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Q & A: Ethanol manager

Plant aims to use local farmers' corn, sell product to local stations

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A white board hanging inside the single-wide trailer that serves as headquarters for Central Indiana Ethanol is empty except for two figures.

The first is numerals representing June, 4, 2007, the projected start date for the \$60 million plant, located along Ind. 18 west of Marion. The second number - 256 days - counts down the amount of time plant employees have until that day arrives.

"We have an 18-month construction phase and the total economic impact for that is approximately \$150 million," Central Indiana Ethanol general manager Mitch Miller said, quoting statistics from Renewable Fuels Association. "Once our plant is in production, the total economic impact is approximately \$100 million per year."

Although the plant won't be open for about a year, Central Indiana Ethanol expects to use 1.5 million bushels of corn per month and is in the process of obtaining grain. Miller said the goal is that farmers and gas stations won't be the only ones to learn about ethanol and how it can be used.

"When we're able to make people aware of how environmentally friendly ethanol is that gains a lot of support," he said. "So we'll plan on doing tours for the public monthly once the plant is in operation."

Recently, Miller sat down with the *Chronicle-Tribune* and answered some questions about the ethanol plant and its progress.

What is the status of Central Indiana Ethanol? When do you expect the plant to be complete?

"We started construction on Feb. 14, 2006; that's when we started moving ground. April 10, 2006, the general contractor started construction, and June 4, 2007, is our scheduled start-up and we are right on schedule to meet that date. So, right now, I would say 25 percent of the physical plant is built. There are approximately 55 construction workers on site right now, and by January, I expect there to be approximately 200.

"(Sept. 22) they're setting the first structural steel for the plant. They're already building our fermenters, which are three, 750,000-gallon stainless-steel tanks and soon we'll start the one million gallon beer well, which is part of the fermentation process. ... We have hired our plant manager, Jason Jerke, and he has a master's degree in chemical engineering and a master's in microbiology. He'll be in charge of production and maintenance of the facility."

How do the other ethanol plant projects in development in Indiana affect Central Indiana Ethanol?

"We are definitely monitoring all the other activity; however, at this point there are only five plants actually under construction in Indiana. I would say the more ethanol plants that actually begin construction and then start up will increase the demand for corn, which in turn will increase the local price for corn and that is a great thing for Indiana agriculture and our rural economy.

"It affects (CIE) in that we are anticipating our input costs, corn, to be higher in the future. So, it is important for us to have a very well-managed operation and when we do hire our staff, to train them very effectively to a high level and we have six weeks of initial training designated for that purpose. Part of that will be in another ethanol plant that is currently operating, so it will be on-the-job training."

What is your approach to obtain corn for the plant?

"In January, we will have a full-time merchandiser on staff, and currently we are working with five local elevators to help procure corn for our operations. Ceres Midland of Sims is part of that group, and they're working to assist us to procure grain for our facility. We have a Web site set up here, and, on that Web site, we have a corn purchasing tab. We start contracting that corn as of April 2007 and we have bids posted each month through January 2008."

How much of that corn will likely come from local farmers?

"We're going to be grinding 1.5 million bushels per month starting in June 2007, so our total uses will be 18 million bushels per year, and to us it's important that those bushels come from our local farmers.

"It's important that those bushels come from local farmers for one reason, because we will be unable to receive unit trains of corn, so truck deliveries will be essential to our operation. In turn, (that) will have a great benefits on the local rural economy.

"The closer you are to the plant the less transportation costs it will cost you to bring your corn

to our facility. One other point is just our usage of corn will add a nickel to 10 cents per bushel to the local cost of corn, and then when you add the other ethanol plants in the local area that will increase that even further. So, if you do the math, if we're using 18 million bushels of corn and we're raising the price 10 cents, that's an additional \$1.8 million of revenue to our local corn crop."

What is your approach to get product from Central Indiana Ethanol to fuel companies and gas stations?

"We make E95, which is 95 percent ethanol and 5 percent gasoline. The 5 percent is added to denature it or to make the ethanol nonconsumable. Then we sell it to blenders of gasoline. A large percentage of those blenders are the large oil companies, but there's also small to mid-size blenders. They then blend that E95 with gasoline to make the E10 blend, and then they sell that product to retail outlets. In Indiana, approximately 40 percent on average of the gasoline contains 10 percent ethanol.

"The other way (we provide product to companies) is that we will blend E85 and sell E85 direct to gas stations, and E85 is for flexible-fuel vehicles. ... Once we're online and we're ready to direct supply, the number of E85 stations will greatly increase in our area. We have had discussions with several gas stations, and we will have a program to help educate retailers and direct supply E85 to gas stations, which will ensure a lower price for E85 than gasoline. No middleman, we make it right here and we ship it right to the station."

How will you work with EPCO, the adjacent facility that will convert one of your byproducts, raw carbon dioxide gas?

"Our operations are completely separate. They will have a plant manager and an operations staff separate from Central Indiana Ethanol, and we will supply them with carbon dioxide and they will compress the carbon dioxide for food preservatives or food preserving, dry ice and soda pop fizz."

When will hiring begin? What qualifications are you looking for in potential employees?

"We'll hire 37 full-time employees, and EPCO, which is the carbon dioxide company that will begin construction and start-up the plant by June 4, will have approximately 20 employees.

"We have four employees now. Our management staff will all be hired by March, which will complete a team of seven supervisors and managers. The plant manager and myself are from outside the area, but most other employees will be from the local area.

"All production, all operations and maintenance staff will be hired in April. We're going to look to assemble a team with a wide range of mechanical and technical skills for maintenance and operations to fill the operator positions and the mechanical technicians and the instrumentation and electrical technicians. And that will be a mix of work experience and education that are combined to build a good technical background

"We don't expect to hire anyone with ethanol experience because it's new in Indiana, so we're going to be looking for the tech college degrees and other four-year degrees to fill the lab technician roles. So, that may be microbiology or chemistry degrees."

What is the expected lifespan of the plant?

"The life cycle of this ethanol plant is much like a crude oil refinery, where as long as it's maintained well and there is a need for liquid fuels in the transportation market, it can run indefinitely.

"You need to make sure that you maintain the proper integrity of all the piping and pumps and valves and all of the auxiliary equipment. So equipment will need to be replaced over time and piping will need to be replaced over time, but most of the process is fit to run for a life of 20 to 50 years because the entire process is made of stainless steel."

What kind of steps are you taking to manage the effect Central Indiana Ethanol will have on the environment?

"We're installing state-of-the-art environmental controls, which are considered the best available control technology that can be purchased, and this in order to comply with the EPA and just to be good neighbors. We want to be good neighbors for the community. Our process eliminates any odor of redrying the grain through a thermal oxidizer, which has to destroy the volatile organic compounds by a minimum of 99.5 percent, which is created in our natural gas dryers when we're drying the distiller's dried grains. The heat coming off of that thermal oxidizer is all utilized to produce the steam for the plant to operate on. So, it's a very integrated and a very energy-efficient process.

"As far as being environmentally friendly on the water side, this is a zero-effluent plant, which means that no process water is discharged to a waste treatment facility. All the water is recycled internally. The only water that's discharged from the plant is rainwater and cooling tower blow down, which will comply with a national (standard). It's important to note that that water quality has to be good enough for minnows to live in that water for 24 hours."
