Financing Basics for RE Projects
Agenda:

• Overview & Summary Findings
• Introduction to Project Finance
• The Role of the Players
• Structure and Negotiation of Key Documents
• Conclusions
Overview & Summary Findings
Renewable Energy Options:

- Wind
- PV
- Solar
- Bio

- The evaluative parameters used by financiers is different for each of these technologies
  - Example: DSC for Wind = 1.4 – 1.5; and DSC for Bio (due to fuel risk) = 1.5 – 1.6
Basic Elements #1:

• Lots of money now available for RE projects
• Project package must be complete prior to submission
• Less than half of proposals survive the financial review process
Basic Elements #2:

• No projects less than $50 M in value
• No “first of” projects
• Financial considerations vary by technology
• Financial evaluation requires 18 – 24 months
  – Does not include time for concept development, application preparation, or project construction
Venture Capital:

• Projects that are the “first of” need to secure financing from the Venture Capital market

• What is Venture Capital?
  – Cash invested in new technologies
  – Cash in exchange for ownership
  – VCs can provide help and advice to owners / developers to enhance value
  – Usually require a 10X return on their investment
  – Frequently a hindrance for owners / developers of new technologies
Technology “Valley of Death”:
Crossing the “Valley of Death”:

- Financial Markets won’t fund “first of” projects
- Developers need to find VC funds or “public funds”, or:
  - Build small;
  - Use funds from family and friends; and / or
  - Form a consortium of “many”, so individual costs are low and acceptable
- After a successful “first” project, financial markets will consider funding subsequent projects
One Size does not fit All:

- There are a host of parameters the financial package must present for review:
  - Technology / Purchaser / Site Options
  - Equity vs. Debt
  - Debt: senior vs. mezz. vs. subordinate
  - Leveraged vs. unleveraged (pref. to unlev.)
  - “Flip” (Cross-over): developer vs. financier
  - Etc.
Sources of Capital:

• Equity:
  – Project Sponsor
  – Tax Benefits Purchaser

• Debt:
  – Senior
  – Mezzanine
  – Subordinate
Equity Investors:

• Are they big enough to use tax advantages?
• If not, find a “buyer” (3rd party) and sell:
  – Negotiate the “flip”
  – Example of “flip”:
    • 90 % / 10 % or 2 years
    • 0 % / 100 % until $$$ recovered
    • Developer buys out 3rd party – then 100 % / 0 %
Financial Review:

• At the apex of the approval process
• Package must be complete prior to submission (usually 12+” thick):
  – Agreements designating business plan, technology, off-takers, site, equity / debt structure, etc. included
  – Options on some of the above offered for consideration
• Normal review time is 18 – 24 months
• Only about 50% of applications are funded (for a host of reasons)
Summary Statement from Financiers:

• More Capital than Quality Deals
• More Deals than Time to Evaluate
• Most Deals are not Quality or Qualified
• More than 50% of Deal ‘Starts’ do not make it through the 2-year financial review process
• Transaction Costs are High:
  – Minimum project size is $50M
  – If smaller, use an Aggregator
Introduction to Project Finance
Introduction to Project Finance:

• Typical Project Structure
• What is Project Finance?
• Typical Project Structure
• Key Lender Considerations
• Construction Period Risk
• Operation Period Risk
• Mistakes to Avoid
Typical Project Structure

- Developer
- Equity Investors
- Lenders
- Suppliers
- SPECIAL PURPOSE PROJECT CO.
- Construction Contractors
- Operator
- Buyers ("Off-takers")

Inputs → SPECIAL PURPOSE PROJECT CO. → Outputs
What is Project Finance?

• Non-recourse financing of assets:
  – Special purpose of project company
  – Project company’s value is created through its entry into inter-related contracts
  – Bank lends to the project company without recourse to the project’s owner(s)

• Well-suited for owners seeking to isolate risk:
  – Joint ventures
  – Private equity
  – Independent developers
What is Project Finance?

• Not well-suited if time is of the essence
• Transaction costs can be high
• Lender restrictions can be burdensome
• Key is understanding risk allocation
Key Lender Considerations:

- Experience of Sponsor
- Experience and financial strength of all parties
- Terms, conditions and coordination among all project contracts
- Expected revenues / expenses
- Marginal cost of production
- Risk – technology and market
- Time to closing
- Regulatory environment
- Size of transaction
- Financial pro-forma
- Etc.
Construction Period Risk:

• Permitting
• Schedule:
  – Interest during construction
  – Links to off-taker agreements
• Performance / Completion
• Technology Risk
Construction Period Risk Offsets:

• Turnkey, fixed-price construction contract with schedule and performance guarantees – including delay and performance damages
  – Not likely, given more projects than qualified builders

• Long-term, fixed-price input and output contracts
  – Not always available

• Contingency in construction loans

• Contingent equity
Operation Period Risk:

- Performance and Operation Risk
- Input Availability and Costs
- Output Demand and Price
Operation Period Risk Offsets:

• Insurance
• Debt service reserve
• Major maintenance reserve
• Cash sweeps
• Leverage – e.g., 60:40, 50:50
Lender’s Collateral:

• Physical Assets
• Contractual and Permit Rights
• Bank Accounts
• Shares in the Project Company
Mistakes to Avoid:

- Single-sourcing prematurely
- Timing expectations
- Inadequate contingency
- Overly optimistic base-case projections
- Logistics
- Utilities
- Insufficient working capital
- …and after 3 days of this workshop…..
  - Becoming financially involved in any form or fashion…..!!!
The Role of the Players
Overview of Players:

- Developer
- Developer’s Advisors
- Project Company
- Sponsors / Equity Investors
- Lenders
- Lenders’ Advisors
- Project Contractors:
  - Construction contractor
  - Suppliers
  - Off-takers
  - O&M providers
- Regulatory Authorities / Governmental Agencies
The Developer:

• First – the Idea:
  – Project Site
  – Feasibility
  – Is a bid process required for rights to the site?

• Second – Setting up the Framework:
  – Acquire necessary expertise
  – Determine scope of required governmental approvals
  – Engineering review and analysis
  – Contracts with potential partners and project parties

• Third – Identifying Sources of Funding:
  – Equity
  – Debt

• Fourth – Finalizing Relationships and Working towards Closing
Developer’s Advisors:

• Engineering Consultants
• Financial Advisors
• Legal Counsel
• Insurance Advisors
• Employee Recruiting
The Project Company:

- The Project Company will “become” the Project
- All assets will belong to the Project Company (PC)
- Employees may be from PC, or via management services agreement
- Ownership of the PC may be directly by equity investors – or via a holding company structure
- Must be legally established prior to financial “closing”
- Will need certain “bankruptcy remoteness” and “separateness” provisions in place to satisfy lenders
Sources of Equity for the PC:

- Developer
- Strategic Partners
- Local Partners
- Private Equity – e.g., venture capital (but not “first of”)
- Financial Institutions
Equity Issues:

- What will equity investors expect to see before they commit to an investment?
- How much financial support will equity investors provide?
- What types of returns do equity investors require?
- How much control do equity investors want over the project?
- How are equity arrangements documented?
Types and Sources of Debt:

• **Types:**
  – Senior Debt
  – Mezzanine or Subordinated Debt
  – Working Capital

• **Sources:**
  – Commercial Banks
  – Investment Funds
  – Equity Providers
  – Government Financing
  – Project Parties
  – Multi-lateral Lenders
  – Export Credit Agencies
Lenders’ Advisors:

• Engineering Consultant
• Market Consultant
• Legal Counsel
• Insurance Advisor
Role of Lenders’ Agents:

• Arranger or Placement Agent
• Administrative Agent
• Collateral Agent
• Accounts Bank
• Inter-Creditor Agent
Project Contractors:

• Construction
• Operation & Maintenance
• Suppliers:
  – Critical to generation requirements
• Off-takers:
  – Long-term or spot sales
  – Critical to revenue requirements
Regulators and Government:

- Concessions
- Permitting
- Public Financing
- Tax Credits
Structure and Negotiation of Key Documents
Key Project Documents:

• Power Purchase Agreement (PPA)
• Energy Performance Contract
• Energy Off-take Agreement
• Construction Contract
• Warranties
• O&M Agreement
• Interconnection Agreement
• Leases and Easements
• Loan Agreements, Guarantees & Financing Docs
• Regulatory and Environmental Docs and Approvals
• Incentive Agreements
• Etc.
Overview of Drivers:

- Incentives and Benefits:
  - Govt. incentives?
  - Utility programs?
  - Tax / tariff advantages

- Practical Project Considerations:
  - Do project structure and contracts make sense?

- Risk Tolerance:
  - Tolerance of participants?
  - Allocation of risks?
Overview of PPA:

- The critical document to lender
- Contains the fundamental business and financial terms of the project
- Must have a term sufficient to amortize the investment
- Allocation of risk must reflect the relationship between the parties and not allocate so much risk to Seller / Developer that Seller / Developer becomes an undesirable borrower
Regulatory Issues for PPA:

- State PUC requirements
- Other agency reviews
- Verification by ISO or RTO
- “Public utility” status
- Interconnection and transmission access
Other Regulatory Issues:

- Siting
- Local land use
- Environmental review
- Transmission corridor
- Qualifying as “renewable” for tags / RECs
Other PPA Issues:

- Elements of Seller’s Risk
- Elements of Buyer’s Risk
- Elements of Lender’s Risk
- Take-or-Pay Covenant
- Reliability and Performance Standards
- Measurement and Verification Standards
- Financial Incentives and Tax Benefits
- Financing Considerations
- Financial Distress or Bankruptcy
- Sale / Buyout / Removal Provisions
Conclusions
Final Thoughts:

- Lots of money now available for RE projects
- No “first of” projects
- No projects less than $50M
- Allow 18 – 24 months for financial review
- Less than half of proposals gain funding
Questions and Answers?