green banking
an initiative by RENAC

renac
renewables academy

APPLYING GREEN ENERGY PROJECT DEVELOPMENT

ONLINE TRAINING PROGRAMME

Supported by:

Federal Ministry
for the Environment, Climate Action,
Nature Conservation and Nuclear Safety

based on a decision of
the German Bundestag

IKI INTERNATIONAL CLIMATE INITIATIVE

PFAN
Accelerating Investment
for Climate and Clean Energy

Green Banking – Capacity Building on Green Energy and Climate Finance

The Applying Green Energy Project Development (AGEPD) Programme is a training as a part of the **Green Banking – Capacity Building on Green Energy and Climate Finance project.** This project is supported by the International Climate Initiative (IKI) of the Federal Government of Germany. Within the Federal Government, the IKI is anchored in the Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety (BMUKN). Selected individual projects are also the responsibility of the Federal Foreign Office (AA).

Green Banking aims to strengthen the capacities of financial institutions and professionals in partner countries to finance renewable energy, energy efficiency, green hydrogen, and energy storage projects. In addition, the programme supports the development of sustainable capacity-building approaches for banks, investors, and project developers across the entire banking value chain.

Since its launch, the project has been successfully implemented in Southeast Asia, Africa, and Latin America. It is currently in its third implementation phase (2024–2027), building on the experience and results of previous phases in the partner countries.

Programme Objectives

The Green Banking – Capacity Building on Green Energy and Climate Finance project pursues the following key objectives:

- Build technical and economic expertise on renewable energy, energy efficiency, green hydrogen, and energy storage projects, including their financial and economic assessment, to mobilise increased investment from development banks, commercial banks, private equity, venture capital, infrastructure funds, and institutional investors.
- Strengthen access to climate finance by facilitating knowledge exchange and networking around German and international climate finance instruments, such as the Green Climate Fund, and by supporting the integration of international funding sources with local financing opportunities.
- Promote sustainable capacity building through holistic training formats tailored to the needs of financial institutions, project developers, and policymakers.

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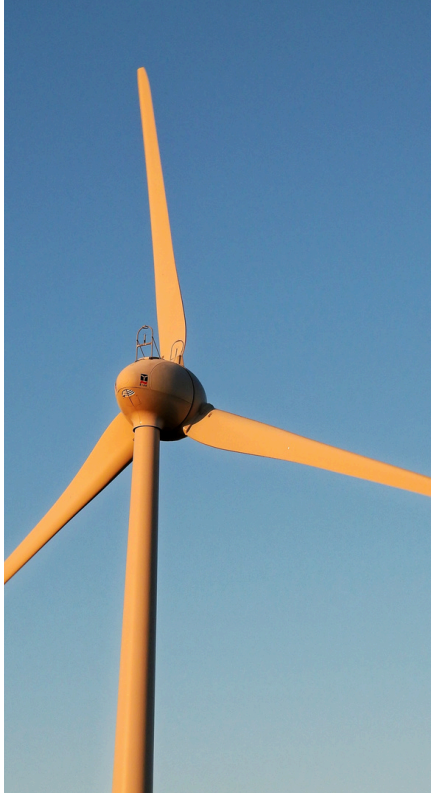


INTRODUCTION

The Applying Green Energy Project Development (AGEPD) Programme equips professionals involved in renewable energy project development with the knowledge and tools to plan, assess, and implement large-scale green energy projects.

The programme provides a solid foundation in the full renewable energy project development cycle, covering site selection, stakeholder engagement, policy and regulatory frameworks, and technology-specific planning. Participants will also develop analytical skills in due diligence, financing structures, and investment feasibility assessment. A key focus is placed on the practical requirements of developing large-scale renewable energy projects, including navigating regulatory environments, evaluating technical and non-technical planning considerations, and applying project finance mechanisms. The programme prepares participants to actively contribute to the growing pipeline of renewable energy projects in their countries and regions.

The programme combines self-paced online learning with three live virtual sessions covering programme orientation, policy frameworks and support mechanisms, and RE project cash flows.

