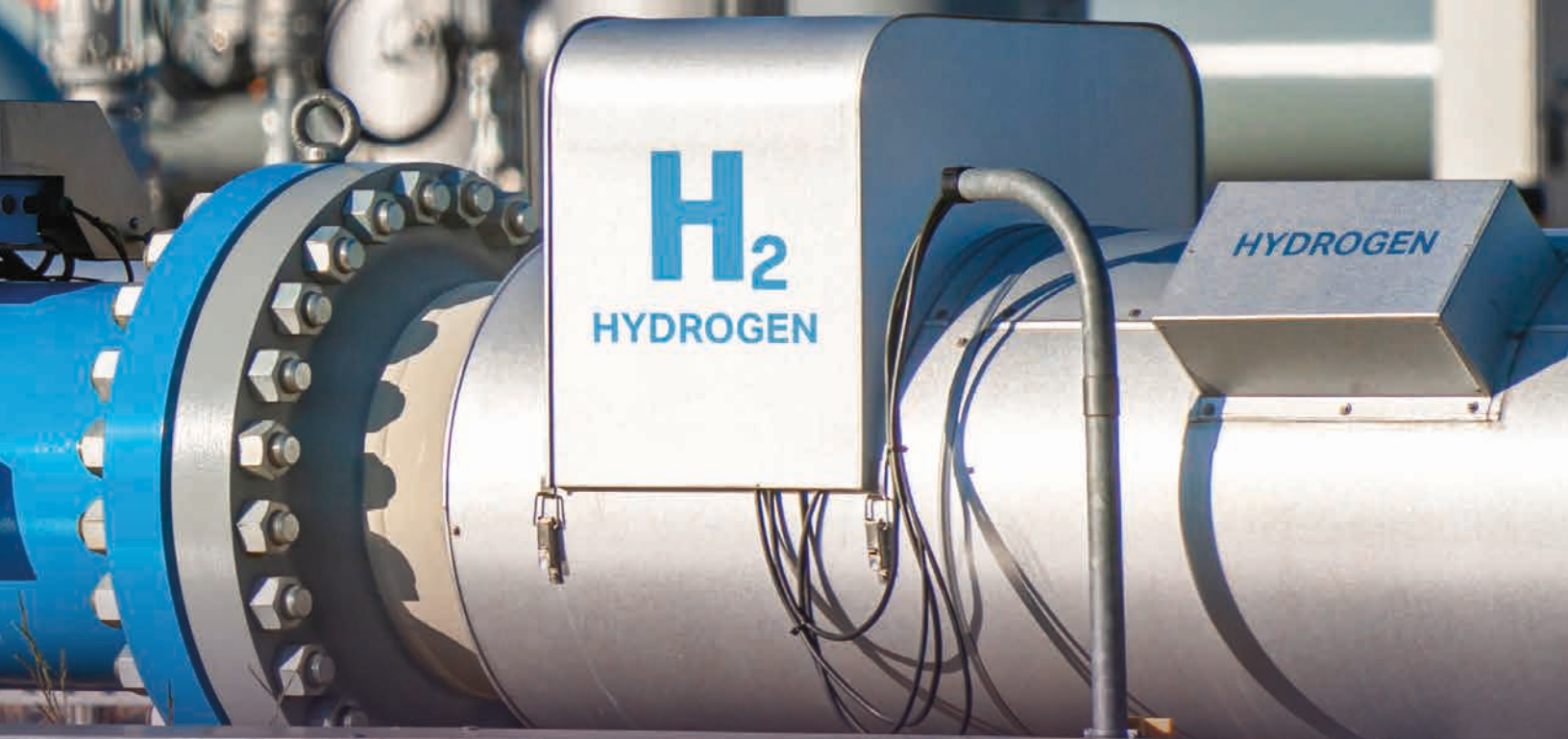


Economic Implications of Air Products Louisiana Clean Energy Complex Project for Louisiana and the Project Parishes



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LSU

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Energy Studies

About CES

The Louisiana State University Center for Energy Studies (LSU-CES) was created by the Louisiana Legislature in 1982 with the stated mission of conducting, encouraging, and facilitating research and analysis to address energy-related problems or issues affecting Louisiana's economy, environment, and citizenry. The Center's goal is to provide a balanced, objective and timely treatment of issues with potentially important consequences for Louisiana.



