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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 Study Tour/Workshop

## Energy Efficiency & Renewable Energy Sources

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## **EE/RES financing schemes, lending conditions and monitoring plan**

**25 February – 01 March 2014 | Yerevan, ARMENIA**

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Source: Michael Plechaty - Senior Vice President, VA Tech Finance

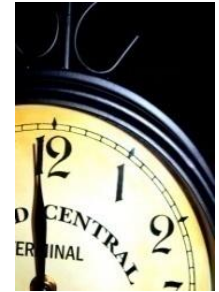
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# 1. Financing Schemes

## 2. Lending Conditions



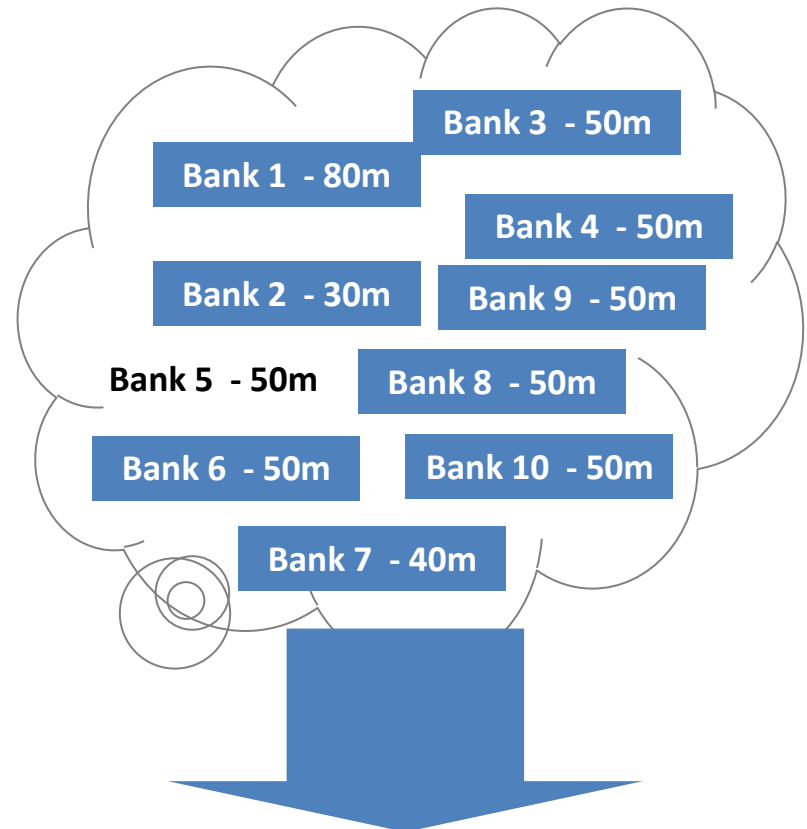
# RES FINANCE STRUCTURES

## Financing of Larger Energy Project Transactions in Current Times (IV) Funding Future Projects – Club Deals



### Club deals are now the norm as underwriting is not available.

- Banks now **unwilling to underwrite** due to risk of failure in syndications market.
- **Club deals** are now required.
- Larger banks can hold up to €75-100 m, however, on average hold position **€50 m**
- A **€1 bn project** is likely to require **more than 10 banks** and is also subject to support by multilateral institutions!!
- Each bank requires **“seat at table”** and the result is often “lowest common denominator” terms – also very time consuming during negotiations.
- The more banks are required to finance a project – the more complex the **negotiation process** is, but if the banking club succeeds in “acting in concert” their bargaining power rises and therefore the possibility to negotiate “attractive” funding terms may increase.
- The problem can be intensified if **multiple bidders** – e.g., €1 bn project with 4 bidders requires €4 bn of financing at bid stage. Can result in lack of competitive terms and even bidders withdrawing.



