Financing Sustainable Energy Projects in CEE

Christian Unger
Head of Energy & Utilities
Bank Austria Creditanstalt

Budapest 2004
Agenda

- Project Finance
  - Definitions and Facts
  - Typical Project Structure
  - Advantages of Project Finance
  - Preparation of a Project for Financing

- Financing of Sustainable Energy
  - Situation in Central & Eastern Europe
  - Challenges and Opportunities
  - Sources of Financing
  - Case Studies

- Bank Austria Creditanstalt
Definitions and Facts

- Cash flow
- Special Purpose Company
- Off-balance sheet
- Limited recourse
- Long term nature
Definitions and Facts

• Collateral - transferable
• High Risk Lending - detailed due diligence, sufficient equity, sound pricing parameters
• Large Volume Transactions - syndication
• Complexity - timing
• EPC (engineering, procurement, construction) contract - fixed price, turnkey, date certain
Typical Project Structure

SPONSORS

SUPPLIERS

CONTRACTOR

LENDERS

GUARANTORS

INVESTORS

PURCHASER

OPERATOR

Special Purpose Company

Equity

Supply Agreement

EPC /Construction contract

Loan contract

Guarantees

Operation/Service contract

Purchase Agreement

Equity
Advantages of Project Financing

- Financing transactions realized off balance and limited recourse for Sponsors, optimising the finance structure in the parent company

- Flexibility regarding Partners, Risk Allocation and Structure

- Higher flexibility in designing the terms & conditions for the financing in comparison to plain vanilla corporate loans
Preparation for Project Financing

- Feasibility Study / Business Plan
- Reports (Independent Experts)
  - Market Study
  - Financial Model
  - Technical Due Diligence
  - Legal Due Diligence
  - Insurance Report
Preparation for Project Financing

(continued)

• Presentation by sponsor with business plan and feasibility study
• Indicative offer - term sheet from banks
• Negotiations > committed term sheet from arranging bank
• Loan documentation by external lawyers
• Syndication (for large volumes)
• Financial closing
• Disbursement of funds according to milestones
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Financing Renewable Energy

• Commercial banks often have limited experience and know-how in financing sustainable energy projects

• Structure and approval process often too cumbersome for small financing volumes

• High initial investment cost versus low operational cost

• Innovative financing solutions (CO2 Certificates ...) and equity sources (funds ...) are key

• Exploit subsidies (ALTENER, SAVE, COOPENER ...)

HVB Group
## Dependency on carbon fuels in selected new member countries

Fuel used for generation of electricity in %

<table>
<thead>
<tr>
<th></th>
<th>Poland</th>
<th>Czech Republic</th>
<th>Hungary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1990</td>
<td>2000</td>
<td>2010</td>
</tr>
<tr>
<td>Coal</td>
<td>97,5</td>
<td>96,2</td>
<td>86,4</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>1,3</td>
<td>2,0</td>
<td>6,1</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>1,2</td>
<td>1,8</td>
<td>7,5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>71,8</td>
<td>72,5</td>
<td>50,3</td>
</tr>
<tr>
<td>Oil</td>
<td>4,8</td>
<td>0,6</td>
<td>1,1</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>1,0</td>
<td>4,6</td>
<td>7,1</td>
</tr>
<tr>
<td>Nuclear</td>
<td>20,1</td>
<td>18,7</td>
<td>35,5</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>2,3</td>
<td>3,6</td>
<td>6,0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>32,1</td>
<td>25,7</td>
<td>26,5</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>18,9</td>
<td>34,2</td>
<td>32,1</td>
</tr>
<tr>
<td>Nuclear</td>
<td>48,0</td>
<td>39,1</td>
<td>33,4</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>1,0</td>
<td>1,6</td>
<td>8,0</td>
</tr>
</tbody>
</table>

Sources: DB Research 2003, REEEP
Situation in Central & Eastern Europe

Challenges

• Rules and regulations, legal environment
• Inefficient use of energy
• Overcapacity in production and low energy prices
• Insufficient equity sources and tight public budgets
• Lack of experienced operators
Situation in Central & Eastern Europe

Opportunities

• Poland and Czech Republic (Biomass and Wind), Hungary (Biomass and Geothermal), Baltics (Wind), Slovak Republic (Hydro and Biomass), Slovenia (Biomass)

• Upgrade of District Heating Systems - Biomass

• Diversification of fuel sources (reduce dependency on carbon fuels)

• Local Initiatives

• Lobby for producers of renewable energy

• CO$_2$ Certificates become part of financing
Sources of Financing

**Equity:**
- Equity from Sponsor
- Equity Funds
- Carbon Financing (JI/CDM, CO\(^2\) Certificates)

**Debt:**
- Project finance or corporate finance from local and international commercial banks
- Export Credit Agencies (Supplier or buyer credit, risk insurance)
- Multilateral Banks (EBRD, World Bank/IFC, EIB)
- Specialized Finance Institutions or Funds (KfW, Mezzanine Fund, Carbon Funds)
- Capital Market (Bonds, Asset Backed Securities)

**Subsidies:**
- Local or EU
EIB - Global Loan

- **Who can benefit from the proceeds of global loans?**
  Local authorities or firms with fewer than 500 employees and having fixed assets of up to EUR 75 million

- **For what projects?**
  New capital investment projects worth up to EUR 25 million, undertaken by SME's or, in the case of small infrastructure projects by local authorities

- **For what amount?**
  A maximum of EUR 12.5 million and up to 50 % of the investment costs

- **What maturities?**
  Between 5 and 12 years, up to 15 years in exceptional cases.