Funding for this report

Air Products commissioned LSU-CES to assess the economic and tax impacts of the Air Products Louisiana Clean Energy Complex Project for the state of Louisiana and the project parishes. Air Products provided information about the project and was given the opportunity to review and provide feedback on this report. The analysis and opinions expressed are those of the authors alone.



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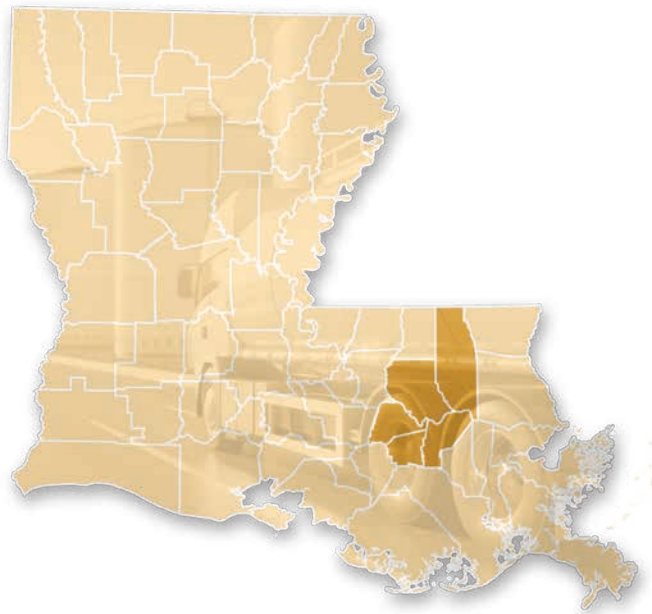
Executive Summary

The Louisiana Clean Energy Complex (LCEC) includes a proposed low-carbon hydrogen and low-carbon ammonia production facility in Ascension Parish. The production facility will produce more than 750 million cubic feet per day (cf/d) of low-carbon hydrogen and 8,000 metric tons per day (mt/d) of low-carbon ammonia. In addition to the production facility, the LCEC will be supported by permanent carbon dioxide (CO₂) sequestration wells, planned to be constructed beneath Lake Maurepas (which covers portions of St. John the Baptist, Tangipahoa, and Livingston Parishes), as well as a CO₂ pipeline to be constructed in Ascension, St. James, St. John the Baptist, Tangipahoa, and Livingston Parishes, collectively referred to as “the project parishes” for the remainder of this paper. Estimated economic and tax implications of the project are summarized as follows:

- ▶ The project has an estimated direct capital investment of approximately \$8 billion, and the LCEC is expected to be fully operational in approximately 2028. Once completed, the project will produce low-carbon hydrogen and low-carbon ammonia for a 30-year estimated lifespan.
- ▶ During pre-construction and construction, the project is expected to contribute \$10.9 billion to national Gross Domestic Product (GDP) and \$6.3 billion to national labor income over the construction period, as well as support 20,700 jobs per year nationally. Once operational, we estimate the project will contribute \$191 million to national GDP and \$102 million to national labor income annually, as well as support 1,300 jobs per year nationally.
- ▶ At the state level, the project is expected to contribute \$4.5 billion to Louisiana’s Gross State Product (GSP) and \$2.5 billion to labor income in Louisiana over the construction period, as well as support 8,800 jobs per year in the state. Once operational, we estimate the project will contribute \$132 million to GSP and \$70 million to Louisiana labor income annually, as well as support 900 jobs per year.
- ▶ In the project parishes, we estimate the pre-construction and construction phase will support 4,150 jobs per year and \$1.2 billion in labor income, while the annual operations of the project will support 460 jobs and \$36 million in labor income annually.
- ▶ The economic activity associated with the project is anticipated to support an estimated \$369.4 million in state and local revenues during construction, and an additional \$24.1 million per year once in operation. Note that this does not include local property and sales taxes paid directly by the project itself or any revenue shared with the project parishes pursuant to the CO₂ storage agreement between Air Products and the State.
- ▶ In the project parishes specifically, and including property and sales taxes paid directly by the project itself, we estimate the project will support a net

