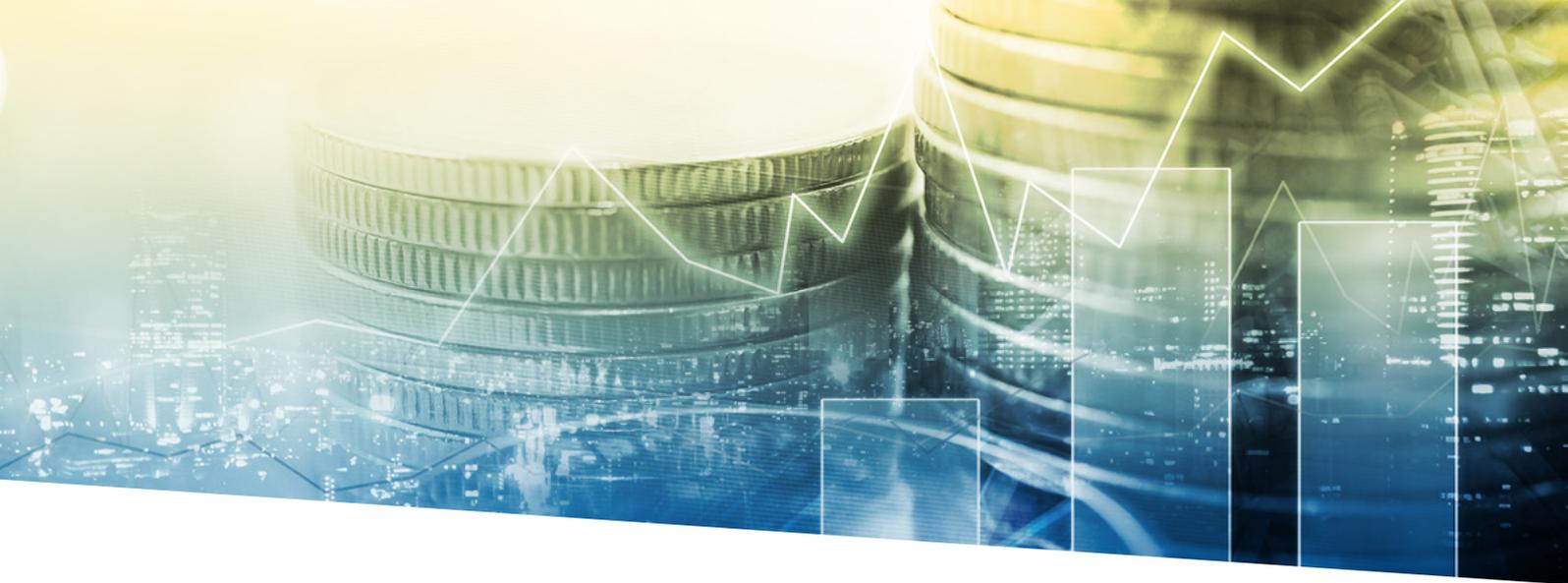


How investors and lenders can reduce project risk, improve their opportunities and increase their return

Joining a project at financial close to provide funding – both equity injection and debt – carries a much higher risk and cost than many risk models recognise. Conversely, investors and lenders who follow a proven process for shortlisting “good” energy projects can significantly reduce risk by getting involved earlier in a project’s development cycle.





Introduction

Financiers and investors are inundated with project developers claiming their project is a safe bet, promising a rapid development phase followed by secure long-term returns.

In reality, the majority of energy projects never reach financial close. And for those that do, many suffer a protracted development phase that causes them to miss the optimum commercial opportunity for bringing that power to market.

Financiers (the debt providers) and investors (who inject equity and become project owners), usually get involved in energy projects just before financial close and as soon as a project is neatly packaged ready for due diligence.

The rationale for this approach is that while this significantly reduces potential returns compared to getting involved at an earlier stage of development, the risks are also reduced.

Faced with the knowledge that so many projects fail, paying a hefty premium for the perceived removal of development risk is viewed positively.

