



Biofuel Co-operative Case Study Series -

Amaizing Energy Co-operative

Prepared for the

The Agricultural Co-operative Development Initiative (Ag-CDI)



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Amaizing Energy Co-operative / Amaizing Energy LLC

Denison, Iowa

Key Themes:

- Ethanol as a rural economic development strategy
- Exceptional Board skill and leadership
- Growth through mergers of farmer-owned ventures



Crawford County lies in the heart of the Western Iowa corn belt. In 2006, Crawford County produced over 33 million bushels of corn, almost 10% of the total corn production in West Central Iowa, which is nearly 320 million bushels. That's more corn than all of Canada produces, and yet that's only a small portion of the more than 2 billion bushels of corn that the entire state of Iowa produces.

Iowa also has some 22 ethanol plants which in 2006 were producing nearly 1.5 billion gallons of ethanol annually, or roughly one third of total U.S. ethanol production. Over 500 million bushels of Iowa corn went into making ethanol in 2006. More than 20 ethanol plants are currently under construction or in the planning phase in Iowa.

Ethanol has fundamentally changed the agricultural and economic landscape of Iowa and has generated the kind of hope among farmers that had been missing for decades. Not only has corn become the most critical input into a

high value-added industrial process, but farmers have positioned themselves both as the suppliers of the raw materials and as the owners of the processing facilities.

Amaizing Energy Co-operative embodies the spirit of this new agricultural economy. This farmer-owned co-operative operates a 40-million-gallon dry mill ethanol plant in Denison, Iowa which is located within Crawford County.

The Idea that Sparked Ethanol

Located in the small community of Denison, Iowa, the highly successful Amaizing Energy Co-operative started out from the simple idea of expanding and diversifying the business of another co-operative in the area. Amaizing Energy was the brainstorm of the Harrison County Rural Electrical Co-operative (R.E.C.).

As the Harrison County R.E.C. looked for opportunities to expand its own business and support economic development and job creation in the communities it serves, it decided to explore the possibility of building an ethanol plant in the corn growing region. The Harrison County R.E.C. wanted to expand its sales of electricity from a generating plant located in Denison by finding enterprises to support additional load demand. Ethanol appeared to be a good fit.

(Note: All figures in this case study are in US\$.)

In November 2000, the Harrison County R.E.C. held an ethanol information meeting and invited members of other existing ethanol co-operatives in Iowa to speak to local community leaders and farmers in their area.

From the beginning and throughout the project, the ethanol plant was conceived of and planned as a community economic development project with the potential to benefit the local, rural community of Denison, Iowa (population 7,400) and the surrounding area. Based on its experience as a co-operative, the R.E.C. and local community leaders believed that farmers could join together in a co-operative to process their own corn. By doing so, they could reap the benefits of adding value to their corn at a time when corn prices were very low and farmers were facing financial challenges.

The entire co-operative initiative was based on the premise of community economic development, namely, that increased incomes for farmers and farm families, and the creation of good, industrial jobs in the community would contribute to increased local economic activity. This, in turn, would create a stronger tax base which could be used to improve schools and community services, and ultimately provide the economic foundations for youth to remain in the community instead of leaving in search of better jobs in urban centres. As part of this economic strengthening process the construction and operation of a large ethanol plant in the town would also provide an additional customer to the Harrison County R.E.C. and make that co-operative more successful.

Denison, Iowa: It's a Wonderful Life

Denison, Iowa is a small community of 7,400 people located in Crawford County, in western Iowa, along the Boyer River. Denison is 70 miles southeast of Omaha, Nebraska and 500 miles due west of Chicago. Settled by a large population of German settlers, the town prospered in the late 19th and early 20th centuries. Small family farms came under pressure during the Depression, but the town saw an economic reprieve with the establishment of meat-packing plants in the 1950s.

The motto on the water tower of Denison still reads "It's a Wonderful Life," a reference to the movie which starred Donna Reed, one of the town's most famous citizens. But Denison, the typical mid-west small town, experienced a significant economic downturn 20 years ago when competition in the meat-packing industry forced its plants to cut wages and young people no longer stayed in town after high school to work. The downtown area was in decay and the businesses in town were struggling to stay afloat. The town is now also home to a large Hispanic population who have come to the community to fill the meat-packing jobs which pay relatively better (\$8-\$10 per hour) than jobs on the west coast. Over the past few years, the city council has sought to attract new industry and undertake redevelopment projects to bolster the town's economy.

