

Biomass & Biogas projects from the lenders' point of view

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PROPARGO in brief

PROPARGO in renewable energy projects

Biomass & Biogas projects' feasibility from a lender's perspective

The example of Biogas

The optimal financial structure for a biomass/biogas project

Which role for Development Finance Institutions?

PROPARCO in brief

- Private sector financing arm of French Development Agency (AFD), the main provider of bilateral ODA for France (AAA rated)
- 33% of capital held by private shareholders, of which several partners from emerging and developing countries
- Long-term developmental objectives & private sector profitability requirements
- Full range of long term financial instruments (see below)
- Does not require French interests
- Operations in 60 countries in Africa, Maghreb, Caribbean, Indian Ocean, Latin America and Asia
- Paris HQ plus a network of local offices (Bangkok for SEA)

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PROPARCO in renewable energy projects

- Renewable energy projects are a key focus in particular in emerging countries
- Out of about EUR500 m of commitments per year, 10% are in the RE sector, mainly in Asia
- Has financed biofuel, biogas, biomass and hydro projects in Asia
- Long term financings in USD, EUR or local currencies:
 - Senior and junior loans
 - Loan Guarantees
 - Equity
 - Syndication of other European Development institutions

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- **What is key when assessing the viability of a biomass/biogas project?**
 - Feedstock supply & offtake: how the project will preserve its GOP?
 - Logistics: transport and storage, access to raw material and market?
 - Per ton production cost: will the project be a low cost producer?
 - Regulatory framework: is it supportive and stable?
 - Technology risk: track record of supplier and construction contract?
 - By-products: can they be valued and included in the base case?
 - Environment: feedstock (eg rice husk) & plant
 - Other considerations relevant for any industry (management...)

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- **Main opportunities in the biogas sector- the example of Thailand:**
 - Favourable economic activities for the development of biogas projects (cassava & other crops / animal farming)
 - Favourable political & legal framework in Thailand (VSPP- SPP)
 - State of the CDM qualification process in Thailand

