



The University of Georgia

Center for Agribusiness and Economic Development

College of Agricultural and Environmental Sciences

Economic Impact of a Utility Building Manufacturing Plant in Glascock County

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Economic Impact of a Utility Building Manufacturing Plant in Glascock County

Executive Summary

A proposed plant for manufacturing utility buildings in Glascock County would lead to economic activity throughout Georgia. Timber production and sawmills in Georgia are potential beneficiaries of the plant utilizing lumber as a primary production input. Construction of a plant for manufacturing utility buildings plant in Glascock County would create a one-time economic impact leading to \$1.353 million in labor income for Georgia workers. Operation of the plant would create an annual \$38.223 million output impact in Glascock County. Total labor income of \$6.147 million would be created annually for 181 jobs in the county. Local governments in the county would receive \$88,639 annually in tax revenues, not including property taxes paid for the plant. Regional impacts for an area of 13 counties including Glascock County lead to a labor income impact of \$11.099 million for 323 jobs in the region. Production at the plant would generate a total output impact of \$55.013 million for the state economy. Employees in Georgia would earn \$12.418 million in wages and benefits for 335 jobs. The state treasury would receive \$833,480 annually, and local treasuries throughout the state would receive \$740,233 from operations related to production.

Economic Impact of a Utility Building Manufacturing Plant in Glascock County

A proposed plant for manufacturing utility buildings in Glascock County would lead to economic activity throughout Georgia. Timber production and sawmills in Georgia are potential beneficiaries of the plant utilizing lumber as a primary production input. Construction activity leads to one-time impacts during the period of building the plant. Production generates annual impacts due to purchasing of inputs for manufacturing utility buildings. Officials of the plant have provided revenue and itemized costs data for construction and annual operations of the plant. The Center for Agribusiness and Economic Development (CAED) at the University of Georgia has applied these data for estimating economic impacts of the proposed plant. CAED has not attempted to verify or validate the data provided. Construction costs for the plant total \$4.318 million dollars, not including land and other capital contingency funds. Plant officials expect revenues of \$34.096 million from sales of utility buildings.

Principles of Economic Impact Analysis

Economic impacts can be estimated with input-output models (IMPLAN) that separate the economy into various industrial sectors such as agriculture, construction, manufacturing, trade, and services. The input-output model then calculates how a change in one industry changes output, income, and employment in other industries. These changes, or impacts, are expressed in terms of direct and indirect effects. Impacts are interpreted as the contribution of the enterprise to the total economy. Direct effects represent the initial impact on the economy of either construction or operations of an enterprise. Indirect effects are changes in other industries caused by direct effects of an enterprise and include changes in household spending due to changes in economic activity generated by direct effects. Thus, the total economic impact is the sum of direct and indirect effects. Input-output analysis can interpret the effects of an enterprise in a number of ways including output (sales), labor income (employee compensation and proprietary income), employment (jobs), and tax revenue.

Economic impacts result from a multiplier effect that begins with expenditures of an enterprise stimulating business to business spending, personal income, employment, and tax revenue. IMPLAN models include a regional purchase coefficient (RPC) for each impact variable that represents percentage of demand that is satisfied by production within an impact area. Demand for inputs not satisfied within the impact area represent leakages that have no indirect impacts in the impact area. Enterprises vary in their multiplier effects due to differing expenditure levels, RPC's, and sectors in which their expenditures are directed. Impact analysis involves quantification of spending levels and proper allocation to impacted sectors.

Output impacts are a measure of economic activity that results from enterprise expenditures in a specific industrial sector. Output is equivalent to sales, and this multiplier offers insights into how initial economic activity in one sector leads to sales in other sectors. Personal income impacts measure purchasing power that is created due to the output impacts. This impact provides the best measure of how standards of living are affected for residents in the impact area.

An enterprise involves a specified number of employees that is determined by the technology of the enterprise. Employment multipliers indicate the effect on employment resulting from the enterprise initiating economic activity. IMPLAN indirect employment includes both full-time and part-time jobs without any distinction. Jobs calculated within an IMPLAN industrial sector are not limited to whole numbers and fractional amounts represent additional hours worked without an additional employee. With no measure of hours involved in employment impacts, IMPLAN summations for industrial sectors which include fractional employment represent both jobs and job equivalents. Since employment may result from some employees working additional hours in existing jobs, instead of terming indirect employment impacts as “creating” jobs, a more accurate term is “involving” jobs or job equivalents.