THIS PROGRAM IS SUITABLE FOR THOSE WHO ARE:

- Professionals based in one of the six partner countries of the Green Banking Project (Indonesia, Vietnam, Kenya, South Africa, Brazil, or Colombia).
- Renewable energy project developers or project managers responsible for planning and implementing large-scale RE projects.
- Engineers or technical consultants involved in the design, assessment, or evaluation of renewable energy systems.
- Government officials or ministry staff responsible for energy policy, project approval, or regulatory oversight of renewable energy development.
- Employees of public agencies, development institutions, or multilateral organisations working on renewable energy programmes or project pipelines.
- Energy analysts or advisors evaluating the technical and financial feasibility of renewable energy investments.
- Finance professionals, bankers, credit analysts, and investors seeking to understand the project development process and technical fundamentals of large-scale renewable energy projects in order to better evaluate and structure RE

PROGRAMME SUMMARY

LEARNING OBJECTIVES

Upon completing the programme, participants will be able to:

- Describe the phases of the renewable energy project life cycle and the roles and interests of key stakeholders
- Explain the policy and regulatory frameworks governing renewable energy development in the electricity sector
- identify the country-specific policy and regulatory context relevant to renewable energy project development
- Evaluate the technical and non-technical planning requirements for large-scale renewable energy projects
- Assess the site potential and commercial viability of a renewable energy project using established feasibility methods
- Prepare a renewable energy project to meet investor and lender expectations, including risk identification and due diligence readiness
- Interpret project finance structures and cash flow projections to support decision-making in project development
- Compare the development process and planning requirements across at least two renewable energy technologies

HOW TO APPLY

To apply please visit this link and fill out the form:
https://form.jotform.com/RENAC/RENAC-GB-AGEPD-App

For any additional questions please visit: https://www.renac.de/projects-sustainabilty-energy-education-classes/green-banking-climate-finance/

PROGRAM PARTICIPATION

APPLICATION PROCESS

As part of the Applying Green Energy Project Development Online training, RENAC offers 15 scholarships per partner country for participants from Brazil, Colombia, Kenya, Indonesia, South Africa, and Vietnam. Individuals interested in participating in the training must submit a completed application form via the RENAC website, where the application period and training start dates are also published.

The training promotes balanced gender representation among participants and supports equal career development opportunities.

RENAC will inform applicants by email as soon as possible regarding the outcome of their scholarship application. Selected candidates must confirm their acceptance of the scholarship offer by replying to the invitation email sent by RENAC.

Note: Scholarship recipients must log in to the learning platform no later than two weeks after the start of the training. Failure to do so may result in the scholarship being reassigned to a participant on the waiting list.

LANGUAGE

The programme language is English, Spanish, and Portuguese. All programme material (including course content, videos, pre-recorded lectures, assignments, and exams) will be available in English, Spanish, and Portuguese.

ONLINE TRAINING PROGRAMME FEATURES

The Applying Green Energy Project Development Online training combines asynchronous and synchronous learning methods. Participants have access to written materials, assignments, and instructional videos, and are also invited to take part in live virtual sessions.

Learning with RENAC follows a two-step asynchronous approach. First, participants work through the course content independently. This is followed by the application of newly acquired knowledge and skills, allowing learning outcomes to be reinforced and consolidated. These steps are supported through a variety of learning activities.

The online training also includes written assignments, which further strengthen learning outcomes and may contribute to the final exam results.

WORKLOAD FOR PARTICIPANTS

Depending on prior knowledge, participants should expect to spend approximately 130 hours to successfully complete the course. This corresponds to an estimated 8–10 hours per week over the duration of the training. The workload includes reading and understanding the course materials, watching videos, completing self-test questions, participating in virtual classrooms, and joining the Q&A forum. It also includes submitting short assignments, completing administrative tasks (such as familiarising with the Moodle platform and creating profiles), and preparing for and taking the final online exam.

PROGRAMME ELEMENTS

LIVE VIRTUAL SESSIONS

The programme begins with a live online orientation session in which participants meet RENAC staff members, receive an introduction to the Moodle learning platform and its functions, and are familiarised with the forum. The session also covers key programme details, including activities and assignments, the exam, deadlines, and scheduling. Throughout the programme, virtual classroom sessions of approximately 1–1.5 hours are offered. Participation in these sessions is not mandatory. The sessions are conducted via Zoom, recorded, and made available on the Moodle platform for later viewing. In general, there is approximately one virtual classroom per module, and the content of each session is directly related to the respective module content or the corresponding module assignment.

