

Independent Research conducted by  
Ronda Sauget, D.Mgt, MBA - Webster University  
Marv Finkelstein, Ph.D. - Southern Illinois University at Edwardsville (SIUE)



## BUSINESS CASE 3: ABENGOA BIOENERGY ETHANOL PLANT GRANITE CITY

Alberici Constructors was selected by Abengoa BioEnergy Company, a Spanish firm, to be the EPC contractor and to build a new ethanol facility at America's Central Port located in Granite City, Illinois. Alberici Constructors is known as a national contractor working on construction projects across the U.S. Alberici constructed the new ethanol plant to achieve a production capacity of 88 million gallon per year of ethanol, a renewable fuel. The facility utilized Vogelbusch technology to process corn into ethanol which has been recognized as the most efficient corn to ethanol processing technology. The contract amount of this project was \$74 million dollars with cost reimbursable with caps on profit of the project.

The project started in May 2008 and was completed in October 2009. The project featured more than 700,000 labor hours without a lost time incident. Alberici self-performed 333,514 of those hours, including structural steel erection, pre-fabrication building erection, concrete placement, carpentry, layout, masonry, and equipment installation.

As a leader in innovative and green construction, Alberici saw the Abengoa project as an opportunity to apply new construction technologies. The radical concrete forming system (Patent Logik360) sharply reduced waste through the application of reusable formwork. Alberici also decreased labor costs and improved quality by using UltraCURE to replace the inefficient wetted burlap methodology. The net effect of these and other similar Alberici-led initiatives was a project executed in a more environmentally-responsive manner, while significantly reducing client project costs.

Alberici coordinated all key vendors as well as all process and grain handling equipment. Alberici also self-performed on-site work including concrete, structural steel erection, pre-engineered building erection, and equipment installation. According to **LeRoy Stromberg**, Alberici COO, stated, "Alberici worked with Dale Stewart, SWIBT Representative, early in the pre-job planning stage agreeing to use PLAs and Tripartite Agreements as a mechanism to ensure no work stoppages and setting the stage for working together." Alberici has worked with these agreements extensively in the past successfully and wanted to get this project off to a strong foundation



from the beginning. Stromberg indicated, "this is a great way in this region to get people to work together from the start on a large project like this one with a tight timelines and the no strike assurance helps us to establish confident project timelines." Dale Stewart mentioned, "With several other large projects under construction at the same time, we worked very closely



with Alberici to ensure all aspects of the project was maintained at the highest levels, such as safety standards and quality workforce. We made sure any concerns were addressed and resolved immediately enabling the project to be completed on time and within budget.”

Additionally, Alberici expressed how Tripartite Agreements encourages everyone to be at the table for the key decisions on the project and this was something that Abengoa BioEnergy was not as familiar with in their past projects, so this was a completely new type of management tool for them. The project received approximately \$5M in tax incentives and other benefits from the State of Illinois which made the project move from planning to the actual construction phase much faster.



One of Alberici's greatest project accomplishments was the ability to implement an effective schedule recovery effort because of the agreements with labor. Engineering delays, owner-initiated scope changes, and late equipment deliveries negatively impacted the project schedule. Despite these challenges, the client remained committed to the original delivery date. As a result, Alberici instituted a demanding recovery schedule of six day weeks, with all trade crafts working 10 hours per day and labor levels peaking at nearly 650 tradesmen on site during the day shift and another 150 tradesmen during the night shift. All of these efforts drove the project to an on-time completion with a good safety and project quality record. Stromberg indicated, “this project was on-time and in-budget. We have an excellent relationship with the trade unions and have been working with them for years. The trades bring a level of performance consistency and quality of work that helps us to achieve our project goals. We work all over the country and struggle to find the quality of people we see here in our regional area. It would be great if all construction trades were trained to this level with this type of performance across the US.”

“We feel our relationships with labor enables us to work together to do a great job on our projects and accomplish our goals for our clients.”

- LeRoy Stromberg, Alberici





In other areas of the country, Alberici staffs up its team to supervise construction workers and non-union people to ensure the same quality, safety, and performance levels. Stromberg believes labor management harmony speaks for itself bringing a level of trust, respect, and communications that is hard to find in other parts of the country. The Tripartite monthly meetings bring the right people with the right authority to the table to make key decisions keeping the project on time and in budget.

Stromberg said in closing comments, “We feel our relationships with labor enables us to work together to do a great job on our projects and accomplish our goals for our clients.” He indicated that St. Louis should be more regional and work together rather than the parochial fragmentation we often see in our region.