present value of \$538 million to \$1.3 billion in the project parishes local tax revenues over the estimated 35-year life of the project (including pre-construction activities, construction, and operations), using an 8% and 2% discount rate respectively.

- ▶ Because the CO₂ sequestration will occur beneath State property, the CO₂ storage agreement is with the State of Louisiana, and all CO₂ Rent and Injection Fees will be paid directly to the State, with 30% of the payments then being shared with the local parishes pursuant to statutory revenue-sharing provisions as of 2023.¹
- ▶ The Rent payments for the Lake Maurepas acreage (\$50 per acre) began in October 2021 and are currently expected to continue until at least approximately 2028, resulting in approximately \$17.9 million in total Rent payments. Once injection begins, the wells are estimated to sequester 5.9 million metric tons per year of CO₂ at full capacity. Assuming 90% utilization, we estimate this will result in Injection Fee payments of approximately \$24.7 million per year, once operational. With 30% of shared payments (Rent and all Injection Fees) going to the local parishes, this would result in the project parishes receiving a net present value (NPV) of \$68 million to \$158 million over the life of the project (including Rent payments and 30 years of Injection Fee payments), using an 8% and 2% discount, respectively.



¹ Act 378 of the 2023 Louisiana legislative session became effective on June 14, 2023.

1. Introduction

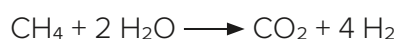
The Louisiana Clean Energy Complex is a planned low-carbon hydrogen and low-carbon ammonia facility, along with a CO₂ pipeline and associated CO₂ sequestration facilities. The project has an estimated direct capital investment of more than \$8 billion. The project is currently expected to be operational in approximately 2028. It is being developed by Air Products.

The remainder of the report is organized as follows: Section 2 gives an overview of the low-carbon hydrogen industry. Section 3 outlines the methodologies used to estimate economic impacts, and the results of the analysis are presented in Section 4.



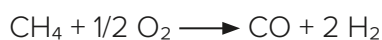
2. Low-Carbon Hydrogen

Manufacturing of ammonia (NH₃) is dependent on the combination of hydrogen (H₂) and nitrogen (N₂) using the Haber-Bosch process. The source of hydrogen determines the carbon intensity associated with the ammonia production process. The United States produces approximately 10 million metric tons of hydrogen each year for industrial uses, and over 95% is sourced from natural gas (containing primarily methane, CH₄), using the steam methane reforming (SMR) process, followed by the water gas shift (WGS) reaction. This hydrogen is referred to as *gray hydrogen*, which results in CO₂ emissions as shown in the following equation, which is a combination of the SMR and WGS reactions:

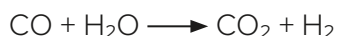


When the CO₂ from the gray hydrogen process is captured and sequestered instead, the hydrogen produced is referred to as *blue hydrogen*.² While the hydrogen molecules from both processes are the same, the colors ascribed to these indicate the carbon intensity associated with these processes. Naturally, the addition of Carbon Capture and Sequestration (CCS) leads to additional energy requirements for the overall process, and therefore, capital and operating costs.

The proposed Clean Energy Production Facility process is based on the process of partial oxidation (also referred to as natural gas gasification), followed by the WGS reaction to produce H₂ and CO₂:



By limiting the amount of oxygen, products from the oxidation reaction include carbon monoxide (CO) and hydrogen instead of CO₂ and H₂O. The WGS reaction further reacts the CO with water to produce CO₂ and additional hydrogen:



Pure oxygen for the process is sourced from an air separation unit (ASU). The ASU also separates N₂ from air, which is combined with low-carbon H₂ generated at the facility to produce NH₃. H₂ generated at the facility will also be distributed through Air Products' existing Gulf Coast hydrogen pipeline for use by other industrial consumers. CO₂ generated from the gasification of natural gas is captured and permanently sequestered in geological formations.