- ... However, raising financing from commercial banks is still a challenge

Challenges to structure multi small-scale biogas projects

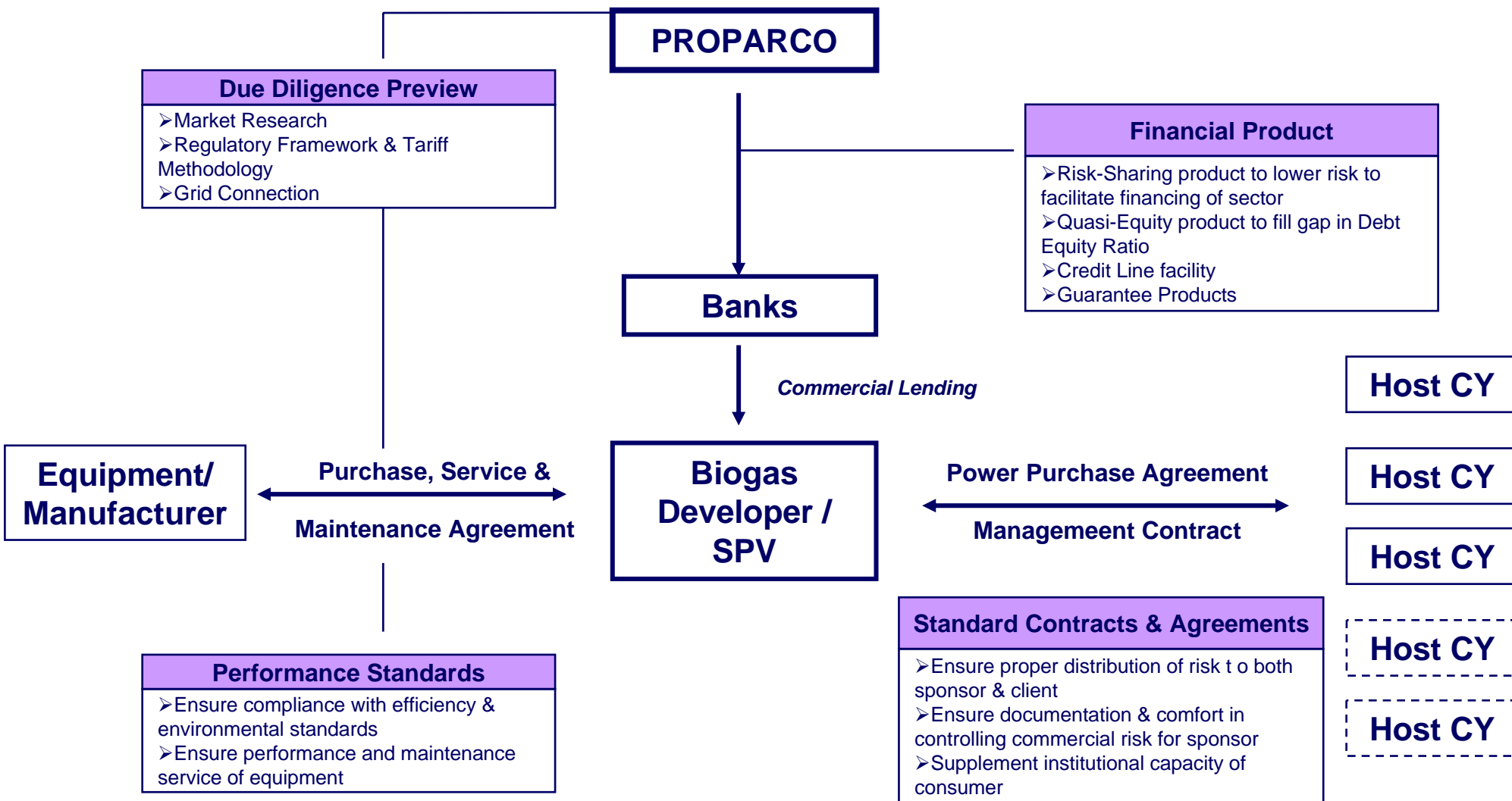
- **Barriers to finance biogas projects comprise the following:**
 - High transaction costs: Size rather small to attract commercial lenders
 - New technologies, less experienced developers
 - Capital intensive: projects extremely sensitive to the structure & the conditions of capital cost financing
 - High level of uncertainty related to the level of activities of the host companies creates a difficult risk profile, incl. the difficulties in guaranteeing cash flow.
- => more complicated and time-consuming from the lenders' point of view.

Challenges to structure multi small-scale biogas projects

- **Recommendations for scaling-up small biogas projects :**
 - Lower transaction costs & Replicability:
 - Standardisation of contracts & agreements with the host companies
 - Standardisation of the technology & processes
 - Constitution of a bunch of project:
 - Credit line facility disbursed within a specific amount of time
 - Loan disbursed in tranches relatively to the performance
 - Constitution of a SPV: limited-recourse finance with regards to the types of developers

=> Each Biogas project needs a tailor-made financial solution.

Framework for financing multi small-scale biogas projects



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The optimal financial structure for a project

- **Addressing the risks of bioenergy**
 - Sponsor with experience
 - Proven technology, EPC construction contract
 - A minimum D/E ratio in the 50/50 to 60/40 range
 - Financial plan catering for contingencies
 - Debt with a minimum tenor of 7 to 8 years (lenders will in general look for spread in the 2.5% to 3.5% range), cashsweep
 - A layer of mezzanine debt makes sense (mezz lenders will in general look a return in the 10% to 15% range)
 - Supply – if not backward integration - and offtake contracts (at least volumes for a minimum of 5 years)

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- **DFIs can support bioenergy projects in different ways:**
 - DFIs are more inclined to take a bet on bioenergy in emerging and developing countries given their TBL approach
 - Network: private equity funds, etc
 - Assisting government in the definition of the right policy frameworks
 - Providing a combination of financial instruments, additional to the offer of pure private players
 - Ability to implement innovative financial structures
 - Soft funding for certain specific aspects