

# **An Economic Analysis of the Construction and Operation of A Major Manufacturing Facility by FG LA LLC in St. James Parish**

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**\*Dr. Richardson is solely responsible for the facts, findings, and conclusions presented in this report.**

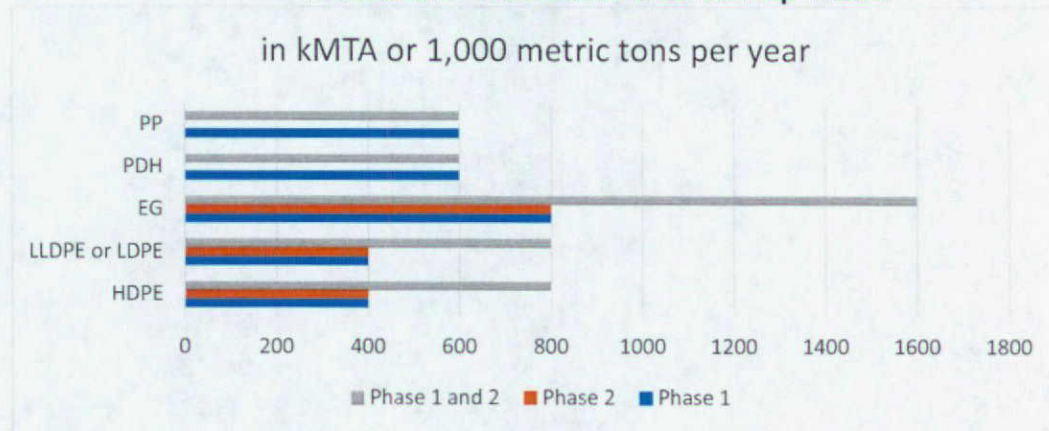
**An Economic Analysis of the Construction and Operation of  
A Major Manufacturing Facility by FG LA LLC in St. James Parish**

**Introduction**

FG LA LLC, a member of Formosa Plastics Group, is planning to construct a \$9.4 billion manufacturing facility (a petrochemical complex of ethylene cracker and downstream plants) in St. James Parish with the investment starting in 2019 and being completed in 2028 with approximately 20% to 40% of these expenditures being completed in Louisiana. There will be two phases of the construction project with the first phase starting in 2019 and being completed in 2024. The capital expenditures in this phase will occur as follows: \$1.3 billion being spent by December 31, 2021; \$2.7 billion being spent by December 31, 2022; \$4.1 billion being spent by December 31, 2023; and, \$5.5 billion being spent by December 31, 2024. The second phase of the construction project will start in 2025 and be finished in 2028 with an additional \$3.9 billion being spent over this time period or, on average, approximately \$1 billion per year. The construction of the facility will create substantial economic benefits, both direct and indirect, during the construction phase peaking at just over 8,000 direct and indirect workers in 2022 and continuing through 2026. These economic benefits will be focused mainly in and around St. James Parish, the place where the construction will take place. However, some of this construction spillover will spread throughout the surrounding parishes and the state since workers will be coming from a number of different locations.

Once fully completed the company projects annual revenues of \$5.6 billion. FG LA LLC in St. James Parish will produce HDPE (high density polyethylene), LLDPE (linear low-density polyethylene) and/or LDPE (low density polyethylene), EG (ethylene glycol), PDH (propane dehydrogenation) and PP (polypropylene). This ongoing output is illustrated in Figure 1 with the output being measured in kMTA or one thousand metric tons per year. The final products being produced will be shipped to other parts of the United States ranging from 20% to 40% of certain products and the remainder to the global marketplace.

**Figure 1. Ongoing Production at FG LA LLC, Phase 1 Estimated Startup in 2025 and Phase 2 Estimated Startup in 2029**





The ongoing expenditures will include labor expenses, on-site contractors for specialty jobs and for maintenance, utilities, other normal office and facility expenses, and raw materials such as natural gas, ethane, and propane. Direct jobs and the associated payroll are illustrated in Table 1 as noted in the Cooperative Endeavor Agreement between the State of Louisiana and FG LA LLC as signed by the Louisiana Commissioner of Administration on July 26, 2017.

**Table 1. Direct Jobs and Payroll Associated with the Ongoing Operation of FG LA LLC**

<i>Project Year</i>	<i>Direct Jobs</i>	<i>Payroll Associated with Direct Jobs (millions of \$s)</i>		<i>Project Year</i>	<i>Direct Jobs</i>	<i>Payroll Associated with Direct Jobs (millions of \$s)</i>
2021	80	\$6.7		2026	720	\$67.0
2022	180	\$15.5		2027	720	\$68.4
2023	360	\$31.6		2028	960	\$93.0
2024	540	\$48.3		2029	1200	\$118.6
2025	720	\$65.7		2030	1200	\$121.0

Source: Cooperative Endeavor Agreement between the State of Louisiana and FG LA LLC.