² Other "colors" of hydrogen include green hydrogen (produced using renewable energy sources) and pink hydrogen (produced using nuclear energy). See generally <https://www.weforum.org/stories/2021/07/clean-energy-green-hydrogen/>.

3. Methodology

3.1 Economic Impacts

The purpose of this report is to estimate the economic impacts of the construction and yearly operations and maintenance (O&M) of the project.

To estimate the economic impacts of the construction and yearly O&M of the project, we use the Louisiana Economic Impact Model (LEIM) developed by the LSU-CES.³ LEIM models economic impacts by tracing the flow of goods throughout the economy.

Importantly, commodity flows are area specific, allowing modelers to consider the impact of specific investments in specific locations. LEIM utilizes government data on commodity flows, as well as data from government agencies such as the United States Census Bureau and the United States Bureau of Labor Statistics.

Both “Type I” and “Type II” multipliers are provided by LEIM. Type I multipliers account for only the inter-industry effect. Type II multipliers account for both the inter-industry and household spending of a final demand-change. Thus, Type II multipliers, by definition, are larger than Type I multipliers. Utilizing these multipliers, the authors further dissect economic impacts into “Direct”, “Indirect”, “Induced”, and “Total” impacts, where total impacts are identical to the Type II multipliers, and Direct + Indirect impacts are identical to the Type I multipliers.

We estimate impacts on employment, earnings, and value added. Employment includes counts of workers at establishments that employ workers in relevant sectors. Earnings (synonymous with “labor income”) includes wages and salaries, proprietors’ income, and employer contributions to insurance, pensions, and social insurance. Value added represents the contribution to GDP, and earnings are a major component of value added. Horowitz and Planting (2009) provides more detailed information on the data used by LEIM, as well as interpretation of the multipliers.

We utilize the study area of Louisiana as well as the United States in total. Parish level economic impacts are allocated based on gravity models of trade, in which a parish’s share of total impacts is based on both its distance from the project location and the sectoral employment in that region. Therefore, parishes that are closer in geographic proximity and have larger labor markets will be allocated larger shares of the economic impact. Sector-level economic inputs to the model are based on confidential project specific financial information provided by Air Products and corroborated based on publicly available information and the authors’ general knowledge.

3.2 Tax Impacts

State tax impacts are based on information utilized by the Louisiana Revenue Estimating Conference (REC) alongside the authors’ internal modeling. Local tax impacts are based on a combination of (a) parish level estimated economic impacts, and (b) parish specific information on sales tax rates and property tax millages. Specifically, property tax information is obtained from the Louisiana Tax Commission. Parish level sales tax information is based on information compiled from the Louisiana Association of Tax Administrators.

Tax impacts will also be separately estimated for the project parishes. The project parishes’ specific tax impacts will include three categories: (1) property taxes paid by the project directly, (2) sales taxes paid by the project directly, (3) other tax revenues attributable to the economic activity associated with the project.

³ LEIM calculations utilize the Regional Input-Output Modeling System (RIMS II). RIMS II was created and is maintained by the Bureau of Economic Analysis (BEA), part of the U.S. Department of Commerce. RIMS II is an input-output (I-O) model that is based on a detailed set of industry accounts that measure the goods and services produced by each industry. Large underlying datasets trace the flow of goods and services throughout the economy to final users. RIMS II is considered a backward linkages model, in that an increase in demand for an output results in an increase in demand for the inputs needed to create that output.