However, they should realise that project funding at financial close includes hidden risks for equity investors and financiers. And, counterintuitively, joining the right project earlier can significantly increase their opportunity for success in mitigating risks, maximising returns and influencing that project to their advantage.

This white paper examines some of the risks of joining a project near financial close. It then explores why getting involved earlier in a project by committing development capital is a better approach for both equity investors and lenders looking to mitigate risks and significantly increase their rate of return.

“Equity investors and lenders should realise that project funding at financial close includes hidden risks.”



1

The hidden risks and costs of joining a project at financial close

Risks are higher than widely perceived

Lenders and equity investors should challenge the perception that getting involved in a project near to financial close is the optimum time for them. In fact, they still face several risks which are not widely understood. These risks serve to undermine the value of the premium paid for a so-called “de-risked” project. They also threaten the success of lenders and equity investors providing project funding.

These hidden risks are the ones both equity investors and financiers looking to provide debt don’t know about because they were not part of the project development process.

These might be hidden deliberately within a neatly-packaged proposal by a developer seeking project finance, or they might be commercial or technical/design problems that were missed by an inexperienced development team.

Of course, all debt providers and equity investors carry out their due diligence before committing to a project. If their experts are up to standard, they should discover most and hopefully all inherent weaknesses in a project.

However, some audits will inevitably be conducted by an internal team that is not well-versed with the specific market the project would operate in or type of

technology used in the plant or, for example, general regulatory challenges in developing countries.

Where internal expertise is unavailable, financiers and equity investors may look externally to a big-name consulting firm. However, these firms do not necessarily have development expertise or experience.

During their due diligence process to fund a project, financiers and equity investors have to commit a significant sum of money to establish whether or not a project is attractive. There is far less opportunity to mitigate risk in this manner, and far less time to complete the review than if they had been involved during the development phase. What invariably happens is that the time taken to financially close the project is extended.

Crucially, when joining a project close to financial close, these players have less influence over the financial structure, the commercial arrangements and the selection of the principal equipment supplier/construction contractor, all of which can play a huge part in the success of a project. Also, lenders and equity investors can better accommodate their own unique internal rules and requirements the more they can influence arrangements.

“When joining a project close to financial close, lenders and investors have less influence over the financial structure, the commercial arrangements and the selection of the principal contractors.”

Alongside these hidden risks are those risks caused by delays. A project without early-stage participation by an equity investor can take more than a year to secure equity and debt funding even though project development has been substantially completed.

Returns are significantly lower, while risk remains

As we have explored, investors are paying a premium for a project that is less de-risked than they might realise. But joining a project at this stage carries a further premium since – as part of their due diligence ‘audit’ – they have to repeat a lot of the work already

carried out during the development phase.

Alongside auditing this work, equity investors inevitably also have to repeat some of the negotiations (sometimes at significant cost) to ensure that – as far as they can extend their influence – contracts and their commercial arrangements are compatible with their requirements for investment.



2

A more optimal approach: Get involved earlier during a project’s development phase

We have examined some of the ways a project near financial close is less de-risked than is widely understood – despite the hefty premium for joining a project at this stage. But how does committing development capital at an earlier development phase present investors and lenders with a better opportunity?

There are three key benefits to participating earlier. First, it provides an opportunity to manage and mitigate the risks that often exist for those joining a project at financial close. It creates a higher number of investment opportunities, and of course, it gives rise to significantly higher returns on investment.

Better management of the risks

A project that has an equity investor onboard during the development phase can leverage this advantage when structuring debt and dividend payments.

Conversely, a project during its development phase which has no equity investors onboard is in a weak position to arrange debt. In this latter scenario, the

developer can unwittingly end up with a debt structure that will not facilitate any returns to investors that come in at financial close until years after the project begins operations.

When financial close is achieved, the drawdown of cash for the construction phase will not come only from the investors. A properly-structured cash outflow will draw from equity capital as well as from debt capital. Proper involvement of investors during the development phase can significantly

influence debt interest during the construction phase. The ability to attract debt funding is also greatly enhanced by the commitment of equity funding.

