

Iowa's Electric Cooperatives: Powering Economic Progress Throughout the State

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Goss & Associates

A VETERAN OWNED ORGANIZATION

Iowa's Electric Cooperatives: Powering Economic Progress Throughout the State

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Iowa's Electric Cooperatives: Powering Economic Progress Throughout the State

Preface

This report was prepared for the Iowa Association of Electric Cooperatives and is intended to estimate the impact of Iowa's locally owned electric cooperatives on the state economy and on the local economies in which each operates. The study also estimates impacts across twenty major industries and all 99 counties in the state using commercially and widely accepted IMPLAN multipliers. The study provides sales, earnings, and job impacts in addition to estimating the impact of Iowa electric cooperatives on yearly state and local tax collections.

Powering the lives of households, farms, and businesses through all of Iowa's 99 counties, Iowa electric cooperatives are supporting economic development throughout the state. Input-Output multipliers show how spending changes initiated in one industry are filtered throughout the state and local economies. For each dollar of revenue the cooperatives generate, there are direct effects of the initial spending, as well as the spillover impacts into the rest of the state and local economies.

Iowa electric co-ops, by supporting businesses and rural families in Iowa, stimulate rural and urban growth by both bringing new dollars to the state, and by keeping current dollars within the state's borders. Furthermore, by supporting charitable causes and organizations in local communities via volunteer hours and financial contributions, Iowa electric co-ops improve quality of life for the members they serve.

All impact estimates contained in this study, unless otherwise indicated, are in current dollars. The Goss & Associates research team thanks the staff of Iowa Association of Electric Cooperatives for their important input. However, this report was produced independently by the principal investigators. Any errors or misstatements contained in this study are solely the responsibility of the authors. Please address all correspondence to:

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Powering households, farms, and businesses throughout all of Iowa's 99 counties, Iowa electric co-ops are supporting economic development within the state.

¹ Copies of the principal investigators' biographies are contained in Appendix B.

² Any opinions or analysis are those of Ernie Goss and Goss & Associates and are not necessarily those of Creighton University or the Department of Economic & Finance at Creighton University.

Iowa's Electric Cooperatives: Powering Economic Progress Throughout the State

Glossary

Correlation coefficient	A correlation coefficient measures the association between two variables or factors. A correlation coefficient varies from -1.0 to + 1.0. A correlation coefficient of 0.0 indicates that there is no association between the two variables. A +1.0 indicates that two variables are perfectly and positively related (i.e. as one variables goes up by 10%, the other variable goes up by 10%). Likewise a -1.0 indicates that two variables are perfectly and inversely related.
Current dollars	Dollars in the year stated (i.e., not discounted)
Direct jobs or wages & salaries	The initial impacts, or spending applied to the multiplier system Does not include spillover, or indirect impacts.
Economic Development Impacts	The impact of Iowa's electric co-ops economic development efforts due to assistance with business expansion, location or relocation activity and are over and above economic impacts.
EIA	Energy Information Agency of the U.S. Department of Energy.
IMPLAN Multipliers	Widely used input-output economic impact software, due to their documented effectiveness and relatively low cost. The I-O multipliers used in this study are those initially produced by the U.S. Forestry Service and marketed by the IMPLAN Group Inc. (www.implan.com).
Iowa Electric Cooperatives	This includes 38 electric distribution cooperatives and 3 electric generation and transmission cooperatives, which are all based in Iowa.
Jobs supported	A job in IMPLAN equals the annual average of monthly jobs in Iowa.
KWH	Kilowatt (1,000) hours.
Labor income	Wages, and salaries plus self-employment income.
MWH	Megawatt (1,000,000) hours
Neighboring states (border states)	States sharing a border with Iowa. The states are Illinois, Minnesota, Missouri, Nebraska, South Dakota and Wisconsin.
Overall sales impacts, or total impacts	Amount of additional sales, wholesale expenditures, construction sales, etc. It is analogous to gross domestic product (GDP) but will include some double counting and will thus exceed GDP.
Self-employment income	Represents income of sole proprietorships, partnerships, and tax-exempt cooperatives, such as real estate firms, lawyers, and dry cleaners.
Spillover economic impacts	Jobs, output, self employment income, or wages and salaries in industries linked to the direct impact industry. It is equal to indirect plus induced impacts.
TIPU	Combined industries of transportation, information, public utilities and private utilities.
Total impact	Impact includes wages & salaries, sales, self-employment income, profits, interest payments, and tax collections.
Wages & salaries	Wages and salaries (income earned by all workers).

Iowa's Electric Cooperatives: Powering Economic Progress Throughout the State

Executive Summary

Overall Study Conclusions: The economic impacts of Iowa's electric cooperatives across counties in the state are significant and expanding. For the five years ending in 2021, Iowa's electric co-ops generated a total impact on the state of \$4.8 billion, produced \$688.1 million in wages & salaries, and provided \$79.5 million in self-employment income. Additionally, Iowa's electric co-ops supported 1,961 jobs annually in the state and accounted for \$144.7 million in state and local taxes. The three Iowa industries outside of electric utilities experiencing the greatest total impacts for the five-year period were: real estate with \$50.6 million, wholesale trade with \$44.0 million, and commercial banks with \$40.4 million.

Not only have Iowa's electric co-ops' economic impacts been historically significant, Iowa's electric co-ops have assisted local and state organizations in the retention, attraction and expansion of businesses in the state. Separate from their spending impacts, electric cooperatives invest in efforts to attract and retain jobs and investment within their communities. These impacts are over and above the impacts listed in above. Iowa's electric cooperatives contributed to business and community investments such as • Economic Development (ED) – membership in organizations, key accounts activity, industrial parks, value-added agriculture and tourism • Community Support – job training assistance, community recreation, charitable donations, and police, fire and ambulance • Housing Assistance – new housing developments, housing rehabilitation, wiring help and energy-efficiency donations • Employee Volunteer Labor – uncompensated hours provided to community organization • Educational Assistance – K-12 school and college/ university programs, scholarships, youth organizations, county fair activities, and electric safety awareness.

Iowa's electric co-ops' economic development impacts between 2018 and 2022 were: sales of \$14.7 billion, wages and salaries of \$1.4 billion, and self-employment income of \$232.8 million. Additionally, Iowa's electric co-ops' ED activity 2018-22 resulted in support for 7,366 jobs (retained, attracted, expanded) and generated \$288.6 million in state and local tax collections.



What Iowans Have to Say About Iowa Electric Cooperative

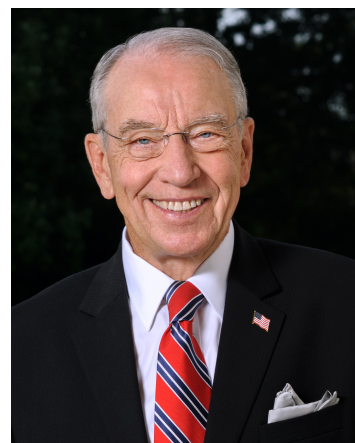


"I appreciate the work of Iowa's electric cooperatives to ensure that their member-owners have reliable, affordable energy every day – rain or shine, sleet or ice. The cooperative commitment to stable power is essential to our state's economy and quality of life for rural Iowans."

- *Iowa Lt. Governor Adam Gregg*

"Rural electric co-ops play a critical role in powering communities both in Iowa and across the country. Oftentimes I remind my colleagues that many of these smaller communities play a big part in feeding and fueling the world," Grassley said. "Electric co-ops are the bedrock of rural communities and provide a low-cost of living and high quality of life to rural areas around the country. That's why I will continue to support rural electric cooperatives and share their story with lawmakers on Capitol Hill."

- *Senator Charles Grassley*



"Electric cooperatives are essential partners in Iowa's rural economic development. For decades, their efforts to recruit new businesses, help small-town companies grow and build infrastructure to serve their communities have been crucial to Iowa's rural economy."

- *Debi Durham, director of the Iowa Economic Development Authority and the Iowa Finance Authority*

"Iowa's locally owned, rural electric cooperatives deliver affordable, reliable power to our families, farmers, and main street businesses. They also generate economic activity, create good-paying jobs, invest in our rural communities, and lower energy costs for our families. In Congress, I strongly support an 'all-of-the-above' American energy strategy that prioritizes reliable energy production over regulatory overreach and unrealistic policies."

- *Congressman Randy Feenstra*



Iowa's Electric Cooperatives: Powering Economic Progress Throughout the State

Economic Impacts on the State

- I. For the five years ending in 2021, Iowa electric cooperative investments and operations generated the following impacts on the State of Iowa:
 - A. Overall economic activity of \$4.8 billion
 - B. Wages & salaries of \$688.1 million
 - C. Self-employment income of \$79.5 million
 - D. State and Local tax collections of \$144.7 million composed of:
 - 1) Property taxes of \$48.1 million
 - 2) Sales taxes of \$47.2 million
 - 3) Individual income taxes of \$34.0 million
 - 4) Corporate income taxes of \$5.2 million
 - 5) Other taxes, fees, and charges of \$10.2 million
 - E. An average of 1,961 jobs supported annually
- II. The top five Industries other than electric utility organizations experiencing the greatest total impacts were:
 - A. Services to owner-occupied dwellings \$71.7 million
 - B. Real estate with \$50.6 million
 - C. Wholesale trade with \$44.0 million
 - D. Commercial banks with \$40.4 million
 - E. Food and drinking establishments with \$35.1 million
- III. Table X1 details Iowa's electric co-ops' economic impacts 2018-2021

Category	2017	2018	2019	2020	2021	5-year total
Output/sales	\$938.1	\$971.5	\$976.9	\$948.1	\$956.8	\$4,791.5
Wage and salary earnings	\$134.7	\$139.5	\$140.3	\$136.2	\$137.4	\$688.1
Self-employment income	\$15.6	\$16.1	\$16.2	\$15.7	\$15.8	\$79.5
Jobs (annual average)	1,966	1,983	1,953	1,944	1,961	1,961
State & local taxes, fees	\$28.3	\$29.3	\$29.5	\$28.7	\$28.9	\$144.7

Source: Goss & Associates estimate from the IMPLAN multiplier systems.

Figure EX1: Impact of Iowa cooperatives, 2017 - 2021 (millions of dollars)

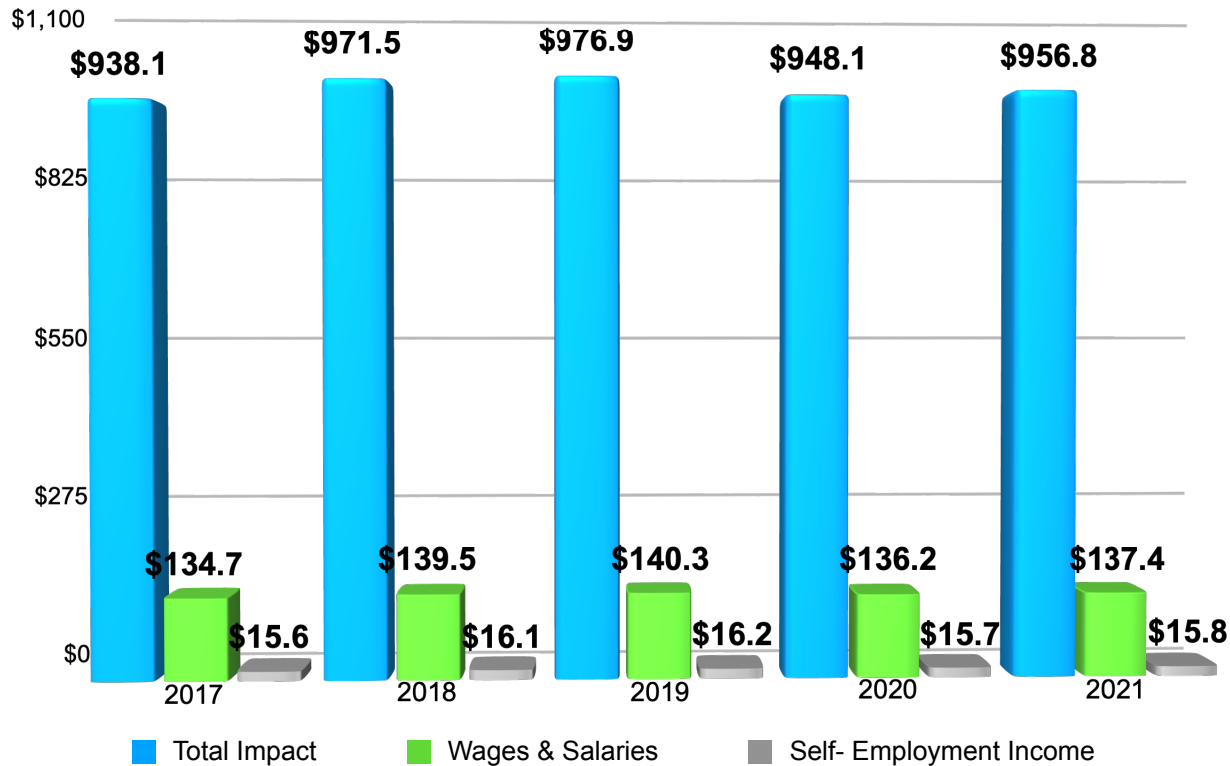
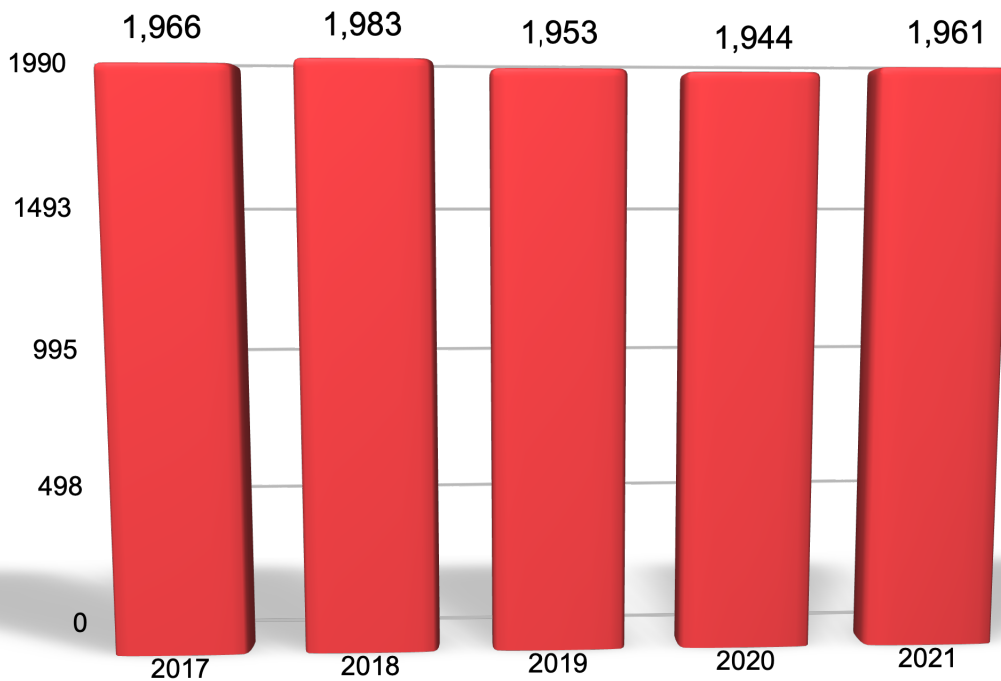


