

# **Biogas & Biomass Financings**

Financing Standards in UCL

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- Leading European Leasing Network
- Local presence in 19 European countries
- Experience in RES leases for many years
- Central Coordination by RES Competence Center (Vienna + Milan)
- Commitment of UniCredit Group (multi-billion Euro RES portfolio)
- RES Project Volumes in Leasing (TIC):
  2008: 90 MEUR
  2009: 150 MEUR
  2010: 950 MEUR ( 843 M€ FV)
  2011: 1.724 MEUR ( 1.444 M€ FV)

### **Technologies for Cash Flow Based Leasing**

- Wind
- Photovoltaic
- Hydro Power
- Geothermal\*
- Biomass\*
- Biogas\*



\* Subject to Mitigation of Industry Specific Risks

# AGENDA

Project financing
 Introduction in project financing
 Risk management

- General remarks
- Selected risk topics
- Supply security
- Limited recourse standards
- Typical limited recourse standards

# What is project finance?

- Project finance is financing that as a priority does not depend on the soundness or creditworthiness of the parties proposing the business idea to launch a project.
- Approval of the financing is basically a function of the project's ability to repay the debt contracted and also remunerate capital invested at a rate consistent with the degree of risk inherent to the venture concerned.
- In project finance (non recourse financing) the point of reference for any valuation is the ability of the project to generate cash flows.

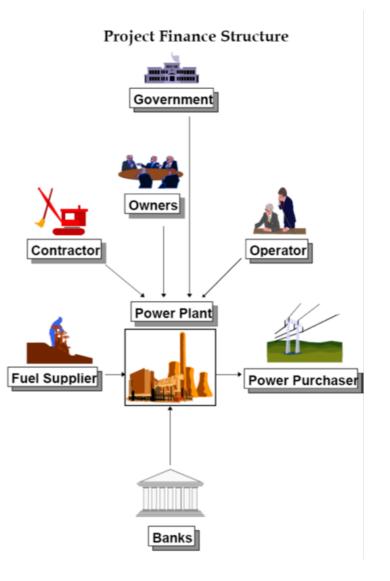
# **Characteristics of a non-recourse financing**

- The borrower of funds is a SPV, Special Purpose Vehicle, designated to take on the initiative and to secure cash receipts and payments which result (separate incorporation).
- As a consequence: all economic consequences generated by the initiative are attributed to the SPV (lenders finance a venture, not an operating firm).
- The assets of the SPV are the only collateral available to lenders together with the cash flow from the initiative (non-recourse financing)

Off-balance sheet financing

# Major players in a project and relations in between

- Main contracts concluded between the parties:
  - Banks (Lenders) Power Plant (SPV) = Financing contract/security
  - Contract (EPC) Power Plant (SPV) = EPC (turnkey) contract
  - Operator Power Plant (SPV) =
    Operation & Maintenance (O&M)
    contract
  - Client (Power purchaser) Power Plant (SPV) = purchase (sales) agreement (PPA)
  - Supplier Power Plant (SPV) = Raw material supply agreement (RMSA)
  - Owners Power Plant (SPV) = equity subscription
  - Advisors Power Plant (SPV) = legal, technical, insurance, financial reports



# **Risk management**

Project finance is a system for distributing risk among the parties involved in the project. Identifying and allocating risks leads to minimizing the volatility of cash inflows and outflows generated by the project.

# Risk identification

- Pre-completion phase:
  - Planning: wrong design, activities not properly addressed
  - Technology: unproved/untested technology
  - Construction: the original amount required for construction is ex-post higher than the budget, or performance is bellow pre-agreed standards

# **Risk management**

### Post-completion phase

- Market risk: real revenues are lower than the budgeted ones due to fall in demand or drop of prices of SPV's product&services
- Raw material supply risk: shortage of raw material; higher prices than forecast
- Operational risk: not reached the pre-agreed performance standards; lower output/input ratio than expected
- Risks common to both phases