Early strong influence from equity investors can also have an extremely positive impact on insurances and power plant warranty structures.

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When determining whether a project is bankable, committing capital during the development phase is a far more incremental process than money spent during a due diligence audit near financial close.

Development funding takes place gradually throughout the development phase. Provided it is structured correctly, investors will have no obligation to remain part of the process if it is found that the project will not be bankable.

This “milestone” approach – illustrated in more detail later – offers a better way to manage development risk as well as potentially inherent long-term project risk.

Joining a project earlier affords equity investors and lenders who provide development capital leverage in negotiations at all levels. This leverage extends to the whole structure of the deal and the entire negotiation process with all the role players. And for investors who commit development capital in a project with early lender involvement, the value could be substantial.

For instance, it affords influence over the structuring of the debt and equity mix. This might result in a more attractive mix of debt vs equity, or a portion of mezzanine financing, or shareholder loans. Or it might enable you to negotiate a first right for returns as soon as revenue starts coming in.

This ability to influence the whole structure includes insurance for the different project phases (construction and post commercial startup) and the option to negotiate on the monthly premium. For example, you could choose to have a lower premium and higher excess, depending on what suits your requirements.

You could leverage the negotiation with the principal equipment supplier, for instance, to take more risk on themselves, to reduce the amount of insurance the

project needs, thereby reducing costs.

Prominent investors or lenders with a good relationship with an insurance house could leverage this to secure more favourable terms for insurance premiums and excesses.

A final advantage for lenders and investors coming in early, from a structuring perspective, is the ability to influence financial arrangement fees. These would typically be somewhere between 0.5% and 2%. Also, by performing the role of the arranger of the debt and equity, you could influence the debt to equity ratio,

as well as negotiate different terms with different lenders on the debt side. Ultimately, you would be positioned to provide a better arranging deal for the project.

Crucially for investors who provide development capital, it can be their legal team drawing up the contracts from the beginning. Instead of auditing and renegotiating them near financial close from a position of reduced influence, and at significant additional cost.

“Lenders and investors more intimately involved in how a project develops can better understand why decisions are made, as well as being able to influence those decisions when they are made.”

Key contracts that can be influenced by an investor who is providing development capital include:

1. the agreement on the sale of electricity (power purchase agreement, or PPA);
2. the land lease agreement;
3. the water and fuel supply agreements (for non-renewables projects); and
4. the preliminary executable EPC agreement.

Another way that an equity investor and a lender joining at an earlier stage can reduce risk is that the lending due diligence process can generally be managed far more effectively.

Lenders and investors more intimately involved in how a project develops can better understand why decisions are made, as well as being able to influence those decisions when they are made. This includes choices over the technology, design and commercial models used for the project.

An early-stage project that has an equity investor providing development capital enjoys far more leverage in its negotiations with government departments, equipment suppliers and EPC contractors. This additional leverage minimises delay risks and translates into a shorter development cycle.

A swift development phase can prove crucial to maintaining the project within its optimum commercial window of opportunity – essential for the success of equity investors and debt providers alike.

Alongside missing their optimum commercial window of opportunity, projects that languish in the development phase carry other additional risks for investors.

Chief among those is a “loss of memory” risk among the development team, for example the premises on which key decisions were made. And second, a risk of losing advocates of the project. For example, people in external organisations, or government departments, may move on – requiring the developers to build relationships anew.

Development-phase investment increases the number of opportunities

A crucial benefit for an investor with a strategy of early participation, is that it expands the number of projects in which they can potentially invest.

Numerous unbankable projects seeking project funding inundate investors. The less appreciated flipside to this is the many potentially bankable



projects that are dismissed prematurely.

These are projects with potentially no fatal flaws and the right building blocks for a successful development

that, nevertheless, investors may be unable to become comfortable with owing to their lack of experience or technical knowledge.

