Summary

Fuqua students built a project finance model and provided financing options for a long-duration energy storage company's new product, enabling their client to better estimate installation specifications and expected cash flows using historical energy pricing data.

Project Snapshot

Focus: Finance Model

Client: Storworks Power

Industry: Energy

Type: For-profit

HQ: Arvada, CO, USA

Challenge



Storworks Power develops thermal energy storage solutions to enable deep integration of renewable energy in the power and industrial sectors. The team wanted to advance their proprietary pilot to a full-scale installation; however, the power generation industry was hesitant to adopt an unproven technology.

Storworks worked with a team of MBA students in the Fuqua Client Consulting Practicum to explore creative project financing models for a full-scale implementation of this new technology and determine the financial viability of those energy storage installations.

Approach



Students created a financial model that utilized inputs from Storworks, such as costs and historical energy pricing data. This equipped the team to forecast the most feasible arbitrage revenue, operating expenditures, and capital expenditures to determine the net present value and internal rate of return of a given energy storage installation project.

Once the model was complete, students conducted a sensitivity analysis on several inputs, and also explored several project financing models for unproven technologies in the energy industry. Through both desk research and interviews with financiers active in the space, students were able to deliver an analysis and recommendations for addressing the top concerns that financiers commonly have with similar technologies.

"We found these insights to be very helpful as we explore going out to market for a fundraising event."

Mike Matson, Vice President, Storworks Power

Recommendation

The FCCP team recommended that Storworks focus their efforts on establishing a set business case and communicate their readiness using a financing-friendly framework. Students recommended using alternative finance models and suggested a strategy to scale more effectively and quickly.

Students delivered the financial model they had created and recommended that Storworks leverage the model going forward when developing project plans for a full-scale implementation.

"The Fuqua student team did a multitude of things that we found very helpful," said Mike Matson, Vice President of Storworks Power. "They put together a highly detailed and functional financial model. They also did broad outreach to investors to get a sense of how they view investments in early-stage energy technology that has not yet been commercialized at any meaningful scale. We found these insights to be very helpful as we explore going out to market for a fundraising event."



Alex Roberts
Univ. of Texas – Austin
Petroleum Engineering
Matador Resources Co.



Canisius College Finance/Int'l Business Ford Motor Co.



Kaustubh Desai Case Western Reserve Univ Mechanical Engineering



Eastern IL Univ.
Construction/Military Science



Brandon von Kannewurff Univ. of Virginia Commerce/History

The Daytime MBA team was comprised of five students representing a variety of pre-MBA backgrounds such as engineering, energy, and automotive manufacturing.

"The student team was very proactive in their analysis, and they were highly engaged with us. We very much appreciated the proactive

Mike Matson, Viæpproach, Štorworks Power

About FCCP

The Fuqua Client Consulting Practicum is a for-credit experiential learning course at Duke University's Fuqua School of Business. In FCCP, students apply their business skills and relevant work experience to an active project engagement with an external client. Interested in engaging our students? Learn more at www.fccp.fuqua.duke.edu.