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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



EE/RES financing schemes, lending conditions and monitoring plan

Bank of Georgia
09-14 July 2013 | Tbilisi, GEORGIA

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

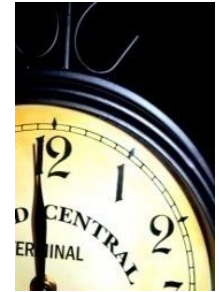
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1. Financing Schemes

2. Lending Conditions



FINANCING OF EE/RES PROJECTS – TOPICS (1)



- Basic decision: On-Balance Sheet – Off-Balance Sheet - Financing
- Project financing
 - Non-recourse / Limited recourse
 - What Lenders do worry about
 - Key Success Factors
- Bankability
 - Project Documentation
 - Partner 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 Financial Risk takers / Investors
- Structuring and Arranging of the Equity Financing / Investor search
- Structuring und Arranging of the Debt Financing
- Possible Conditions Precedent from the Financial Point of View
- Financial Closure / Project start



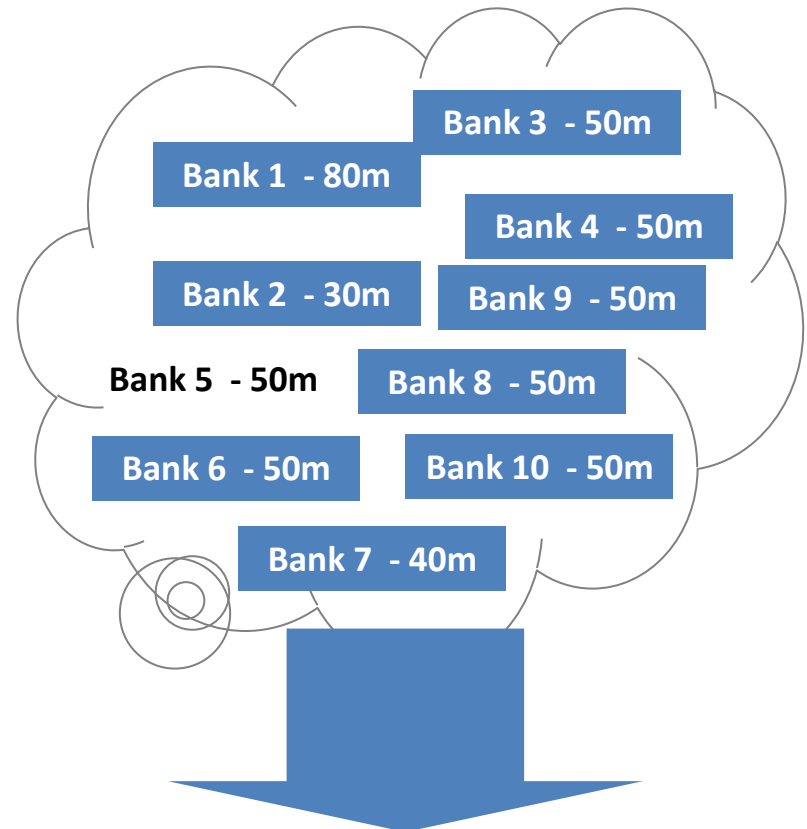
RES FINANCE STRUCTURES

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

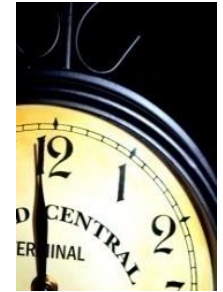
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1. Financing Schemes

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Important Criteria for successful Project Financing

- bankable satisfactory feasibility study and business plan
- reliable partner set-up in der project company – Special Purpose Company (SPC)
- sufficient equity participation of the sponsors/investors, satisfactory shareholder agreement
- experienced and reliable general contractor
- experienced reliable operator
- experienced reliable management in the SPC
- 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.



Bankable Project Documentation

In the financing documentation lenders do (inter alia):

- not accept change of law risks (insurance of the political risk!?)
- not accept the risk of extraordinary project specific taxation
- require that the project company shall bear only those risks it is in the position to handle
- require an adequate investors' equity participation in the project company in proportion to the total project costs (depending on the project feasibility)
- not allow for early equity repayment to the investors (before start of repayment of the loans or achievement of defined debt service coverage ratios)
- require the right to directly step into all major contracts (construction contract, operation agreement, off-take agreement, fuel supply agreement, concession agreement, etc.) instead 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 DD Process for Infrastructure Transactions*

* covers, but is not limited to following areas



Documents

Workflows

Due Diligence

Bankability

Risks & Mitigants

- **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

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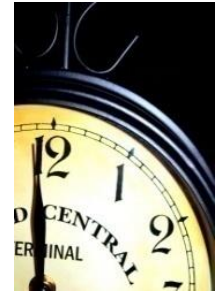




1. Financing Schemes

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3. Monitoring Plan



Monitoring plan



Consists of topics, interesting for lenders to be monitored, such as:

- Financial reports
- Physical progress reports
- Procurement reports
- Completion report
- Environmental reports
- Etc.

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Example of a monitoring plan



Borrower shall provide to lender:

Construction phase:

Each quarter (30 days after end of quarter) *project progress reports* including:

- Short write up on construction progress
- Explanation on possible delays
- Overview of actual costs (evidenced by respective invoices)
- Actual construction time schedule and comparison with initial time schedule



At completion:

- Completion report

Operation phase

- Financial reports (half year + year end reports)
- Management letter + compliance letter by auditor (confirming borrower is in compliance with financial covenants e.g. D/E ratio higher than..., DSCR not less than..., etc.) after end of financial year
- Annual monitoring report (on borrower, its operation, addressing topics of management and technology, operation performance and financial conditions) after end of financial year
- Annual environmental and social monitoring report