



CLEANTECH COMPANIES

OVERVIEW OF PROJECT FINANCING



Canada

 EDC

TAKE ON **THE WORLD**



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SCOPE

This document is meant to assist cleantech companies or project developers to understand typical requirements for project financing. It may also be useful for EDC ecosystem partners seeking to understand requirements and process for project finance at EDC.

There are three main sections to the document:

- 1. Purpose of Project Finance** will define project finance and when it's used.
- 2. Shovel Ready Projects** will provide a list of categories and the expectation of completion in order for lenders like EDC to start the project review.
- 3. Project Finance** will delineate the due diligence and structure requirements for project financing.





PURPOSE OF PROJECT FINANCING

This section will define project finance and identify when it's a good solution to be used to support the development of projects.

WHAT IS PROJECT FINANCE?

Project finance is a specialized type of financing of projects that uses a non-recourse or limited recourse¹ financial structure. The debt and equity used to finance the project are paid back from the cash flow generated by the project. Project financing is a loan structure that relies primarily on the project's cash flow for repayment, with the project's assets, rights, and interests held as secondary collateral.

PROJECT FINANCE USES

Project finance can be used in many types of projects; traditionally it has been used in the extractive, power, and infrastructure sectors. These sectors tended to have low technology risk, a reasonably predictable market, and the possibility of selling to a single buyer or a few large buyers based on multi-year contracts (e.g., take-or-pay contracts).

In the cleantech sector we are seeing projects in a variety of sectors including recycling, alternative proteins, renewable power generation and power storage. Compared to traditional projects cleantech projects tend to still carry a level of technology risk, although it varies from project to project, the market is not always predictable or established and, in some cases, there is a need to carry a certain amount of merchant risk² as the markets for some of these products evolve.

COST-BENEFIT ANALYSIS

Typically, a cost-benefit analysis is used to determine if the economic benefits of a project are larger than the economic costs. The analysis is particularly important for long-term projects of growth CAPEX. The first step of the analysis is to determine the financial structure, a mixture of debt and equity, that will be used to finance the project. Then, identify and value the economic benefits of the project and determine if the benefits justify the cost.

WHY DO PROJECT SPONSORS SELECT PROJECT FINANCE TYPE DEBT?

- The sponsor can obtain the required debt capital to round out the capital structure for the project (rather than via equity alone)
- The credit determination is largely placed on the projected revenue generation of the project
- Longer and customized debt repayment profile to seek to match to anticipated cash flows
- Creditors' rights are typically limited to the project ring fence
- Project financing makes it possible to undertake projects that would in many cases be too large or would pose too great of a risk for one party on its own by sharing the risk and financing needs among a group of interested parties

¹ Limited recourse debt is debt upon which a creditor can claim certain but not all assets of the borrower if the borrower defaults.

² Merchant risk is when a project's output is sold to the market rather than tied to a long-term purchase agreement.

WHAT TYPE OF CLEANTECH PROJECTS DOES EDC FUND?

While each project is reviewed based on its own merits, the following provides some high-level elements that we would consider. Each one has several different combinations so these should be considered as a high-level indicator only:

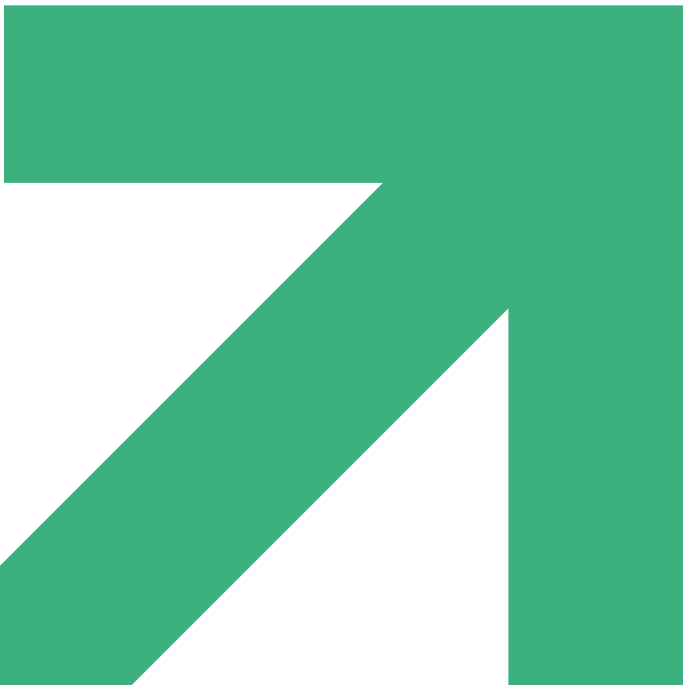
- Project cost is over C\$50 million and is anticipated to generate annual EBITDA of over \$10 million
- Project clearly demonstrates economic benefit to Canada
- Projects with potential for export activities outside of Canada – either from the output from the project or the technology being showcased itself
- Projects that are anticipated to generate sufficient revenue to service debt and provide an adequate return to shareholders once in operation