The majority of men work in food related (meat-packing) industries and the women work in education, social services and other service sector jobs.

Ethanol...The Best Thing Since Donna Reed

Following the initial meetings convened by the Harrison County R.E. C., a small group of 6-8 self-selected individuals from Denison decided to continue meeting to pursue the idea of building an ethanol plant in the town. To do so, they formed a Steering Committee. At that time, each and every member of the Steering Committee demonstrated their commitment to the idea of the ethanol co-operative by making an "at risk" investment of \$25,000. This is acknowledged by everyone involved to have been a serious level of personal investment. The purpose of these funds was to provide a reasonable level of seed money to explore the viability of the initiative, and to have sufficient funds to kick start the process of developing the project idea further. By starting off with such a high level of personal investment, the group also wanted to indicate how serious they were about making the project work. And whether they intended to do so or not, their upfront investment also set the bar for all future investors in the project.

Based on the initial investments made by the founding Steering Committee, which was later to become the founding Board of Directors of the Co-operative, a total of \$500,000 "at risk" funds were raised to begin the process. It should be noted that at a later date a decision was taken to give Board members a 2:1 stock deal for the initial "at risk" investment as a means of acknowledging the time and

energy they committed to getting the co-operative and the ethanol plant up and running, and the risk they took in making an investment at the earliest stages of the project.

The initial Steering Committee consisted of individuals from a small (10-15 mile) radius around Denison. It soon became clear that the co-operative would need to gain support from others – farmers, business people and community members – from a much wider area beyond the town. The decision was made to expand the geographical area of the Co-operative and the Steering Committee undertook a search from a wider geographical area for recognized farm, community, and business leaders who were willing to play a key role in attracting members and investors to the Co-operative. All of the new members of this expanded Board also invested a minimum of \$25,000 each into the project.

Amazing Energy Co-operative Formed

The Amazing Energy Co-operative was formed as a 501 co-operative under Iowa state law. The Co-operative was formed with a Board of Directors of eleven (11) people, including farmers and business people in the community. The founding Board consisted of farm leaders, business men and women in the agri-business sector, including fertilizer and seed companies, and people with strong financial backgrounds, including bankers and financial advisors.

As noted above, each and every Board member invested a minimum of \$25,000 in the co-operative, although some invested significantly more. The Co-operative believed that a significant investment on the part of Board members was absolutely essential to ensure that they would identify their own financial interest with that of the Co-operative and act with the highest standard of care in looking after the business of the Co-operative. Investment by Directors was also seen as essential in motivating other prospective investors in the community to come forward with their own investments.

Amazing Energy's mission is to maximize profits for its investors by offering an alternative marketplace for corn producers and by manufacturing high quality products. The Co-operative's commitment is to be an "efficient, profitable, and an environmentally sound asset to [the] community."

Once the Co-operative was incorporated, the Board undertook an intensive equity drive within a 100-mile radius of Denison.



Dried distillers grains are a valuable by-product of the ethanol production process, offering protein-rich animal feed.

Equity Drive: Raising Funds from Committed Members

Community meetings were held to recruit members to join the Co-operative and to raise the \$29 million in equity required to fund the equity portion of the \$58 million project. According to the Co-operative's by-laws, any resident of the State of Iowa could be a member of the co-operative. In fact, Co-operative members come largely from western Iowa in part because of their desire to ship corn to their local ethanol plant, and in part because investors elsewhere in Iowa have so many other local ethanol plants in which they can choose to invest.

The equity drive planned and undertaken by the Board members on a volunteer basis involved 101 community meetings held in the target area in western Iowa. At each meeting Board members would deliver a Powerpoint presentation on opportunities in the ethanol industry and then specifically address the details of the Denison project. Following the presentation, and a question and answer period which always left room for adequate discussion from those in the room, the Board members would hand out subscription forms. Although some interested individuals signed the forms on the spot, many more left saying they needed more time to think things over. Within a few days, Board members would follow up with telephone calls, personal visits, and kitchen meetings, where necessary, to secure the commitment to invest in the Amaizing Energy Co-operative.