Property Taxes: Utilizing project specific information, the specific property taxes to the project parishes are estimated considering an Industrial Tax Exemption Program (ITEP) exemption, which reduces direct property taxes by 80 percent for the first 10 years of operation. Direct property tax estimates are based on a 20-year depreciation schedule,⁴ the millage rate pulled for the project location from the project parishes' tax assessors, and capital expenditures provided by Air Products. Note that this is not intended to be an estimate for purposes of remitting taxes, but does provide a reasonable perspective on revenues that are likely to be received by local governments within the parish.

Sales Taxes: Estimates of sales taxes to be remitted directly to both the state of Louisiana and local governments within the project parishes were reviewed for reasonableness and are included in this analysis. These sales tax estimates are based on specific information about the initial capital expenditures and yearly operational expenditures once the project is completed, and take into account labor exclusions, sales tax exemptions, and the local sales tax rate.

Other Local Taxes: Utilizing economic impacts, we also include estimated local tax revenues generated from economic activity associated with the project. These estimates take into account labor exclusions, sales tax exemptions, and the local sales tax rate.

3.3 Rent and Injection Fees

For the rights to sequester CO₂ beneath state property at Lake Maurepas (at a depth of approximately 1 mile below the water bottom), Air Products Blue Energy LLC has signed an operating agreement (called a CO₂ storage agreement) with the Louisiana State Mineral and Energy Board.⁵ Under the terms of this CO₂ storage agreement, Air Products has agreed to pay Rent of \$50 per acre to the state up until the project begins operating (injecting CO₂ for sequestration). Once the project begins injecting CO₂ for sequestration, Air Products ceases paying Rent and begins paying Injection Fees based on the amount of CO₂ injected. The Injection Fees were initially set at \$1.50 per ton of CO₂, but the agreement provided for an increase if 45Q tax credits increased beyond \$50/ton. If so, the Injection Fees would increase by 9% of that 45Q increase. At the current rate of the 45Q tax credit, \$85/ton, this means the state is estimated to receive \$4.65 per ton of CO₂ sequestered. According to Louisiana Statutes, these revenues are shared, with 30% going to the Mineral and Energy Operation Fund, 30% going to the parishes where the property is located, and the remaining 40% kept at the Louisiana treasury.⁶

The Lake Maurepas tract comprises 57,100 acres, resulting in approximately \$2.9 million per year in government revenues prior to commencement of operations. Air Products expects maximum injection capacity to be 5.9 million tons per year. For the purpose of the analysis, 90% of capacity is assumed once operational, resulting in 5.3 million tons per year and \$24.7 million in annual government revenues from Injection Fees. Revenues could be higher or lower based on the annual injection capacity, among other factors.

⁴ Louisiana Administrative Code, Title 61, Chapter 25, Table 2503.D.

⁵ Louisiana State Mineral and Energy Board Resolution #21-20-051. Adopted October 13, 2021.

⁶ Louisiana Revised Statutes §30:209.2.

4. Results

4.1 Economic Impacts

Estimated economic impacts are presented in three categories. First, construction impacts are presented for the United States, Louisiana, and the project parishes. Second, yearly operations and maintenance (O&M) impacts of the facility once it is operational are presented similarly for the U.S., Louisiana, and the project parishes. Finally, we present estimates of state and local tax impacts of the project, with a specific focus on the project parishes. Note that the project parishes are located within Louisiana, which is located within the United States. Thus by definition, nationwide impacts are larger than state-level impacts, which are larger than parish-level impacts.

Construction Impacts: Table 1 shows estimated annual economic impacts during the pre-construction and construction phase of the project. The table shows economic impact estimates for the entire continental United States, Louisiana, and the project parishes. Nationwide, an estimated 20,700 jobs will be supported over approximately five years of pre-construction and construction. Pre-construction and construction will be associated with an estimated \$6.3 billion in labor income and \$10.9 billion in U.S. Gross Domestic Product.

In Louisiana, the project is estimated to support an estimated 8,800 jobs during pre-construction and construction, \$2.5 billion in labor income, and \$4.5 billion in Gross State Product. Approximately 4,150 of these jobs and \$1.2 billion in earnings will be in the project parishes.