Conversely, an early-stage investor doesn't need to have experience and expertise with a particular type of project, or generation technology, provided they partner with an experienced developer.

In this way, they can gain experience as they go, building comfort around the risk, as they develop knowledge and expertise.

Significantly higher returns on investment

The cost of performing a due diligence near financial close is an expense with zero investment value whether or not the project is realized.

However, unlike due diligence near financial close, early-stage participants that commit development funding and share resources will see that cost turn into equity in a project that reaches financial close. The exact amount of equity is negotiated near financial close. But to give an idea of the leap in value, the developer would

typically structure a project with a targeted Internal Rate of Return (IRR) of '20% plus' at financial close based on the all-inclusive cost of the project. This return will be much higher than joining the project at a later stage as an investor.

As part of the equity negotiations, the investors would also be able to influence how equity in the project is distributed and the rights of shareholders.

It is not uncommon to get 2.5 to 3 times the value of your expenditure in the development phase when you sell your equity in a project after commercial operation. Investors involved in the development phase will be entitled to these benefits. As will a lender that provides debt funding for a project at financial close, but who has also injected development capital earlier in the project that enables them to negotiate an equity stake.

Investors that stay involved during the construction phase until the project has been operating commercially will generally see their returns increase further due to risk allowances not utilised, yielding more realistic returns than conservative financial modelling.

For equity investors joining a project at financial close and looking to roll their investment after the commercial

operation date (COD), the gain will be the delta between the price they pay for shares, based on the buying IRR from the developer, typically below 17%, and the selling price of the shares based on the IRR that they negotiate with the new buyer.

For institutional investors joining after start-up of commercial operations, their return might be below a 15% IRR, compared to the project developer's IRR of above 20%.

Alongside these higher returns, the investor will be able to offset the costs incurred during the development phase against the cost for due diligence at financial close. The cost of due diligence

by an investor at financial close will of course be much less than full participation during the development phase. It will, however, be a duplication of cost that can be avoided through early involvement.

Furthermore, the investor will be able to maximise the potential of the project to match their specific requirements, including the financial model, risk profile, and arrangements for the construction phase (export credit, etc.).

Unlike due diligence near financial close, early-stage participants that commit development funding and share resources will see that cost turn into equity in a project that reaches financial close.



3

How to mitigate risks and ensure success when investing during the development phase

We have explored some of the benefits for equity investors – be they pure investors or lenders who want to invest – who provide capital during a project's development phase. But how can they mitigate the

risks of entering earlier in the project's development?

They can do so in three ways. Firstly, by choosing an experienced development team. Secondly, by selecting a project which has passed an initial fatal

flaw analysis that picked up any initial “red flag” risks. And finally, by managing their risk and building value by following clear milestones, with step out points (where you may decide to stop the development work), throughout the development phase.

Choose an experienced development team

The right development team means the difference between a project going ahead successfully or not, and also whether the project progresses within a reasonable time frame or takes many years to reach financial close.

Investing in a project led by an experienced team does not mean that the risks necessarily change; in fact, they may remain the same and such a team could even identify further risks not previously detected.

However, the developer can guide the investor as to how those risks can be mitigated or managed, so they are no longer perceived as red flags. Instead, they may become controllable risks with similar solutions demonstrated in successful previous projects.

How to identify an experienced development team

The right development team possesses a wide spectrum of expertise and experience in developing (and ideally operating) energy projects.

It is possible to acquire some of this expertise using external project development consultants that have co-developed projects, but funders need to make sure the team is bringing integrated knowledge that is more than just technical expertise.

A shortlist of experience and expertise to look for when assessing a development team includes:

1. Competence in the project management side of the development phase: i.e. integrating all the activities, ensuring all stakeholders are pulling in the same direction, and that all the components are in place to create a bankable pack of formalised agreements;
2. A commercial team capable of looking after the “business technical” components of the project. They should demonstrate commercial acumen, negotiation skills, and experience of developing the business aspects to work in concert with the technical specifications of a project;
3. A technical team that can oversee and manage the engineering side of various types of projects – not only the generation aspect but also transmission lines and grid connections.