- **What security? What rates?**
  To be agreed with the intermediary bank which takes the credit risk in accordance with criteria determined in cooperation EIB.

- **Disbursement and loan management?**
  Through the intermediary bank.

- **How to apply?**
  Directly to one of the intermediary banks and financing institutions, which operates on the national, regional or local level.
Equator Principles

- 28 banks (including HVB Group) have adopted Equator Principles for their financing decisions
- Set of guidelines to determine and manage environmental and social risks in project financing
- Pollution Abatement Guidelines and Safeguard Policies of the IFC (International Finance Corporation)
- Projects are classified according to Screening Process (high / medium / low risk)
- Environmental Assessment is done for large project financings, including appropriate consultations with all affected parties
- Equator Banks cover over 80% of global project finance volumes
Case Study

Svilosa, Bulgaria

Delivers energy to pulp and paper plant, switch from coal fired to biomass. Sources wood chips from own production process. Financed partly with forward sale of CO2 Certificates.

Capacity: 18 MW Steam Turbine
Investment: USD 2,75 Mio.
Emission Reduction: 900,000 t CO²
Price per ton CO2: USD 3
Buyer of Certificates: Prototype Carbon Fund
Contract value CO2 Cert.: USD 1,8 Mio.
Tsankov Kamak, Bulgaria

Expansion of existing hydro power plant with 6 turbines and construction of new dam. Power purchase agreement with NEK. Financing secured partly with forward sale of CO2 Certificates.

Capacity: 450 MW
Investment: USD 200 Mio. (Commercial Banks: EUR 32 Mio.)
Emission reduction: 200,000 t CO$^2$ p.a.
Buyer of Certificates: Republic of Austria
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BA-CA Corporate & Project Finance

- Among top Arrangers and Underwriters for CEE and winner of mandates for landmark transactions in the field of acquisition, project and structured corporate finance
- Concentrated on selected sectors including energy & utilities, telecoms & media, processing industries & natural resources and transportation infrastructure
- Strong execution, underwriting and placement capacity as well as extensive experience in arranging and underwriting complex financing packages
- Over 30 financing mandates (MLA) in 2003 and 2004
- Excellent relationship with EBRD and EIB (top co-financier of EBRD)
BACA Footprint in CEE

Market position, total assets and number of offices as at 31 December 2003

CEE region
- € 23 bn total assets
- 891 offices
- 5%-10% market share in key markets
- 17,587 employees
- 4 m customers
International Ranking

Top Mandated Arrangers of Syndicated Credits
2003 Eastern Europe (by volume)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Group</th>
<th># of Deals</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Citigroup</td>
<td>23</td>
<td>11.04%</td>
</tr>
<tr>
<td>2.</td>
<td>BACA/HVB Group</td>
<td>26</td>
<td>7.11%</td>
</tr>
<tr>
<td>3.</td>
<td>BNP Paribas</td>
<td>14</td>
<td>6.56%</td>
</tr>
<tr>
<td>4.</td>
<td>WestLB</td>
<td>12</td>
<td>5.77%</td>
</tr>
<tr>
<td>5.</td>
<td>ABN Amro</td>
<td>13</td>
<td>5.32%</td>
</tr>
<tr>
<td>6.</td>
<td>SG</td>
<td>13</td>
<td>5.29%</td>
</tr>
<tr>
<td>7.</td>
<td>ING</td>
<td>16</td>
<td>5.22%</td>
</tr>
<tr>
<td>8.</td>
<td>KBC</td>
<td>10</td>
<td>4.54%</td>
</tr>
<tr>
<td>9.</td>
<td>Deutsche Bank</td>
<td>12</td>
<td>4.04%</td>
</tr>
<tr>
<td>10.</td>
<td>RZB</td>
<td>22</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

Source: Thomson Financial / Dealogic, January 2004

European Bank
for Reconstruction and Development

TOP Ten Banks
Participations Cumulative to 30 June 2004

1. BA-CA (HVB Group)
2. Raiffeisen Zentralbank
3. Rabobank
4. Citibank
5. ING Bank
6. CALYON
7. ABN Amro Bank
8. JP Morgan Chase International
9. Dresdner Bank
10. Nordea Bank Sweden
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