Table 1: Estimated Economic Impacts During Pre-Construction and Construction

	(1) Employment	(2) Earnings	(3) Value Added
Panel A: United States			
Direct	8,000	\$2,400	\$4,000
Indirect	4,400	\$1,600	\$2,400
Induced	8,300	\$2,300	\$4,500
Total	20,700	\$6,300	\$10,900
Panel B: Louisiana			
Direct	4,600	\$1,400	\$2,400
Indirect	1,600	\$500	\$900
Induced	2,600	\$600	\$1,200
Total	8,800	\$2,500	\$4,500
Panel C: Project Parishes			
Direct	2,140	\$660	\$1,140
Indirect	760	\$250	\$420
Induced	1,250	\$300	\$570
Total	4,150	\$1,210	\$2,130

LEIM and author's calculations. Dollar values estimated in millions of 2025 dollars. Discrepancies in totals may arise due to rounding.

Ongoing Impacts: Table 2 shows yearly economic impacts once the facility is fully operational. Nationwide, the project will support approximately 1,300 jobs per year, generating \$102 million in earnings. In Louisiana,

the project will support approximately 900 jobs, contributing to \$70 million in earnings. Locally, the project will support approximately 460 jobs per year in the project parishes. The project will generate approximately \$36 million in earnings locally.

Table 2: Estimated Annual Economic Impacts Once Operational

	(1) Employment	(2) Earnings	(3) Value Added
Panel A: United States			
Direct	200	\$31	\$55
Indirect	400	\$34	\$62
Induced	700	\$38	\$74
Total	1,300	\$102	\$191
Panel B: Louisiana			
Direct	200	\$30	\$55
Indirect	300	\$23	\$44
Induced	400	\$17	\$33
Total	900	\$70	\$132
Panel C: Project Parishes			
Direct	90	\$16	\$28
Indirect	160	\$11	\$22
Induced	210	\$9	\$17
Total	460	\$36	\$68

LEIM and author's calculations. Discrepancies in totals may arise due to rounding. Dollar values estimated in millions of 2025 dollars.

4.2 Tax Impacts

Economic activity generates revenues for the federal, state and local governments. When goods are purchased, sales taxes are paid. When workers earn income and companies earn profits, income taxes are paid. Property taxes are paid both by residential homeowners and by businesses from which people purchase goods and services. Thus, next we present the estimated tax revenues supported by this project.

All tax estimates presented in this report reflect that the project receives an Industrial Tax Exemption Program (ITEP) that reduces its property tax burden by 80 percent for ten years.

Table 3 shows estimated tax revenues supported at the state and local levels through the economic activity generated by this project. During construction, the project is estimated to support approximately \$369.4 million in tax revenues, with approximately \$201.8 million to the state and \$167.6 million to local governments across the state. Once the project is operational, it is estimated to support \$20.5 million in tax revenues for the state and \$3.6 million for local governments. In total, the project is estimated to support about \$24.1 million in yearly tax revenues for the state and local governments once completed. Importantly, results shown in Table 3 only include tax impacts associated with the broader economic activity of the project and do not include local direct taxes associated with the specific project itself.

Table 3 also includes the estimated Rent and Injection Fee revenue to the state and Mineral and Energy

Operation Fund for carbon sequestration beneath Lake Maurepas. Rent is paid at a fixed rate per acre beginning in October 2021 and continuing up until the project begins to inject CO₂. Once the project begins injecting, they pay Injection Fees based on the tons of CO₂ injected, during the operations phase. Beginning in 2023, the state distributed 30% of these revenues to the parishes in which the property is located, 30% to the Mineral and Energy Operation Fund, and 40% to the state general fund. Total Rent deposited at the state, including both the Mineral and Energy Operation fund and the state general fund, is estimated at \$16.1 million. Annual Injection Fees deposited at the state, including both the Mineral and Energy Operation fund and the state general fund, are estimated at \$17.3 million. These estimates assume the wells inject 90% of full capacity per year, using a full capacity of 5.9 million tons per year.

