

# De-risking your green hydrogen project: Why bankability and a strong partner matter



The right partner for a green hydrogen project can mean the difference between success and failure, often even before the project gets seriously underway. At the outset, when choosing between potential technology suppliers, opting for the most bankable partner means ensuring future financial strength and minimal risk—two things that instill confidence in the lenders who provide crucial capital to get projects up and running. And in a project as capital-intensive and technically complex as hydrogen production, having a partner with a proven track record can enhance your likelihood of achieving sustainable, scalable success.

## What makes bankability so critical?

Bankability is crucial for hydrogen projects because it determines how likely a project is to secure financing and attract investment. For hydrogen initiatives to succeed, they must demonstrate financial viability, reliable revenue streams, and manageable risks to the lenders and investors who help projects get off the ground. If a project is deemed bankable, it signifies that financial institutions are confident in the project's potential to generate returns and indicates that they are more likely to contribute capital for project development and scaling.

When evaluating bankability, lenders consider numerous factors like market demand, technical feasibility, risk, and financial projections to determine if the business or the project is bankable—and able to generate returns, manage risks, and ultimately repay loans. While the process of assessing bankability is fairly standardized across geographies, bear in mind that the appetite for risk and criteria for bankability may vary by region or type of lender. Project developers should define and structure their projects well from very early on, including where the funding for the project will likely come from so that they can prepare accordingly.

- Region-wise, lenders may have varying risk appetites due to differing levels of regulatory support and incentives. For instance, in North America, states like California and New York have policies and funding that boost investor confidence in hydrogen projects. In addition, the private sector in North America is showing increasing interest in green hydrogen, due to its potential in various industries and transportation.
- From a **commercial lender's perspective**, bankability of a project refers to the willingness of the lender to finance that project, with an especially heavy emphasis placed on the risk profile. If a lender considers the project to have an unacceptable level of uncertainty, they will not provide financing, and the project will not be bankable.
- From the **private sector perspective**, bankability refers mainly to financial returns and determining whether the project will be profitable for the investor. The costs and benefits of the project are the key aspects of bankability.
- From the **public sector perspective**, a bankable project is often one that meets government priorities and considers citizen's needs and concerns. Closer attention is often paid to social returns, employment, and developmental potential, as well as cost-effectiveness.
- When evaluating the **company**, lenders must assess all parties involved in a particular hydrogen development project, including the equipment supplier. Investors will look at the supplier's history, its financial stability, and its track record in other hydrogen projects.
- When evaluating **technology**, the review process focuses on determining whether or not the technology is viable. A lender will look at whether there is sufficient commercial operation or several thousand hours of demonstrated performance data. This will indicate whether the technology is proven and reliable, and these other projects can serve as references for future endeavors. They'll also consider available warranties and testing data.
- When evaluating **manufacturing**, lenders will first examine the quality of a supplier's manufacturing process. Will the produced equipment meet all the specifications outlined in the project? They will also consider whether manufacturing plans are engineered, and engineered well, to ensure quality and whether the supplier has a robust enough supply chain. And importantly, they will consider the supplier's manufacturing capabilities—whether the supplier will be able to produce all the necessary equipment—and its future delivery availability, meaning whether or not the supplier will be able to fulfill its order on the project's timeline.
- When evaluating **service**, lenders will consider the supplier's experience in the industry and its ability to provide reliable service to the customer for the long term. Ideally, the supplier should have a robust service organization available that can not only provide service and maintenance, but also proactively ensure efficient operation for the life of the project.

## What is assessed as part of a hydrogen project's bankability?

In general, the process of assessing bankability is fairly standardized and well-established in renewable energy projects. But while other renewable energy industries like wind and solar have had decades to develop these standards, hydrogen is still a relatively new industry with little historical data available. As a result, all hydrogen projects inherently carry more risk than other renewable energy projects. And because there is limited data available, determining bankability tends to be more collaborative for hydrogen projects, while using wind or solar projects as a reference.

For hydrogen projects that have established their FEED, project feasibility, and profitability analyses on paper, lenders assessing bankability of suppliers look at four key factors: company, technology, manufacturing, and service. By the end of their review, a lender will have a better idea of how profitable the project is likely to be.

