



## Case Study

### Client

Clean Energy Technology  
Company

### Project Number

21121

### Team Members

Dr. Tony Cartolano  
Dr. Daren Daugaard, P.E.

# SBIR Grant Application for Stranded Gas Recovery

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## Summary of Client and Challenge They Faced

A clean energy technology company sought help with a Small Business Innovation Research (SBIR) grant application for a new technology to create valuable products from stranded gas at oil wells. The firm requested a techno-economic analysis to provide support for the application and guidance for future development efforts.

## Our Approach to the Solution

An LEC Partners (LEC) team was formed to review the proposed process and evaluate the business case for the new technology. Our process engineer gathered relevant information on the stranded gas recovery technology and constructed a process flow diagram including material inputs and outputs.

Following this, capital expenditures were estimated by the LEC team, and a manufacturing cost strip was created based on the process flow diagram. A cash-flow analysis was produced to determine the profitability of the new technology based on commodity prices for the products and a



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20-year project life. Finally, sensitivity analyses were conducted to evaluate the profitability of different approaches to leveraging the new technology, including various levels of government subsidies.

### **Client Results and Benefits**

Faced with the rigorous requirements of the SBIR grant application, the clean energy technology was grateful for the help provided by LEC. The company now had a comprehensive understanding of the technology and business case for commercialization which they could present in a complete and detailed picture to receive government funding for their project.