Renewable energy project finance

1 – Introduction
- **1** Learning objectives of the course
- **2** Introduction to the course
- **3** Project value chain

2 – Available financing options
- **1** Financing options - overview
- **2** Balance-sheet financing
- **3** Project finance
- **4** Export Credit Agency (ECA) cover (3pp)
  - ECA-covered financing - intermediary lending / direct lending
- **5** Capital market financing

3 – SPV-contract negotiation
- **1** Introduction to the financing process
- **2** Project investment agreements
- **3** Operating and financing agreements

4 – Business planning
- **1** Estimation of a project's cash out-flows and in-flows
- **2** Cash flow "waterfall"
- **3** Calculation of project revenues
- **4** Operational cost calculation and taxes payable
- **5** From CADS to ECF
- **6** Decommissioning costs and terminal value

5 – Bankability assessment
- **1** Why conduct bankability assessments?
- **2** Information asymmetries as a reason for bankability assess.
- **3** Moral hazard risk for lending banks
- **4** Setting credit limits to prevent moral hazard
- **5** Differentiating between risk and uncertainty
- **6** The financial value of risk and ABC-analysis
- **7** RE project risks (7pp)
  - RE project risks during construction / Technology – Operational – Market – Resources and Regulatory risks and mitigation measures
- **8** RE project due diligence advisors
- **9** Scopes of work for the advisors
- **10** Design of a "project data room"

6 – Financial engineering
- **1** Introduction
- **2** Key financial ratios
- **3** Calculation of LLCR and PLCR
- **4** Calculation of the maximum borrowing capacity

7 – Example A: Wind farm projects in Germany
- **1** Introduction
- **2** Assessment of annual energy generation
- **3** Revenues from support systems / the energy market
- **4** Risk analysis (identification, assessment and mitigation) and due diligence
- **5** Cash flow analysis

8 – Example B: PV projects in France
- **1** Introduction
- **2** Assessment of annual energy generation
- **3** Revenues from support systems / the energy market
- **4** Risk analysis (identification, assessment and mitigation) and due diligence
- **5** Cash flow analysis

9 – Example C: Biogas projects in Romania
- **1** Introduction
- **2** Example assessment of the annual energy production
- **3** Revenues from support systems / the energy market
- **4** Risk analysis (identification, assessment and mitigation) and due diligence
- **5** Cash flow analysis

10 – Summary
- **1** Checklist for banks: wind farm, PV project, biogas plants
- **2** Summary of the course
- **3** References
- **4** Further Reading