The construction activities will yield economic benefits to the regional and state economy for the duration of the construction project with the estimated construction lasting from 2019 through 2028 or a ten-year construction project. The operation of the new facility will provide benefits to the regional and state economy for as long as the facility operates. It is fully anticipated that the facility will be functioning beyond 2050. FG LA LLC will have to keep producing products that are competitive both nationally and globally. The economic benefits associated with the construction and ongoing operations of the FG LA LLC chemical facility will include

- The creation of additional business activity as measured by business transactions
- The creation of new jobs associated directly and indirectly with constructing and operating the facility
- Household earnings associated with the net new jobs associated with the constructing and operation of the facility
- Net new state and local taxes related to this new business activity and employment

The focus of this study is to estimate using standard economic modeling as defined by the U.S. Department of Commerce, Bureau of Economic Analysis, the economic impact of the capital investments by FG LA LLC as well as the ongoing economic operations to be completed given this new manufacturing facility.



### St. James and Surrounding Parishes

FG LA LLC, a member of the Formosa Plastics Group, is planning to construct a \$9.4 billion manufacturing facility in St. James Parish with the investment starting in 2019 and being completed in 2028 with approximately 20% to 40% of these expenditures being completed in Louisiana. St. James is a parish that borders on Ascension Parish, Assumption Parish, Lafourche Parish, and St. John the Baptist Parish as illustrated in Map 1. St. James is a parish with a major manufacturing backdrop, but its surrounding parishes also have significant manufacturing establishment, employment, and earnings as a basis for their economic success.

**Map 1. Parishes in Louisiana (St. James, Ascension, Assumption, Lafourche, and St. John the Baptist)**





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Employment, business units, and overall wages earned in St. James Parish and its surrounding parishes are illustrated in Table 2. The earnings data in Table 1 represent the total wages paid by employers to employees during that time period with the wages being defined by the U.S. Bureau of Labor Statistics. The manufacturing sector of the economy St. James Parish and the parishes that border on St. James stands out as illustrated in Table 2. Manufacturing includes Petroleum Refining and Petrochemical plants.

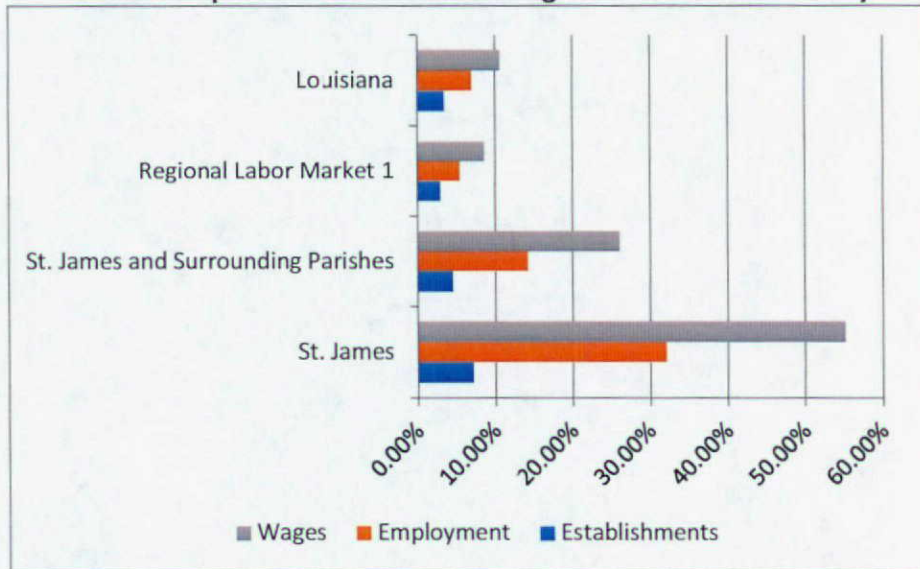
**Table 2. Business Units, Employment and Earnings by Industry in St. James Parish and Surrounding Parishes (Ascension, Assumption, Lafourche, and St. John the Baptist)**

<i>Industries</i>	<b>Business Units</b>	<b>Employment</b>	<b>Earnings</b>
<i>St. James Parish and surrounding parishes</i>	6,488	104,577	\$5,776,269,852
<i>Agriculture, forestry, fishing and hunting</i>	93	788	\$40,105,744
<i>Mining</i>	61	1,643	\$134,398,888
<i>Utilities</i>	37	534	\$29,782,508
<i>Construction</i>	629	12,465	\$832,856,808
<b>Manufacturing</b>	<b>292</b>	<b>14,838</b>	<b>\$1,506,102,308</b>
<i>Wholesale trade</i>	352	3,591	\$229,307,316
<i>Retail trade</i>	921	13,083	\$360,260,172
<i>Transportation and warehousing</i>	428	9,758	\$703,171,912
<i>Information</i>	60	792	\$37,428,744
<i>Finance and insurance</i>	448	1,941	\$103,343,712
<i>Real estate and rental and leasing</i>	288	1,848	\$102,861,204
<i>Professional and technical services</i>	598	2,528	\$182,373,464
<i>Management of companies and enterprises</i>	50	670	\$40,307,544
<i>Administrative and waste services</i>	369	4,828	\$224,643,832
<i>Educational services</i>	58	3,230	\$123,650,060
<i>Health care and social assistance</i>	594	10,201	\$422,462,148
<i>Arts, entertainment, and recreation</i>	95	1,263	\$29,739,300
<i>Accommodation and food services</i>	499	7,978	\$124,261,468
<i>Other services, except public administration</i>	416	2,619	\$116,296,124
<i>Public administration</i>	193	3,809	\$173,647,008