- Projects that meet technical, environmental, market, financial, legal and insurance due diligence requirements
- Project feedstock supply is reliable and anticipated to be available in the long-term
- Projects with sufficient upfront equity to pay for initial costs and meet adequate debt-to-equity ratios

HOW PROJECT FINANCE DEBT DIFFERENT THAN CORPORATE FINANCING

Each type of financing has its own merits, and their importance will vary based on the needs of each project. The table below provides a summary of the differences.

FACTOR	PROJECT FINANCING	CORPORATE FINANCING
Guarantees for financing	Project assets	Assets of the borrower
Accounting treatment	Typically, off balance sheet	On balance sheet
Degree of leverage utilizable	Depends on the cash flows generated by the project	Depends on borrower's balance sheet
Main variables underlying the granting of financing	Future cash flows	Solidity of balance sheet, profitability, order book, diversity, and number of customers





SHOVEL READY PROJECTS

This section will list the characteristics of “shovel ready”³ projects that are qualified candidates for lender review. A project that meets the criteria below is encouraged to engage with EDC, via their Account Manager, to explore Structured and Project Finance financing arrangements.

Providing clarification on how “shovel ready” projects are defined will help companies, project sponsors and industry partners:

1. Better understand what projects have progressed far enough to qualify for EDC financing
2. Engage EDC at the right time, to not congest the EDC financing triage process.

We consider the following elements to be necessary to define projects as “shovel ready” and hence qualified for lender review.

Feasibility Study or Detailed Engineering & Design

- A definite site has been chosen and engineering design for the plant has been sufficiently progressed – typically to an FEL-3 level (Front End Loading), including the specifications for how it will safely be constructed, commissioned, operated, and decommissioned.
- An up-to-date detailed cost estimate (+/- 10 to 15% accuracy) and a construction schedule have been documented, with suitable funding and schedule contingencies included.
- The project owners are ready to provide their approval for building the plant as designed.

- The feasibility study developed by the owners’ engineer will then be validated by the lenders’ independent technical consultant as part of the due diligence process (see below)

Financial Advisor with Project Finance Experience

- Ideally, a ‘full-scope’ financial advisor experienced in project finance funding has been appointed (at the borrower’s cost) to assist with the following:
 - Financial modelling
 - Contractual negotiation (including construction, license, O&M, feedstock and offtake agreements) suitable for a project financing
 - Advising on optimal funding sources (grants, equity, debt and/or sub-debt)
- At a minimum, a financial advisor can be retained on a more ‘limited scope’ basis to create and update a financial model through structuring, negotiation and financial close.
- EDC’s experience is that a ‘full-scope’ financial advisor⁴ as set out above greatly increases the likelihood of reaching financial close and accelerates the timeline in reaching financial close.

Equity & Grant Funding

- Though lenders may be engaged concurrently with finalization of equity agreements, lenders will need to know how the project owners are planning to raise equity, this includes the identification of any strategic and/or financial investor, before meaningfully engaging on a transaction.
- By the time senior debt (from EDC or others) is ready to be funded, all Project equity (as well as any grant funding) should have been fully committed and contributed to the project.

³ “Shovel ready” refers to infrastructure projects where the planning (financial, permits and licenses) and engineering is advanced enough that – with sufficient funding – construction can begin soon.

⁴ EDC can provide a short list of financial advisors with experience in this space

Debt

Lenders have been approached (including Canadian commercial banks), or will be approached concurrently alongside EDC, and there is a list of potential participants.

Permitting & Licenses

- All required permits and licenses are in place (or anticipated to be in place prior to signing of loan agreement) at the required levels of government.
- This includes all necessary environmental and construction permits/approvals, as well as other land permitting, access to water and power and access to transportation infrastructure as required.
- Lender's do not customarily take permitting risk and recent experience has shown that funding has been delayed due to customers not prioritizing the application for, and timeline to process, a full building permit – this has often become a critical path issue.

Lenders' Independent Technical Due Diligence

An experienced independent technical consultant (“ITC”) (or independent engineer (“IE”)) will need to be engaged by the lenders (at the borrower’s cost) to review technical aspects of the project (including forecasted costs, performance, and schedule). Therefore, to be “shovel ready” the ITC must be able to do a site visit, review major project contracts (signed or draft), meet with company and leverage existing reports (such as the owners’ engineering feasibility or FEED (Front End Engineering Design) study) in order to provide an assessment.