Figure EX2: Average jobs supported by Iowa electric cooperatives, 2017 - 2021



**Figure EX3: State & local taxes for Iowa electric cooperatives, 2017 - 2021
(millions of dollars)**

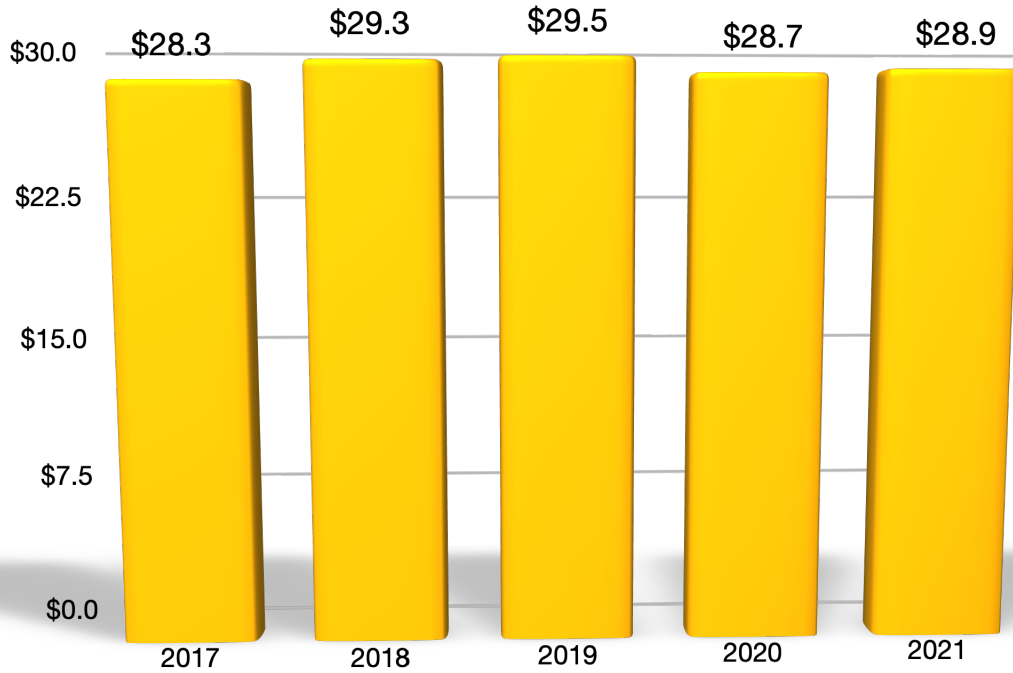


Figure EX4: State & local property tax revenue, statewide impact, 2017 - 2021 (millions of dollars)

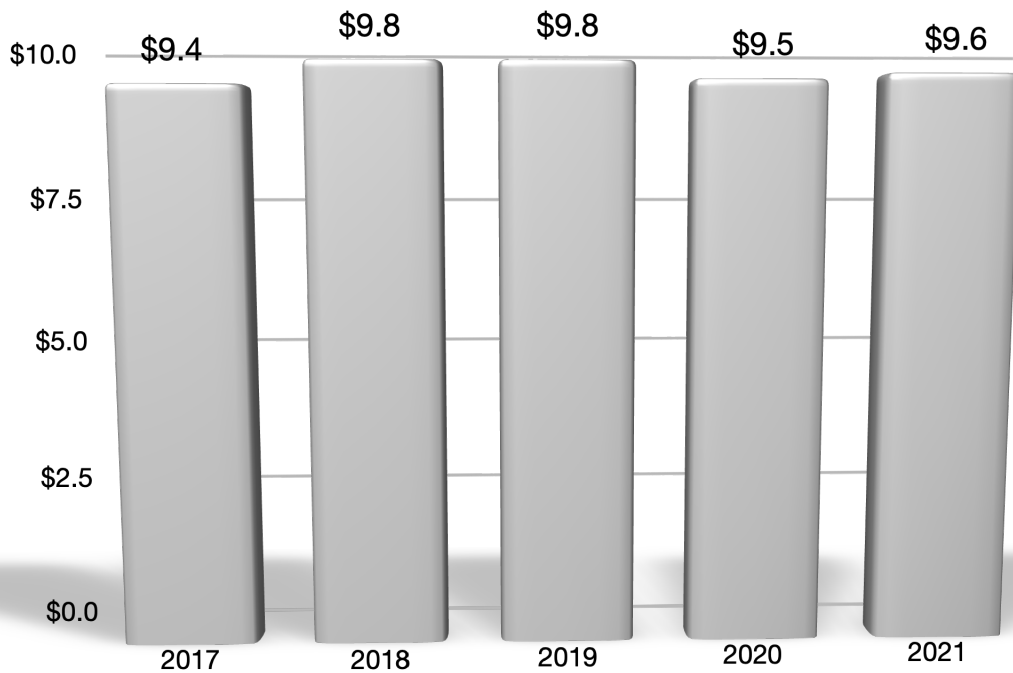


Figure EX5: State & local sales tax revenue, statewide impact, 2017 - 2021 (millions of dollars)

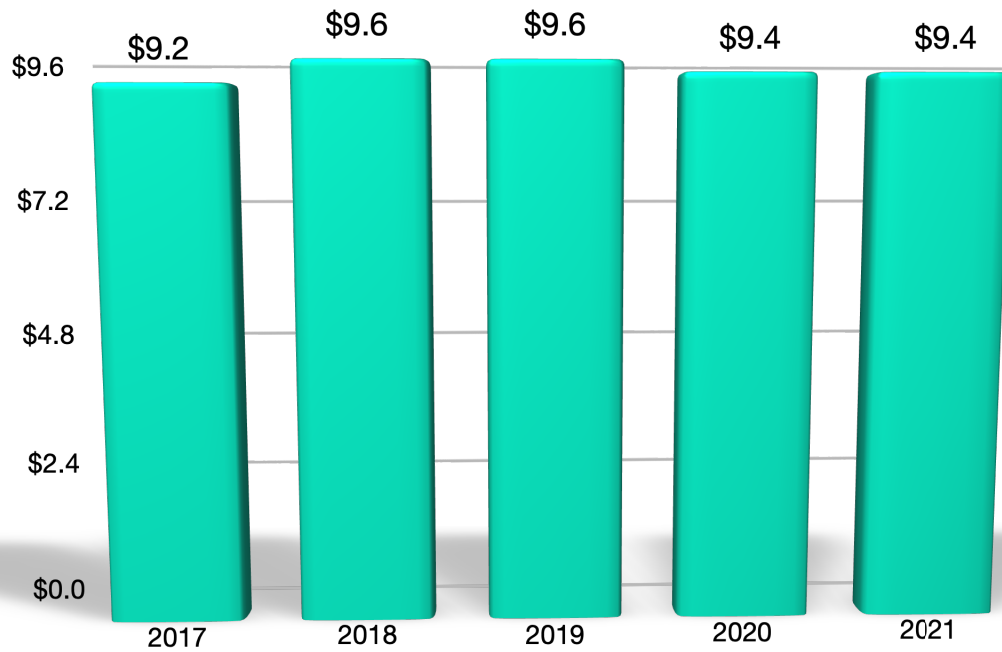


Figure EX6: State & local individual income tax revenue, statewide impact, 2017 - 2021 (millions of dollars)

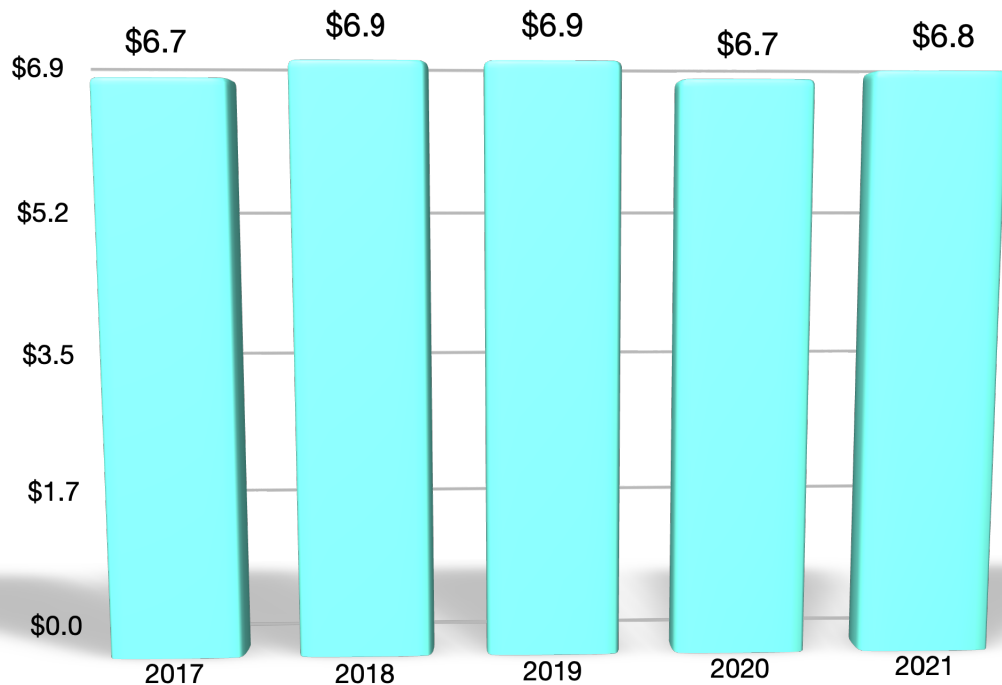
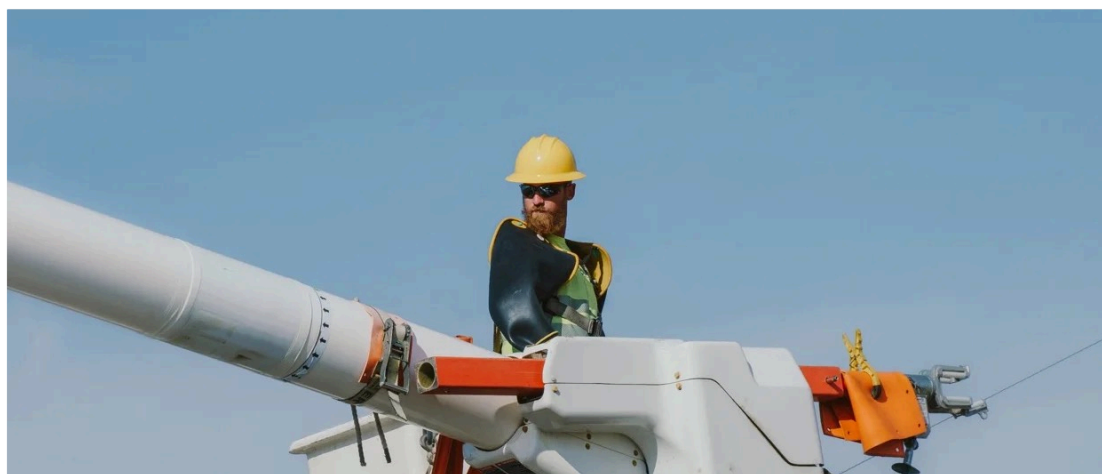


Figure EX7: State & local corporate tax revenue , statewide impact, 2017 - 2021 (millions of dollars)



- IV.** Linn County had the greatest impacts from Iowa electric co-ops with \$226.0 million in total impacts, followed by Butler with \$156.2 million in total impacts, and then Pottawattamie county with \$109.6 million in total impact. Tables X2 and X3 provide details on the impacts for Iowa counties with the greatest total impacts. Also listed are the counties' population ranking.

Table X2: Top 10 Counties in terms of impacts, 2017-21				
County	Total	Jobs supported annual average	Wages & salaries	Ranked by population
Linn	\$226,009,690	92	\$37,909,888	2
Butler	\$156,153,877	64	\$21,690,040	55
Pottawattamie	\$109,613,142	45	\$15,698,336	10
Benton	\$93,838,262	38	\$14,562,143	24
Guthrie	\$85,445,437	35	\$11,085,432	70
Clayton	\$83,272,177	35	\$10,826,771	41
Bremer	\$72,260,602	30	\$9,194,491	26
Clinton	\$70,878,444	29	\$9,769,960	12
Cedar	\$70,535,760	29	\$9,497,652	38
Sioux	\$69,736,164	29	\$10,080,155	19
Source: Goss & Associates estimate from the IMPLAN multiplier systems.				





“I appreciate the work of Iowa's electric cooperatives to ensure that their member-owners have reliable, affordable energy every day – rain or shine, sleet or ice. The cooperative commitment to stable power is essential to our state’s economy and quality of life for rural Iowans.”

-Iowa Lt. Governor Adam Gregg

Table X3: Top 10 counties in terms of state & local tax impacts, 2017-21

County	Property	Sales	Individual income	Corporate & other	Total
Linn	\$2,649,902	\$2,601,910	\$1,875,812	\$845,442	\$7,973,065
Butler	\$1,516,134	\$1,488,676	\$1,073,241	\$483,717	\$4,561,768
Pottawattamie	\$1,097,314	\$1,077,441	\$776,766	\$350,093	\$3,301,614
Benton	\$1,017,894	\$999,460	\$720,546	\$324,755	\$3,062,656
Plymouth	\$787,986	\$773,715	\$557,799	\$251,404	\$2,370,903
Guthrie	\$774,872	\$760,838	\$548,517	\$247,220	\$2,331,447
Clayton	\$756,791	\$743,086	\$535,717	\$241,451	\$2,277,045
Story	\$745,036	\$731,542	\$527,396	\$237,701	\$2,241,675
Lee	\$725,603	\$712,462	\$513,640	\$231,501	\$2,183,206
Marion	\$724,811	\$711,685	\$513,079	\$231,248	\$2,180,823

Source: Goss & Associates estimate from the IMPLAN multiplier systems.

“Rural electric co-ops play a critical role in powering communities both in Iowa and across the country. Oftentimes I remind my colleagues that many of these smaller communities play a big part in feeding and fueling the world,” Grassley said. “Electric co-ops are the bedrock of rural communities and provide a low-cost of living and high quality of life to rural areas around the country. That’s why I will continue to support rural electric cooperatives and share their story with lawmakers on Capitol Hill.”