Source: Louisiana Workforce Commission, 4<sup>th</sup> Quarter, 2016

Manufacturing in St. James and the bordering parishes are compared to Manufacturing in Regional Labor Market 1 and the state. St. James parish is in Regional Labor Market 1 as noted in Figure 2.

**Figure 2. Employment and Earnings for St. James and Surrounding Parishes, Regional Labor Markets 1, and Statewide: Relative Importance of Manufacturing Sector in Total Economy**



The comparisons include number of business units, employment, and earnings:

- 7.1% of the business establishments in St. James parishes are in Manufacturing compared to 4.5% of all business establishments in St. James and the surrounding parishes, 2.9% in Regional Labor Market 1, and about 3.5% of all business establishments statewide;
- 32% of the employment in St. James Parish are in Manufacturing compared to 14% of the employment in St. James and surrounding parishes, 5.4% in Regional Labor Market 1, and 7% of employment statewide; and,
- 55% of the earnings in St. James Parish come from Manufacturing compared to 26% in St. James and the surrounding parishes, 8.6% in Regional Labor Market 1, and 11% statewide.<sup>1</sup>

<sup>1</sup> Regional Labor Market 1 includes the parishes of Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, and St. Parishes. Information is collected and tabulated by the Louisiana Workforce Commission, 4<sup>th</sup> Quarter, 2016.



These data suggest the relative importance of manufacturing in St. James parishes compared to the regional economies in which they are located and compared to the state of Louisiana. Given that manufacturing dominates employment and earnings in St. James parish, then it is easy to understand that any expansion of these activities will have a major impact on the overall economic health of the local economies.

#### **The Methodology for Estimation of the Economic Impact of Investments on the Local and State Economy**

The methodology used to trace and estimate the economic impact of the construction and operation of a major chemical facility in St. James Parish by FG LA LLC on the local and state economy is the input-output (I/O) model, an economic model that describes the inter-industry relations within the local economy and the state's economy. The I/O model quantifies inter-industry transactions as units within these industries are producing goods and services for consumers, other businesses and industries, and governments. It provides a systematic method to analyze inter-industry relationships.

The economic impacts captured by the I/O model fall into three categories—direct, indirect, and induced effects. The direct effects are the most obvious. They are simply the direct purchases of inputs for the construction and operation of the proposed chemical facility or, in this case, \$9.4 billion of investment over 10 years, and producing 3,800 kMTA of downstream chemical products annually with expected revenues being \$5.6 billion once both phases of the construction project is completed in 2028. These expenditures include materials purchased in Louisiana plus the payroll of the companies building the facility and the direct payroll of the plant itself during the construction project. Once the facility is operational, then the company will have payroll plus benefits, materials, business services that they must purchase, operating expenses, and other such expenses that will continue year after year. As of 2030 the payroll for direct employment will be least \$121 million per year. The spending ripples throughout the economy which why it called an economic multiplier.

There are several factors that affect the size of the economic multiplier or, more significantly, the economic impact of any proposed project. I/O models are specific to the state and region where the proposed project is being built. Louisiana has a viable chemical industry so suppliers of the chemical industry are already located in the state and persons who provide services to these industries are located in and around Louisiana and this means that much of the spending will stay within Louisiana and not leak over to other states. Obviously, some of the spending on the capital investment and the ongoing operations will spill into other states and possibly other countries. The economic impact is also subject to the scale of the project. The larger the project the greater the economic impact in the region in which the project is being located.