Following this, a due diligence report⁵ will be issued from the ITC to lenders and the borrower, which will evaluate the project technology, construction schedule, construction and operating costs, and these assumptions in relation to the financial model. This report is critical to lenders in evaluating the project risks as part of their credit process.

Following the delivery of the report, the ITC is then retained to support the monthly ‘cost-to-complete’ verifications with each monthly drawdown, as well as assist with the lender’s completion test (to certify when the plant is fully commissioned and operating as anticipated).

Market Intelligence

If the Project is exposed to market risk (no offtake agreed and/or offtake allocates price/volume risk to the project/lenders) the lenders would likely seek to engage an independent market consultant (at the borrower’s cost) to advise on the reasonableness of the price and volume assumptions which underpin the business plan/project economics.

Commercial Scale Up

While some scale up would be expected for first-of-a-kind commercial scale projects, the owners (or technology providers) should have successfully proven their concept at pilot and demonstration-plant scale.

Contracts

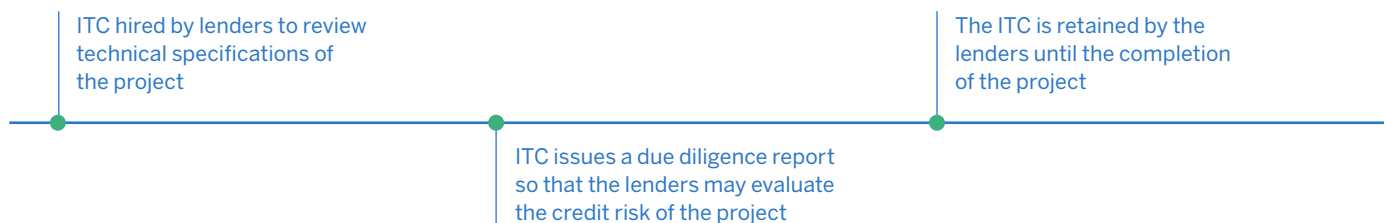
Prior to engaging with lenders, the following key contracts should be well advanced (in agreed term sheet form):

- Construction Agreements (e.g., Engineering, Procurement and Construction (EPC) or Engineering, Procurement and Construction Management (EPCM) Agreements)
- Equipment Supply Contracts
- Government Funding Agreements
- Equity Contribution Agreements and Shareholders’ Agreement
- Off-Take Agreements (or planned sales strategy)
- Major Supply/Feedstock Agreements (or planned feedstock strategy)
- Operating and Maintenance Agreements (or planned operating strategy)
- Licensing, Royalty, and related intellectual property Agreements

Prior to debt funding, these contracts would need to be fully executed and in form and substance satisfactory to lenders/EDC.

External Counsel with Project Finance Experience

Once the term sheet has been agreed, and EDC is ready to make a credit lending decision, external counsel should be engaged (at the borrower’s cost) to start to draft the loan agreement based on the near-final term sheet. Borrower counsel with suitable project finance experience is also highly recommended.



⁵ The typical timeline for the ITC’s due diligence would be about 8+ weeks from the time of engagement, depending on the complexity and progress of the project.



PROJECT FINANCE

Once sufficient project information, as per described in the Shovel Ready section, is presented then in-depth project due diligence can start. This section is meant to assist sponsors of cleantech projects in understanding this process. To note that at this point in the process the information requirements start to become more detailed for the due diligence to move ahead. Delays in providing the information will therefore extend the due diligence timelines.

DUE DILIGENCE REQUIREMENTS

The following is a list of the steps that the team will do to move ahead with the project due diligence. The underlying information will be required from the project sponsors to perform the due diligence. The following are the key due diligence requirement review for EDC:

1. Project Information Memorandum (PIM)
2. Financial Model
3. Technical Due Diligence
4. Market Due Diligence
5. Environmental/CSR/Anti-Corruption Due Diligence
6. Legal Due and Documentation Drafting

The information below describes each step and the information required in more detail.

Project Information Memorandum (PIM)

Sponsors should be able to provide a concise and organized document to lenders outlining:

- Project Sponsor
- Project background
- Construction plan

- Technology
- Key contracts
- Product market
- Sources and uses of cash
- Financing Plan

The PIM will be helpful in marketing the transaction to other financial institutions and permitting

EDC to provide early feedback to the sponsors.