Table 3: Estimated Tax Impacts

	(1) Construction	(2) Yearly O&M
State Revenues		
Sales	\$123.8	\$1.5
Income	\$25.8	\$0.7
Corporate	\$4.9	\$0.1
Other	\$31.2	\$0.9
CCS Rent and Injection Fees	\$16.1	\$17.3
Total State Revenues	\$201.8	\$20.5
Local Revenues		
Sales	\$34.5	\$1.2
Property	\$108.1	\$1.8
Other	\$25.0	\$0.7
Total Local Revenues	\$167.6	\$3.6
Total	\$369.4	\$24.1

Results show only revenues from the general economic activity associated with the project, and do not include direct local property and sales taxes paid by the project itself. Local revenue estimates are for all parishes combined. Dollar values listed in millions of 2025 dollars. Discrepancies in totals might arise due to rounding.

Project Parish Tax Impacts: In this section, we focus specifically on local tax impacts within the project parishes. This includes project specific estimates of the state and local direct sales taxes paid, direct (local) property taxes paid, as well as tax revenues from broader economic activity in the parish associated with the project.⁷ What also differentiates these estimates from those in Table 3, is we present the net present value of local taxes supported by the project for the estimated 35-year life of the project (including pre-construction, construction, and operations).

Direct project sales tax estimates are assessed for reasonableness. Direct property tax estimates are based on the following modeling assumptions:

- Capital costs are allocated to elements of the project as follows:
 - \$7.9 B is allocated to the facility itself.
 - \$77.7 M is allocated to gas pipelines.
 - \$24.7 M is allocated to injection and monitoring wells.

⁷ Future tax estimates from broader economic activity are based on the same methodologies used in the estimation of results presented in Table 3. To account for future earnings growth, a 2.9% nominal escalation factor for labor income is utilized based on historical average nominal hourly and weekly earnings growth in the United States.

- ▶ Fair market value is based on the capital cost of the project. A higher capital cost for assessment purposes would increase the property taxes owed.
- ▶ Taxable values are assigned to each of the project parishes based on the amount and type of construction performed in that parish.
 - Pipeline and well millages are determined according to the parish in which they are located.
 - Pipeline values are calculated by pipe size according to the Louisiana Tax Code.⁸ The estimated value of all pipelines associated with the project is \$77.7 million. Note that this is based on our modeling assumptions and the exact valuation may vary from this estimate based on a variety of factors.
 - Well values are calculated according to the Louisiana Tax Code based on a depth of 7,500 feet. Carbon-specific well values are used to calculate direct property taxes on the wells.⁹
 - Well and pipeline values are deducted from the total capex to estimate the value of the hydrogen facility itself. Due to the Louisiana Tax Code's low valuation of carbon wells for tax purposes, brine well values are used as a proxy.¹⁰ The estimated value of all wells associated with the project is \$24.7 million. Note that this is based on our modeling assumptions and the exact valuation may vary from this estimate based on a variety of factors.
- ▶ Millage rates are obtained from the parish assessors applied to the infrastructure in each parish.
- ▶ 20-year depreciation schedule is obtained from the Louisiana Administrative Code.¹¹ Note that at the time of assessment, different components of the facility will likely be assigned different depreciation schedules (e.g. heat exchangers, piping, etc). A shorter depreciation schedule will reduce property taxes owed.
- ▶ A ten-year, 80 percent ITEP exemption is included. This exemption begins once the project is operational and runs concurrently for both phases of the project.