The Regional Input-Output Modeling System (RIMS II), as created by the United States Department of Commerce Bureau of Economic Analysis (BEA), was used in this analysis for capturing the indirect and induced economic impacts. BEA I/O tables are widely used and



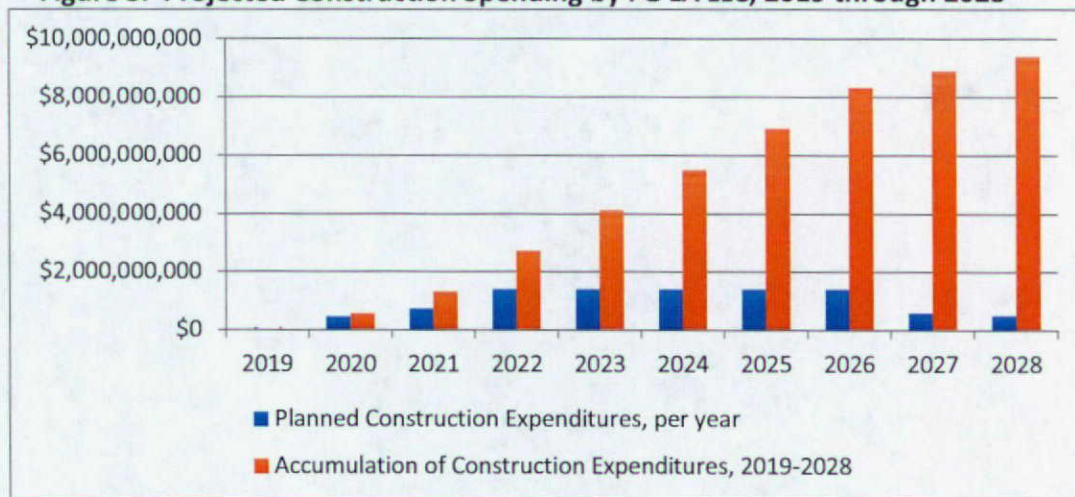
accepted tools for estimating the economic impact of new projects on (1) business transactions within Louisiana, (2) personal earnings of Louisiana households, and (3) the number of jobs to be created by the proposed construction and operation of the new manufacturing facility. We can also supplement the BEA I/O table to estimate any net new state and local tax receipts associated with the spending, earnings, and jobs. These tax estimates will be in addition to any taxes that may be paid directly on the equipment purchased in other states but used in Louisiana or direct property taxes levied directly on the property itself.

### Construction Activity and Ongoing Operations by FG LA LLC in St. James Parish

Major construction projects, such as the one proposed by FG LA LLC for St. James Parish, take many years to complete and involve a substantial workforce for the duration of the construction project. The projected time path of the construction spending is noted in Figure 3 with the spending increasing from \$74.1 million in 2019 to \$1.4 billion per year from 2022 through 2026 and then finishing up with approximately \$500 million in 2028. The construction project will be divided into two phases with the first phase starting in 2019 and being completed by 2024 and the second phase starting in 2025 and being completed by 2028.

These are construction estimates by year and certainly can vary from year to year given that we are looking at a ten-year time horizon, but these estimates provide a baseline for the economic impact of the construction spending in St. James Parish. FG LA LLC estimates that approximately 20% to 40% of the spending of the \$9.4 billion will occur in and around St. James Parish.

**Figure 3. Projected Construction Spending by FG LA LLC, 2019 through 2028**

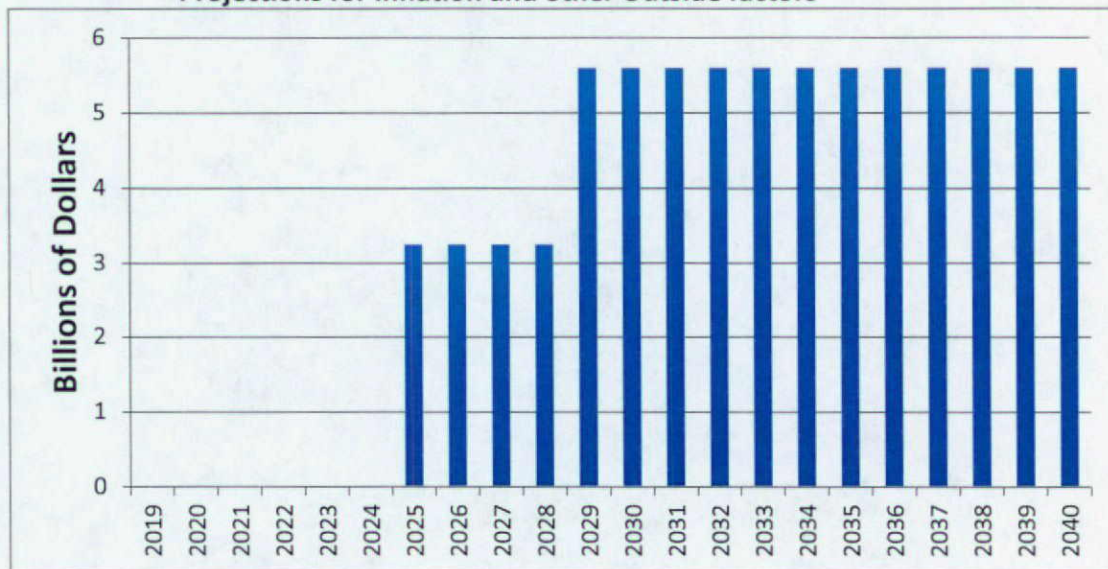


The entire FG LA LLC facility will be in St. James Parish so, once the project is completed and on the tax rolls, the local governments, including the parish, school board, law enforcement, and other special districts will benefit from the investment made by FG LA LLC given the ongoing activity as illustrated in Figure 4.