-Senator Charles Grassley

V. Economic development effort impacts

A. During the five-year period from 2018 to 2022, Iowa electric cooperatives supported economic development projects across the state. The investment resulted in increased opportunity and growth in jobs, wage and salary earnings, self-employment income and tax revenue. Iowa electric cooperatives supported and closed projects resulting in nearly \$4.7 billion in total five-year impacts, adding 2,043 new jobs for a total of 7,366 five-year supported jobs³. Table X4 presents the total impacts produced by this activity.



B. Economic Development Impacts

Category	Construction and capital spending	New operations	Retained operations	Total 5-year impact
Sales/output	\$2,107,258,798	\$1,745,864,565	\$819,926,131	\$4,673,049,494
Wage and salary earnings	\$633,785,428	\$386,497,936	\$351,755,803	\$1,372,039,168
Self-employment income	\$123,536,890	\$87,795,951	\$21,438,644	\$232,771,485
Jobs (annual average)	3,075	2,043	2,249	7,366
State and local taxes	\$133,296,537	\$81,287,506	\$73,980,607	\$288,564,650

Source: Goss & Associates estimate from the IMPLAN multiplier systems.

³ Projects in this category are considered “completed” at the time of the annual report. Each has been evaluated to determine if the project met all contract terms. If so, projects are categorized as successful and are under no additional obligation to report information to IEDA [Iowa Economic Development Authority Annual Report, 2022].

Section 1:Iowa's Electric Cooperatives

Background:

An electric cooperative is a nonprofit organization owned by the members it serves. Its core purpose is to improve quality of life for members, which it accomplishes by providing safe, reliable electric service at cost. Electric co-ops are locally governed by elected directors, who must be member-owners of the cooperative, and who take fiduciary responsibility and set policies and strategic goals for the co-op. Any margins over expenses are invested into the co-op's infrastructure or paid out as dividends back to the co-op members, as determined by the elected board of directors.

Cooperatives hold annual meetings of members to review financials, receive updates from co-op leaders, vote on bylaw changes and elect directors to the board.

The cooperative business model fundamentally differs from investor-owned utilities which operate for profit with appointed directors who are often not receiving service from the utility.

There are two main categories of electric cooperatives: Generation and transmission (G&T) cooperatives and electric distribution cooperatives. As the name implies, G&T co-ops generate electricity from a variety of sources (coal, natural gas, hydropower, wind, solar, etc.) and then transmit the electricity over long distances to their member electric distribution co-ops. Electric distribution cooperatives are tasked with taking the electricity from the transmission lines and distributing it to consumers, the cooperative member-owners at the end of the line, via a local distribution electric system. In Iowa, there are nine G&T cooperatives that generate and/or transmit electricity to 39 electric distribution cooperatives.

This study investigates the origins and growth of Iowa's electric cooperatives. By the early 1900s, new innovations made electricity more accessible to populated areas around the world. However, life was different in rural areas of America. By the 1920s, an electric divide had formed in the United States. Approximately 90% of residents in cities and towns had access to



electricity while only 10% of rural citizens had electricity. Investor-owned utilities at the time saw no profit in building out miles of infrastructure to power just a few homes or farms. If farmers and ranchers wanted access to electricity, they would have to find their own way to make it possible.

In fact, America's oldest known electric cooperative was formed in Iowa. In 1916, a small group of Iowa farmers banded together to create the Farmers Light and Power Company serving Johnson, Washington and Iowa counties. Now known as Farmers Electric Cooperative based in Kalona, it was one of the first farmers' electric cooperatives of its kind, but certainly not the last.

While electricity was desperately needed in rural areas, citizens had difficulty securing financing to build electric infrastructure. The federal government helped immensely when President Roosevelt signed Executive Order No. 7037 and created the Rural Electrification Administration (REA) in 1935. Soon after, the Rural Electrification Act was passed and lending options became feasible. The REA supplied low-interest loans to newly created rural electric cooperatives across the country. Rural communities in Iowa and elsewhere soon experienced an intense period of electric construction and growth, despite supply and labor shortages due to World War II.

In the late 1930s, an REA loan of \$220,000 was given to the Reeve Electric Association Plant near Hampton. Powered by diesel engines, it was the first farmer-owned electric power plant to receive an REA loan in the United States. The original building now serves as an REA Power Plant Museum.

In 1942, electric cooperatives in Iowa formed a statewide trade association in order to advocate with a strong political voice. The Iowa Rural Electric Cooperative Association, now known as the Iowa Association of Electric Cooperatives (IAEC), was tasked to provide legislative representation, foster the growth of rural electric cooperatives, promote rural electrification, publish information and to defend the interests of its members.

By 1953, more than 90% of U.S. farms had electricity. Today, Iowa's electric cooperatives are mission driven to power lives and empower communities by providing electricity that is safe, affordable, reliable and environmentally responsible. Electric cooperative



employ approximately 1,200 Iowans full time and serve members in all of the state's 99 counties.

Electric cooperatives have also heavily invested in rural economic development for decades, which is demonstrated in their longstanding partnership with USDA Rural Development and the creation of the Iowa Area Development Group (IADG) in 1985. IADG provides consulting and business development services for its members, including electric cooperatives. In the past 37 years, IADG has helped retain or create over 57,500 jobs and has assisted more than 2,400 companies in investing almost \$14 billion through rural economic development projects.

For 75 years, the statewide association has mailed a monthly publication to member-consumers and other key stakeholders to inform and educate about cooperative news and industry trends. Now a 16-page magazine called *Iowa Electric Cooperative Living*, the publication is mailed to 55,000 homes and businesses each month and includes electric safety tips, energy efficiency information, rural economic development stories, recipes and more.

Enduring Affordability

It's important to note that electric cooperatives in Iowa serve primarily rural areas with sparse populations. To put this in perspective, electric co-ops serve about 15% of Iowa's population and cover about 80% of the state's land mass. Collectively, Iowa's electric cooperatives maintain enough power lines to wrap around the equator 2 and a half times.

While Iowa co-ops serve about 4 meters per mile and receive \$10,700 of revenue per mile, Iowa municipalities serve 54 meters per mile and receive \$129,000 of revenue per mile. Investor-owned utilities serve 28 meters per mile and receive \$77,600 of revenue per mile in Iowa. Serving sparsely populated areas means that Iowa's electric cooperatives must maintain more infrastructure with less revenue per mile compared to other electric utilities in the state. To accomplish this task, co-ops structure rates and fees to recover costs and partner with other cooperatives to create efficiencies of scale for supplies, insurance, financing, technology solutions and more.

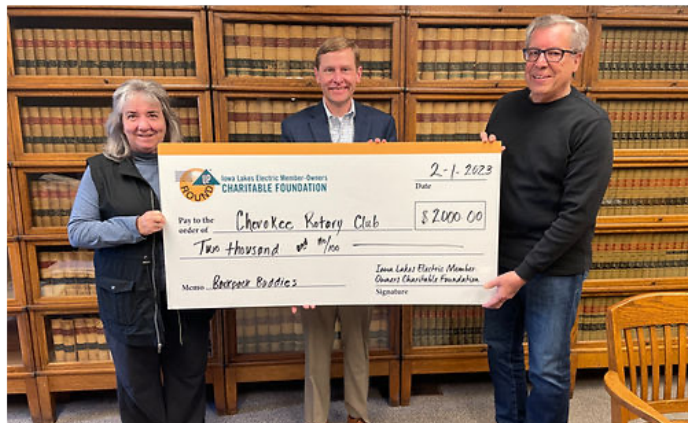
In a world increasingly reliant on the many benefits of electricity, cooperative



service is an incredible value. The average household served by an Iowa electric cooperative pays about \$5.25 per day for electricity and cooperative kilowatt-hour rates in Iowa sit close to the national average according to the Energy Information Administration. Electric cooperatives also help their member-owners use energy wisely through rebates, incentives energy efficiency programs and energy audits.

Commitment to Community

Locally owned and governed by their member-consumers, electric cooperatives are committed to the communities they serve. Electric co-ops pay local property taxes, provide stable careers and have returned more than \$375 million in margins back to their members in the form of retired capital credits/patronage capital. Co-ops also give charitable contributions to local organizations, provide college scholarships and invest in student leadership development through the Iowa Youth Tour and the Iowa Youth Leadership Academy program.



Many electric cooperatives manage a local “round up” program to give back to their communities. For example, Iowa Lakes Electric Cooperative launched its Operation Round-Up program in 2001. This is a community support program where participating co-op members “round up” their monthly bill to the nearest dollar and the extra funds are pooled together and used to support a variety of charitable, educational, community and youth-related programs.

Electric cooperatives routinely partner with other co-op organizations for local charitable contributions. For example, in 2019, Northwest Iowa Power Cooperative and its member distribution co-op North West Rural Electric Cooperative presented a \$9,000 donation to the Le Mars Little League.

Electric cooperatives in the state support the annual Shine the Light contest to highlight community service. In this program managed by IAEC, members and employees of Iowa electric cooperatives are invited to nominate local volunteers during the month of June. Three volunteers are chosen to each receive a \$2,500 donation to their local charity or nonprofit.

For 65 years, electric cooperatives in Iowa have been sending deserving high school students on a weeklong trip to Washington, D.C., in June as part of the National Electric Cooperative Youth Tour. Often described as the trip of a lifetime, student leaders who attend learn more about American history, government and the cooperative business model.

Environmental Stewardship

Iowa’s electric co-ops are committed to sustainability through energy efficiency efforts and investments in renewable energy. In Iowa, more than 2,000 electric cooperative member consumers have interconnected their privately owned wind and solar generation to the grid. Iowa G&T cooperatives are incorporating more utility-scale wind and solar into their generation portfolios. Several Iowa electric distribution cooperatives also offer community solar subscriptions to their member-consumers.

Annually, Iowa’s electric co-ops invest \$10 to \$15 million in energy efficiency and demand response measures.

Iowa’s electric co-ops have assisted more than 2,000 companies in investing more than \$10 billion in new locations and expansions over the past 30 years



Section 2 :Economic Impacts for the State of Iowa

Round 1 (Direct Impacts)

The first step in estimating economic impacts is to calculate direct impacts, referred to as Round 1 impacts in this study. These Round 1 impacts represent Iowa co-op employee spending, profit distributions and Iowa co-op purchases at Iowa vendors. They do not include spillover impacts (Rounds 2 and 3). The sales data provide the input to the IMPLAN multiplier system used in the investigation. The direct impacts used in the study appear on Table 2.1. The sales data provide the input to the IMPLAN multiplier system used in the investigation to provide total impacts.

Year	Operating Revenue & Patronage Capital
2017	\$718.8
2018	\$741.6
2019	\$745.4
2020	\$721.8
2021	\$728.5

Source: Goss & Associates and Iowa co-op financial statements.

Spillover Impacts Rounds 2 and 3

Table 2.2 presents the statewide economic impacts from 2017 to 2021. The impacts reported on Table 2.2



represent the combined impacts from expenditures at the company (direct), additional business-to-business activities (indirect) and employee households (induced). The indirect and induced expenditures are “spillover” categories of spending not directly related to activities at the co-ops.

For the five years ending in 2021, activities at Iowa’s electric cooperatives have increased sales in Iowa by \$4.8 billion. Wage and salary earnings have increased by

\$688.1 million and income for the self-employed climbed by \$79.5 million. Activities by the Iowa electric co-ops have supported, on average, 1,961 jobs annually. Finally, state and local tax authorities have received an additional \$144.7 million due to the activities at Iowa's electric cooperatives for the five year period.

Table: 2.2: Economic impacts, State of Iowa (millions of dollars)						
Category	2017	2018	2019	2020	2021	5-year total
Output/sales	\$938.1	\$971.5	\$976.9	\$948.1	\$956.8	\$4,791.5
Wage and salary earnings	\$134.7	\$139.5	\$140.3	\$136.2	\$137.4	\$688.1
Self-employment income	\$15.6	\$16.1	\$16.2	\$15.7	\$15.8	\$79.5
Jobs (annual average)	1,966	1,983	1,953	1,944	1,961	1,961
State and local taxes, fees and charges	\$28.3	\$29.3	\$29.5	\$28.7	\$28.9	\$144.7
Source: Goss & Associates estimate from the IMPLAN multiplier systems.						

Table 2.3 lists the top 20 industry sectors impacted by the Iowa electric cooperatives. The data presented are for the five years ending in 2021 and are ranked by sales. The top three non-electric utility sectors are as follows: services to owner-occupied dwellings (\$71.7 million); real estate (\$50.6 million); and wholesale trade (\$44.0 million).



Category	Output/sales	Wage and salary earnings	Self-employment income	Jobs (annual average)
Electric utilities	\$3,948,199,260	\$491,277,530	\$37,214,301	981
Owner-occupied dwellings	\$71,666,081	n.a.	n.a.	n.a.
Real estate	\$50,614,916	\$2,068,934	\$2,002,753	34
Wholesale trade	\$43,968,242	\$11,434,703	\$1,690,225	29
Commercial banks	\$40,377,683	\$12,422,228	\$123,733	30
Food and drinking establishments	\$35,060,052	\$10,122,639	\$889,692	103
Hospitals	\$28,887,365	\$10,783,486	\$14,291	28
Extraction of natural gas and crude petroleum	\$23,319,306	\$6,307	\$2,134,761	50
Telecommunication carriers	\$21,521,523	\$3,404,550	\$2,261	6
Insurance carriers	\$17,224,748	\$10,432,569	\$430,552	18
Offices of physicians	\$14,430,479	\$3,565,031	\$29,346	5
Pipeline transportation	\$13,980,352	\$6,268,956	\$102,299	31
Employment services	\$13,622,248	\$3,200,501	\$1,085,178	12
Truck transportation	\$13,284,233	\$4,103,099	\$1,002,373	14
Legal services	\$12,361,678	\$2,306,357	(\$11,225)	3
Rail transportation	\$11,861,442	\$1,023,191	\$279,690	13
Other financial investment activities	\$11,687,153	\$4,980,498	\$314,288	10
Non-depository credit financial services	\$11,357,195	\$1,618,948	\$33,051	4
Advertising, public relations, and related services	\$11,165,556	\$279,696	\$14,757	1
Retail – Non-store retailers	\$11,042,243	\$2,063,324	\$415,838	9
Retail - General merchandise stores	\$10,929,474	\$685,334	\$777,317	19
All other sectors	\$374,903,812	\$106,015,884	\$30,917,584	561
Total all sectors	\$4,791,465,043	\$688,063,767	\$79,463,066	1,961
Source: Goss & Associates estimate from the IMPLAN multiplier systems.				

