

Introduction

The economic impact of Glacial Lakes Energy (“GLE”) isn’t just about jobs. Rather, it’s more about adding higher value to an agricultural commodity (corn) that, otherwise, would be shipped out of state where that value-add opportunity is captured elsewhere or not at all. Collectively, the GLE four-plant footprint consisting of production facilities in Aberdeen, Huron, Mina, and Watertown employs approximately 190 persons and the economic opportunity these four plants generate for agriculture and main street businesses far exceeds the benefit of these jobs. Of course, this economic impact is not just exclusive to GLE, it is repeated throughout South Dakota where other ethanol companies operate. The following summary outlines a few of the areas that are impacted.

Ethanol’s Economic Impact in South Dakota (2012)

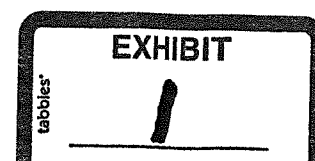
A study titled, “The Economic Impact of the Ethanol Industry on the South Dakota Economy in 2012” (“Study”), was conducted in 2012 by Drs. Gary Taylor and Lisa Elliot both of whom are Assistant Professors of Economics at South Dakota State University (<http://sdethanol.com/wp-content/uploads/2015/01/The-Economic-Impact-of-the-Ethanol-Industry-on-the-South-Dakota-Economy.pdf>). The Study indicates a direct and indirect economic impact of approximately \$3.8 billion from the state’s production of over 1.0 billion gallons of ethanol. On a pro-rata basis, that would suggest an economic benefit of approximately \$3.80 for each gallon of production. Back then, GLE’s current footprint in Watertown, Mina, Aberdeen and Huron would have accounted for approximately 285 million gallons or 28.5% of the total ethanol production. This would suggest that GLE’s share of the economic benefit would be approximately \$1.1 billion of the \$3.8 billion total. A further dissection of that figure would be assigned as follows (based upon production volumes listed in the Study):

- Aberdeen & Mina (combined) = \$581 million;
- Watertown = \$380 million;
- Huron = \$122 million;

The Study is ten years old. Since that time, GLE’s production volumes have significantly increased, production costs have risen, and efficiency and technologies have substantially improved. Therefore, it’s likely that GLE’s economic impact has exponentially grown from the estimated \$1.1 billion derived from the Study. Case in point, GLE’s aggregate production across its four plants was 356 million gallons as of its most recent fiscal year (August 31, 2021) compared to the 285 million gallons in the Study, for an aggregate growth rate of 25%. Also, GLE has invested tens of millions in new technology and capital projects to increase efficiencies and diversify revenue. For example, GLE realized \$3.9 million in annual corn oil revenue as of August 31, 2012 while that same revenue source as of August 31, 2021 was \$41.8 million.

Corn - Local Basis

The average local corn basis, also known as the difference between the local market price and the market price posted on the Chicago Board of Trade (CBOT), has increased substantially during the period in which the ethanol industry has grown and matured. Since the local corn basis is typically a negative value, this has put hundreds of millions of dollars in corn producer’s pockets who spend it on South Dakota’s main streets. Using the averages from GLE’s primary draw areas around Watertown & Aberdeen from 2000 (before the industry was built) compared to 2022, there has been an increase of



approximately \$0.40 per bushel in the average local corn basis during the past twenty years. Given that, each year, GLE purchases approximately 125 million bushels or 15-20% of the state's annual corn production of approximately 750 million bushels, this equates to an annual benefit of \$50.0 million in additional cash in circulation in the communities in which GLE operates. Since the local corn basis generally trends consistently throughout the state, this benefit is duplicated around the entire state of South Dakota.

Land Values

The ethanol industry has undoubtedly created a higher demand for locally grown corn. Producers have responded by adopting more advanced precision planting and growing strategies to grow more bushels on each acre in production, in essence, increasing the efficiency of each acre. As a result, the statewide per-acre value of non-irrigated cropland has increased by an average annual rate of 8.1% annually since 1991 (source SDSU Extension website). If that increase is segregated to the ethanol industry growth years (for example, since 2005), the per-acre values are even higher. Again, the ethanol industry has, without a doubt, created a higher demand for corn which has led to an increase in wealth of South Dakota landowners.

Appendix II. Historical Data on Agricultural Land Values and Cash Rental Rates by land use by region, SD, 1991-2020 (appendix table 2 and 3)

Appendix Table 2. Average reported value and annual percentage change in value of South Dakota agricultural land by type of land by region, February, 1991-2020.