EXAM AND CERTIFICATIONS

The final programme grade is based on the results of the final exam and the grades obtained from programme assignments.

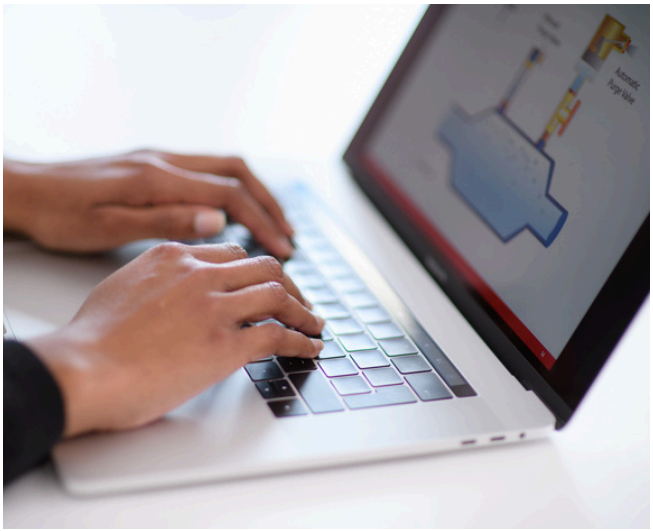
The final exam is taken online via our Moodle learning platform. The final exam only contains content from the mandatory courses. To prepare for the exam, participants are encouraged to complete the self-test questions included in each mandatory course.

Participants who meet all necessary criteria for the online training will receive a “Applying Green Energy Project Development” Certificate of Completion. Certificates are issued as PDF files.

Participants who do not pass the exam on their first attempt will have the opportunity to retake it at a later date. Exam and retake dates will be announced during the introductory live session.

ASSIGNMENTS AND EVALUATION

The courses are designed to be followed continuously from the beginning of the semester through to the final exam. Typically, there is one assignment per module, covering a range of formats such as multiple-choice quizzes, forum contributions, written assignments, and calculation exercises. All assignments must be submitted by the specified deadlines, which are communicated during the introductory live session.



SCHEDULE & ORGANISATION

MODULE	Module Title	Duration
Module 1	Introduction to green energy projects	Weeks 1-3
Module 2	Political frameworks and project finance	Weeks 4-8
Module 3	Project planning and investment feasibility	Weeks 9-12

Each module is composed of mandatory, elective, and optional courses. Mandatory courses must be completed, as their content forms the basis of the final examination. Elective courses require participants to choose and complete one course from a designated list within the module, while optional courses are entirely voluntary and serve as supplementary material for those wishing to deepen their understanding.

MODULES OVERVIEW

MODULE 1 – INTRODUCTION TO GREEN ENERGY PROJECTS

MANDATORY COURSES

- Intro to RE projects
- Intro to Project Development: Site Selection and Project definition

ELECTIVE COURSES

- PV, ***or***
- Wind power, ***or***
- Biogas, ***or***
- Solar-diesel hybrid technologies

Choose at least two technologies

OPTIONAL COURSES

- Intro to EE projects

Live virtual session: Introduction to programme

MODULE 2 – POLITICAL FRAMEWORKS AND PROJECT FINANCE

MANDATORY COURSES

- Policies for RE in the Electricity Sector
- RE Project Finance
- Due Diligence and Risk

ELECTIVE COURSES

- Fact Sheet on Policy and regulatory frameworks in
  - Kenya, ***or***
  - Colombia, ***or***
  - Brazil, ***or***
  - Indonesia, ***or***
  - Vietnam, ***or***
  - South Africa

Assignment

Live virtual session: Policy frameworks and support mechanisms

MODULES OVERVIEW

MODULE 3 – PROJECT PLANNING AND INVESTMENT FEASIBILITY

MANDATORY COURSES	ELECTIVE COURSES	OPTIONAL COURSES
• Planning of Large-scale PV Grid-connected systems – Technical • RE Feasibility Assessment and Investment Valuation	• Planning of large-scale PV grid-connected systems - Non-techn., ***or*** • Wind Power Planning and Measurement, ***or*** • Planning of Medium-sized Biogas Plants	• Energy Efficiency – Buildings (Application) • Energy Efficiency – Industry (Application)

