

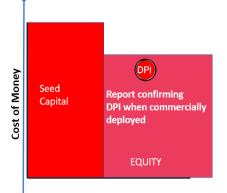
FINANCING THE FUTURE:

TECHNOLOGY INNOVATION



Glen Walker: Liaison Director Insurance and Finance

Time to Commercial Deployment Vs Cost of Money for Technology Innovation



The Debt Protection Review is designed to provide a guaranteed level of operational availability from the demonstration plant as soon as possible.

Allowing the manufacturer to attract lower cost investment on equity basis and fast-track commercialisation.

Time period is shorter and thereby reduces the need for more or prolonged expensive borrowing

At Allied, we see many manufacturers struggle to balance the competing needs of profitability and bankability from technology concept to commercial deployment. Also in demonstrating that all aspects of the technology are proven and have the capability of providing an evidenced and guaranteed revenue stream for a project developer.

Technology manufacturers also struggle when they bring a new concept to the market too early when it lacks the proven operational availability that funders require. To achieve this, they must run the plant for a sustained period and in doing so may need to borrow high levels of expensive seed or venture capital. But, entering the market too late means expending more time, raising more money than necessary, and it's possible the opportunity for the innovation may have passed by.

A project developer with a business plan based on no or little robust process operational evidence can find lenders refusing a project or lending at a higher rate of interest to compensate for the technology risk. The chosen technology should never appear to be a black box—lenders do not invest in the unknown.

Allieds' Technology Pre-Accreditation Review:

Our review is designed for technology manufacturers to support them in reaching commercial deployment as soon as possible. The resulting benefits are;

- 1. Reducing the maturity timeline,
- 2. Reducing the need to borrow expensive money to keep the plant running under demonstration status and
- Attracting lower cost equity investment into the company if required and providing a fast track towards commercial deployment and export.

By reducing the usual expectations on technology maturity required by funders, of continuous operation's for two years, the requirement to further borrow expensive money such as Seed or Venture Capital is substantially reduced or removed.

Putting Funding First

With over 35 years expertise in project management, finance and insurance Allied understands both the requirements of Investors in seeking bankable projects to invest in and project developers in seeking financial close on their project. However, in most cases we have seen the consideration of the funders requirements left until last and often when the project developer has reached their financial limits.

Allieds' team of experts validate, identify and flag the gaps in the preparation of the technology in readiness for funding when commercially deployed.

Some of the most common mistakes in demonstrating a technology or promoting a project that we've seen erode the chances of securing financing or closing a sale, where Allied can provide a targeted solution;

Scaleup

Except where the scope of supply comes "off the shelf" from third parties, a scale-up of over say, 5 times for key components of the technology will cause concern for investors that the scaled-up unit is going to work as described. Systems need many continuous operational hours to validate the units projected life and to demonstrate the reliability of the system at the increased scale.

Testing under real conditions

Testing a technology or operating a demonstration facility shielded from real working and feedstock conditions could significantly distort the performance of the technology. For example, using super-refined feedstock for a new biomass energy facility does not demonstrate the technology will work on the dirtier and less consistent biomass that is normally available commercially.

Controlled testing is useful to validate the science behind the process, but operational availability under real working conditions with "as received" feedstock is a requirement to validate a well-engineered system.

Manufacturers declare commercialisation too early

There is a lot of pressure on technology manufacturers to get their technology commercialised and selling. In the years it can take in development from concept to commercial deployment they will have invested more than just money into the technology. At this stage, understandably, the biggest believers in the technology are also generally part of the company.

Premature declarations that their innovation is commercially ready can lead to problems when being commissioned in a project development, which hurts both the project developer and the technology manufacturer's credibility and often threatens overall success.

Moreover, large potential investment partners, EPC contractors and strategic partners will see through the hype and avoid working with the technology and the project developer.

Third Party Verification

In moving from demonstration to commercialisation under real conditions without a reputable third- party expert to validate the projected life of the technology is a false economy. Attempts to skip this key step and instead rely solely on their internal work to reduce consulting fees and start generating revenue can result in higher overall cost

Funders don't like risk - especially when technology is new or has little or no track record; they are underleveraged.

Typically, within every major capital project or large asset acquisition, there are three principle risks; financing, commercial, and operational. The project sponsor takes the financing risk, and the commercial risk of there being a market for the output of the investment and is remunerated accordingly.

However, what has caused issues and, in many cases, transactions to flounder, has been the issue of who should take the operational availability risk of any new project or asset acquisition.

Debt Providers offer less debt, because of availability risk. Sponsors are committed to investing more equity

While each DPI contract is project-specific and only assignable to a project developer Allied believes that their **Desktop Pre-Accredition Review** process is also important for technology suppliers and innovators to consider as a standalone prequalification towards commercialisation and can provide a commercial advantage in the market.

About Allied

Allied Project Services are a trusted due diligence partner engaged by Project Developers or their Consultants, Funders, Insurance Brokers to provide services, such as Project Finance Guarantees, and Debt and Equity finance intiated through Allieds' Desktop Review - designed to support Project Developers in reaching financial close to their project with desirable lending terms and Technology Manufactures in reaching commercial deployment and gaining a market advantage.

Confidentiality is naturally an integral part of the service provided.

TOGETHER WE ARE ALLIED

Innovation comes with risk, but it should not stop companies from advancing technology in providing the solution for a cleaner, fossil-fuel-free environment.

The overarching certainty is that the shift in the gobal energy system from fossil fuels to renewables must now be a transformation more than a transition.

Discovering at financial close negotiations that you cannot provide financial guarantees, can be the last hurdle financially for you and your project.

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