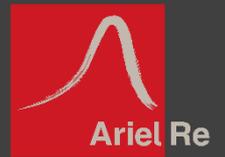


CLEAN ENERGY INSURANCE

BIOCONVERSION PLANT PERFORMANCE



Supporting the development of bioconversion technology.

Renewable energy technologies such as bioconversion plants provide a viable means of converting renewable feedstocks (e.g., woody biomass, energy crops, municipal waste) into electricity, liquid fuels and other valuable commodities.

The marketplace is rapidly growing more excited about such technologies as awareness about climate change increases.

However, new technologies are expensive and risky. Potential investors demand assurance that the risk of losing their money has been minimized.

Ariel Re's clean energy team is in a unique position to help enable a greener future for renewable technology businesses.

With over 70 years of combined experience, Ariel Re's clean energy team supports the development and distribution of renewable energy insurance solutions that deliver value to clean energy markets, including solar, bioconversion (waste-to-energy) and energy storage.

"We see compelling technologies with viable benefits to our future that may not have been realized without insurance support, so the value proposition is both tangible and rewarding."

FRANK PETROCELLI
Senior Risk Analyst, Clean Energy
Ariel Re

GET IN TOUCH

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CLEAN ENERGY CASE REVIEW

The following case review about a bioconversion developer demonstrates a typical dilemma that many emerging technology companies face. In order to scale up, develop and commercialize their operation, they must secure investment. However, investors can be cautious in new markets where supporting data is not yet available.

THE CLIENT

The client is a developer of a U.S.-based manufacturing facility designed to convert woody biomass into transportation fuels, including jet, diesel and gasoline. The production process uses new and existing technologies to convert the woody biomass into liquid fuels.

STEP ONE

Woody mass is converted to synthesis gas via a process known as gasification

STEP TWO

The gas is cleaned and sent to a Fischer-Tropsch unit where it is converted to liquid hydrocarbons

STEP THREE

Hydroprocessing refines the liquid hydrocarbons to produce jet, diesel and gasoline drop-in fuels



THE CHALLENGE

Previous commercial demonstration of the gasification technology was limited and had only been accomplished with a single feedstock very different from woody biomass, which had only been studied in pilot-plant runs. Result: A high technical hurdle for design and scale-up of the client's plant to meet its performance and financial objectives. And uncertainty about the plant's ability to deliver commercially viable quantities of fuels at required quality levels.

All of which threatened the developer's ability to secure financing. Without financing, the project would die.

THE SOLUTION

Ariel Re's clean energy team, placed within the Lloyd's Syndicate, developed a customized risk-mitigation solution. Their focus was on insuring the new-technology risk associated with the client's manufacturing process.

Development of this first-of-its-kind renewable energy insurance policy was achieved through deep engagement between the two parties. As a result, the client was able to obtain favorable terms on bank financing.

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<https://www.arielre.com/product/clean-energy>

