UNDERWRITING FINANCING FOR ENERGY PROJECTS

GAINING A DEEPER UNDERSTANDING OF PROJECT UNDERWRITING REQUIREMENTS TO HELP YOU GET AHEAD ON YOUR NEXT PROJECT

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Goal of the session:

To gain an understanding of the elements that go into project underwriting, and why.

- What is underwriting and why is it done?
- The issues commercial lenders examine when they underwrite a loan;
- The elements of a proforma;
- Key lending benchmarks such as Loan-to-Value and Debt Service Coverage Ratio;
- Credit enhancements, what are they and how do they work?
- Different Products, Different Processes

WHAT IS UNDERWRITING AND WHY IS IT DONE?

Underwriting is performing due diligence and research to understand various aspects associated with the financing. The lender is aiming to determine if financing for this particular project, with this particular borrower is an acceptable risk.

Key aspects that are underwritten can include:

- The borrowing entity
- The EPC/Contractor
- The project itself (technology, anticipated energy performance, warranties etc.)

Lenders look to reduce the risk of non-payment, default and charge-off. Wise investment is their business model. Different lenders maintain different risk tolerance and appetite.

UNDERWRITING IS WHAT DETERMINES THE INTEREST RATE, **RIGHT?**

WRONG -

RISK IS BUT ONE ELEMENT THAT GOES INTO AN INTEREST RATE.

AN INTEREST RATE IS COMPRISED OF THE FOLLOWING:

- **Origination and Servicing -** Administrative time and cost associated with underwriting, originating, and servicing a loan over its lifespan
- **Lender's margin -** Generally fixed as well, this is the return the lender needs to make, on top of the fixed costs. This may include broker margins as well if a loan is brokered.
- **Risk -** Some lenders can provide "risk based pricing" while others will simply approve or decline a project at a set rate, depending upon if it meets their risk tolerance threshold. Risk is what a lender evaluates with underwriting.

WHAT DO LENDERS EXAMINE WHEN THEY UNDERWRITE FINANCING?

PROJECT RISKS

- Technology
- Construction
- Budget
- Operational or Performance
- Regulatory or Political
- Contract Risk
- Headline Risk
- Sponsor/Guarantee Risk

BORROWER RISKS (THE 5 C'S)

- Character
- Capacity
- Collateral
- Capital
- Conditions

PROJECT RISKS: TECHNOLOGY AND CONSTRUCTION

- **Technology**
  - Will the technology perform
  - Is it accepted, proven technology or "experimental"
- **Construction**
  - Construction timelines
  - Construction quality
  - Installer reputation and experience

PROJECT RISKS: BUDGET AND OPERATIONAL

- **Budget**
  - Is the project budget realistic and can teams involved stick with it
- **Operational/Performance**
  - Will the project perform to expected savings/output
  - Will the equipment last or need extra maintenance

PROJECT RISKS: REGULATORY/ POLITICAL AND CONTRACT

- **Regulatory/Political**
  - Does the project comply and will it stay in compliance of rules/regulations such as NEPA
  - Is the borrower in an accepted legal industry?
- **Contract Risk**
  - Will parties run afoul of the contracts underpinning the transaction/project.
  - Are contracts setting all parties up for success in all eventualities

PROJECT RISKS: HEADLINE AND SPONSOR

- **Headline Risk**
  - Does financing the project pose any headline risks if things go wrong?
  - What's the worst case headline if something goes wrong (eg "foreclosing on god")
- **Sponsor Risk**
  - Will sponsor hold its end of the bargain?
  - Are they an asset or liability to the project?

THE 5 C'S: CHARACTER AND CAPACITY

- ***Character*** is assessing a borrower's creditworthiness, credit history and standing in their community.
  - Lenders will check and evaluate:
  - audited financial statements, tax returns, unaudited financial statements.
  - Credit reports from Experian, TransUnion and Equifax
  - Lien and judgment records –LexisNexis RiskView

- ***Capacity*** is determining if the individual or business generates enough cash flow to pay their monthly obligations.
  - The Proforma
  - Debt Service Coverage Ratio / Debt to Income

THE 5 C'S: COLLATERAL AND CAPITAL

- ***Collateral*** is evaluating what (if any) type of collateral is being pledged as security for the loan and what caliber it is. Is the loan secured by inventory, equipment, or real property? If so, what conditions and value would be used for it?
  - Different forms of credit enhancement:
  - Security interest in hardware
  - Security interest in accounts receivable, project contracts, revenue streams
  - Corporate or personal guarantees
  - Loan Loss reserve

- ***Capital*** takes a closer look at the individual loan and how much "skin in the game" the borrower is putting into the equation. Does the borrower need to come in with any cash to close the transaction, or are they purely using other people's money?
  - Equity requirements – 20% in real estate
  - Understanding any conditions on any public grants or utility rebates

THE 5 C'S: CONDITIONS

- ***Conditions*** pertain to what the loan terms are with regard to loan amount, rate, and the borrower's intended use of the funds.