The time and energy commitment made by the Board members was significant and reflected their belief in and complete dedication to the project. In reflecting on the elements of their strategy that contributed to their success, the follow-up telephone calls after the community meetings were seen to be the key to raising member equity. Most people did not sign up to make an investment at the meeting itself, but expressed an interest in discussing the matter further. According to Al Jentz, the General Manager of the co-operative who was an advisor during the period of the equity drive, raising the funds was a long and arduous process. Even in retrospect, they note that it was not an

easy process and not a process to be undertaken without a strong commitment and an awareness of what is involved and how long the process will take.

Members were required to purchase a \$400 membership share in order to become a member of the Co-operative. Members were also required to sign a corn delivery agreement with a marketing fee of three cents per bushel (2,500 bushels minimum delivery) or to pay an annual fee of \$373 to enable Amaizing Energy to purchase the corn from another source. Shares were priced at \$2 per share, and a minimum investment of \$25,000 was required from each investor.

The average member equity investment made by farmers and community investors (individuals and businesses) in Amaizing Energy Co-operative was \$48,000. Individual investments ranged from \$25,000 to \$500,000 (that amount was invested by one Board member). In hindsight, some of the Board members feel they should have pushed harder for more equity investment from farmers and community members.

The co-operative recruited 384 members. No fees or commissions were paid to the Board members for raising the equity investments. General Manager Al Jentz says the Board members were completely committed to the project as a community development initiative and came to the public meetings, "told their story, described their dream and turned people into believers."

Despite this commitment, the equity drive was a tough sell and took an enormous amount of time and effort on the part of the Board members. At the end of the equity drive, only \$15 million of the required \$29 million was raised. The co-operative had access to 10% of the funds raised for project development costs. The remaining funds were held in escrow until the project was fully capitalized.

Amaizing Energy LLC

With only \$15 million of the required \$29 million raised in equity from members, at this point the Co-operative Board decided to pursue a slightly different legal structure involving the formation of a Limited Liability Corporation (an LLC, as they are commonly called). The Co-operative invested its equity into this limited liability corporation, Amaizing Energy LLC, and invited other partners to invest into the LLC as well. The Board of the Co-operative went knocking on the door of Fagen and ICM to seek their equity investment in the project. Equity was secured from Fagen (the builder), ICM (the technology provider), and two private investors from outside the community who invested \$9 million. Amaizing Energy LLC is 59.4% owned by the Amaizing Energy Co-operative which exercises majority control over the LLC. [confirm]

Co-bank provided the bank financing to the project. According to Al Jentz, once the Co-operative had raised its equity and brought in the equity of the additional partners

the bank was willing to lend the funds and was very supportive of the project and the Co-operative. In his view, "The bank was a pleasure to work with."

Return on equity was projected to be 17% in the Business Plan. The actual return on equity was 100% in year 1, and is currently projected at being in the order of 100% again in year 2.

Community Economic Development: Support for the Ethanol Project

In its early stages, Amaizing Energy received significant community support, a level of support that it would like to pay back by reciprocating with other projects in Denison. Near the beginning of the project, the Harrison County Rural Energy Co-operative provided Amaizing Energy office space and free use of its board room. After several months Amaizing Energy moved to an office in a local community business incubator.

At a certain point into the equity drive the Board felt that it was essential that the ethanol project be seen to be "real" in the community. The Board made a decision to purchase land in the town and set up an office. However, the co-operative did not have access to the funds held in escrow for this purpose. In the absence of these funds, the Board members signed personal letters of credit for a \$140,000 mortgage to purchase 14 acres of land and a small, older

office building on the edge of town. The Co-operative put up a large sign on the building and became a visible presence in the community.

Although Amazing Energy no longer uses the original building since an office was constructed on the ethanol plant site, the Co-operative still owns this parcel of land and building. It noted that it would be very interested to assist other community economic projects that are in the start-up or feasibility stage. For example, another group is in the process of exploring the feasibility of establishing a biodiesel project in the community.

Feasibility Study and Business Plan

The Board hired a consulting company to conduct a \$5,000 Feasibility Study on the site. The study confirmed that the location was appropriate for an ethanol plant. The study was largely done to give comfort to the large investors and the banks and was not seen to provide any significant additional information or insight beyond what the founding Board already knew.