Financial Model

Lenders will seek a comprehensive excel financial model that outlines:

- Construction budget
- Construction schedule
- Funding sources and uses
- Operating schedule
 - Including a full debt amortization schedule over the proposed term of the debt with relevant project finance ratios (including debt service coverage ratios)
- Scenario manager with the dynamic ability to test downside (and upside) construction and operating phase assumptions – to inform debt capacity of the project

All relevant financial covenant ratios should also be included. The main output is a cash flow statement/waterfall⁶. The model should include detailed assumptions for construction, operating costs, production, revenues, and debt. These assumptions will also need to be evaluated by the lender's ITC.

Technical Due Diligence

Lenders require an ITC to be hired on their behalf for all project finance transactions. This should be a firm independent of the project sponsors with relevant domain expertise and a track record in producing ITC reports for projects and lenders.

Due diligence performed by the ITC will typically include a technology comparison and review, a site visit, a major project contracts review, discussions with the company, and leveraging existing reports. A due diligence report will be issued from the ITC to lenders, which will evaluate the project technology, construction schedule, construction and operating costs, and these assumptions in relation to the financial model. This report is critical to lenders in evaluating the project risks as part of their credit process. The same ITC will also monitor the Project through construction and initial ramp-up years. The ITC provides lenders with assurance that the Project is running on-time and on-budget.

The cost of an ITC report and the monitoring through construction and commissioning varies depending on the project and sponsors should be prepared to include this in their budget.

Market Due Diligence

Lenders may require an independent external expert to produce a market study, to evaluate market risk to the project. This requirement typically applies when production of the project is not on a fixed price, take-or-pay basis, meaning the lenders are exposed to volume and/or price risk (sometimes refined to as “merchant risk”).

There may also be other conditions which would cause the lenders to require a market study. Where relevant, other specific expertise may need to be obtained for novel technologies.

Environmental/CSR/Anti-Corruption Due Diligence

EDC will conduct environmental and social impact, CSR, and anti-corruption due diligence. The extent of this due diligence depends on the nature and impact of the project. For more information, see the EDC Project Finance Transaction Information (Appendix 1) and EDC’s Environmental and Social Framework.

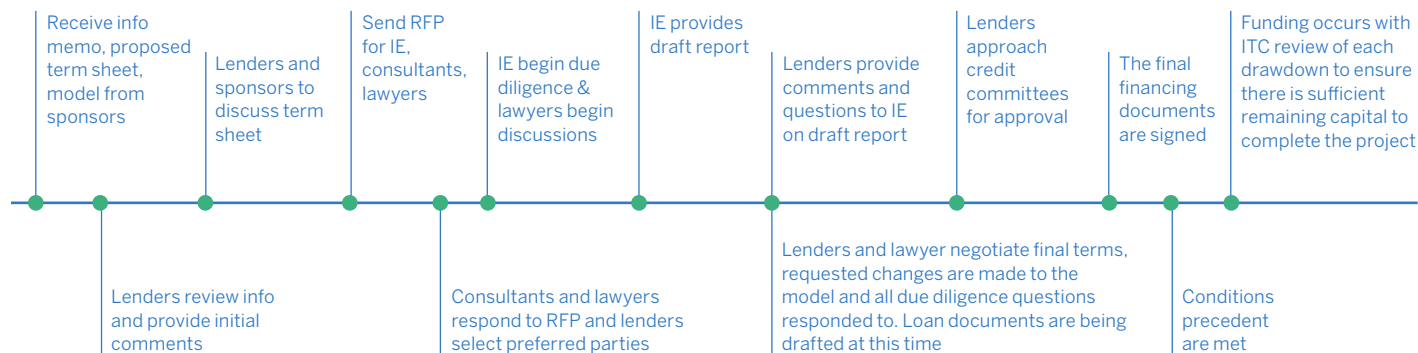
Legal Due Diligence & Documentation Drafting

Independent legal counsel will be retained by the lenders, independent of the sponsors. Lender’s counsel will typically lead the documentation drafting and legal due diligence, including review of material project documents (feedstock, off-take, construction, etc.). The cost of this counsel can vary but are typically in the range of USD100,000-150,000 to get to financial close.

Project Financing Timeline

The graphic below illustrates a typical project financing timeline. Once credit approval is achieved, the financing structure and terms need to be papered in the financing documents (including a loan agreement). Once the documents are executed by all parties, there are typically post-signing conditions (called conditions precedent (or “CP’s”), once these are achieved, financial close occurs, and debt funding can proceed.

