects

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| Studiengang / course: | M. Eng. Energie- und Umweltmanagement / M. Eng. Energy and Environmental Management |
| Modulbezeichnung / module name: | Investment Analysis and Financing of Energy Projects |
| ggf. Kürzel / abbreviation | - |
| ggf. Untertitel / subtitle | - |
| ggf. Lehrveranstaltungen / seminar: | - |
| Semester / semester: | Spring term |
| Modulverantwortliche(r) / person in charge of module: | Prof. Dr. Olav Hohmeyer |
| Dozent(in) / person teaching the seminar: | Dr. Lena Kitzing, Dr. David Mora |
| Sprache / language: | English |
| Zuordnung zum Curriculum / attribution to courses: | M. Eng. Energie- und Umweltmanagement / M. Eng. Energy and Environmental Management for 'Industrial Countries' and 'Developing Countries' Core Elective Course |
| Lehrform / SWS / form of seminar / teaching hours per week: | 3 SWS (en-bloc sessions) lecture and exercises |
| Arbeitsaufwand / student workload: | Attendance: 45 h (3 en-bloc sessions on Friday/Saturday) Private study: 105 h |
| Kreditpunkte / credit points: | 5 ECTS |
| Voraussetzungen nach Prüfungsordnung/ preconditions according to examination regulations: | keine |
| Modulziele / angestrebte Lernergebnisse / aims of the module / aspired learning outcome: | <ul style="list-style-type: none"> • Knowledge and understanding of important economic feasibility criteria for project evaluation and financing of energy projects • Ability to develop and interpret business plans for energy projects • Ability to evaluate investment projects with focus on cash flow simulation • Knowledge of a variety of financing schemes for investment projects and their special features • Knowledge of decision making criteria in Project Financing |
| Inhalt / subjects covered: | <ul style="list-style-type: none"> - Investment analysis: Economic project valuation concepts, Discounted Cashflow calculations, key financial indicators, levelized cost of electricity, balance sheet and business case interpretation, modelling in Excel incl. exercises - Financing: <ul style="list-style-type: none"> - general financing sources, options and criteria, framework and investor conditions |

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| | <ul style="list-style-type: none"> - principles of corporate finance in relation to capital-intensive projects - principles of project financing - assessment and optimisation of business cases for financing, incl. exercises in excel (for both corporate and project financing) |
| Studien- Prüfungsleistungen / form of examination: | Group Case (groups of 3-4 students) with report (15 pages + excel model) and group presentation (20min) plus questions (20 min.) |
| Medienformen / media used: | Cash flow model in Excel Teaching: white board, power point slides, and excel (own laptops required) |
| Literatur / literature: | <p>A.o. extracts from Brealey & Myers „Principles of Corporate Finance“ (4th Edition),</p> <p>Stefanno Gatti (2013): Project Finance in Theory and Practice, Elsevier Inc.</p> <p>Extracts from McKinsey & Company, „Valuation“,</p> <p>Finnerty, John D. (2007): Project Financing. Asset-Based Financial Engineering. Second edition. John Wiley & Sons.</p> <p>Böttcher, Jörg (2009) Finanzierung von Erneuerbaren-Energien-Vorhaben. Oldenbourg Wissenschaftsverlag GmbH</p> <p>Gatti, Stefano (2008) Project Finance in Theory and Practice. Designing, Structuring, and Financing Private and Public Projects. Academic Press Advanced Finance Series. Elsevier.</p> <p>Böttcher, Jörg; Blattner, Peter (2006) Projektfinanzierung. Oldenbourg Wissenschaftsverlag GmbH</p> |