Tax revenue generated by co-op activity at the company appears in Table 2.4. For the five years ending in 2021, capital and operational expenditures at Iowa's electric co-ops generated economic activity in Iowa that resulted in an addition of \$144.7 million in revenue to state and local tax coffers. Property and utility replacement tax collections increased by \$48.1 million; sales tax revenue increased by \$47.2 million; individual income tax rose by \$34.0 million; corporate taxes expanded by \$5.2 million; and other taxes, fees and charges increased by \$10.2 million.

Table 2.4: State and local tax revenue, statewide impacts (dollars)						
Category	2017	2018	2019	2020	2021	5-year total
Property taxes (includes replacement tax)	\$9,413,414	\$9,753,097	\$9,813,727	\$9,523,859	\$9,591,571	\$48,095,667
Sales taxes	\$9,242,930	\$9,576,461	\$9,635,993	\$9,351,375	\$9,417,861	\$47,224,620
Individual income taxes	\$6,663,566	\$6,904,020	\$6,946,939	\$6,741,747	\$6,789,680	\$34,045,953
Corporate taxes	\$1,014,247	\$1,050,846	\$1,057,378	\$1,026,147	\$1,033,443	\$5,182,061
Other taxes, fees and charges	\$1,989,067	\$2,060,842	\$2,073,655	\$2,012,404	\$2,026,712	\$10,162,681
Total revenue	\$28,323,224	\$29,345,266	\$29,527,692	\$28,655,532	\$28,859,267	\$144,710,981
Source: Goss & Associates estimate from the IMPLAN multiplier systems.						

State tax revenue increased by \$90.0 million for the 2017 to 2021 period and local tax revenue climbed by \$54.7 million during the same period. Table 2.5 provides the incremental increase in revenue by category for both state and local tax collections resulting from the Iowa electric co-ops' activities.



Table 2.5 presents the impacts by Iowa's electric co-ops. County-level impacts appear in Section 3.

Category	State	Local	Total
Property taxes (includes replacement tax)	\$0	\$48,095,667	\$48,095,667
Sales taxes	\$41,408,504	\$5,816,115	\$47,224,620
Individual income taxes	\$34,045,953	\$0	\$34,045,953
Corporate taxes	\$5,182,061	\$0	\$5,182,061
Other taxes, fees and charges	\$9,361,878	\$800,803	\$10,162,681
Total revenue	\$89,998,396	\$54,712,585	\$144,710,981

Source: Goss & Associates estimate from the IMPLAN multiplier systems.



Section 3: Economic Impacts for Iowa Counties

The previous section provided impacts for the State of Iowa. This section drills down to the individual county impacts. Table 3.1 lists the top 10 counties experiencing five-year impacts for the period 2017-21. As presented, 10% of Iowa's counties accounted for roughly 21% of total impacts. Furthermore, estimates contained in Table 3.1 indicate the importance of Iowa's electric co-ops to less populated and rural areas of the state. As listed, only two of the ten top counties in terms of economic impacts are ranked in the top ten in terms of population.

Table 3.1: Top 10 Counties in Terms of Impacts, 2017-2021				
County	Total	Jobs supported annual average	Wages & salaries	Ranked by population
Linn	\$226,009,690	92	\$37,909,888	2
Butler	\$156,153,877	64	\$21,690,040	55
Pottawattamie	\$109,613,142	45	\$15,698,336	10
Benton	\$93,838,262	38	\$14,562,143	24
Guthrie	\$85,445,437	35	\$11,085,432	70
Clayton	\$83,272,177	35	\$10,826,771	41
Bremer	\$72,260,602	30	\$9,194,491	26
Clinton	\$70,878,444	29	\$9,769,960	12
Cedar	\$70,535,760	29	\$9,497,652	38
Sioux	\$69,736,164	29	\$10,080,155	19
Source: Goss & Associates estimate from the IMPLAN multiplier systems.				



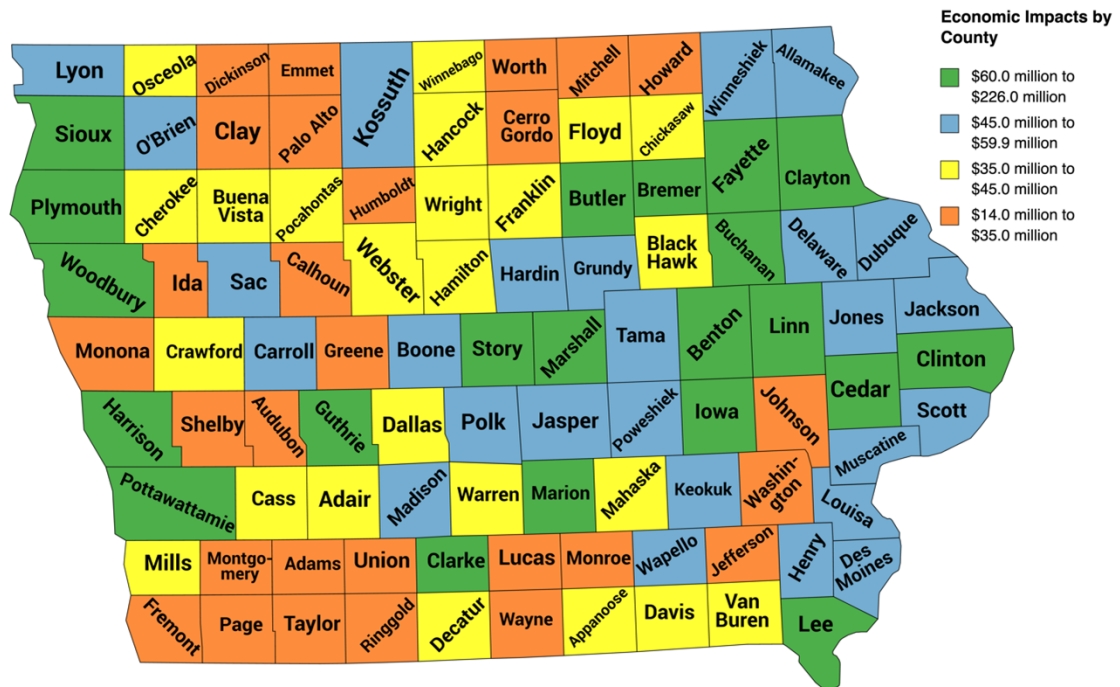
Table 3.2 lists state and local tax impacts stemming from Iowa electric co-ops operations in the state. These impacts include both direct and spillover impacts. As presented, the top 10 counties accounted for 22.4% of total state and local tax impacts in Iowa.

	Property	Sales	Individual Income	Corporate & Other	Total
Linn	\$2,649,902	\$2,601,910	\$1,875,812	\$845,442	\$7,973,065
Butler	\$1,516,134	\$1,488,676	\$1,073,241	\$483,717	\$4,561,768
Pottawattamie	\$1,097,314	\$1,077,441	\$776,766	\$350,093	\$3,301,614
Benton	\$1,017,894	\$999,460	\$720,546	\$324,755	\$3,062,656
Plymouth	\$787,986	\$773,715	\$557,799	\$251,404	\$2,370,903
Guthrie	\$774,872	\$760,838	\$548,517	\$247,220	\$2,331,447
Clayton	\$756,791	\$743,086	\$535,717	\$241,451	\$2,277,045
Story	\$745,036	\$731,542	\$527,396	\$237,701	\$2,241,675
Lee	\$725,603	\$712,462	\$513,640	\$231,501	\$2,183,206
Marion	\$724,811	\$711,685	\$513,079	\$231,248	\$2,180,823
Source: Goss & Associates based on Implan Multipliers					

	Total	Wages & salaries	Self-employment income	State & local tax impacts
Butler	\$50,682	\$7,040	\$841	\$1,481
Guthrie	\$31,446	\$4,080	\$522	\$858
Decatur	\$31,403	\$2,928	\$521	\$616
Clarke	\$27,517	\$3,329	\$456	\$700
Keokuk	\$26,344	\$3,398	\$437	\$715
Van Buren	\$25,698	\$3,340	\$426	\$702
Davis	\$24,556	\$3,263	\$407	\$686
Harrison	\$24,428	\$3,200	\$405	\$673
Ringgold	\$23,154	\$2,901	\$384	\$610
Wayne	\$20,524	\$2,757	\$340	\$580
Source: Goss & Associates based on Implan Multipliers				

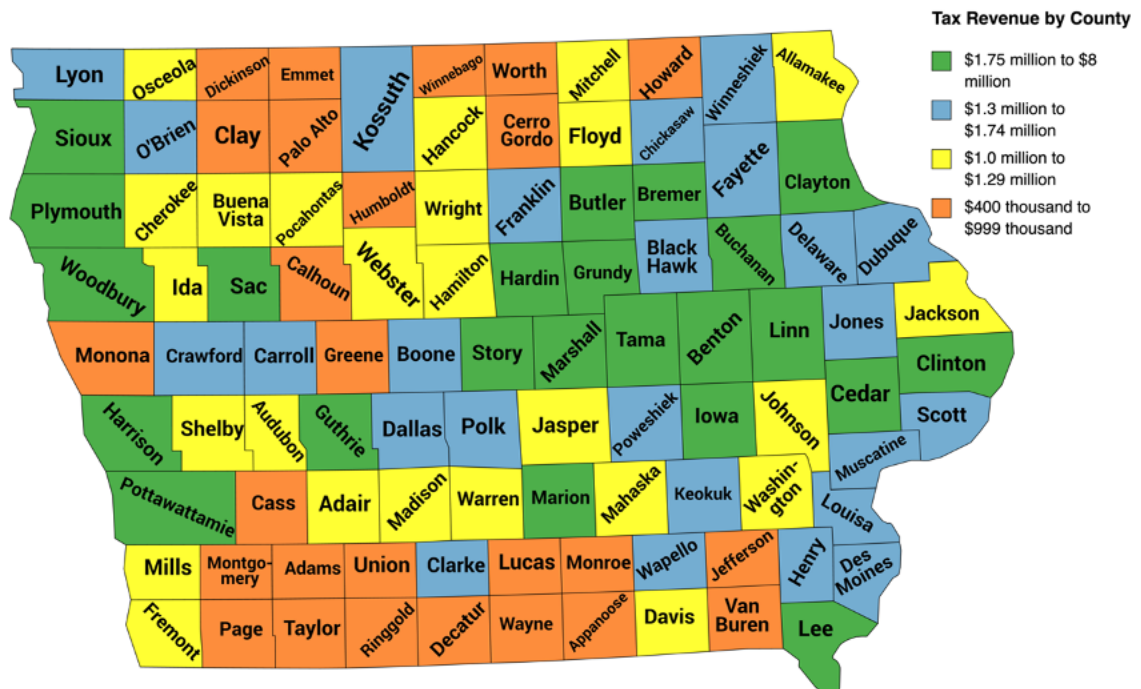
Figures 3.1, 3.2, and 3.3 present total impacts, state & local tax impacts, and job impacts, respectively.

Figure 3.1: Total economic impacts by Iowa County, 2017-2021



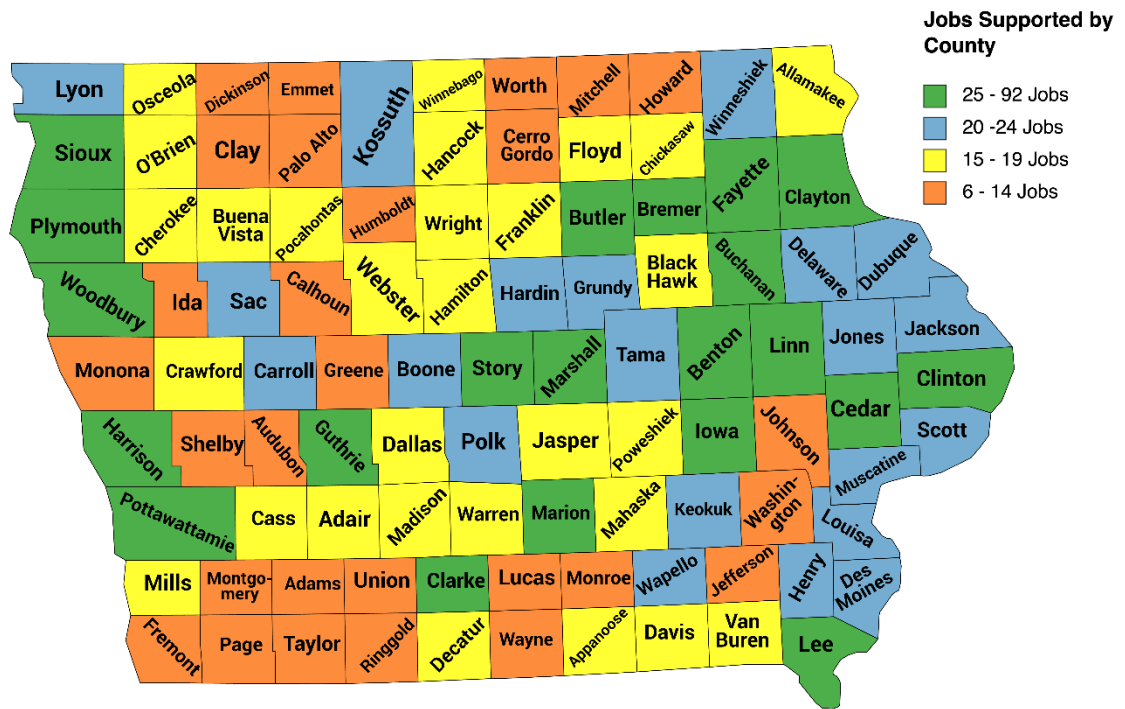
Created with mapchart.net

Figure 3.2: State & local tax economic impacts by Iowa county, 2017-21



Created with mapchart.net

Figure 3.3: Jobs supported by Iowa County, annual average, 2017-2021



Created with mapchart.net



“Iowa’s locally owned, rural electric cooperatives deliver affordable, reliable power to our families, farmers, and main street businesses. They also generate economic activity, create good-paying jobs, invest in our rural communities, and lower energy costs for our families. In Congress, I strongly support an ‘all-of-the-above’ American energy strategy that prioritizes reliable energy production over regulatory overreach and unrealistic policies.”

- Congressman Randy Feenstra

Tables 3.4, 3.5, 3.6, 3.7, 3.8, and 3.9 provide details on Iowa co-ops impacts by county.