Debt funding typically occurs in monthly debt drawdown requests (after all the equity and grants, if applicable, are funded). Each month the ITC will check the cost-to-complete, to ensure there is remaining capital to see the project through the remaining construction and commissioning; accounting for any then-forecasted schedule delays or cost-overruns. Once construction is complete and commissioning and ramp up of production has occurred, the ITC supports in evaluating the completion test. When this is complete, among



⁶ A waterfall payment is a system to repay debts in which senior lenders (higher-tiered creditors) receive principal and interest payments from a debtor first after operating expenses and taxes have first been paid, while subordinate lenders (lower-tiered creditors), if applicable, receive principal and interest payment after the senior lenders have been paid. Dividends payable to equity investors are lowest in the waterfall and subject to release tests, consistent with the anticipated risk profile of the relevant funding sources in the capital stack.

other commercial and regulatory milestones, commercial operations (or “COD”) is achieved, following which typically any sponsor obligations are released, and the project finance debt becomes non-recourse to the sponsors (in addition to other possibilities, such as reductions in the debt costs etc.).

PROJECT FINANCING STRUCTURE REQUIREMENTS

A project financing structure has several requirements that differ from corporate financing and may be new to sponsors. We are providing additional detail for clarity.

Contracts

Appropriate contracts are critical to achieving the goals listed above. Lenders generally look for the following:

Are key project agreements harmonized?

This means that the feedstock (supply) and off-take (sales) contracts are balanced, without mismatches in terms or key risks.

Are risks allocated to the parties best positioned to manage them?

For example: The risk of cost-over-runs during construction is a risk best borne by the project sponsors who have the technical expertise to identify and address production problems. Therefore, the risk of construction cost overruns should be borne by equity providers, not by lenders.

As mentioned above, lenders will require security of all project assets, accounts, and contracts in the form of assignments. It is worth noting that to complete this type of structure lenders are likely to require legal consents signed by major suppliers and customers.

Completion Support

As mentioned above, lenders do not bear construction risk for projects; the risk is more appropriately allocated to sponsors. Therefore, lenders will likely require a combination of the following:

1. **Completion Guarantees:** from the project sponsors, in a form acceptable to lenders
2. **Cost Overrun Facilities:** an account funded by equity in place at first draw that will pay for construction overruns or schedule delays through to project completion; and/or
3. **Fixed-Price Construction Contracts:** where possible, a fixed price EPC contract is preferable.

Equity Requirements

Normal capital structure includes at least 30-40% of equity. There may also be a place for subordinated capital and junior to senior⁷ debt, such as government grant funding or other mezzanine lending.

In cleantech project financing, lenders would expect the senior project finance debt to be the last sources of funds to be disbursed to the project. All equity and other sources would have to be spent ahead of senior debt.

Covenants and Structural Features

Typical covenants in project financing, which are sometimes new to the borrower include:

1. **Cash Sweeps:** lenders often require a percentage of cash available after debt service to be “swept” to prepay lenders, effectively reducing the tenor of the debt. What cash remains after the sweep is usually available to equity holders.
2. **Reserve Accounts:** no less than six-months of debt service (including interest and principal) will be required to be placed in a reserve account secured to lenders as a condition to completion.
3. **Reporting:** lenders receive regular construction reports and operating reports through the life of the loan. These reports may also be reviewed by the IE as part of their monitoring work.
4. **Restrictions on Debt:** there will be limitations on additional debt that can be sought by the project company.
5. **Financial Covenants:** typically include a minimum Debt Service Cover Ratio and Loan Life Cover Ratio, ensuring that the project will generate enough free cash to service the interest and principal payments of the senior debt.

⁷ A level of ranking about debt that is “higher” in the Capital Structure than other debt.

APPENDIX 1

EDC PROJECT FINANCE TRANSACTION INFORMATION

In addition to the elements indicated above the following will also be reviewed as part of due diligence and/or will form part of the loan agreement.

Country Assessment

EDC would undertake to assess the key macro factors related to the host country for the project. Assessment would include macro-economics, exchange controls, interest rate fluctuations, currency devaluations, currency transfer and convertibility, expropriations and political risk associated with political violence.

Loan Compensation

Pricing of a prospective loan may only be determined upon completion of due diligence and an appropriate assessment of the risk profile of the project. Allocations of the risk will subsequently determine loan compensation that is commensurate with the risk of a project.

Loan Terms and Conditions

Typically, funds are advanced based on the terms and conditions/milestones of the construction contracts. A security package would have to be established and registered appropriate legal opinions confirming the perfection of the security package as a condition precedent to funding.

Costs and Expenses

Costs and expenses of independent legal counsel and independent advisors are generally assumed by the Project Sponsor during the due diligence process. Upon achieving a financial close, such costs may be considered related to project costs and funded on a pro-rata basis between potential debt and equity.



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