Once Phase 1 has been completed FG LA LLC will initiate the production of high-density polyethylene, linear low-density polyethylene, ethylene glycol, and polypropylene. And once Phase 2 is also completed, FG LA LLC will produce more high-density polyethylene, low-density polyethylene, and ethylene glycol. Hence, the ongoing operations of the facility will begin in 2025 and expand to a larger volume in 2029 once the second phase had been completed. In 2012 the state of Louisiana had manufacturing shipments of just over \$272 billion so a \$5.6 billion shipment of goods by FG LA LLC would be about 2% of the state's overall manufacturing shipments in 2012. As a comparison St. James Parish in 2015 had 0.38% of the state's employment, 0.61% of the state's overall wages and salaries, and 0.30% of the state's business establishments.

**Figure 4. Estimated Annual Revenues from Ongoing Activity at FG LA LLC with No Projections for Inflation and other Outside factors**



The capital expenditures and the ongoing operations will provide a substantial lift to the St. James economy and will also positively affect the entire Louisiana economy. This economic lift will affect overall business transactions, earnings, employment, and state and local tax receipts for St. James Parish, surrounding parishes, and the state of Louisiana. The projected impact of the capital expenditures and ongoing operations are provided in the following sections of the report with this analysis to focus on the economic impact on St. James Parish, St. James and its surround parishes (Ascension, Assumption, and Lafourche), and the state of Louisiana.

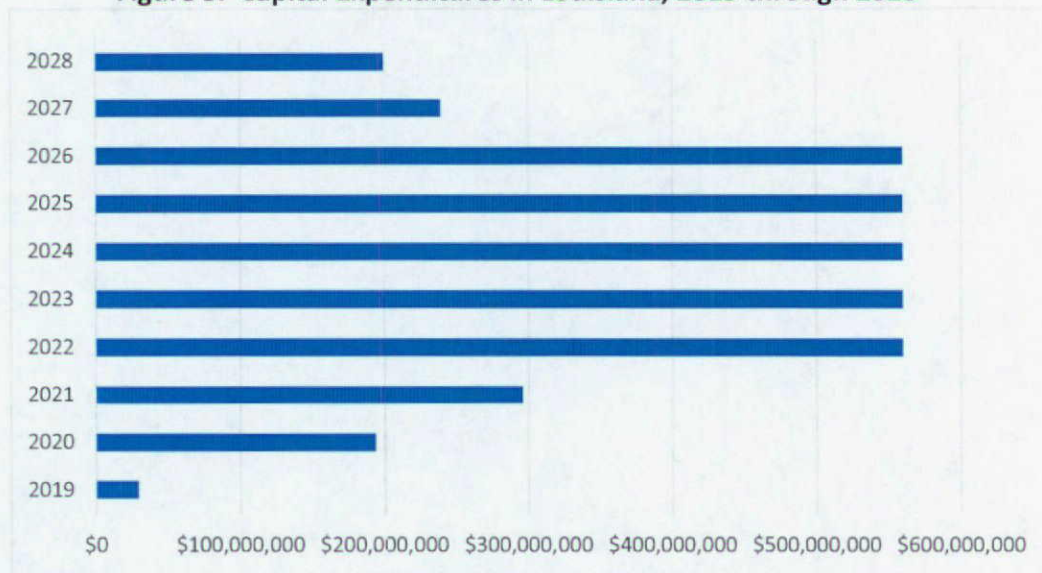
#### **Economic Impact of Capital Expenditures**

Major construction projects, such as the one proposed by FG LA LLC, provide significant economic impacts within the region in which it is being undertaken, as well as the state as a whole. A \$9.4 billion capital project is significant even though all of the dollars will not be spent in St. James Parish or even in Louisiana. The projected spending in Louisiana as illustrated in Figure 5 from 2019 through 2028 equals about 40% of total capital spending by FG LA LLC or approximately



\$3.76 billion with just over 8,000 workers directly and indirectly employed at the peak. The entire facility will have a recurring impact on the local and state economy once it is fully constructed, but, during construction, the economic impact on the Louisiana economy will be the actual capital spending taking place in Louisiana. The 40% estimate is very reasonable given that the investment spending is divided among building and materials (\$2,807,780,000); machinery and equipment (\$4,781,780,000); and, labor and engineering (\$1,810,440,000). If FG LA LLC spends more than 40% of its capital expenditures in Louisiana, then these estimates will be enhanced.

