

Reynolds, Indiana



	Reynolds
Population (2000)	550
Municipal budget (2005)	\$125,000 ¹⁰⁸
Per capita income (2000)	\$16,200
Median household income (2000)	\$40,800
Poverty rate (2000)	5%
Minority population (2000)	10%
Proximity to urban center	80 miles to Indianapolis, Ind.
Proximity to interstate highway	15 miles
Strategic approach	Industrial development
Time frame	2005-2007

Reynolds has branded itself BioTown, U.S.A., and it pursuing a strategy of becoming energy self-sufficient. The BioTown project represents a bold approach to develop local renewable energy production, create a cleaner environment, find new solutions to municipal and animal waste issues and develop new markets, all at the same time. The objective of the BioTown project is the conversion of Reynolds from a reliance on fossil fuels to biomass-based fuels. Local and state organizers hope to establish a model that promotes energy security, rural development, profitable agriculture and a green, thriving natural resource environment.

The community and its history

Reynolds is a small, one-stoplight town with 550 people and 150,000 pigs. For decades, the economy in this small town has revolved around corn, soybean and hog farming. Locals gas up their farm trucks at a single filling station in town and gather for coffee at the U.S.A. Family Restaurant. Reynolds lies close to an interstate highway and has two active rail lines. Purdue University, a major research institution, is 23 miles away in West Lafayette. Over the last few years, residents of Reynolds have watched two grocery stores close, the local garage shut down and the barber move away, all while the cost to travel to access these services outside the community has continued to skyrocket.

Such was the state of affairs when, in July 2005, officials from the governor's office and the Indiana State Department of Agriculture came to Reynolds with a proposal. The governor wanted to make Reynolds the

A town with 550 people and 150,000 hogs turns an agricultural waste product into an economic asset. By converting waste from hog farming into a local energy supply, Reynolds is working to become the first energy self-sufficient community in America.

¹⁰⁸ Interview with Charlie Van Voorst, Reynolds Town Council president, March 5, 2007.

nation's first community to use renewable resources to meet the energy needs of all homes and businesses in town. According to a study commissioned by the state, hog manure and other organic waste in and around Reynolds would be enough to produce 74 times the town's energy needs.¹⁰⁹ Local officials needed little convincing. According to Charlie Van Voorst, president of the Reynolds Town Council, "We thought, 'Gosh, there's not much going on here in Reynolds, so we'll try anything.'"

The strategy

Reynolds is now BioTown, U.S.A. With the support of state officials, researchers and corporate partners, Reynolds has embarked on a strategy to become a showcase community whose complete energy needs are met by renewable resources. State and federal resources are playing a role in BioTown, but not to the extent one might expect. In fact, one prominent goal for the development of BioTown is that 80 percent to 90 percent of the investment comes from the private sector. The goal is to create a sustainable and replicable model for small town energy self-sufficiency.

The administration and decision-making authority for the BioTown initiative rests with the BioTown Economic Development Authority, which consists of a local economic development executive, the president of the county council, the township trustee and one representative each from Purdue Cooperative Extension, the state agriculture department and the state energy department. The president has the authority to sign official paperwork.

The project is divided into three phases. Phase I, which concluded in September 2006, focused on promotion, education and increasing the local use of ethanol and biodiesel in automobiles. The state helped to facilitate a unique partnership between General Motors and BioTown in which GM offered various discount packages for local residents to purchase or lease flex-fuel vehicles. Flex-fuel vehicles are designed to run on gasoline or any mix of gasoline with ethanol up to 85 percent ethanol, called E-85. As of early 2007, local residents and businesses have purchased more than 160 flex-fuel vehicles. "We estimate that within Reynolds' zip code, there are about 500 people who are driving age," said a state official involved with the project. "That translates into about a 30 percent uptake on flex-fuel vehicles all because of the BioTown project. That's not bad."

The second major milestone for BioTown was the completion of a \$400,000 renovation project to add a pump for E-85 fuel at the local BP gas station.¹¹⁰ This investment, which was required to upgrade the tanks and pump island at the town's only filling station, was made by Good Oil, a regional petroleum dealer that wanted to be on the front end of the environmentally friendly movement in Reynolds. "These alternative fuels really needed to be showcased, so we decided to put in two islands and remodel the building," said Don Good, the investor and owner of Good Oil.¹¹¹

Phase II of the project, now under way, includes the research, development and implementa-

¹⁰⁹ Jenner, Mark. "The BioTown." *USA Sourcebook of Biomass Energy*. Indiana State Department of Agriculture, 2006.

¹¹⁰ E-85 is a performance motor fuel that is comprised of 85 percent ethanol and 15 percent gasoline. It works the same as regular gasoline but is a much cleaner burning, and it is a renewable, domestic, environmentally friendly fuel.

¹¹¹ Taflinger, Neal. "Fueling up for the future." *Intake Weekly*, April 20, 2006.

tion of plans to transform agricultural and municipal waste into energy. In late 2008, Rose Energy Discovery, a private alternative energy company, will break ground on a \$10 million facility. The state offered \$3 million in tax credits and other incentives to Rose Energy Discovery to develop the technology for the project in Reynolds. The technology will be capable of converting animal waste, municipal waste, corn stover and other types of biomass into electricity, thermal energy, biodiesel and crop inputs such as fertilizer. Officials estimate the facility will be generating electricity for Reynolds by late 2009.

Phase III calls for upgrading the technology to produce natural gas. The technology is still being developed.

What are the lessons from this story?

Green innovation is an economic development strategy. In Reynolds, taking the opportunity to be on the front-end of an innovative green strategy has jump-started economic development. "Our town meetings went from talking about the neighbor's dog in your yard to talking about million-dollar decisions about what we're building," said Van Voorst, the town council president.¹¹² Investments by Good Oil (to upgrade the local service station) and Rose Energy Discovery (to develop bioenergy conversion technology) will eventually lead to more direct economic development benefits such as new jobs and new businesses. These initial investments also demonstrate the tremendous economic impact that green innovation can have in small town America.

Biomass waste has a huge potential to create energy. Residents of Reynolds were shocked to learn that waste products from their community had the potential to produce 74 times the power needed to fuel their town. More widespread recognition of the latent energy in traditional biomass waste products has the potential to drive innovation in rural agricultural regions.

Biomass fuel production can reduce the load on municipal wastewater infrastructure. Reynolds has discovered that its effort to convert various biomass waste products into energy products will greatly reduce its need for higher load wastewater infrastructure. In fact, three neighboring municipalities are planning to send their municipal waste to the bioenergy plant as an alternative to upgrading their own municipal wastewater infrastructure. The potential for lowering sewer bills was a major selling point in terms of invigorating local interest in the BioTown project.

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¹¹² Dennis, LaToya. Next Generation Radio, August 2006.