Table 3.4: Economic impacts, by county, 2017 to 2021

County	Output/sales	Wage and salary earnings	Self-employment income	Jobs (annual average)	State and local taxes, fees & charges
Adair	\$37,603,842	\$5,168,246	\$623,633	15	\$1,086,966
Adams	\$19,590,094	\$2,822,890	\$324,888	8	\$593,700
Allamakee	\$47,324,640	\$5,974,655	\$784,845	19	\$1,256,567
Appanoose	\$36,255,952	\$4,160,559	\$601,279	15	\$875,033
Audubon	\$29,893,455	\$5,288,885	\$495,762	12	\$1,112,338
Benton	\$93,838,262	\$14,562,143	\$1,556,241	38	\$3,062,655
Black Hawk	\$40,615,035	\$6,317,253	\$673,572	17	\$1,328,620
Boone	\$59,250,038	\$7,896,742	\$982,620	24	\$1,660,813
Bremer	\$72,260,602	\$9,194,491	\$1,198,391	30	\$1,933,750
Buchanan	\$61,888,704	\$8,338,926	\$1,026,380	25	\$1,753,812
Buena Vista	\$42,195,805	\$6,147,191	\$699,788	17	\$1,292,854
Butler	\$156,153,877	\$21,690,040	\$2,589,702	64	\$4,561,768
Calhoun	\$29,289,637	\$4,475,352	\$485,748	12	\$941,239
Carroll	\$49,974,729	\$6,962,660	\$828,796	20	\$1,464,360
Cass	\$35,696,235	\$4,645,292	\$591,997	15	\$976,980
Cedar	\$70,535,760	\$9,497,652	\$1,169,786	29	\$1,997,510
Cerro Gordo	\$14,019,246	\$2,074,317	\$232,499	6	\$436,263
Cherokee	\$35,913,268	\$5,747,347	\$595,596	15	\$1,208,760
Chickasaw	\$43,086,783	\$6,876,976	\$714,564	18	\$1,446,340
Clarke	\$63,421,492	\$7,672,623	\$1,051,800	26	\$1,613,677
Clay	\$27,209,098	\$4,004,698	\$451,243	11	\$842,253
Clayton	\$83,272,177	\$10,826,771	\$1,381,010	35	\$2,277,045
Clinton	\$70,878,444	\$9,769,960	\$1,175,469	29	\$2,054,781
Crawford	\$41,419,055	\$6,299,974	\$686,906	17	\$1,324,987
Dallas	\$42,611,890	\$7,310,500	\$706,688	17	\$1,537,517
Davis	\$36,564,367	\$4,858,597	\$606,394	15	\$1,021,842
Decatur	\$36,815,669	\$3,433,002	\$610,562	15	\$722,016

Table 3.4 continued next page

Table 3.4 continued					
County	Output/sales	Wage and salary earnings	Self-employment income	Jobs (annual average)	State and local taxes, fees & charges
Delaware	\$56,222,998	\$8,029,420	\$932,419	23	\$1,688,717
Des Moines	\$49,163,710	\$7,400,907	\$815,345	20	\$1,556,531
Dickinson	\$29,402,275	\$3,912,425	\$487,616	12	\$822,846
Dubuque	\$52,424,919	\$8,006,087	\$869,430	21	\$1,683,810
Emmet	\$19,670,053	\$2,594,956	\$326,214	8	\$545,762
Fayette	\$68,468,234	\$8,241,127	\$1,135,498	28	\$1,733,243
Floyd	\$39,328,684	\$5,794,785	\$652,238	16	\$1,218,738
Franklin	\$40,184,598	\$6,199,743	\$666,433	16	\$1,303,907
Fremont	\$34,999,444	\$5,075,651	\$580,441	14	\$1,067,492
Greene	\$26,455,193	\$3,796,437	\$438,741	11	\$798,452
Grundy	\$57,143,474	\$8,757,816	\$947,684	23	\$1,841,911
Guthrie	\$85,445,437	\$11,085,432	\$1,417,052	35	\$2,331,446
Hamilton	\$37,032,702	\$5,722,625	\$614,161	15	\$1,203,561
Hancock	\$37,912,257	\$5,889,491	\$628,748	16	\$1,238,655
Hardin	\$58,964,468	\$8,553,439	\$977,884	24	\$1,798,927
Harrison	\$69,546,496	\$9,109,602	\$1,153,380	28	\$1,915,897
Henry	\$52,019,409	\$7,297,486	\$862,706	21	\$1,534,780
Howard	\$27,369,017	\$3,800,389	\$453,896	11	\$799,284
Humboldt	\$21,429,163	\$3,181,291	\$355,388	9	\$669,077
Ida	\$34,862,371	\$5,804,462	\$578,168	14	\$1,220,773
Iowa	\$62,219,965	\$8,990,074	\$1,031,875	25	\$1,890,759
Jackson	\$48,706,798	\$5,507,368	\$807,768	20	\$1,158,289
Jasper	\$47,596,654	\$6,079,085	\$789,357	19	\$1,278,531
Jefferson	\$31,435,532	\$4,007,480	\$521,336	13	\$842,839
Johnson	\$32,383,875	\$5,243,710	\$537,064	14	\$1,102,837
Jones	\$55,183,524	\$6,964,169	\$915,179	23	\$1,464,678
Keokuk	\$50,351,681	\$6,495,256	\$835,047	21	\$1,366,058
Kossuth	\$48,958,100	\$7,153,807	\$811,936	20	\$1,504,562

Table 3.4 continued next page

Table 3.4 continued					
County	Output/sales	Wage and salary earnings	Self-employment income	Jobs (annual average)	State and local taxes, fees & charges
Lee	\$68,136,973	\$10,380,586	\$1,130,003	28	\$2,183,205
Linn	\$226,009,690	\$37,909,888	\$3,748,212	92	\$7,973,065
Louisa	\$49,643,467	\$6,931,306	\$823,302	20	\$1,457,766
Lucas	\$23,085,469	\$3,270,398	\$382,857	9	\$687,818
Lyon	\$50,740,056	\$7,885,589	\$841,488	21	\$1,658,468
Madison	\$45,839,676	\$4,830,184	\$760,219	19	\$1,015,866
Mahaska	\$43,817,842	\$5,919,710	\$726,688	18	\$1,245,012
Marion	\$68,947,991	\$10,369,262	\$1,143,454	28	\$2,180,824
Marshall	\$62,025,778	\$9,449,181	\$1,028,653	25	\$1,987,316
Mills	\$38,837,503	\$5,782,661	\$644,093	16	\$1,216,188
Mitchell	\$32,166,591	\$5,147,108	\$533,460	13	\$1,082,520
Monona	\$32,383,624	\$4,570,657	\$537,060	13	\$961,283
Monroe	\$19,978,468	\$3,042,233	\$331,329	8	\$639,831
Montgomery	\$24,593,278	\$3,176,653	\$407,862	10	\$668,102
Muscatine	\$47,690,169	\$7,624,489	\$790,908	20	\$1,603,554
O'Brien	\$45,508,416	\$6,535,077	\$754,725	19	\$1,374,433
Osceola	\$39,598,186	\$5,610,998	\$656,708	16	\$1,180,084
Page	\$25,095,881	\$3,680,502	\$416,197	10	\$774,070
Palo Alto	\$28,248,572	\$3,883,824	\$468,483	12	\$816,831
Plymouth	\$69,187,870	\$11,273,037	\$1,147,432	28	\$2,370,903
Pocahontas	\$35,971,604	\$5,748,216	\$596,563	15	\$1,208,943
Polk	\$49,630,403	\$8,319,335	\$823,085	21	\$1,749,691
Pottawattamie	\$109,613,142	\$15,698,336	\$1,817,856	45	\$3,301,615
Poweshiek	\$46,068,133	\$6,563,529	\$764,007	19	\$1,380,416
Ringgold	\$23,382,462	\$2,929,290	\$387,782	10	\$616,077
Sac	\$51,196,968	\$8,570,286	\$849,066	21	\$1,802,470
Scott	\$49,647,443	\$7,594,752	\$823,367	20	\$1,597,300
Shelby	\$33,503,058	\$4,941,254	\$555,624	14	\$1,039,226
Sioux	\$69,736,164	\$10,080,155	\$1,156,525	29	\$2,120,021
Story	\$67,051,807	\$10,658,594	\$1,112,007	27	\$2,241,675

Table 3.4 continued next page

Table 3.4 continued					
County	Output/sales	Wage and salary earnings	Self-employment income	Jobs (annual average)	State and local taxes, fees & charges
Tama	\$58,244,832	\$8,422,688	\$965,949	24	\$1,771,428
Taylor	\$30,601,668	\$4,422,609	\$507,507	13	\$930,146
Union	\$22,879,859	\$2,978,398	\$379,446	9	\$626,405
Van Buren	\$35,502,047	\$4,614,199	\$588,776	15	\$970,441
Wapello	\$50,637,251	\$7,248,996	\$839,783	21	\$1,524,582
Warren	\$44,871,920	\$5,247,992	\$744,169	18	\$1,103,738
Washington	\$34,482,490	\$5,692,655	\$571,868	14	\$1,197,258
Wayne	\$30,293,253	\$4,069,902	\$502,393	12	\$855,967
Webster	\$37,360,238	\$5,874,182	\$619,597	16	\$1,235,436
Winnebago	\$35,684,812	\$4,600,499	\$591,808	15	\$967,560
Winneshiek	\$56,588,527	\$7,416,489	\$938,481	23	\$1,559,808
Woodbury	\$65,402,406	\$9,741,975	\$1,084,653	27	\$2,048,895
Worth	\$21,858,711	\$2,963,961	\$362,511	9	\$623,369
Wright	\$37,261,158	\$5,679,869	\$617,950	15	\$1,194,566
State total	\$4,791,465,043	\$688,063,767	\$79,463,066	1,961	\$144,710,981
Source: Goss & Associates estimate from the IMPLAN multiplier system.					



County	Property taxes (includes replacement tax)	Sales taxes	Individual income taxes	Corporate taxes	Other taxes, fees and charges	Total revenue
Adair	\$361,261	\$354,718	\$255,729	\$38,924	\$76,335	\$1,086,967
Adams	\$197,320	\$193,746	\$139,679	\$21,261	\$41,694	\$593,700
Allamakee	\$417,629	\$410,065	\$295,630	\$44,998	\$88,245	\$1,256,567
Appanoose	\$290,823	\$285,556	\$205,868	\$31,335	\$61,451	\$875,033
Audubon	\$369,693	\$362,998	\$261,698	\$39,832	\$78,116	\$1,112,337
Benton	\$1,017,894	\$999,460	\$720,546	\$109,673	\$215,083	\$3,062,656
Black Hawk	\$441,576	\$433,578	\$312,582	\$47,577	\$93,305	\$1,328,620
Boone	\$551,983	\$541,985	\$390,737	\$59,473	\$116,635	\$1,660,813
Bremer	\$642,695	\$631,055	\$454,951	\$69,247	\$135,803	\$1,933,750
Buchanan	\$582,891	\$572,334	\$412,617	\$62,804	\$123,166	\$1,753,812
Buena Vista	\$429,688	\$421,907	\$304,168	\$46,297	\$90,794	\$1,292,854
Butler	\$1,516,134	\$1,488,676	\$1,073,241	\$163,356	\$320,361	\$4,561,768
Calhoun	\$312,828	\$307,161	\$221,444	\$33,706	\$66,101	\$941,240
Carroll	\$486,690	\$477,876	\$344,518	\$52,438	\$102,838	\$1,464,360
Cass	\$324,706	\$318,825	\$229,853	\$34,986	\$68,611	\$976,980
Cedar	\$663,886	\$651,863	\$469,952	\$71,530	\$140,280	\$1,997,510
Cerro Gordo	\$144,995	\$142,369	\$102,639	\$15,622	\$30,638	\$436,263
Cherokee	\$401,739	\$394,464	\$284,383	\$43,285	\$84,888	\$1,208,759
Chickasaw	\$480,700	\$471,995	\$340,278	\$51,793	\$101,573	\$1,446,339
Clarke	\$536,317	\$526,604	\$379,648	\$57,785	\$113,324	\$1,613,677
Clay	\$279,929	\$274,858	\$198,155	\$30,160	\$59,149	\$842,252
Clayton	\$756,791	\$743,086	\$535,717	\$81,540	\$159,911	\$2,277,045
Clinton	\$682,920	\$670,552	\$483,426	\$73,581	\$144,302	\$2,054,781
Crawford	\$440,368	\$432,393	\$311,727	\$47,447	\$93,050	\$1,324,986
Dallas	\$511,004	\$501,750	\$361,729	\$55,058	\$107,976	\$1,537,516
Davis	\$339,616	\$333,465	\$240,408	\$36,592	\$71,761	\$1,021,842
Decatur	\$239,967	\$235,621	\$169,868	\$25,855	\$50,706	\$722,017

Table 3.5 continued next page

Table 3.5 continued						
County	Property taxes (includes replacement tax)	Sales taxes	Individual income taxes	Corporate taxes	Other taxes, fees and charges	Total revenue
Delaware	\$561,257	\$551,092	\$397,303	\$60,473	\$118,594	\$1,688,718
Des Moines	\$517,323	\$507,954	\$366,203	\$55,739	\$109,311	\$1,556,531
Dickinson	\$273,478	\$268,526	\$193,590	\$29,466	\$57,787	\$822,847
Dubuque	\$559,625	\$549,490	\$396,148	\$60,296	\$118,250	\$1,683,809
Emmet	\$181,388	\$178,102	\$128,401	\$19,544	\$38,328	\$545,762
Fayette	\$576,055	\$565,622	\$407,778	\$62,067	\$121,721	\$1,733,243
Floyd	\$405,055	\$397,720	\$286,731	\$43,643	\$85,589	\$1,218,738
Franklin	\$433,362	\$425,513	\$306,768	\$46,693	\$91,570	\$1,303,906
Fremont	\$354,789	\$348,363	\$251,147	\$38,226	\$74,967	\$1,067,492
Greene	\$265,371	\$260,565	\$187,851	\$28,592	\$56,073	\$798,451
Grundy	\$612,172	\$601,085	\$433,344	\$65,958	\$129,352	\$1,841,911
Guthrie	\$774,872	\$760,838	\$548,517	\$83,488	\$163,732	\$2,331,447
Hamilton	\$400,011	\$392,767	\$283,160	\$43,099	\$84,523	\$1,203,561
Hancock	\$411,676	\$404,220	\$291,417	\$44,356	\$86,988	\$1,238,656
Hardin	\$597,886	\$587,057	\$423,231	\$64,419	\$126,334	\$1,798,927
Harrison	\$636,761	\$625,229	\$450,750	\$68,608	\$134,548	\$1,915,896
Henry	\$510,094	\$500,856	\$361,085	\$54,960	\$107,784	\$1,534,780
Howard	\$265,647	\$260,836	\$188,046	\$28,622	\$56,132	\$799,284
Humboldt	\$222,372	\$218,345	\$157,413	\$23,960	\$46,988	\$669,077
Ida	\$405,732	\$398,383	\$287,209	\$43,715	\$85,731	\$1,220,772
Iowa	\$628,406	\$617,026	\$444,836	\$67,707	\$132,783	\$1,890,759
Jackson	\$384,966	\$377,994	\$272,509	\$41,478	\$81,343	\$1,158,289
Jasper	\$424,928	\$417,233	\$300,798	\$45,784	\$89,788	\$1,278,531
Jefferson	\$280,123	\$275,050	\$198,293	\$30,181	\$59,190	\$842,838
Johnson	\$366,536	\$359,897	\$259,463	\$39,492	\$77,449	\$1,102,837
Jones	\$486,796	\$477,979	\$344,593	\$52,450	\$102,860	\$1,464,678
Keokuk	\$454,019	\$445,796	\$321,391	\$48,918	\$95,935	\$1,366,058
Table 3.5 continued next page						