Assignment

Live virtual session: RE project cash flows

CONTENT DETAILS OF MODULE 1

INTRODUCTION TO GREEN ENERGY PROJECTS

MANDATORY COURSES

Introduction to RE projects

After completing this course, participants should be able to:

- Illustrate the steps and tasks of a project life cycle of renewable energy (RE) projects
- Compare different public and private perspectives of RE project life cycles
- Assess project attractiveness with standard methods

Intro to Project Development: Site Selection and Project definition

After completing this course, participants should be able to:

- Understand the fundamentals of developing renewable energy (RE) projects
- Get an advanced knowledge of and reflect on how process flows work in project development
- Describe the project life cycle phases, participants and their usual interests
- Focus on assessing the potential of the location and meeting commercial expectations

FURTHER COURSES

The following technology courses are divided into elective and optional. Participants are encouraged to choose at least two elective course to review. Optional technology courses are there for further reading and investigation.

Elective Courses

- PV, ***or***
- Wind power, ***or***
- Biogas, ***or***
- Solar-diesel hybrid technologies

Optional Courses

- Intro to EE projects

CONTENT DETAILS OF MODULE 2

POLITICAL FRAMEWORKS AND PROJECT FINANCE

MANDATORY COURSES

Policies for RE in the Electricity Sector

After completion of this course, participants will be able to:

- Understand the overall framework conditions required to reach high shares of renewables in the electricity sector
- Recognize the key procurement mechanisms and support policies for renewables, including auctions, feed-in tariffs, and self-consumption policies
- Identify key flexibility options for power systems with high shares of solar PV and wind energy, including grids, dispatchable power plants, batteries, demand side flexibility, and electricity market design
- Understand key permitting and planning elements for renewables, as well as industrial policies to harness socio-economic benefits

RE Project Finance

After completion of this course, participants will be able to:

- Demonstrate the different financing options of renewable energy projects in principle and the project finance option in more detail
- Perform a risk assessment for renewable energy projects
- Interpret a bank's view of the risks related to PV, wind, and biogas plants
- Collect the data required for a bankability assessment of a renewable energy project

Due Diligence and Risk

After completion of this course, participants will be able to:

- Explain the relevance of due diligence in renewable energy investment decisions
- Describe the relationship between risk, financing structures, and governance

CONTENT DETAILS OF MODULE 2

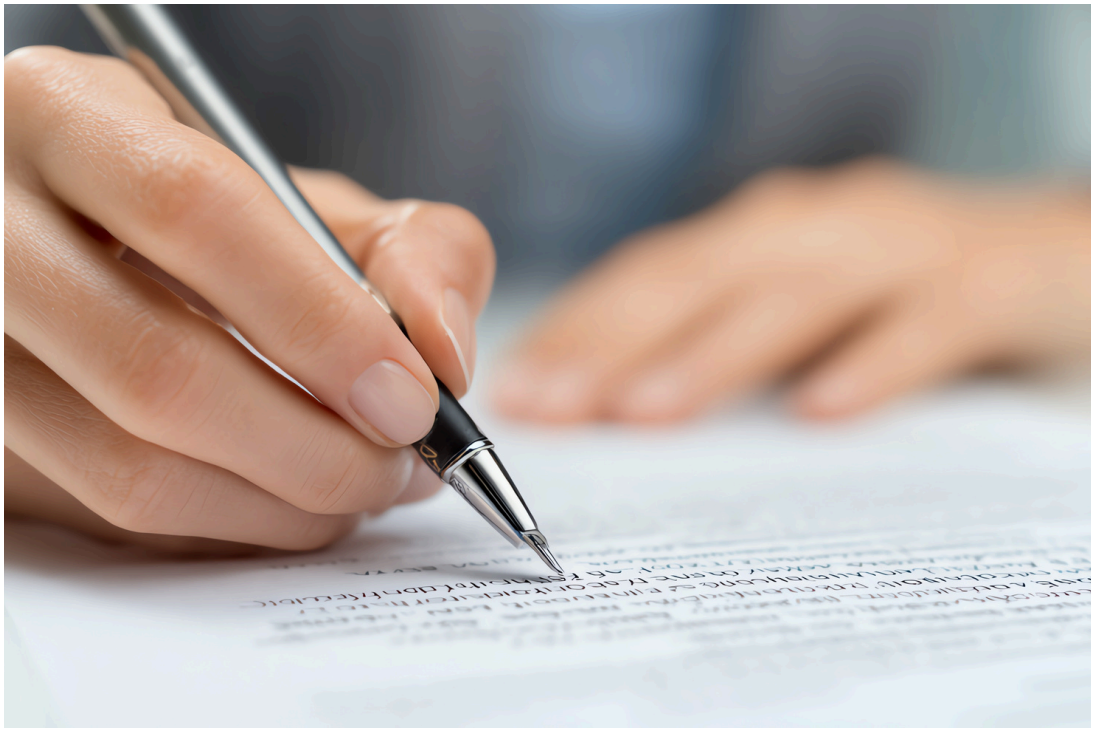
POLITICAL FRAMEWORKS AND PROJECT FINANCE