**Figure 5. Capital Expenditures in Louisiana, 2019 through 2028**



The major economic impact of this construction project will be in and around St. James Parish, though the ad valorem tax collections associated with this new facility will be entirely within St. James Parish. The economic impact of this substantial investment project will be felt in other parts of the state because of the various industries that will be required to provide products or services and the fact that many of the construction employees will spend their income in other parts of Louisiana besides just St. James Parish or surrounding parishes. Some of the construction workers will not live within the boundaries of St. James Parish. We have estimated the economic impact on overall business transactions because of this direct spending by FG LA LLC, as well as the economic impact on earnings, employment, and state and local tax receipts. All of these impacts are net new jobs or net new earnings, or net new state and local tax receipts since these jobs, earnings, and tax receipts will not occur unless FG LA LLC makes this investment. The economic impact for the state is illustrated in Table 3 and for the St. James Parish region in Table 4.

The net new jobs associated with the construction project will average across the state to about 5,405 for the time from 2019 through 2028 and aggregate personal earnings over this time period will average about \$251 million per year. In the St. James area the average number of jobs over



this time period will be 3,210 per year with average personal earnings of almost \$144 million per year. State and local governments will collect around \$399 million from 2019 through 2028 with about \$227 million being collected in the St. James area with this including St. James and the four parishes that border it (Ascension, Assumption, Lafourche, and St. John the Baptist parishes).

State and local governments will average about \$40 million per year in net new tax receipts during the construction project from 2019 through 2028. The state will collect statewide around \$23 million per year on average with about \$13 million of the state's net new tax receipts coming from St. James Parish and the surrounding parishes. Local governments, statewide, will gain on average about \$17 million per year based on Table 3 with St. James Parish and its surrounding parishes, based on Table 4, gaining on average about \$10 million per year. This does not include any ad valorem taxes on the property being developed in St. James Parish.

In Tables 3 and 4 the driving force or the instigator of the economic ripples is the direct construction spending in St. James Parish so the column labeled Direct Construction Spending in St. James Parish, Louisiana is the same in both tables. The state and local tax receipts in Table 3 represent the total net new taxes collected throughout the state, including St. James Parish and the four surrounding parishes. The state and local tax receipts in Table 4 represent the state and local tax collections in St. James Parish and the four surrounding parishes. So state and local tax collections in Table 4 will be a component of state and local tax collections in Table 3. The reason that all of the economic activity does not occur in St. James Parish is because some of the expenditures by FG LA LLC will be made in other parts of the state though ultimately the equipment will end up in St. James Parish and some of the wages paid to workers on the project will be spent in other parts of the state. This occurs in any large construction endeavor. This same description applies to business transactions, personal earnings, and jobs created and/or supported.

**Table 3. Economic Impact of Construction Expenditures by FG LA LCC in St. James Parish on the Louisiana Economy, 2019 through 2028 (all dollars are in millions)**

	Direct Construction Spending	Business Transactions	Personal Earnings	Jobs Created and/or Supported	State and Local Tax Receipts
2019	\$30	\$58	\$20	426	\$3
2020	\$194	\$382	\$128	2,791	\$19
2021	\$296	\$583	\$198	4,258	\$28
2022	\$560	\$1,102	\$374	8,050	\$54
2023	\$560	\$1,102	\$374	8,050	\$54
2024	\$560	\$1,102	\$374	8,050	\$54
2025	\$560	\$1,102	\$374	8,050	\$54
2026	\$560	\$1,102	\$374	8,050	\$54
2027	\$240	\$472	\$160	3,450	\$23
2028	\$200	\$393	\$134	2,875	\$19



**Table 4. Economic Impact of Construction Expenditures by FG LA LCC in St. James Parish on the St. James Economy, 2019 through 2028 (all dollars are in millions)**

	Direct Construction Spending	Business Transactions	Personal Earnings	Jobs Created and/or Supported	State and Local Tax Receipts
2019	\$30	\$43	\$11	230	\$2
2020	\$194	\$278	\$75	1,633	\$11
2021	\$296	\$425	\$114	2,486	\$17
2022	\$560	\$804	\$215	4,703	\$31
2023	\$560	\$804	\$215	4,703	\$31
2024	\$560	\$804	\$215	4,703	\$31
2025	\$560	\$804	\$215	4,703	\$31
2026	\$560	\$804	\$215	4,703	\$31
2027	\$240	\$344	\$92	1,814	\$11
2028	\$200	\$287	\$77	1,814	\$11

The economic activity will also be spread across various sectors of the economy with about 55% of the newly created jobs and earnings will be in the construction sector while 10% in manufacturing and business and personal services each, 9% in transportation and warehousing, and 5% in trade.

#### **Economic Impact of Ongoing Production of Chemicals by FG LA LLC**

The capital investments set the stage for the ongoing production process which may last for another 50 years. The construction of this chemical complex has significant economic benefits and it also lasts for almost a decade, but the economic impact associated with the capital expenditures will come to a halt. On the other hand, the ongoing operation of the chemical factory leads to permanent economic spillovers, including additional business activity, new jobs, net new earnings, and additional state and local taxes. These economic benefits are related to the purchase of goods and services by FG LA LLC including payroll, other services purchased locally or statewide, other products purchased in Louisiana, and any basic inputs purchased from a Louisiana producer.