# Biomass / Biogas Remarks

Renewable Energy – Bioenergy

### Biomass

- ✓ Usually "Forestry Project"
- ✓ Off-heat usage concept
- ✓ Substrate within 70 km

# Biogas

- ✓ Usually "Agricultural Project"
- Benchmark: 0,5 ha of prime arable land per installed Kwel; land secured for whole financing duration

No- or Limited recourse financings only with high degree of business plan security for the whole financing term

# Segment Focus

- ✓ Dry and liquid anaerobic fermentation
- Burning of solid biomass
- ✓ Wood gasification
- Construction & Operations
  - ✓ Full service concept (EPC + O&M)

# Off-take Concept

- Off-heat usage must be conceptualized for biomass and biogas plants
- Exclusion of market price risks on the sales side

# **Biomass / Biogas Projects**

# **Supply Security**

- Biomass / Biogas
  - Full-recourse or at least partial recourse on substrate supplier
  - Biomass Supply Contract between supplier & SPV
  - Supplier Guarantee towards
    UCL assuming responsibility
    for all losses of UCL in case
    of breach of contract



(maximum penalty = outstanding financing volume)

# **Biomass Supply Security**

- ✓ Substrate Supplier should hold share in the SPV (>25%)
- Supplier must own related land or agriculture (no traders)
- Default in supply contract must trigger default in financing contract AND supplier must assume liability for the financing in case of supply contract default

Exclusion of market price risks on the supply side

# Substrate Supply Guarantee

- Supply contract between supplier & SPV
- Supply guarantee towards UCL
  - ✓ Whole Financing Duration
  - Maximum or indexed price (following tariff)
  - ✓ Needed qualities & quantities (business plan)

# Technical risks

- ✓ Internal Review / External Technical DD
- Review of EPC / O&M Contracts and Contractors
- External Construction Supervision

# Legal Risks

✓ Legal Due Diligence on Contracts and Permits (internal/external)

# Reputational Risk Issues

- Competition with food production: integration of energy crops in agricultural production cycle to be analyzed
- Sustainability: Bioenergy is typically local business (typical max. radius of resource supply for biomass: 70km, for biogas: 30km
- Exploitation of developing countries: long-distance import of substrate not acceptable for (e.g. palm oil, rape seed oil or sugar cane imports)

# **Biomass & Biogas**

**Limited Recourse Standards** 

Renewable Energy – Bioenergy

Downpayment of min. 20% (strict requirment)

Maturity 10 – 15 Years

# Main Sponsors

- Substrate Supplier (supply + daily local feeding)
- ✓ Full-service EPC & O+M Partner (on-line monitoring)

## Investor

✓ Financial Investor: Typically with Limited Managerial Scope

# Financing Duration

- Usually max. 85% of guaranteed cash flow (feed-in tariff duration)
- ✓ Max. 75% of technical lifespan of main equipment

# **Collaterals**

- ✓ Mitigation of Technical Risks (EPC, O+M Contracts)
- ✓ UCL owns main production assets
- ✓ Pledge of all relevant rights for operation
- ✓ Pledge of SPV shares, account pledge
- Easement on the land or ownership of plant location
- Easements for power lines / heating lines
- ✓ Assignment of receivables / subsidies / feed-in tariff
- ✓ Assignment of supply and take-off contracts
- ✓ Supplier's financial guarantee in case of supply contract default
- ✓ Supplier's obligation to retain agricultural / forestry production
- Potentially collaterals on lands needed for substrate production
- ✓ Insurance arranged in-house: UCL has Owner Liabilities (!!)

# Debt Service Cover Ratio (DSCR)

- ✓ DSCR Standard of 1,30x
- ✓ Business Plan Security must be reviewed case by case
- ✓ Stress-testing is key to analyze risk of the transaction
- Debt Reserve Account of 6 months
- All-Risk Insurance (liability, damage, business interruption)
- Project Review
  - 1. Cash Flow and Technology Review by Competence Center
  - 2. Legal and Sponsor Review in local entity (local credit process)
  - 3. Final Approval in Vienna / Milan for all projects
  - 4. External Technical / Legal Due Diligence

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