FURTHER COURSES

The following technology courses are divided into elective and optional. Participants are encouraged to choose at least one elective course to review.

Elective Courses

- Fact Sheet on Policy and regulatory frameworks in
  - Kenya, ***or***
  - Colombia, ***or***
  - Brazil, ***or***
  - Indonesia, ***or***
  - Vietnam, ***or***
  - South Africa



CONTENT DETAILS OF MODULE 3

PROJECT PLANNING AND INVESTMENT FEASIBILITY

MANDATORY COURSE

Planning of Large-scale PV Grid-connected systems – Technical

After completion of this course, you should be able to:

- Explain the global significance, key components, and technical configurations of large-scale PV projects
- Apply performance modelling techniques and describe grid integration requirements for PV systems
- Evaluate the economic, financial, legal, and regulatory framework governing large-scale PV projects
- Manage the construction, operation, and maintenance phases of a PV project, including risk mitigation strategies
- Apply project management and stakeholder engagement skills throughout the lifecycle of a large-scale PV project.

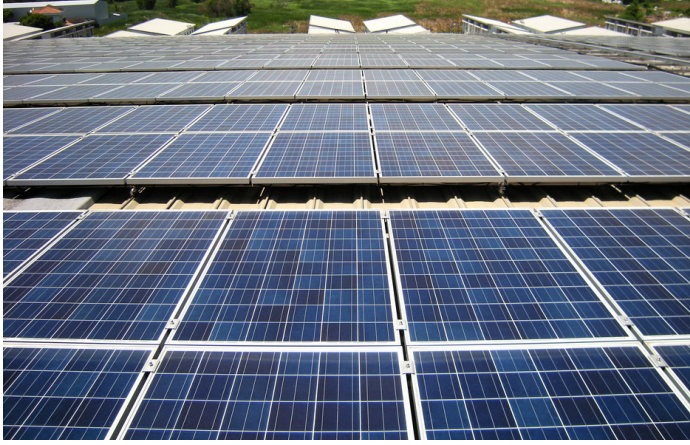
RE Feasibility Assessment and Investment Valuation

After completion of this course, participants will be able to:

- Illustrate basic financial principles, including the time value of money and the determination of cost of capital
- Increase understanding of capital budgeting tools to assess renewable energy investment attractiveness
- Perform calculations of important economic parameters to assess the viability of a renewable energy project
- Demonstrate concepts of risk and uncertainty as well as risk assessment instruments

CONTENT DETAILS OF MODULE 3

PROJECT PLANNING AND INVESTMENT FEASIBILITY



FURTHER COURSES

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Elective Courses

- Planning of large-scale PV grid-connected systems - Non-techn., ***or***
- Wind Power Planning and Measurement, ***or***
- Planning of Medium-sized Biogas Plants

Optional Courses

- Energy Efficiency – Buildings (Application)
- Energy Efficiency – Industry (Application)

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