The statewide recurring economic impacts are illustrated in Table 5 and the recurring economic impacts in and around St. James Parish are illustrated in Table 6. FG LA LLC will have overall revenues of \$5.6 billion annually once both phases are completed. We have estimated that FG LA LLC will spend locally about \$300 million per year after the first phase is completed, including direct employment of 720 persons and a payroll of \$65.7 million and about \$500 million per year once both the first and second phases are completed with 1,200 direct employees and a payroll of \$121 million. We have included the estimates for local spending at the \$300 million and \$500 million level since many of the expenses will be for raw materials that may come from a number of places. These expenditures will create at first about 2,374 jobs and then almost 4,000 jobs in



the state once both phases are completed in terms of the investment. The spending by FG LA LLC for payroll and other purchases will require jobs in other sectors of the economy.

In Tables 5 and 6 the driving force or the instigator of the economic ripples is the ongoing operation of the facility in St. James Parish so the column labeled Ongoing Spending by FG LA LLC in St. James Parish, Louisiana is the same in both tables. The state and local tax receipts in Table 5 represent the total net new taxes collected throughout the state, including St. James Parish and the four surrounding parishes. The state and local tax receipts in Table 6 represent the state and local tax collections in St. James Parish and the four surrounding parishes. So state and local tax collections in Table 6 will be a component of state and local tax collections in Table 5. The reason that all of the economic activity does not occur in St. James Parish is because some of the expenditures by FG LA LLC will be made in other parts of the state though ultimately it will end up in St. James Parish and some of the wages paid to workers at the facility once it is fully operational will be spent in other parts of the state. This occurs in any large operation. This same description applies to business transactions, personal earnings, and jobs created and/or supported.

**Table 5. Statewide Economic Impact of Ongoing Operations of FG LA LLC (all dollars are in millions)**

	Ongoing Spending by FG LA LLC	Business Transactions	Personal Earnings	Jobs Created and/or Supported	State and Local Tax Receipts
2025	\$300.0	\$710.9	\$139.8	2,374	\$20.0
2026	\$300.0	\$710.9	\$139.8	2,374	\$20.0
2027	\$300.0	\$710.9	\$139.8	2,374	\$20.0
2028	\$300.0	\$710.9	\$139.8	2,374	\$20.0
2029	\$500.0	\$1,184.9	\$233.0	3,957	\$33.3
2030	\$500.0	\$1,184.9	\$233.0	3,957	\$33.3
2031	\$500.0	\$1,184.9	\$233.0	3,957	\$33.3
2032	\$500.0	\$1,184.9	\$233.0	3,957	\$33.3
2033	\$500.0	\$1,184.9	\$233.0	3,957	\$33.3
2034	\$500.0	\$1,184.9	\$233.0	3,957	\$33.3
2035	\$500.0	\$1,184.9	\$233.0	3,957	\$33.3
Continued to					
2050	\$500.0	\$1,184.9	\$233.0	3,957	\$33.3

In Table 6 the estimates of the economic impact in and around St. James Parish are presented. The majority of these jobs will be in St. James Parish since the facility will be in St. James Parish, but some of the expenditures will show up in surrounding parishes such as in retail, personal and business services, and transportation and warehousing. The facility will initially support around 720 jobs in and around St. James Parish when the first Phase is completed and then around 1,200



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jobs once both Phase 1 and Phase 2 are operational. These jobs will persist as long as the facility is functioning and the global market sustains the output of the facility.

The state and local tax receipts add up to almost \$20 million per year from 2025 through 2028 and then just over \$33 million per year from 2029 forward based on the economic impact on the entire state. About 80% of the tax receipts will be generated in the St. James area. The local tax receipts do not include the ad valorem tax receipts that will be initiated once the facilities go on the tax rolls and that depends on the application of the industrial tax exemption.

**Table 6. Regional Economic Impact of Ongoing Operations of FG LA LLC (all dollars are in millions)**

	Ongoing Spending by FG LA LLC	Business Transactions	Personal Earnings	Jobs Created and/or Supported	State and Local Tax Receipts
2025	\$300.0	\$574.9	\$113.1	1,920	\$16.2
2026	\$300.0	\$574.9	\$113.7	1,920	\$16.2
2027	\$300.0	\$574.9	\$113.7	1,920	\$16.2
2028	\$300.0	\$574.9	\$113.7	1,920	\$16.2
2029	\$500.0	\$958.1	\$188.4	3,199	\$26.9
2030	\$500.0	\$958.1	\$188.4	3,199	\$26.9
2031	\$500.0	\$958.1	\$188.4	3,199	\$26.9
2032	\$500.0	\$958.1	\$188.4	3,199	\$26.9
2033	\$500.0	\$958.1	\$188.4	3,199	\$26.9
2034	\$500.0	\$958.1	\$188.4	3,199	\$26.9
2035	\$500.0	\$958.1	\$188.4	3,199	\$26.9
Continued to			\$188.4	3,199	\$26.9
2050	\$500.0	\$958.1	\$188.4	3,199	\$26.9