Their experience would cover how the plant will work, what the output will be, who the preferred suppliers should be, how the grid operates, and whether that is compatible with how the technology feeds into it to supply the off-taker.

Furthermore, the technical team should be competent to verify that all equipment is well proven. And they should be able to spot weaknesses in the technical concepts and philosophies that could cause delays to construction or impact revenue streams once commercial operations commence.

Even if a project hires the best EPC contractor, it still needs to be capable of checking their assumptions and their output. The development team needs to ensure the EPC contract provides sufficient detail so that their work can be monitored and measured against agreed standards;

4. A strong finance team that can create a realistic financial model and state the business case, based on accurate information. Dealing with a team that

The right development team means the difference between a project going ahead successfully or not.

knows how to develop a financially-viable project saves a lot of time and effort later on.

A common mistake among inexperienced project developers is, for example, to use figures in their financial model based on a price for selling electricity that is not truly reflective of the market realities. Further examples of common mistakes may include signing preliminary land lease agreements with a lease time that's too short to make the project viable; or stipulating environmental requirements that are impossible to adhere to in certain countries; or involving "supporting partners" that may be considered by some investors as "politically compromised";

5. Good knowledge of the country or region where the project is located and having good professional contacts with the relevant authorities;
6. A team that possesses experience in operating plant and understanding what the business and technical issues are post-startup. This knowledge will be invaluable during the early stages of the development phase.

By contrast, an inexperienced development team will not understand all the requirements to make a project bankable. Furthermore, they would need time just to understand what they don't know.

Look for a pre-feasibility study that highlights the key markers of a successful project

Alongside looking for the right development team, an investor should look for five key markers that signal whether or not a project is a good investment, as well as any red flag risks.

These five markers – which can be identified by a competently-drafted fatal flaw analysis – highlight the core areas where a project can fail, and in parallel, the key ingredients that have proven historically whether a project is a strong contender for success.

Not all risks are equal. Not all risks are red-flag risks.

Investors and lenders must distinguish between those risks which can be mitigated and won't impede reaching financial close, from those which are truly fatal flaws when looking to position themselves for successful project funding by committing development capital.

There will always be risks: some are obvious from the beginning; others will become apparent as the development progresses.

The majority are risks that an experienced development team can manage: whether they are commercial, environmental, regulatory, or technical risks.

Before an investor or lender commits any development capital, good development teams must carry out a high level fatal flaw analysis to indicate as early as possible whether or not a project will be bankable.

The development team should identify the key risks before a potential investor or lender is involved, and then be able to clearly and openly demonstrate those risks to them.

Manage risk and build value through milestones

Where investors join a project during the development phase, they can spread and control their costs much better, through an explicit development agreement with the developer.

Following a milestone-based cost structure, they put money on the table per milestone reached. At each milestone, the investor can decide whether or not to continue their participation.

This graph underneath illustrates how risk is typically diminished while value is built in a project at each milestone of the development phase.

An illustrative milestone spread

Milestone 1: The market has been assessed, the buyer of electricity has been defined and engaged, and the technical feasibility studies are complete.

Value increases and risk decreases due to the clarity this brings. If the project is technically viable, it is worth progressing to the next milestone.