Outside the assessment of the suppliers' capabilities, there are still other factors that are weighed when evaluating the bankability of a project. For example, offtake agreements and other commercial agreements are key, and a lack of offtake agreements for a project could constitute a dealbreaker, even if everything else meets the lender's criteria. Also, these project contracts should be very tightly connected between the various suppliers involved in that they assign responsibility to certain parties for given criteria, like performance level or implementation, construction timing, and other factors that can increase costs of production. When reviewed in detail, these contracts together should prove a project will be able to produce the amount of hydrogen expected and be profitable, while also ensuring each vendor owns their

part of the risk. Consequently, having a robust package of contracts and partners helps to package risk in the best possible way to make a project more bankable and enhance confidence in the investment.

## How can project operators mitigate risk and ensure the bankability of their project?

For project developers, there are several drivers in risk mitigation, the government and equipment supplier amongst them. Across the board, governments have adopted various financial tools to provide medium- to long-term stability across the whole value chain. Grants and subsidies are already commonly employed to reduce capex, and some governments have established other types of incentives to bolster hydrogen production. For instance, in the US, the Inflation Reduction Act (IRA) includes numerous tax credits to produce hydrogen and hydrogen-based fuels, and Canada announced a Clean Hydrogen Investment Tax Credit.

When evaluating equipment suppliers, choosing to partner with a company with a long history in the industry and a proven track record of success is perhaps the most major way to improve the bankability of your project. In addition, companies with a focus on electrolyzers and their related services—rather than a broad suite of products and services—are typically deemed more bankable for hydrogen projects by investors. Dual global and local supply chains and manufacturing plants also reduce risk; local supply chains are less impacted by logistics, geopolitical issues, or natural disasters that can typically cause delays or damage to equipment. At the same time, the support of a global network means that a project in one area will still be able to find support, even if issues occur locally.

## How does John Cockerill reduce risks for customers?

John Cockerill Hydrogen draws on centuries of experience, including 30 years in the operation of electrolyzer manufacturing facilities, as well as sales, installation, and servicing of electrolyzers for end users. In addition, we routinely exceed lender expectations when evaluating bankability, thanks to a few key factors where we're able to minimize project risk.

First, John Cockerill offers pressurized alkaline technology that is a good fit for large-scale hydrogen projects.

Among the various hydrogen technologies like alkaline, PEM, solid oxide, and AEM, alkaline has proven to be the most mature and least risky with a technology maturity level of 9 (TRL-9), improving bankability. Pressurized alkaline electrolyzers are the next evolution within alkaline technologies, providing flexibility for renewable energy sources as well as a multitude of cost savings due to the built-in pressurization. Our hydrogen electrolyzers meet key technical parameters, like stack/system size, reliability/durability, consistent consumption and degradation, robust pressurization, safety and local standard ASME certification requirements, and other factors.

Second, our local presence means customers have access to project developers with experience in end-to-end hydrogen project development who can advise on design and operational insights to move a project along faster. They also have ready access to local expertise, parts, manufacturing, and supply chain solutions. With the addition of on-call local support teams, these attributes combine to reduce risk and make it easier to secure financing.

Third, the availability of long-term service agreements further minimize risk by building in maintenance and support, technical upgrades that keep equipment running efficiently, 24/7 operational optimization and ongoing training and education for customers. Similarly, our performance guarantees bring our problem-solving expertise to every project, ensuring its success and the system's reliability.

Together, these factors result in a supplier with a strong local presence, an excellent credit rating, and a track record of successful hydrogen projects. In the short term, this means lenders and developers alike can count on strong manufacturing capacities, supply chain readiness, and product readiness as projects get underway. And for the long term, this translates to the experience, personnel, and technical skills required to support and extend projects as they evolve over their lifetime.

If you're concerned about the bankability of your hydrogen project, choosing the right partner can position yourself for success from the very start. For more about our hydrogen electrolyzers, visit [hydrogen.johncockerill.com](https://hydrogen.johncockerill.com)