Economic Impacts of Plant Construction

One-time economic impacts to the Georgia economy of plant construction are presented in Table 1. Direct impact of \$3.418 million is less than construction costs of \$4.318 million due to leakages outside of the Georgia economy caused by purchases of some construction items in other states. Construction of the plant involves 21 jobs with wages and benefits of \$900,303. Direct jobs are equivalents based on the structure of the Georgia economy, and the actual number of individuals involved in construction may be greater than the 21 indicated by the direct employment impact. Indirect output is \$1.367 million for a total output impact of \$4.785 million. Indirect employment and labor income impacts lead to total labor income of \$1.353 million for 32 jobs, or \$42,275 per job in wages and benefits. Taxes generated total \$130,449 of which \$83,168 goes to the state government, and \$47,281 goes to local governments throughout Georgia. Appendix 1 shows the allocation of economic impacts among major industrial sectors of the Georgia economy. Final consumption represents construction expenditures that have no indirect impacts on the state economy.

Table 1. Plant Construction: One-time Georgia Economic Impacts

	Direct Impact	Indirect Impact	Total Impact
Output (\$)	3,418,368	1,366,846	4,785,214
Labor Income (\$)	900,303	452,497	1,352,800
Employment	21	12	32
State Taxes (\$)			83,168
Local Taxes (\$)			47,281
Sum of Taxes (\$)			130,449

Economic Impacts of Production

Operation of the plant in Glascock County creates annual economic impacts within the local economy. Direct output impact of \$34.096 million in Table 2 is equal to the value of annual revenues. Direct labor income of \$5.217 million for 137 employees is plant expense for wages and benefits. Indirect economic activity in Glascock County of \$4.127 million leads to a total output impact of \$38.223 million. Indirect output leads to indirect labor income of \$929,750 for 44 jobs. Total labor income in Glascock County is \$6.147 million for 181 jobs which averages

\$33,960 per job. State taxes of \$108,974 in Table 2 are for economic activity occurring in Glascock County. Local taxes of \$88,639 in the county result in total tax revenue of \$197,613. Local taxes in this report do not include property taxes paid on the proposed plant. Appendix 2 shows economic impacts among major industrial sectors of the Glascock County economy.

Table 2. Manufacturing Plant: Annual County Economic Impacts

	Direct Impact	Indirect Impact	Total Impact
Output (\$)	34,096,008	4,127,317	38,223,325
Labor Income (\$)	5,217,060	929,750	6,146,810
Employment	137	44	181
State Taxes (\$)			108,974
Local Taxes (\$)			88,639
Sum of Taxes (\$)			197,613

Production in Glascock County creates economic impacts in surrounding counties. One county has limited capacity to provide inputs for an enterprise, and this leads to indirect impacts in other local economies as inputs are purchased in other counties. The state of Georgia has designated 12 state service delivery regions (SDR) in order to foster regional collaboration in economic development. Glascock County is in SDR 7 which also includes the counties: Burke, Columbia, Hancock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Taliaferro, Warren, Washington, and Wilkes. Table 3 shows the regional economic impact for SDR 7. Direct impacts are identical to Table 2. Indirect impacts increase as the larger regional economy has greater supporting capacity for production inputs than a single county. The total output impact to the region is \$51.565 million. Total labor income of \$11.099 million is created for 323 jobs which is a \$34,361 average in wages and benefits. State and local taxes generated due to impacts in the region are \$1.405 million. Appendix 3 shows economic impacts among major industrial sectors in SDR 7.

Table 3. Manufacturing Plant: Annual Regional Economic Impacts

	Direct Impact	Indirect Impact	Total Impact
Output (\$)	34,096,008	17,469,223	51,565,231
Labor Income (\$)	5,217,060	5,881,506	11,098,566
Employment	137	186	323
State Taxes (\$)			734,657
Local Taxes (\$)			670,214
Sum of Taxes (\$)			1,404,871

Expanding the impact area to Georgia indicates the economic impacts from the Glascock County plant to the state economy. Indirect impacts are greater in Table 4 than impacts for county and regional economies. Total output is \$55.013 million for the state economy. A total of \$12.418 million in labor income is created for 335 jobs. Indirect wages and benefits average \$36,366 per

job, and the average for all jobs is \$37,067. The state treasury realizes a total of \$833,480 from production, while local governments receive \$740,233. Appendix 4 shows economic impacts among major industrial sectors in the Georgia economy.

