INOGATE

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# "INOGATE Technical Secretariat & Integrated Programme in support of the Baku Initiative and the Eastern Partnership energy objectives" Project

## BUILDING PARTNERSHIPS FOR ENERGY SECURITY

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# INOGATE Workshop

Energy Efficiency & Renewable Energy Sources

# Making EE/RES financing attractive to banks: Sources, tools, methods, forms

**Ameria Bank**

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# BASIC DECISION ON-BALANCE SHEET / OFF-BALANCE SHEET FINANCING

| ON-BALANCE SHEET (Corporate Risk – full liability) | OFF-BALANCE SHEET (Project Risk – limited liability) |
|---|---|
| • faster realization period | • slower realization period |
| • impact on the balance sheet (project size – B/S) | • no or reduced impact on the B/S |
| • full recourse on the sponsor/investor | • no or limited recourse on the sponsor/investor |
| • impact on the rating of the sponsor/investor | • complicated structure |
| • in larger projects analysis of project structure necessary anyhow – structured finance | • extensive documentation necessary |
| | • higher flexibility of the sponsor/investor to realize several projects at the same time |

Despite of higher amount of time and costs spent due to above reasons most of the energy and infrastructure projects are developed with off-balance sheet financing (project financing).

# PROJECT FINANCING

- financing secured by project assets

- after payment of operational costs the project cash flows have to be sufficient to repay at minimum principle and interest of the debt financing and provide an adequate return to sponsors/equity investors

- sponsors/investors participate in the project risk with their equity share in the project company and an eventual additional recourse to be defined within the financial project development

➔ limited liability!

# Non-Recourse Financing / Limited Recourse Financing

| Non-Recourse Financing | Limited Recourse Financing |
|---|---|
| • no recourse on the sponsors/investors at all | • additional contribution by sponsors/investors in defined situations(e.g. completion guarantee; injection of additional equity) |
| • very rarely | • in most cases limited recourse |

Key factor for a successful project financing -
to structure the financing with:

- minimum possible recourse to the sponsors/investors, simultaneously
- sufficient guarantees and obligations by sponsors/investors or third parties
- bankable structures

in order to put the lenders in the position to accept the credit risk of the project

# What lenders do worry about– possible reasons for projects collapsing

- Delay in completion (higher interest cost in the construction financing, delayed revenues for repayment of loans, etc.)
- Cost overruns
- Technical problems
- Financial problems of the general contractor
- Political influence
- Non insured damages from incidents
- Absence of / or very expensive feed stock
- Technologically outdated plant
- No proven technology
- Losing of the competitive position of the plant in the market
- Non professional management
- Expropriation
- Market interest in / or overvaluation of the securities to be assigned
- Political or financial problems in the client´s country
- Etc.