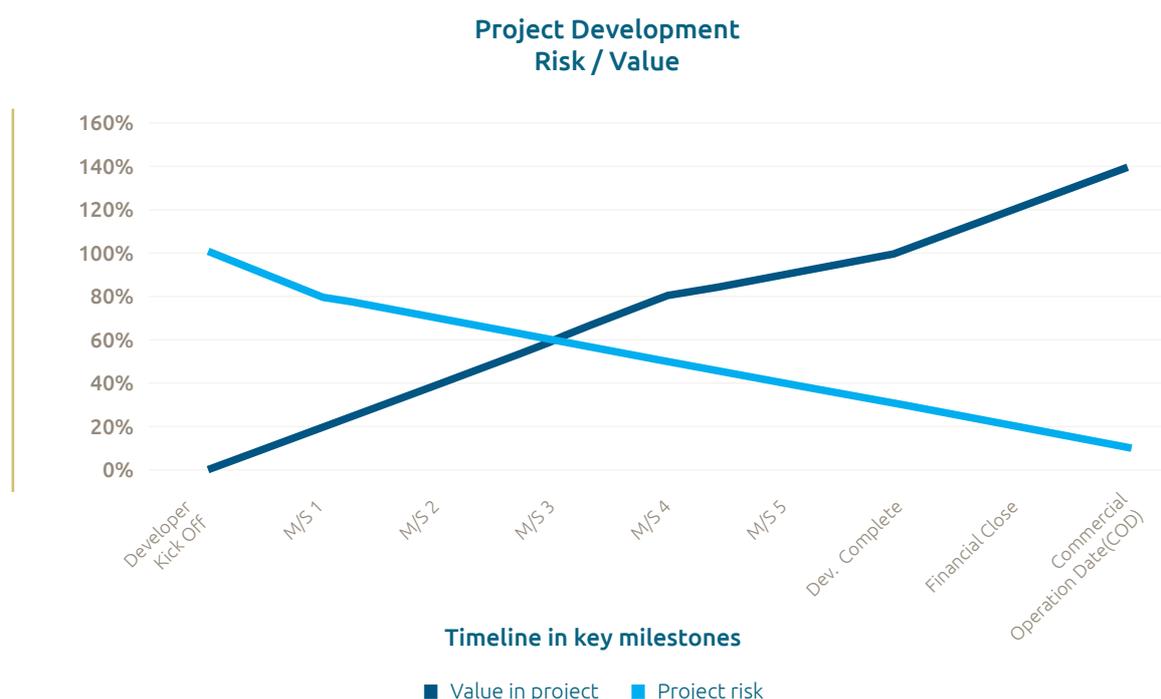
Milestone 2: Detailed economic feasibility studies are complete. This will include a draft financial model showing development costs, capital costs, equity requirements, IRR, financing options, net present value (NPV) calculations etc. This creates a more detailed view of the project as an investment opportunity.

Milestone 3: A proposed business structure has been developed and MoU's drafted with all parties, including the Land Lease, the Power Purchase and Fuel Supply agreements, if applicable. Value increases as these agreements become ready for ratification.

Milestone 4: The legal and regulatory reviews are complete, and the funding structure is in place. Funders have been sourced and committed. Permitting and legal compliances have been done, making the project legally compliant.

Milestone 5: Key contracts have been drafted including OEM, O&M and EPC. The Bankable Document is ready. This is a significant milestone, which boosts a project's value significantly.

In the development-phase, the risks to getting in early and committing development capital are handled in



a measured, managed, and incremental way. And while that capital spent is a cost with zero investment value during the development phase, it can yield a cash return, or it can turn into equity in a project that reaches financial close.

This stands in stark contrast with due diligence near financial close where the capital spent is lost irrespective of whether the project is realized, or a decision made to provide debt or invest in equity to implement the project.



Summary

The risk of committing development capital can be well-managed when following agreed-upon and clear milestones throughout the project development phase. Deviations or delays require proper support and reasoning before allocating additional resources and funding.

There are hidden risks and additional costs when getting involved in a project at financial close – either as an equity investor or as a debt provider. Experience

has shown that lenders and investors that commit development capital and participate in an earlier project phase gain significant benefits alongside the opportunity to mitigate risks and reduce costs.

When early participation is paired with an experienced development team and a project that has passed the key markers of a fatal flaw analysis, the chances of success in project funding (both equity and debt) are greatly enhanced for investors and lenders alike.

The views expressed in this white paper are based on experience from a substantial number of project developments. If you think a fatal flaw assessment of your project would benefit you, please get in touch to arrange a free review by our team of experts.



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