Type of Land	South-east	East Central	North-east	North Central	Central	South Central	South-west	North-west	STATE
Nonirrigated Cropland*	dollars per acre								
Average value, 2020	\$5,388	\$5,433	\$4,597	\$3,370	\$3,502	\$1,901	\$1,027	\$1,318	\$3,638
Average value, 2019	\$5,648	\$5,400	\$4,606	\$3,447	\$3,496	\$1,937	\$1,188	\$1,408	\$3,747
Average value, 2018	\$6,361	\$6,237	\$4,546	\$3,534	\$3,347	\$2,125	\$1,207	\$1,369	\$3,937
Average value, 2017	\$5,569	\$6,700	\$4,654	\$4,030	\$3,291	\$2,203	\$1,427	\$1,142	\$3,903
Average value, 2016	\$5,653	\$6,116	\$4,613	\$4,177	\$3,843	\$2,168	\$1,264	\$1,187	\$4,094
Average value, 2015	\$5,887	\$6,329	\$5,066	\$4,275	\$3,895	\$2,283	\$1,347	\$1,193	\$4,265
Average value, 2014	\$6,331	\$7,114	\$5,291	\$4,614	\$3,953	\$2,087	\$820	\$870	\$4,478
Average value, 2013	\$5,903	\$6,828	\$4,843	\$4,562	\$3,580	\$1,994	\$900	\$792	\$4,249
Average value, 2012	\$4,817	\$4,734	\$3,369	\$3,026	\$2,946	\$1,348	\$677	\$496	\$3,084
Average value, 2011	\$3,402	\$4,024	\$2,918	\$2,301	\$1,866	\$1,115	\$625	\$483	\$2,389
Average value, 2010	\$2,841	\$3,291	\$2,560	\$1,945	\$1,644	\$967	\$560	\$474	\$2,030
Average value, 2009	\$2,741	\$3,155	\$2,305	\$1,673	\$1,577	\$1,007	\$696	\$428	\$1,900
Average value, 2008	\$2,510	\$2,894	\$2,076	\$1,532	\$1,450	\$904	\$502	\$399	\$1,733
Average value, 2007	\$1,999	\$2,244	\$1,762	\$1,187	\$1,086	\$702	\$426	\$367	\$1,375
Average value, 2006	\$1,817	\$1,914	\$1,448	\$1,088	\$986	\$612	\$387	\$342	\$1,211
Average value, 2005	\$1,556	\$1,659	\$1,255	\$967	\$871	\$568	\$383	\$316	\$1,064
Average value, 2004	\$1,315	\$1,346	\$973	\$822	\$705	\$541	\$318	\$294	\$882
Average value, 2003	\$1,156	\$1,040	\$793	\$716	\$631	\$443	\$290	\$281	\$743
Average value, 2002	\$1,057	\$1,019	\$691	\$666	\$624	\$446	\$311	\$244	\$684
Average value, 2001	\$1,023	\$911	\$652	\$592	\$456	\$423	\$245	\$223	\$626
Average value, 2000	\$910	\$785	\$620	\$520	\$436	\$417	\$248	\$208	\$567
Average value, 1999	\$866	\$756	\$565	\$488	\$435	\$402	\$246	\$202	\$534
Average value, 1998	\$903	\$728	\$564	\$452	\$434	\$399	\$241	\$200	\$534
Average value, 1997	\$777	\$699	\$535	\$412	\$386	\$348	\$217	\$188	\$486
Average value, 1996	\$751	\$613	\$514	\$372	\$371	\$317	\$214	\$191	\$455
Average value, 1995	\$732	\$555	\$522	\$353	\$332	\$326	\$237	\$185	\$437
Average value, 1994	\$661	\$590	\$488	\$382	\$331	\$289	\$218	\$169	\$426
Average value, 1993	\$655	\$596	\$497	\$326	\$305	\$302	\$197	\$163	\$412
Average value, 1992	\$616	\$574	\$460	\$342	\$300	\$287	\$196	\$167	\$400
Average value, 1991	\$623	\$554	\$450	\$294	\$300	\$272	\$185	\$153	\$384
Av annual % change 19/91	7.7%	8.2%	8.3%	8.8%	8.8%	6.9%	6.1%	7.7%	8.1%
Annual % change 20/19	-11.2%	-13.4%	1.3%	-2.5%	4.5%	-8.8%	-1.6%	2.8%	-2.9%

Shareholder Returns

Glacial lakes Corn Processors (“GLCP”), the cooperative which owns 100% of all four GLE production plants, has approximately 4,200 shareholders scattered across the US with the higher concentrations of

investors in eastern South Dakota. Every shareholder has one vote regardless of ownership level and, as a result, there are no majority shareholders, only those with differing levels of investment. Investors are corn producers, retirees, and “main street” business owners whose livelihood depends on agriculture and the returns the ethanol industry can generate.

Since 2003, GLCP has paid out nearly \$330 million in cash dividends derived from operating profits. Early on, the industry received direct financial support from state and federal sources in the form of per-gallon production incentives, however, that support has long expired and is no longer being received. These dollars are sent out to shareholders who make major purchases or, in some other way, spend the money in ways that boost local economies and the economic health of the entire state as well. The heaviest concentrations of share ownership reside in the following counties (in ranking order): Codington, Hamlin, Clark, Minnehaha, Spink, Brookings, Brown, Kingsbury, Deuel, Hutchinson, Beadle, and Faulk. In fact, just short of 80% of the shares are owned within the aforementioned counties so when cash distributions are made, these counties benefit most.

State & Local Taxes

With a production facility in Beadle, Brown, Codington, and Edmunds County each, GLE pays annual property taxes of approximately \$850,000-\$900,000 to those counties. In addition, since a majority of the goods and services necessary to the production of ethanol are taxed under SD sales and excise tax rules, another estimated \$4.0-\$5.0 million in annual sales and excise taxes are paid. It should be noted that this figure does NOT include any sales and excise taxes paid on large capital projects.

Employment

Admittedly, GLE” employee numbers are not as robust as some employers, however, the jobs are stable, well paying positions. The annual payroll (wages) of GLE for its four plant footprint is approximately \$13.0 million for 190 positions which is an average of nearly \$70,000 per year per position (before benefits) across all positions.

Capital Projects

Production agriculture and agricultural processing are very capital intensive industries. Generally when projects are evaluated, the GLE Board and management team are contemplating the spend of not thousands but millions of dollars for a particular capital project. In GLE’s short 20 year history, excluding the expansion of the Watertown plant in 2007, the addition of the Mina plant in 2008, and the purchase of the Huron and Aberdeen plants in 2019, approximately \$130.0 million has been spent in capital projects across the four plants.