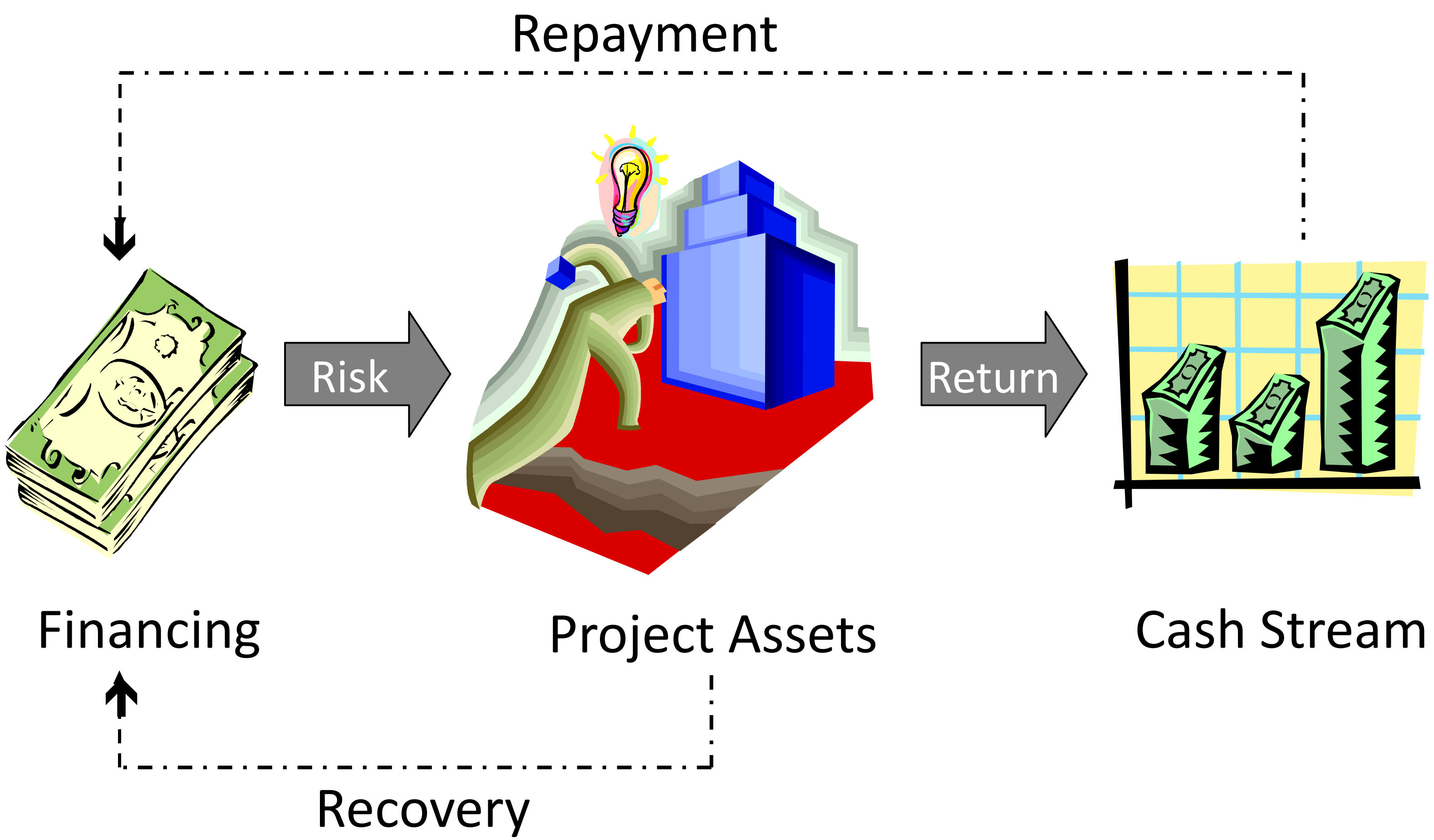
# Bankability

➔ The project has to be bankable („bankable project“):

The lender is convinced that:

- the project will be a successful one, the borrower will benefit from the project and will be in the position to repay the loan plus interest
- the contractual risk allocation ensures the completion and operation of the project to a maximum possible extent even in case of difficulties (each risk shall be borne by the party who can handle it best)

# Credit risk - What is bankable?



# Bankability

| Criteria | Factors |
| --- | --- |
| **Repayment Capability**<br>▪ Debt service coverage<br>▪ Probability of default | ▪ Projected Performance<br>▪ Risk assessment<br>▪ Risk mitigation |
| **Recovery capability**<br>▪ Extent of recovery possible<br>▪ Cost of recovery | ▪ Collaterals<br>▪ Guarantees<br>▪ Undertakings |

# Typical Project Risks and Risk Mitigation for a Power Plant

## Construction Phase

Typical Risks include:

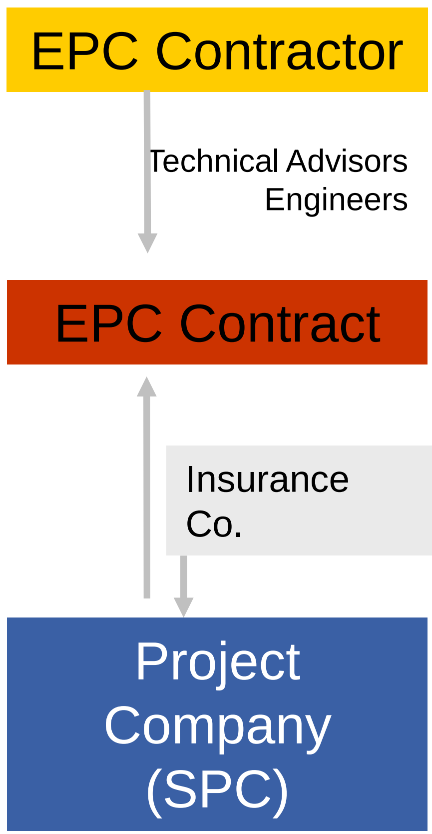
- delay
- cost overrun
- geology
- technology
- suppliers
- functionality & interface of Project lots
- “Political Risk Events” (e.g. prevention or delays of permits, licenses, etc.; restriction of grid access)

## Operation Phase

Typical Risks include:

- plant performance
- unavailability due to shortcomings in O&M
- (market) prices of electricity
- creditworthiness of off-takers
- Political Risk Events (e.g. restriction of grid access or of power exports)
- grid losses
- grid capacity

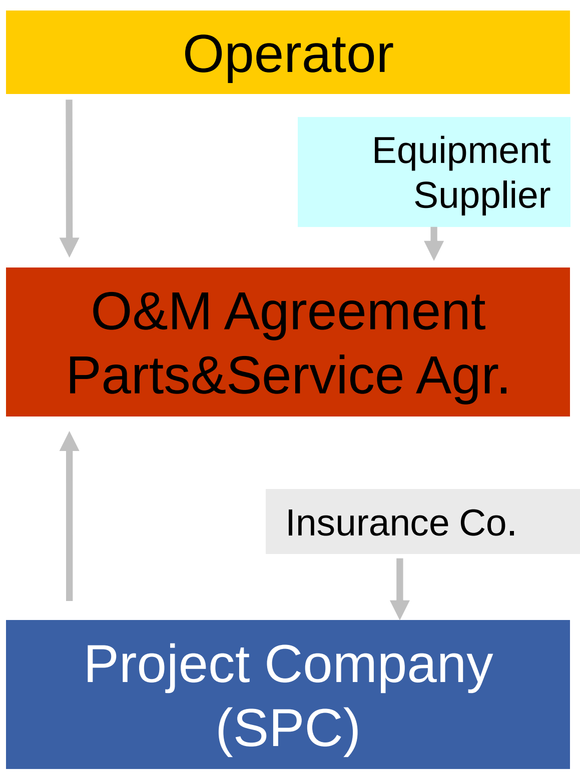
# Key Participants and Risk Mitigation (I)




***Construction Phase:***

- proven technical capability and financial strength of EPC Contractor/Subcontractors
- characteristics of Contracts:
  - lump-Sum fixed price Contract
  - turn-Key Construction Contract
  - provide for liquidated damages
- risk mitigation:
  - completion Guarantee from Sponsor
  - performance Bond from Contractor's Bank
  - price Retention until Provisional Acceptance
  - incremental debt/equity clause in case of cost overruns

# Key Participants and Risk Mitigation (II)




***Operation Phase:***

- Risk mitigation:
  - careful selection of Operator with sector expertise to manage Project
  - signing of Parts & Service Agreement with (e.g. turbine) Supplier
  - include in Contract minimum volume and quality levels to penalise poor management
  - contract rescission and substitution of Operator in specific cases
  - insurance policies
  - market risks best mitigated with long term PPA

# What has to be bankable?

- Project Documentation
- Partner Set-up of the Project Company
- Feasibility Study and Business Plan
- Contracts:

  -) Construction Contract

  -) Fuel Supply Contract

  -) Operation & Maintainance Contract

  -) Off-Take Agreement