Table 3.5 continued						
County	Property taxes (includes replacement tax)	Sales taxes	Individual income taxes	Corporate taxes	Other taxes, fees and charges	Total revenue
Kossuth	\$500,051	\$490,995	\$353,976	\$53,878	\$105,661	\$1,504,562
Lee	\$725,603	\$712,462	\$513,640	\$78,180	\$153,321	\$2,183,206
Linn	\$2,649,902	\$2,601,910	\$1,875,812	\$285,514	\$559,928	\$7,973,065
Louisa	\$484,499	\$475,723	\$342,967	\$52,203	\$102,375	\$1,457,767
Lucas	\$228,601	\$224,461	\$161,822	\$24,630	\$48,304	\$687,818
Lyon	\$551,203	\$541,220	\$390,185	\$59,389	\$116,470	\$1,658,467
Madison	\$337,630	\$331,515	\$239,001	\$36,378	\$71,342	\$1,015,866
Mahaska	\$413,788	\$406,294	\$292,912	\$44,583	\$87,434	\$1,245,012
Marion	\$724,811	\$711,685	\$513,079	\$78,095	\$153,153	\$2,180,823
Marshall	\$660,498	\$648,536	\$467,553	\$71,165	\$139,564	\$1,987,316
Mills	\$404,208	\$396,887	\$286,130	\$43,551	\$85,409	\$1,216,187
Mitchell	\$359,783	\$353,267	\$254,683	\$38,765	\$76,023	\$1,082,520
Monona	\$319,489	\$313,703	\$226,160	\$34,424	\$67,508	\$961,284
Monroe	\$212,652	\$208,801	\$150,532	\$22,912	\$44,934	\$639,831
Montgomery	\$222,048	\$218,026	\$157,184	\$23,925	\$46,919	\$668,101
Muscatine	\$532,952	\$523,300	\$377,266	\$57,423	\$112,613	\$1,603,554
O'Brien	\$456,802	\$448,529	\$323,361	\$49,218	\$96,523	\$1,374,432
Osceola	\$392,209	\$385,106	\$277,637	\$42,258	\$82,874	\$1,180,085
Page	\$257,267	\$252,608	\$182,114	\$27,720	\$54,361	\$774,070
Palo Alto	\$271,479	\$266,562	\$192,174	\$29,251	\$57,364	\$816,830
Plymouth	\$787,986	\$773,715	\$557,799	\$84,902	\$166,502	\$2,370,903
Pocahontas	\$401,801	\$394,523	\$284,427	\$43,292	\$84,901	\$1,208,943
Polk	\$581,522	\$570,990	\$411,648	\$62,656	\$122,876	\$1,749,692
Pottawattamie	\$1,097,314	\$1,077,441	\$776,766	\$118,230	\$231,864	\$3,301,614
Poweshiek	\$458,791	\$450,481	\$324,769	\$49,432	\$96,943	\$1,380,416
Ringgold	\$204,757	\$201,049	\$144,943	\$22,061	\$43,265	\$616,076
Sac	\$599,063	\$588,214	\$424,064	\$64,546	\$126,583	\$1,802,470
Scott	\$530,873	\$521,259	\$375,794	\$57,199	\$112,175	\$1,597,299

Table 3.5 continued next page

Table 3.5 continued

County	Property taxes (includes replacement tax)	Sales taxes	Individual income taxes	Corporate taxes	Other taxes, fees and charges	Total revenue
Shelby	\$345,394	\$339,138	\$244,497	\$37,214	\$72,982	\$1,039,226
Sioux	\$704,603	\$691,842	\$498,774	\$75,917	\$148,884	\$2,120,020
Story	\$745,036	\$731,542	\$527,396	\$80,274	\$157,427	\$2,241,675
Tama	\$588,746	\$578,083	\$416,762	\$63,434	\$124,403	\$1,771,428
Taylor	\$309,141	\$303,542	\$218,834	\$33,308	\$65,322	\$930,147
Union	\$208,190	\$204,420	\$147,374	\$22,431	\$43,991	\$626,406
Van Buren	\$322,533	\$316,691	\$228,314	\$34,751	\$68,151	\$970,440
Wapello	\$506,705	\$497,528	\$358,686	\$54,595	\$107,068	\$1,524,582
Warren	\$366,835	\$360,191	\$259,675	\$39,524	\$77,513	\$1,103,738
Washington	\$397,917	\$390,710	\$281,677	\$42,874	\$84,081	\$1,197,258
Wayne	\$284,486	\$279,334	\$201,382	\$30,652	\$60,112	\$855,966
Webster	\$410,607	\$403,173	\$290,660	\$44,241	\$86,763	\$1,235,443
Winnebago	\$321,575	\$315,751	\$227,636	\$34,648	\$67,949	\$967,559
Winneshiek	\$518,413	\$509,024	\$366,974	\$55,856	\$109,541	\$1,559,808
Woodbury	\$680,964	\$668,631	\$482,041	\$73,371	\$143,889	\$2,048,896
Worth	\$207,181	\$203,429	\$146,659	\$22,323	\$43,777	\$623,369
Wright	\$397,023	\$389,833	\$281,044	\$42,778	\$83,891	\$1,194,569
State total	\$48,095,667	\$47,224,620	\$34,045,953	\$5,182,061	\$10,162,681	\$144,710,981

Source: Goss & Associates estimate from the IMPLAN multiplier system.



Rank	County	Per \$1,000,000 of GDP	Rank	County	Per \$1,000,000 of GDP
1	Butler	\$50,682	51	Winneshiek	\$9,455
2	Guthrie	\$31,446	52	Crawford	\$9,432
3	Decatur	\$31,403	53	Ida	\$9,201
4	Clarke	\$27,517	54	Wright	\$9,166
5	Keokuk	\$26,344	55	O'Brien	\$9,095
6	Van Buren	\$25,698	56	Cass	\$9,080
7	Davis	\$24,556	57	Palo Alto	\$9,051
8	Harrison	\$24,428	58	Kossuth	\$9,049
9	Ringgold	\$23,154	59	Mahaska	\$8,724
10	Wayne	\$20,524	60	Floyd	\$8,516
11	Osceola	\$19,741	61	Emmet	\$8,510
12	Taylor	\$18,555	62	Hamilton	\$8,502
13	Cedar	\$18,244	63	Plymouth	\$8,441
14	Madison	\$18,063	64	Greene	\$8,359
15	Audubon	\$17,327	65	Hancock	\$8,166
16	Clayton	\$17,223	66	Monroe	\$8,082
17	Grundy	\$17,003	67	Shelby	\$7,973
18	Benton	\$16,476	68	Humboldt	\$7,953
19	Fremont	\$16,416	69	Jefferson	\$7,372
20	Sac	\$16,377	70	Page	\$6,781
21	Monona	\$15,939	71	Carroll	\$6,661
22	Fayette	\$15,729	72	Lee	\$6,660
23	Adams	\$15,657	73	Jasper	\$6,639
24	Appanoose	\$14,830	74	Poweshiek	\$6,356
25	Jones	\$13,993	75	Warren	\$5,896
26	Allamakee	\$13,904	76	Marshall	\$5,609
27	Adair	\$13,396	77	Washington	\$5,593
28	Tama	\$13,355	78	Buena Vista	\$5,585
29	Buchanan	\$13,349	79	Clinton	\$5,368
30	Lucas	\$13,232	80	Union	\$5,338
31	Jackson	\$13,078	81	Sioux	\$5,289
32	Winnebago	\$12,981	82	Wapello	\$5,255
33	Hardin	\$12,787	83	Marion	\$5,015
34	Pocahontas	\$12,535	84	Pottawattamie	\$4,561
35	Calhoun	\$11,847	85	Dickinson	\$4,523
36	Mills	\$11,813	86	Clay	\$4,493
37	Chickasaw	\$11,582	87	Des Moines	\$4,129
38	Bremer	\$11,377	88	Muscatine	\$3,269
39	Franklin	\$11,058	89	Webster	\$3,230
40	Delaware	\$11,052	90	Linn	\$2,526
41	Worth	\$11,003	91	Woodbury	\$2,191
42	Lyon	\$10,400	92	Story	\$2,107
43	Howard	\$9,870	93	Dubuque	\$1,335
44	Louisa	\$9,774	94	Dallas	\$1,283
45	Henry	\$9,645	95	Cerro Gordo	\$1,015
46	Boone	\$9,622	96	Scott	\$914
47	Montgomery	\$9,604	97	Black Hawk	\$876
48	Iowa	\$9,552	98	Johnson	\$601
49	Mitchell	\$9,523	99	Polk	\$196
50	Cherokee	\$9,480	County median		\$9,480

Sources: Goss & Associates based on U.S. BEA data and Implan Multiplier System

Table 3.7: Impact on county sales tax collections, per million of GDP, 2021

Rank	County	Sales Tax per Millions of GDP	Rank	County	Sales Tax per Millions of GDP
1	Butler	\$483	51	Louisa	\$94
2	Guthrie	\$280	52	Henry	\$93
3	Keokuk	\$233	53	Kossuth	\$91
4	Van Buren	\$229	54	Hamilton	\$90
5	Clarke	\$228	55	O'Brien	\$90
6	Davis	\$224	56	Boone	\$88
7	Harrison	\$220	57	Hancock	\$87
8	Audubon	\$210	58	Floyd	\$86
9	Decatur	\$201	59	Palo Alto	\$85
10	Ringgold	\$199	60	Montgomery	\$85
11	Osceola	\$192	61	Winneshiek	\$85
12	Wayne	\$189	62	Monroe	\$84
13	Sac	\$188	63	Greene	\$82
14	Taylor	\$184	64	Cass	\$81
15	Grundy	\$179	65	Humboldt	\$81
16	Benton	\$175	66	Mahaska	\$81
17	Cedar	\$169	67	Shelby	\$81
18	Fremont	\$163	68	Emmet	\$77
19	Adams	\$155	69	Lee	\$70
20	Monona	\$154	70	Page	\$68
21	Clayton	\$154	71	Jefferson	\$65
22	Pocahontas	\$137	72	Carroll	\$64
23	Tama	\$133	73	Washington	\$63
24	Madison	\$131	74	Poweshiek	\$62
25	Fayette	\$130	75	Marshall	\$59
26	Lucas	\$129	76	Jasper	\$58
27	Hardin	\$127	77	Buena Vista	\$56
28	Chickasaw	\$127	78	Sioux	\$52
29	Adair	\$126	79	Marion	\$52
30	Calhoun	\$124	80	Wapello	\$52
31	Buchanan	\$123	81	Clinton	\$51
32	Jones	\$121	82	Union	\$48
33	Mills	\$121	83	Warren	\$47
34	Allamakee	\$120	84	Clay	\$45
35	Franklin	\$117	85	Pottawattamie	\$45
36	Appanoose	\$117	86	Des Moines	\$43
37	Winnebago	\$115	87	Dickinson	\$41
38	Lyon	\$111	88	Muscatine	\$36
39	Delaware	\$108	89	Webster	\$35
40	Ida	\$105	90	Linn	\$29
41	Mitchell	\$105	91	Story	\$23
42	Cherokee	\$104	92	Woodbury	\$22
43	Worth	\$102	93	Dallas	\$15
44	Jackson	\$101	94	Dubuque	\$14
45	Bremer	\$99	95	Cerro Gordo	\$10
46	Crawford	\$98	96	Scott	\$10
47	Wright	\$96	97	Black Hawk	\$9
48	Iowa	\$95	98	Johnson	\$7
49	Plymouth	\$94	99	Polk	\$2
50	Howard	\$94		County median	\$94

Goss & Associates based on Iowa Dept. of Revenue data and Implan Multipliers

Table 3.8: Impact on county individual income tax collections per million of county GDP (2021)

Rank	County	Per millions of county GDP	Rank	County	Per millions of county GDP
1	Butler	\$348	51	Louisa	\$68
2	Guthrie	\$202	52	Henry	\$67
3	Keokuk	\$168	53	Kossuth	\$65
4	Van Buren	\$165	54	Hamilton	\$65
5	Clarke	\$165	55	O'Brien	\$65
6	Davis	\$161	56	Boone	\$63
7	Harrison	\$158	57	Hancock	\$63
8	Audubon	\$152	58	Floyd	\$62
9	Decatur	\$145	59	Palo Alto	\$62
10	Ringgold	\$144	60	Montgomery	\$61
11	Osceola	\$138	61	Winneshiek	\$61
12	Wayne	\$136	62	Monroe	\$61
13	Sac	\$136	63	Greene	\$59
14	Taylor	\$133	64	Cass	\$58
15	Grundy	\$129	65	Humboldt	\$58
16	Benton	\$127	66	Mahaska	\$58
17	Cedar	\$122	67	Shelby	\$58
18	Fremont	\$118	68	Emmet	\$56
19	Adams	\$112	69	Lee	\$50
20	Monona	\$111	70	Page	\$49
21	Clayton	\$111	71	Jefferson	\$47
22	Pocahontas	\$99	72	Carroll	\$46
23	Tama	\$96	73	Washington	\$46
24	Madison	\$94	74	Poweshiek	\$45
25	Fayette	\$94	75	Marshall	\$42
26	Lucas	\$93	76	Jasper	\$42
27	Hardin	\$92	77	Buena Vista	\$40
28	Chickasaw	\$91	78	Sioux	\$38
29	Adair	\$91	79	Marion	\$37
30	Calhoun	\$90	80	Wapello	\$37
31	Buchanan	\$89	81	Clinton	\$37
32	Jones	\$87	82	Union	\$34
33	Mills	\$87	83	Warren	\$34
34	Allamakee	\$87	84	Clay	\$33
35	Franklin	\$84	85	Pottawattamie	\$32
36	Appanoose	\$84	86	Des Moines	\$31
37	Winnebago	\$83	87	Dickinson	\$30
38	Lyon	\$80	88	Muscatine	\$26
39	Delaware	\$78	89	Webster	\$25
40	Ida	\$76	90	Linn	\$21
41	Mitchell	\$75	91	Story	\$17
42	Cherokee	\$75	92	Woodbury	\$16
43	Worth	\$74	93	Dallas	\$11
44	Jackson	\$73	94	Dubuque	\$10
45	Bremer	\$72	95	Cerro Gordo	\$7
46	Crawford	\$71	96	Scott	\$7
47	Wright	\$69	97	Black Hawk	\$7
48	Iowa	\$68	98	Johnson	\$5
49	Plymouth	\$68	99	Polk	\$2
50	Howard	\$68	County median		\$68
Goss & Associates based on Iowa Dept. of Revenue data and Implan Multipliers					