The Business Plan was completed by the Board of Directors without any assistance from consultants. Because of the diversity and skills of the Board members, the Directors had the requisite financial and technical skills to undertake the necessary studies. In total, five technology providers were interviewed by the Co-operative before a decision was made to hire Fagen and ICM as the builder and technology provider, respectively. The selection was made on the basis

of the companies' experience in the ethanol industry and their reputations for "on time" and "within budget" construction, quick plant start-up, and good track records in meeting the production guarantees.

The Site

The site where the plant was eventually built was a brown-field site on the edge of the town of Denison. The site is long and narrow and consists of 50 acres (300 feet wide and 1 mile long) sandwiched between two rail lines. The site is conveniently located on the edge of the Harrison County R.E.C property. Construction on the plant began in August 2004 and start-up was on September 11, 2005. Needless to say, the date was viewed as highly symbolic by the Co-operative's members.



Opening Day for Amazing Energy Co-operative, September 11, 2005

Current Operations in 2007

Amaizing Energy currently has 35 employees and operates 24 hours a day, every day of the year, with the exception of scheduled shut-downs. With a \$1.7 million dollar payroll the plant has had a dramatic economic impact on Denison and the surrounding area and a positive impact for grain farmers in a 50-mile radius. One bag of seed corn produces around 1,200 gallons of ethanol fuel, which in turn, produces 12,000 gallons of E-10 gasoline. (As Amaizing Energy notes on its web site – amzenergy.com – “That means Americans drive 230,000 miles on one little bag of seed corn.”)

The facility has the capacity to accept 30,000 bushels of grain per hour or 300,000 bushels per day, of which 50,000 bushels are ground per day. The grain storage capacity is approximately 2.2 million bushels which is about 4 times that of an average 40 million gallon ethanol plant. Although the plant has a nameplate capacity of 40 million gallons, actual production has averaged well in excess of 50 million gallons annually.

Management and Staff

The General Manager, Al Jentz, has been a supporter of the Co-operative since its earliest conception, and he is also a member of the Co-operative. Mr. Jentz was in the grain business for 18 years, and most recently was general manager for the FSC/ADM facility that the plant purchased. The plant’s 35 employees mostly live within a 15-mile radius of the plant. According to Mr. Jentz, these workers have some of the highest paying jobs in the community.

Community Support for the Project

From the very beginning, when the ethanol plant was still at the concept stage, the town, the county, and the people in the community expressed full support for the idea of having an ethanol facility in the town. Throughout the project, the town and county fully embraced the project and are now extremely pleased to have the ethanol plant on the edge of town.

During the 13-month construction period, 200 construction workers were in Denison, with many of them living in local hotels. The construction activity boosted economic activity considerably and, according to the mayor, economic activity in the town was estimated to have increased about 15% during the construction period.

More Amaizing Future Plans

In a recent development, Amaizing Energy Holding Company, LLC was organized as an Iowa limited liability company on December 27, 2006. The Holding Company became the holding company parent for two predecessor entities, Amaizing Energy, LLC and CassCo Amaizing Energy, LLC, through a merger and reorganization transaction completed on January 31, 2007. Since the expansion, four additional Board members from the surrounding area were added, bringing the number of Board members to 17.

In March 2007, CassCo Amaizing Energy LLC announced that it had started construction on a 100-million-gallon expansion to the original 40-million-gallon plant. That 100-million-gallon plant will require some 35 million additional bushels of Iowa corn, ensuring continued growth in the demand for local corn. Iowa farmers are surely delighted at the prospect of one more major local buyer of their corn.

Lessons Learned:

- Ethanol projects are not easy, and the business environment is changing every day.
- Board members **must** have a substantial investment in the co-operative and **significant** member investment should be required from the beginning.
- A minimum member investment of \$25,000-30,000 is suggested. People with a small investment (\$1,000-2,500) will not take an active interest in the business over time.
- Keep the Board small but be sure to include men and women with good business and financial skills.
- Understand the business and policy environment for ethanol – it changes almost daily.
- Raising equity is a very large challenge, but it is the most important stage for the development and autonomy of the co-operative.
- Community support—from business people, politicians, and citizens is essential.

Amaizing Energy Chronology:

November 2000	Steering Committee Formed Co-operative incorporated
Early 2003-August 2004	Equity Drive (101 meetings throughout western Iowa)
August 2004	Construction begins
Sept 11, 2005	Plant opening
March 2007	Plant expansion