**Collectively negotiate with Public Authority and SPV**



# Financing of EE/RES Projects – Topics (1)



- On-Balance Sheet vs Off-Balance Sheet
- Project financing
  - Non/ Limited recourse
  - What Lenders do worry about
  - Key Success Factors
- Bankability
  - Documentation
  - Set-up of the Project Company
  - Feasibility Study and Business Plan
  - Contracts:
    - ) Construction Contract
    - ) Fuel Supply Contract
    - ) Operation & Maintenance Contract
    - ) Off-Take Agreement



# Financing of EE/ RES Projects – Topics (2)



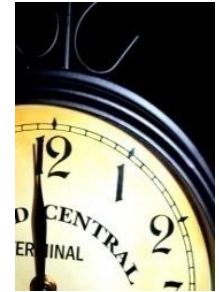
- Financial Risk Management in the Project Development
- Financial Modelling and Sensitivity Analysis
- Optimization of the „Debt / Equity – Ratio“
- Project Information Memorandum for Investors
- Structuring and Arranging
  - of the Equity Financing / Investor search
  - of the Debt Financing
- Conditions Precedent from a Financial Point of View
- Financial Closure / Project start





# 1. Financing Schemes

# 2. Lending Conditions



# Important Criteria for successful Project Financing

- bankable feasibility study and business plan
- reliable partner set-up of a project company – Special Purpose Company (SPC)
- sufficient equity participation and shareholder agreement
- experienced and reliable general contractor
- experienced reliable operator
- proven technology
- all means required for the production (feed-stock, water, etc. ) are secured at calculable market prices
- the project represents sufficient value as security
- stable political environment
- all licences and approvals are available
- acceptable country risk, no risk of expropriation
- environmental risks under control, cost overruns, delay and force majeure risks considered
- infrastructural connection of the project acceptable
- etc.



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# Bankable Project Documentation

Lenders position as captured in the documentation

- No acceptance of
  - ✓ Risk change of law risks
  - ✓ Risk of extraordinary project specific taxation
- Project company to bear only risks it is in a position to handle
- Adequate investors' equity participation that is in proportion to the total project costs
- No early equity repayment to the investors permitted (before start of repayment of the loans or achievement of defined debt service coverage ratios)
- Right to step into all major contracts (construction contract, operation agreement, off-take agreement, fuel supply agreement, concession agreement, etc.) on behalf of the project company in the event of loss
- etc.



# Bankable Feasibility Study and Business Plan

- realistic assumptions (input data) confirmed by an independent expert (e.g.: engineering cost, construction cost, production cost, market report, etc.)
- conservative cash flow projections have to cover operational cost, debt service (principle + interest) and calculable working capital as well as contingencies
- sensitivity analyses, to show different worst case scenarios
- etc.

**Bankable feasibility study und business plan:  
elaborated by a renowned reputable consultant or  
respective second opinion of him**



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# EE/ RES Financing & Project Structures

## Typical Due Diligence Process for Infrastructure Transactions\*

\* covers, but is not limited to following areas



- **Pre Screening:**
  - project information memorandum (PIM)
  - ownership structure
- **Pre Term Sheet/ Loan Documentation:**
  - financial analysis/ financial model
  - project structure/ parties involved
  - DD by external advisers (feasibility study, legal, tax, technical, environmental assessment, valuation)
- **Pre Credit Committee:**
  - risk management opinion
- **Pre Signing/ Pre Disbursement :**
  - check on conditions precedent
- **During Construction :**
  - execution and performance assessments
- **During Loan Term:**
  - performance assessments
  - payment check
  - annual reports

- Typical DD Process usually includes, but is not limited to:**
- Feasibility study
  - Technical facility assessment: technology, design
  - Site assessment: safety conditions, environmental issues
  - Permits, licences, building permit
  - Asset valuation
  - Project execution and performance assessment: “zero-report”, construction progress, commissioning and testing
  - Capital and operating cost assessment
  - Contracts with related parties:
    - project monitoring
    - consultants/advisers (tax, legal, financial, technical)
    - construction,
    - operation,
    - services/ off-take agreements