Table 4. Manufacturing Plant: Annual Georgia Economic Impacts

	Direct Impact	Indirect Impact	Total Impact
Output (\$)	34,096,008	20,917,356	55,013,364
Labor Income (\$)	5,217,060	7,200,535	12,417,595
Employment	137	198	335
State Taxes (\$)			833,480
Local Taxes (\$)			740,233
Sum of Taxes (\$)			1,573,713

Summary

Construction of a plant for manufacturing utility buildings plant in Glascock County would create a one-time economic impact leading to \$1.353 million in labor income for Georgia workers. Operation of the plant would create an annual \$38.223 million output impact in Glascock County. Total labor income of \$6.147 million would be created annually for 181 jobs in the county. Local governments in the county would receive \$88,639 annually in tax revenues, not including property taxes paid for the plant. Regional impacts for an area of 13 counties including Glascock County lead to a labor income impact of \$11.099 million for 323 jobs in the region. Production at the plant would generate a total output impact of \$55.013 million for the state economy. Employees in Georgia would earn \$12.418 million in wages and benefits for 335 jobs. The state treasury would receive \$833,480 annually, and local treasuries throughout the state would receive \$740,233 from operations related to production.

Appendix 1. Plant Construction: One-time Economic Impacts to Major Sectors, Georgia

Sector	Output (\$)	Labor	
		Income (\$)	Employment
Agriculture	13,331	3,702	0
Mining & Construction	1,472,062	788,127	19
Utilities	141,977	53,719	1
Manufacturing	530,671	107,503	2
Transportation, Warehousing	67,168	27,763	1
Trade	242,127	93,462	3
Finance, Insurance, & Real Estate	194,973	53,439	1
Services	490,280	220,220	6
Government and non-NAICS	127,320	4,865	0
Final Consumption	1,505,306	NA	NA
Total	4,785,214	1,352,800	32

Appendix 2. Manufacturing Plant: Annual Economic Impacts to Major Sectors, County

Sector	Output (\$)	Labor	
		Income (\$)	Employment
Agriculture	9,412	2,289	0
Mining & Construction	9,957	3,689	0
Utilities	0	0	0
Manufacturing	34,096,009	5,217,060	137
Transportation, Warehousing	2,057,384	479,483	25
Trade	261,175	89,990	7
Finance, Insurance, & Real Estate	495,566	126,966	2
Services	418,498	202,355	8
Government and non-NAICS	875,324	24,978	1
Total	38,223,325	6,146,810	181

Appendix 3. Manufacturing Plant: Annual Economic Impacts to Major Sectors, Region

Sector	Output (\$)	Labor	
		Income (\$)	Employment
Agriculture	54,325	18,654	1
Mining & Construction	63,341	25,604	1
Utilities	366,748	73,889	1
Manufacturing	34,755,261	5,337,034	140
Transportation, Warehousing	4,006,650	1,372,873	38
Trade	6,352,023	2,413,819	77
Finance, Insurance, & Real Estate	1,110,599	273,878	7
Services	3,572,606	1,495,877	55
Government and non-NAICS	1,283,679	86,938	3
Total	51,565,231	11,098,566	323

Appendix 4. Manufacturing Plant: Annual Economic Impacts to Major Sectors, Georgia

Sector	Output (\$)	Labor	
		Income (\$)	Employment
Agriculture	90,972	27,532	1
Mining & Construction	83,616	35,036	1
Utilities	399,893	80,841	1
Manufacturing	35,082,019	5,382,999	140
Transportation, Warehousing	4,396,525	1,603,353	39
Trade	6,906,228	2,639,998	80
Finance, Insurance, & Real Estate	2,154,436	577,691	12
Services	4,638,569	2,011,853	59
Government and non-NAICS	1,261,106	58,291	1
Total	55,013,364	12,417,595	335

The Center for Agribusiness & Economic Development



The Center for Agribusiness and Economic Development is a unit of the College of Agricultural and Environmental Sciences of the University of Georgia, combining the missions of research and extension. The Center has among its objectives:

To provide feasibility and other short term studies for current or potential Georgia agribusiness firms and/or emerging food and fiber industries.

To provide agricultural, natural resource, and demographic data for private and public decision makers.

To find out more, visit our Web site at: <http://www.caed.uga.edu>

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