**Summary and Conclusions**

FG LA LLC is planning a \$9.4 billion investment in St. James Parish to be completed from 2019 through 2028 in two phases. Phase 1 will be completed by 2024 and the production of HDPE (high density polyethylene), LLDPE (linear low density polyethylene), EG (ethylene glycol), and PP (polypropylene) will start in 2025. Phase 2 will be completed by 2028 and additional production of HDPE (high density polyethylene), LLDPE (linear low density polyethylene) and/or LDPE (low density polyethylene), EG (ethylene glycol), and PP (polypropylene) will commence. Once both Phase 1 and Phase 2 are completed, FG LA LLC is expecting to have revenues of \$5.6 billion per year including 1,200 direct employees at the facility with a payroll of \$121 million. FG LA LLC will start with 80 ongoing employees in 2021 with a payroll of \$6.7 million: and work up to 720 permanent ongoing employees in 2025 with a payroll of \$65.7 million: and in 2030 FG LA LLC will employ 1,200 permanent ongoing employees with a payroll of \$121 million.



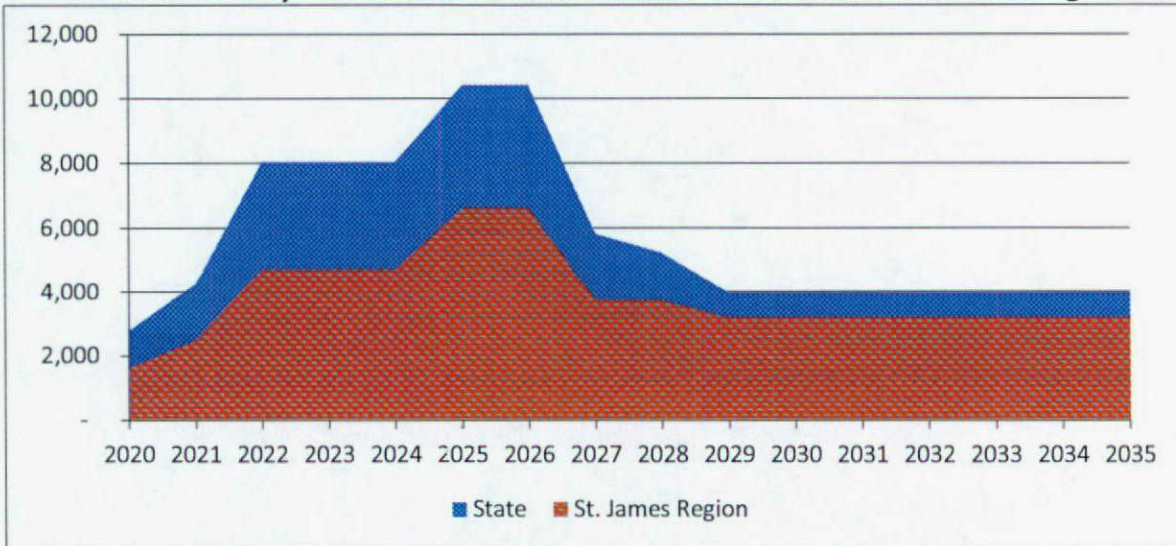
The local and state economy will benefit from the capital spending and the ongoing production by FG LA LLC with employment, earnings and state and local tax receipts. Projected employment from both the construction and the ongoing production is summarized in Figure 6 and projected state and local tax receipts from both the capital investments and the ongoing production are summarized in Figure 7.

Employment during the capital expenditure phase peaks at just over 8,000 in 2022 and continues through 2026 before dropping off, but the initiation of the ongoing production phase starts in 2025 and this adds to the employment numbers as illustrated in Figure 6 as well as the state and local tax receipts as noted in Figure 7. The economic benefits and spillovers from the construction project are substantial but temporary, though they will be carried over a decade because of the size of the project. The ongoing production is substantial and permanent as will be the employment, earnings, and state and local tax receipts.

The employment benefits will be shared across all sectors of the economy with the construction activity focusing on the construction industry but also affecting many other sectors of the economy from utilities to trade to personal and business services to transportation and warehousing. The ongoing production will also create employment benefits across many sectors of the state's economy but its direct impact will be in the manufacturing sector. However, the indirect effects will be felt in construction, trade, personal and business services, and financial services.



**Figure 6. Employment from Capital Expenditures and Ongoing Production  
at FG LA LLC Facility in St. James Parish for Louisiana and the St. James Parish Region**



**Figure 7. State and Local Tax Receipts from Capital Expenditures and Ongoing Production  
At FG LA LLC Facility in St. James Parish for Louisiana and the St. James Parish Region**