Table 3.9: State & local tax impacts per \$1,000 of county property tax collection from Iowa's electric co-ops, 2021

Rank	County	Impacts per \$1,000 of county property	Rank	County	Impacts per \$1,000 of county property
1	Butler	\$492	51	Louisa	\$95
2	Guthrie	\$285	52	Henry	\$95
3	Keokuk	\$238	53	Kossuth	\$92
4	Van Buren	\$233	54	Hamilton	\$92
5	Clarke	\$233	55	O'Brien	\$91
6	Davis	\$228	56	Boone	\$90
7	Harrison	\$224	57	Hancock	\$89
8	Audubon	\$214	58	Floyd	\$88
9	Decatur	\$205	59	Palo Alto	\$87
10	Ringgold	\$203	60	Montgomery	\$87
11	Osceola	\$196	61	Winneshiek	\$87
12	Wayne	\$193	62	Monroe	\$86
13	Sac	\$192	63	Greene	\$84
14	Taylor	\$187	64	Cass	\$83
15	Grundy	\$182	65	Humboldt	\$83
16	Benton	\$179	66	Mahaska	\$82
17	Cedar	\$172	67	Shelby	\$82
18	Fremont	\$166	68	Emmet	\$78
19	Adams	\$158	69	Lee	\$71
20	Monona	\$157	70	Page	\$70
21	Clayton	\$157	71	Jefferson	\$66
22	Pocahontas	\$140	72	Carroll	\$65
23	Tama	\$135	73	Washington	\$65
24	Madison	\$133	74	Poweshiek	\$63
25	Fayette	\$132	75	Marshall	\$60
26	Lucas	\$131	76	Jasper	\$59
27	Hardin	\$130	77	Buena Vista	\$57
28	Chickasaw	\$129	78	Sioux	\$53
29	Adair	\$129	79	Marion	\$53
30	Calhoun	\$127	80	Wapello	\$53
31	Buchanan	\$126	81	Clinton	\$52
32	Jones	\$123	82	Union	\$49
33	Mills	\$123	83	Warren	\$48
34	Allamakee	\$123	84	Clay	\$46
35	Franklin	\$119	85	Pottawattamie	\$46
36	Appanoose	\$119	86	Des Moines	\$43
37	Winnebago	\$117	87	Dickinson	\$42
38	Lyon	\$113	88	Muscatine	\$37
39	Delaware	\$110	89	Webster	\$35
40	Ida	\$107	90	Linn	\$30
41	Mitchell	\$107	91	Story	\$23
42	Cherokee	\$106	92	Woodbury	\$23
43	Worth	\$104	93	Dallas	\$15
44	Jackson	\$103	94	Dubuque	\$14
45	Bremer	\$101	95	Cerro Gordo	\$11
46	Crawford	\$100	96	Scott	\$10
47	Wright	\$98	97	Black Hawk	\$10
48	Iowa	\$96	98	Johnson	\$7
49	Plymouth	\$96	99	Polk	\$2
50	Howard	\$96		County median	\$96

Goss & Associates based on Iowa Dept. of Revenue data and Implan Multipliers

Summary

Data in this section has demonstrated the wide distribution of economic impacts across counties in the state. It was shown that the top 10 counties, or ten percent of the counties in the state accounted for between 21% and 22% of impacts. In terms of impacts per million dollars of GDP, the top ten counties experienced approximately 2.7 times the state median impacts.



Section 4: Economic Development Impacts, 2018 - 2022

Introduction

Separate from their spending impacts, Iowa electric cooperatives invest in efforts to attract and retain jobs and investment within their communities. These impacts are over and above the impacts listed in Sections 2 and 3. Iowa's electric cooperatives contributed to business and community investments such as • Economic Development – membership in organizations, key accounts activity, industrial parks, value-added agriculture and tourism • Community Support – job training assistance, community recreation, charitable donations, and police, fire and ambulance services • Housing Assistance – new housing developments, housing rehabilitation, wiring help and energy-efficiency donations • Employee Volunteer Labor – uncompensated hours at the employee's hourly earnings rate • Educational Assistance – K-12 school and college/university programs, scholarships, youth organizations, county fair activities, electric safety awareness.

Project Impacts, 2018-2022

During the five-year period ending in 2022, Iowa electric cooperatives assisted in the expansion, location and relocation of private economic development projects. The investment resulted in increased opportunity and growth in jobs, wage and salary earnings, self-employment income and tax revenue. Iowa electric co-ops wrapped-up projects resulting in nearly \$1.6 billion in new construction and capital spending projects that produced 3,446 new jobs and 6,492 retained jobs during operations. Table 4.1 presents the direct impacts used in the analysis of Iowa's electric co-ops economic development activity.

The community impacts listed in Table 4.1 were the first round of impacts. Perhaps unseen was the spillover impacts on the community – the increase in local business-to-business spending and household spending by employees at the projects. Table 4.2 provides a summary of the 5-year impacts by project category. The total impact or sales impact was \$4.7 billion, with \$1.4 billion of wages and salaries. The impact on self-employment income was \$232.8 million. The added impact on tax revenue was \$288.6 million. Iowa's electric co-op projects supported a total of 7,366 jobs in the state of Iowa, over and above impacts listed in section 2 due to their economic development activity.

Year	Construction and capital spending	New jobs - operations	Retained jobs - operations
2018	\$513,734,094	1,338	1,097
2019	\$91,555,371	475	1,225
2020	\$165,484,900	413	1,159
2021	\$596,721,890	691	1,253
2022	\$225,891,163	531	1,757
Total	\$1,593,387,416	3,446	6,492

Source: Company reports.

Category	Construction and capital spending	New operations	Retained operations	Total 5-year impact
Sales/output	\$2,107,258,798	\$1,745,864,565	\$819,926,131	\$4,673,049,494
Wage and salary earnings	\$633,785,428	\$386,497,936	\$351,755,803	\$1,372,039,168
Self-employment income	\$123,536,890	\$87,795,951	\$21,438,644	\$232,771,485
Jobs (annual average)	3,075	2,043	2,249	7,366
State and local taxes	\$133,296,537	\$81,287,506	\$73,980,607	\$288,564,650

Source: Goss & Associates estimate from the IMPLAN multiplier systems.



Tables 4.3, 4.4 and 4.5 present Iowa's electric co-ops project impacts for the top-20 impacted industries by project category (construction, new operations and retained operations).

Table 4.3: Project construction and capital spending economic impacts, top 20 impacted industries, 2018 - 2022				
Sector	Sales/output	Wage and salary earnings	Self-employment income	Jobs (annual average)
Construction*	\$1,250,771,020	\$402,816,960	\$79,952,268	1,840
Wholesale trade	\$123,022,130	\$37,040,073	\$4,809,846	113
Services to owner-occupied dwellings	\$63,202,482	n.a.	n.a.	n.a.
Real estate	\$40,928,457	\$1,871,610	\$1,591,606	37
Truck transportation	\$27,810,625	\$7,438,155	\$2,215,581	35
Commercial banks	\$25,000,622	\$8,999,363	\$78,747	26
Hospitals and ambulatory care	\$24,397,182	\$10,719,007	\$12,479	34
Ready-mix concrete manufacturing	\$22,430,337	\$3,895,536	\$1,984	13
Insurance carriers	\$19,556,555	\$3,436,914	\$2,005	7
Architectural, engineering, and related services	\$17,334,683	\$8,133,245	\$676,437	22
Limited-service restaurants	\$14,832,819	\$3,168,982	\$193,812	43
Offices of physicians	\$14,348,444	\$10,399,553	\$377,041	21
Commercial and industrial machinery and equipment rental and leasing	\$12,905,495	\$2,010,162	\$1,307,365	10
Electric power transmission and distribution	\$12,876,370	\$1,144,120	n.a.	2
Management of companies and enterprises	\$10,544,553	\$5,003,514	(\$14,476)	11
Retail – Non-store retailers	\$10,206,008	\$747,958	\$745,268	26
Retail - Building material and garden equipment and supplies stores	\$9,912,188	\$3,842,021	\$264,147	23
Stone mining and quarrying	\$9,741,324	\$1,974,471	\$133,809	7
Full-service restaurants	\$9,062,217	\$3,633,054	\$195,168	45
Retail - General merchandise stores	\$9,005,631	\$3,735,253	\$40,321	30
All other sectors	\$379,369,657	\$113,775,476	\$30,953,479	730
Total all sectors	\$2,107,258,798	\$633,785,428	\$123,536,890	3,075
* includes the following types of construction activity: commercial, government, healthcare, infrastructure, industrial, renovations, residential and tenant improvements.				
Source: Goss & Associates estimate from the IMPLAN multiplier systems.				

Table 4.4: New operations economic impacts, top 20 impacted industries, 2018 - 2022				
Sector	Sales/output	Wage and salary earnings	Self-employment income	Jobs (annual average)
Animal, except poultry, slaughtering	\$517,561,124	\$56,738,280	\$232,076	221
Soybean and other oilseed processing	\$213,810,197	\$4,824,693	\$29,328	13
Manufacturing (non-food)	\$136,289,348	\$55,513,652	\$848,046	169
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$119,362,628	\$2,945,691	\$20,503,696	164
Animal production, except cattle and poultry and eggs	\$80,889,664	\$8,317,395	\$30,496,852	141
Real estate	\$71,855,672	\$5,055,192	\$2,794,289	101
Wholesale trade	\$59,664,834	\$27,637,177	\$2,332,740	84
Truck transportation	\$57,075,682	\$23,485,089	\$4,547,032	110
Hospitals and ambulatory care	\$47,009,306	\$31,774,986	\$24,046	101
Oilseed farming	\$30,524,149	\$186,976	\$8,696,899	8
Services to owner-occupied dwellings	\$28,379,553	n.a.	n.a.	n.a.
Other food manufacturing	\$22,955,877	\$5,806,809	\$264,933	20
Architectural, engineering, and related services	\$20,578,588	\$14,854,231	\$803,021	41
Commercial banks	\$15,517,697	\$8,593,595	\$48,878	25
Animal food manufacturing	\$14,958,314	\$1,427,664	\$18,108	3
Insurance carriers	\$14,210,774	\$3,842,207	\$1,457	8
Management of companies and enterprises	\$10,308,340	\$7,525,275	(\$14,151)	16
Electric power transmission and distribution	\$9,874,885	\$1,349,885	n.a.	2
Community services	\$9,482,177	\$6,275,921	\$58,587	44
Warehousing and storage	\$9,231,696	\$6,104,330	\$54,556	29
All other sectors	\$256,324,059	\$114,238,887	\$16,055,559	740
Total all sectors	\$1,745,864,565	\$386,497,936	\$87,795,951	2,043
Source: Goss & Associates estimate from the IMPLAN multiplier systems.				

Table 4.5: Retained operations economic impacts, top 20 impacted industries, 2018 - 2022				
Sector	Sales/output	Wage and salary earnings	Self-employment income	Jobs (annual average)
Hospitals and ambulatory care	\$224,872,701	\$138,318,305	\$115,024	628
Manufacturing (non-food)	\$107,318,879	\$39,779,141	\$667,780	173
Real estate	\$73,648,250	\$4,714,986	\$2,863,998	135
Other food manufacturing	\$48,508,180	\$11,166,063	\$559,831	56
Architectural, engineering, and related services	\$30,456,193	\$20,005,602	\$1,188,466	79
Services to owner-occupied dwellings	\$22,696,947	n.a.	n.a.	n.a.
Wholesale trade	\$20,762,790	\$8,751,900	\$811,771	38
Educational services	\$20,453,715	\$16,861,587	\$914,458	196
Insurance carriers	\$17,411,692	\$4,283,960	\$1,785	12
Other basic inorganic chemical manufacturing	\$15,296,294	\$1,560,969	\$1,690,211	5
Community services	\$13,254,816	\$7,983,337	\$81,897	79
Commercial banks	\$10,430,966	\$5,256,704	\$32,856	22
Employment services	\$8,402,350	\$6,007,197	\$61,512	53
Electric power transmission and distribution	\$7,780,441	\$967,855	n.a.	3
Management of companies and enterprises	\$7,277,161	\$4,834,338	(\$9,990)	15
Other financial investment activities	\$6,519,655	\$947,258	\$162,480	21
Limited-service restaurants	\$6,237,222	\$1,865,586	\$81,499	36
Full-service restaurants	\$6,084,981	\$3,415,268	\$131,049	60
Truck transportation	\$5,982,994	\$2,240,274	\$476,645	15
Insurance agencies, brokerages, and related activities	\$5,481,771	\$1,711,176	\$272,921	12
All other sectors	\$161,048,132	\$71,084,296	\$11,334,450	612
Total all sectors	\$819,926,131	\$351,755,803	\$21,438,644	2,249
Source: Goss & Associates estimate from the IMPLAN multiplier systems.				

Table 4.6 provides a summary of the tax revenue impact by category. The Iowa's electric co-ops' projects resulted in \$288.6 million in tax revenue. The projects generated economic activity that resulted in \$99.2 million in property taxes and \$103.7 million in sales taxes.

Table 4.6: Project tax revenue impact, 2018 - 2022				
Category	Construction and capital spending related revenue	New operation related revenue	Retained operation related revenue	Total project related revenue
Property tax	\$49,181,715	\$26,857,578	\$23,125,783	\$99,165,076
Sales tax	\$51,566,151	\$28,029,465	\$24,071,795	\$103,667,412
Income tax	\$16,981,928	\$14,946,010	\$15,615,399	\$47,543,337
Corporate tax	\$3,969,047	\$3,379,969	\$3,372,176	\$10,721,192
Other taxes and fees	\$11,597,696	\$8,074,482	\$7,795,455	\$27,467,634
Total revenue	\$133,296,537	\$81,287,506	\$73,980,607	\$288,564,650
Source: Goss & Associates estimate from the IMPLAN multiplier systems.				

Table 4.7 presents tax revenue impacts by state and local tax authorities. Iowa's electric co-ops' projects generated economic activity that resulted in \$174.5 million in state revenue and \$114.1 million in local revenue.

Table 4.7: Project state and local tax revenue, 2018 - 2022			
Category	State	Local	Total
Property tax	\$0	\$99,165,076	\$99,165,076
Sales tax	\$90,899,885	\$12,767,527	\$103,667,412
Income tax	\$47,543,337	\$0	\$47,543,337
Corporate tax	\$10,721,192	\$0	\$10,721,192
Other taxes and fees	\$25,303,228	\$2,164,406	\$27,467,634
Total revenue	\$174,467,642	\$114,097,009	\$288,564,650
Source: Goss & Associates estimate from the IMPLAN multiplier systems.			