LOAN TO VALUE ("LTV") - HOW MUCH CAN I BORROW?

- Many lenders have LTV limits, often 80% (meaning the debt financing is limited to 80% of the project's value and the building owner must come up with the balance (some skin in the game).
- Lease/Equipment financing is typically for 100% of the project cost.
- How to evaluate "value" with an Energy Savings Agreement: Net Present Value of energy savings over life of ESA.
- Public and utility grants are considered part of the borrower's equity.

DEBT SERVICE COVERAGE RATIO ("DSCR")

- The debt-service coverage ratio ("DSCR") is a measurement of the cash flow available to pay current debt obligations. The ratio states net operating income (or EBITDA*) as a multiple of debt obligations due within a year.
- DSCR is a measurement of the borrower's capacity to make loan payments.
- Lenders generally want to see a DSCR of 1.20 - may sometime be higher or lower.
- Energy cost savings can count against operating expenses

* *EBITDA - earnings before interest, tax, depreciation and amortization.*

THE ELEMENTS OF A PROFORMA

A proforma is a financial projection [an Excel spreadsheet] based on assumptions about a project's future revenues and expenses over the term of the financing, or the life of the project.

Important to show the assumptions, particularly for escalation rates in ESA or PPA revenues, default energy rates, labor and other project operation and maintenance expenses, insurance, etc.

Important for both lenders and for borrowers to understand how an energy saving project performs over its life time.

ASSUMPTIONS IN A PROFORMA

System Assumptions			**PPA Assumptions**	
System Size (kW_{DC})	290		Yr 1 PECO default price (kWh)	$0.120
Annual System Output - kWh (Year 1)	390,766		Utility price escalation - Years 1 - 5	2.0%
Annual PV Output Derate Factor	0.50%		Utility price escalation - Years 6 - 10	2.0%
Year of Inverter Replacement	20		Utility price escalation - Years 11 - 15	2.0%
Cost of Inverter Replacement	$43,500		Utility price escalation - Years 16 - 20	2.0%
Module Azimuth (degrees)	180		Yr 1 PPA price (kWh)	$0.100
Module Pitch (degrees)	20		PPA price escalation (yrs 1-5)	1.5%
Module Shading (%)	0%		PPA price escalation (yrs 6-10)	1.5%
Inverter efficiency (%)	96.0%		PPA price escalation (yrs 11-15)	1.5%
			PPA price escalation (yrs 16-20)	1.5%

PROFORMA RESULTS

Year:	1	2
KEY ASSUMPTIONS		
kWh delivered	390,766	388,812
PPA price per kWh	$0.1000	$0.1015
Default Electricity Price per kWh	$0.1200	$0.1224
SREC price per MWh	$14.00	$14.42
Year:	1	2
REVENUE		
PPA payments	$39,077	$39,464
SREC revenue	$5,471	$5,607
Subtotal: Revenue	$44,547	$45,071
Year:	1	2
EXPENSES		
Land	($10)	($10)
Solar Project Management	($3,500)	($3,570)
O&M (and inverter reserve)	($5,220)	($5,324)
Insurance	($1,305)	($1,331)
Utility Charge for Virtual Meter Aggregation	($50)	($51)
Subtotal: Expenses	($10,035)	($10,236)
EBITDA	$34,512	$34,836
P&I PAYMENTS ON LOAN	$25,216	$25,216
DSCR	1.37	1.38

CREDIT ENHANCEMENTS

A credit enhancement is something that reduces lender's risk of borrower nonpayment.

Credit enhancement can come from multiple sources (green bank, corporate guarantor, foundation, etc.)

Typical enhancements include:

- Security interest in property, contracts, regulatory and utility program benefits, etc.
- Loan guarantees – personal or corporate
- Loan loss reserve
- Other

DIFFERENT PRODUCTS, DIFFERENT PROCESSES

	Equipment Leases and Finance Agreements	ESA or PPA	PACE
Timing to Close	5-21 business days, app only, or financials or tax returns required	4-6 weeks	3-6 weeks
Performance & Savings	Counts against operating expenses of borrower	Performance-based	Integral to project approval, SIR of 1 or better often required
Secured By?	Equipment being financed, sometimes a PG	Negawatts or kWh	1st lien position on property, tax assessment
Key Elements of Underwriting	Borrower Credit History	Project performance, borrower and installer	Determined by program/state (varies)
Credit Enhanced	Possible	Possible	Possible

THANK YOU, WHAT QUESTIONS DO YOU HAVE?

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