Table 4.8 exhibits project return per \$1 of Iowa's electric co-ops economic development activities. Iowa electric co-ops' spent \$143.1 million during the five-year period assisting in economic development. The return per invested dollar are as follows: sales/output in Iowa (\$32.67); wage and salary earnings (\$9.59); self-employment income (\$1.63); and state and local taxes (\$2.02).

Category	Impact amount	Iowa's electric co-ops economic development investment	Return per \$1 invested
Sales/output	\$4,673,049,494	\$143,054,846	\$32.67
Wage and salary earnings	\$1,372,039,168	\$143,054,846	\$9.59
Self-employment income	\$232,771,485	\$143,054,846	\$1.63
State and local taxes	\$288,564,650	\$143,054,846	\$2.02

Source: Goss & Associates estimate from the IMPLAN multiplier systems.

Data in this section shows Iowa electric co-ops' impacts on economic development over and above the estimated impacts from co-ops' direct spending in Section 3 (and it is substantial).

Appendices

Appendix A: The Multiplier Effect & IMPLAN Multipliers

When employees of Iowa electric cooperatives spend their salaries within the community, the spending filters through the local economy and causes increased overall spending greater than the initial spending. The impact of this re-spending is known as the *multiplier effect*. Economic impacts that take place outside the local economy, for example electric cooperatives purchases of supplies in Chicago or Denver, are called leakages and reduce the multiplier and overall impacts. They are excluded when estimating regional economic impacts.

While the direct effects of the cooperatives can be measured by a straightforward methodology, the indirect and induced effects of the project's spending must be estimated using regional multipliers, or some other econometric technique. Many types of public and private sector decisions require an evaluation of probable regional effects. Since important impacts are often economic, this requirement has created a need for regional economic impact models. The three most common types of impact models are economic base, econometric, and input-output (I-O). Two of the three impact models have inherent disadvantages that markedly reduce their viability for estimating the impact of electric co-ops spending on the Iowa economy.

Input-Output (I-O) Models. I-O models are the most frequently used types of analysis tools for economic impact assessment. Input-output is a simple general equilibrium approach based on an accounting system of injections and leakages. Input-Output analysis assumes that each sector purchases supplies from other sectors and then sells its output to other sectors and/or final consumers.

Historically, high costs precluded the extensive use of I-O models in regional impact analysis. However, with the advent of "ready-made" multipliers produced by third parties, such as the U.S. Forestry Service, I-O multipliers became a much more viable option for performing impact analysis.

All purely non-survey techniques or "ready-made" multipliers take a national I-O table as a first approximation of regional inter-industry relationships. The national table is then made region-specific by removing those input requirements that are not produced in the region. Input-Output systems were originally developed by Wassily Leontief (1941) to assist in planning a national economy. Input-Output represents an effective method for depicting and investigating the underlying processes that bind industries of a region. It provides a technique to project into the future the magnitude of important additions or injections into the local economy.

Input-Output models are composed of three basic tables. The first, *the Transactions Table*, traces inter-industry sales and purchases within a defined region. The next table, the *Direct Requirements Table*, answers the question, "If a certain dollar value of intermediate requirements is present for a total dollar value of gross output, what are the intermediate

requirements for each industry per dollar of gross output?" The manipulation of these two tables results in the final and most important of the tables, the *Industrial Multiplier Table*. This table is then used to calculate overall impacts.

Despite their weaknesses and somewhat restrictive assumptions, I-O multipliers are the tools most often used for impact analysis. Due to their documented effectiveness and relatively low cost, the I-O multipliers used in this study are those initially produced by the U.S. Forestry Service and marketed by the IMPLAN Group Inc. (www.implan.com).

Measuring the Impact of the Iowa Electric Cooperatives

An Overview

The energy industry is an engine of economic growth for the state of Iowa. Wind and solar companies and their vendors contribute to the economy through their own employment and payroll, and through purchases from vendors. Payments to these vendors are an important source of growth for the state economy. Thus, energy companies produce benefits for the Iowa resident, both directly and indirectly.

Additionally, electric co-op operations increase retail sales in the local area and the state, as employees and visitors who reside outside Iowa spend a portion of their wages in the state. In other words, electric co-ops contribute to the region's economy by spending money made from the cooperatives in the local economy. That portion spent locally adds to community income. Economic impacts that take place outside the local economy, for example, spending in Illinois, are called leakages and reduce overall impacts. They are excluded when estimating economic impacts of the local area and the state.

Importantly, as a high wage, stable industry, the presence of electric co-ops increases the attractiveness of the community and, in the long run, encourages the startup and/or relocation of retail businesses and manufacturing firms to the state. Access to these jobs also increases quality of life, helping the state to retain and attract individuals, thereby helping to create "brain gain."

In addition to these growth dynamics, there is also economic activity related to the direct expenditures by electric co-op vendors, such as payroll, local jobs and income. Electric co-ops indirectly affect the overall level of state economic activity. For example, the office supplies industry provides jobs and income for workers in the state as a result of electric co-op spending on computers and office supplies.

Table A1 lists the three components of the total economic impact: the direct economic impact, the indirect economic impact, and the induced economic impact. Spillover impacts equal the sum of indirect and induced impacts.

Table A1: The three components of the total economic impacts	
Direct Economic Impacts	Spending by electric cooperatives flowing into the area has direct economic effects on the local economy via expenditures for goods and services and for employee salaries. The most obvious direct expenditures are payment of wages to workers employed by the energy sector.
Indirect Economic Impacts	Second-round spending takes place as retailers and wholesalers that furnish electric cooperatives with supplies purchased from other companies in the area, resulting in indirect economic impacts on the area and state economies by the electric sector. Electric co-ops generate indirect effects by increasing: (a) the number of firms drawn to the community, (b) the volume of deposits in local financial institutions and, (c) economic development.
Induced Economic Impacts	Induced impacts in the region occur as the initial spending feeds back to industries in the region when workers in the area purchase additional output from local firms in a third round of spending. That is, electric cooperatives increase overall area income and population, which produces another round of increased spending adding to sales, earnings and jobs.
Source: Goss & Associates	

Appendix B: Researcher's Biography

Ernie Goss is the Jack MacAllister Chair in Regional Economics at Creighton University and is the initial director for Creighton's Institute for Economic Inquiry. He is also principal of the Goss Institute in Denver, CO. Goss received his Ph.D. in economics from The University of Tennessee in 1983 and is a former faculty research fellow at NASA's Marshall Space Flight Center. He was a visiting scholar with the Congressional Budget Office for 2003-2004 and has testified before the U.S. Congress, the Kansas Legislature, and the Nebraska Legislature. In the fall of 2005, the Nebraska Attorney General appointed Goss to head a task force examining gasoline pricing in the state.

He has published more than 100 research studies focusing primarily on economic forecasting and on the statistical analysis of business and economic data. His book *Changing Attitudes Toward Economic Reform During the Yeltsin Era* was published by Praeger Press in 2003, and his book *Governing Fortune: Casino Gambling in America* was published by the University of Michigan Press in March 2007.

He is the editor of *Economic Trends*, an economics newsletter published monthly with more than 11,000 subscribers, produces a monthly business conditions index for the nine-state Mid-American region, and conducts a survey of bank CEOs in 10 U.S. states. Survey and index results are cited each month in approximately 100 newspapers; citations have included the *New York Times*, *Wall Street Journal*, *Investors Business Daily*, *The Christian Science Monitor*, *Chicago Sun Times*, and other national and regional newspapers and magazines. Each month 75-100 radio stations carry his *Regional Economic Report*.

Scott Strain is a senior research economist at Goss & Associates. He has worked as an economist and statistician for more than 20 years providing forecasts and analysis across a wide range of industries. Scott served as an industry economist, working in new product development regarding both quantitative and qualitative research. Scott was Senior Director of Research for an economic development agency, providing economic impact and tax incentive analysis to both private businesses and government entities. He served on the business advisory committee that worked with Nebraska state senators and the director of the state's Economic Development Department to develop the Nebraska Advantage Act – a comprehensive package of business incentives that has helped to add more than \$6 billion in new capital investment and over 13,000 new jobs in the state of Nebraska since the Act's inception in 2006.

Monique Devillier is a Research Associate at Goss & Associates. She has a Bachelors of Liberal Studies from the University of Iowa. She was a small business owner in Omaha,

Nebraska. She has worked for Higgins Law as a project coordinator and legal assistant as well as an office manager for PSC Construction. Monique was one of the original co-founders of a non-profit in Blair, Nebraska and served on the board for more than nine years. She was Sergeant At Arms for the 21-22 year at Suburban Rotary, where she has been a member for more than six years and currently serves on the board.

Appendix C: GOSS CONSULTING CONTRACTS 2018 – 2022

PREVIOUS EXPERIENCE

Funded research contracts (2018-23):

1. Ongoing 2023. "Iowa Association of Electric Cooperatives: Powering Iowa with Rural and Urban Economic Progress." Produced for Iowa Association of Electric Cooperatives, Des Moines, IA.
2. Ongoing 2023. "Elite Casino Resorts, Iowa's Gold Standard for Keeping Dollars in the State." Produced for Elite Casino Inc. Riverside, IA.
3. Spring 2023. "The Economic Impact of Nebraska's Independent Colleges on the State and Local Economies." Produced for the Independent Colleges of Nebraska, Omaha, NE.
4. Spring 2023. "Economic Impact Statement of Decommissioning & Replacing Kimball's Strategic Deterrent." Produced for the City of Kimball, Kimball, NE.
5. Fall 2022. "The Economic Impact of a Carbon Capture Pipeline on Illinois, 2024-36." Produced for Wolf Carbon Solutions, Denver, CO.
6. Fall 2022. "The Economic Impact of a Carbon Capture Pipeline on Iowa, 2024-36." Produced for Wolf Carbon Solutions, Denver, CO.
7. Summer 2022. "Iowa an Energy Juggernaut: The Impact of Wind and Solar on the State's Economy." Produced for the Conservative Energy Forum of Iowa, Des Moines, Iowa.
8. Summer 2022. "The Economic Impact of Cattlemen's Heritage Beef Procession Plant on the State of Iowa." Produced for Ten Corporation Inc., Marcus IA.
9. Spring 2022. "The Economic Impact of West Liberty Foods' Proposed Facility, June 2023 to December 2038." Produced for West Liberty Foods, West Liberty, IA.
10. Spring 2022. "The Economic Impact of a Landfill RNG System on Winnebago County, Illinois." Produced for EcoEngineers, Des Moines, IA.
11. Spring 2022. "The Economic Impact of Fort Payne's Taxpayer Support of Food City, 2024 – 37, Produced for Scruggs, Dodd & Brisendine Attorneys, PA, Fort Payne, AL.
12. Winter 2022. "Iowa's Insurance Industry a U.S. Leader: Generating Economic Returns for the State." Produced for Iowa Insurance Association, Des Moines, IA.
13. Fall 2021. "The Economic Impact of an Anaerobic Digestive System on Clark County, Nevada, 2022 – 2040." Produced for EcoEngineers, Des Moines, IA.
14. Fall 2021. "The Pluses and Minuses of a Racino in Norfolk: Can It Emerge as a Destination Casino?" Produced for Concerned Citizens of Norfolk, Norfolk, NE.
15. Summer 2021. "Leveraging Private Assets for the Public Good: The Economic Benefits of Omaha's Missouri River Revitalization." Produced for Heritage Services, Omaha, NE.
16. Summer 2021. "Cattlemen's Heritage Beef Plant: Its Economic Impact on Mills/ Pottawattamie Counties and Iowa, 2022-2028." Produced for Cattlemen's Heritage Beef Co. Des Moines, IA.
17. Spring 2021. "The College World Series and the Omaha Economy: Impacts 2003 - 2019." Produced for College World Series, Inc. Omaha, NE.
18. Spring 2021. "Five Points Bank's Economic Impacts: A Half Century of Serving the Greater Grand Island Community." Produced for Five Points Bank, Grand Island, IA.
19. Spring 2021. "The Economic Impact of the Sustainable Beef Plant on the City of North Platte, Nebraska." Produced for Sustainable Beef, LLC. North Platte, NE.
20. Spring 2021. "The Economic Impact of an Anaerobic Digestive System on Four Illinois' Counties, 2022-42." Produced for EcoEngineers, Des Moines, IA.
21. Winter 2020. "Midtown Crossing: Transforming Midtown Omaha and Boosting the Overall Omaha Economy." Produced for East Campus Realty. Spring 2019.

22. Fall 2020. "The Economic Impact of the Hamilton Relay Contract on the Albany-Columbus Metro Region." Produced for Hamilton Telecommunications, Aurora, NE.
23. Spring 2019. "The Benefits and Costs of a New Douglas County Youth Center." Produced for HDR in Partnership with Burlington Capital, Kiewit, and Douglas County, Omaha, NE.
24. Spring 2019. "The College World Series and the Omaha Economy: 2019 Impacts." Produced for College World Series, Inc. Omaha, NE.
25. Spring 2019. "The Economic Impact of the Hamilton Relay Services Contract on Allegany County and the State of Maryland." Produced for Hamilton Telecommunications, Aurora, NE.
26. Winter 2019. "A Cost-Benefit Analysis: Options for Boone Central Middle School: Albion or Petersburg?" Produced for Boone Central Schools Board of Education.
27. Winter 2019. "The Economic and Fiscal Impact of the Council Bluffs Riverfront Development (River's Edge)." Produced for the Iowa West Foundation, Council Bluffs, IA.
28. Winter 2019. "Reducing the Property Tax Burden on Nebraska Farmland: An Evaluation of the Fair Nebraska Plan." Produced for Fair Nebraska, Lincoln, NE.
29. Winter 2018. "The Economic Contributions of Ho-Chunk, Inc. to the Winnebago Indian Reservation, Iowa, Nebraska, South Dakota and the U.S. Spring 2018. Wyoming." Produced for Ho-Chunk, Inc., Winnebago, NE.
30. Winter 2018. "The Economic Impact of the Streetcar on the City of Omaha." Produced for the City of Omaha, Omaha, NE.
31. Fall 2018. "The Economic Impact of the Hamilton Relay Services Center on the State of Kansas and the Wichita Metropolitan Statistical Area (MSA)." Produced for Hamilton Telecommunications, Aurora, NE.
32. Fall 2018. "Nebraska's Independent Colleges and Universities: Spurring Economic Growth and Brain Gain for the State and Its Counties." Produced for Nebraska Association of Independent Colleges, Omaha, NE.
33. Spring 2018. "The Economic Impact of the Hamilton Relay Services Contract on Massachusetts and Berkshire County." Produced for Hamilton Telecommunications, Aurora, NE.