The estimated project parishes' taxes supported by Louisiana Clean Energy Complex are presented in Table 4. Over the estimated 35-year project life-span (pre-construction, construction, and operations), it is estimated to pay approximately \$1.4 billion in direct property taxes, and generate \$1.8 billion in all local tax revenues, including sales taxes paid directly by the project itself, as well as general revenues supported by the overall economic activity of the project. Notably, an estimated approximately 78 percent of local tax revenues are attributable to the direct property taxes paid on the facility itself.¹²

Table 4 also includes revenues generated through Rent and Injection Fees for permanent carbon sequestration beneath Lake Maurepas. Rent is paid at a fixed rate per acre beginning in October 2021 and continuing up until the project begins to inject CO₂. Once the project begins injecting, Air Products pays Injection Fees based on the tons of CO₂ injected. By statute 30% of these revenues from the CO₂ storage agreement are paid out to the parishes where the land is located.¹³ This includes St. John the Baptist, Tangipahoa, and Livingston Parishes, and this analysis allocates between these parishes based on each parish's share of the acreage covered by the state storage agreement, as determined and distributed by the State. Total estimated revenues from Rent and Injection Fees to the project parishes that extend into the lake over the approximately 35-year project life-span (including pre-construction, construction, and operations) is estimated to be \$224 million. These estimates assume the wells inject 90% of full capacity per year, using a full capacity of 5.9 million tons per year.

⁸ Louisiana Administrative Code Title 61, Part V, Chapter 13, Table 1307.A

⁹ Louisiana Administrative Code Title 61, Part V, Chapter 25, Table 2503.A

¹⁰ Louisiana Administrative Code Title 61, Part V, Chapter 10, Table 1007.B

¹¹ Louisiana Administrative Code, Title 61, Chapter 25, Table 2503.D.

¹² Calculation considers zero discount rate. As the discount rate increases, the net present value share of property taxes decreases.

¹³ As noted previously, the parish revenue sharing statute went into effect in June 2023.

Table 4 also presents the net present value (NPV) of tax impacts at different discount rates. NPV calculations take into account the fact that a dollar today is more valuable than a dollar in the future, a concept that economists refer to as the *time value of money*. This is true for two reasons: First, due to general inflation, a dollar in the future will have less purchasing power than a dollar today. Second, a dollar today could be invested and interest could be gained as a result. Thus, there is an opportunity cost of deferring payment. The *discount rate* represents one's tradeoff between payments made today versus in the future. A higher discount rate suggests that the individual values dollars today relatively more than dollars in the future, while a lower discount rate suggests that the individual is more "patient", i.e. is more willing to forgo the dollars today for future payments. One's preferred discount rate might be impacted by current market interest rates. Note that if the discount rate is zero, this is equivalent to no discounting. In other words, a zero discount rate is obtained by simply summing all dollar values over the relevant period, not considering the time value of money.

At a 2% discount rate, the NPV of all future revenues is about \$1.4 billion, while at an 8% discount rate, the NPV is \$606 million. With zero discounting, i.e. not taking into account the time value of money, the total estimated revenues associated with the project for the project parishes over the 35-year project lifespan (including pre-construction, construction, and operations) is \$2.1 billion.

We note that the authors of this report are neither Certified Public Accountants nor tax assessors. Many factors will impact these tax estimates, including without limitation changes in policy, millage rates, earnings growth, continued operations of the facility and local, national and world economic conditions. These are the authors' best estimates based on the previously mentioned data sources and assumptions. Actual future tax receipts may be lower or higher than those shown. These estimated revenues are not guaranteed and should not be relied upon for budgeting purposes. Full knowledge and understanding of the limited data and assumptions used to calculate these estimates should be considered.

Table 4: Estimated Project Parishes Local Impacts

	(1) Direct Property	(2) Other Local Revenues	(3) CCS Rent and Injection Fees	(4) Total Local Revenues
No Discounting	\$1,449	\$397	\$224	\$2,070
2% Discount Rate	\$971	\$313	\$158	\$1,442
4% Discount Rate	\$672	\$256	\$116	\$1,044
6% Discount Rate	\$478	\$217	\$88	\$783
8% Discount Rate	\$350	\$188	\$68	\$606

Includes the net present value over 35 years, in millions of dollars. Values may not sum exactly to parish totals due to rounding.

5. Conclusions

The Louisiana Clean Energy Complex is a planned low-carbon hydrogen and low-carbon ammonia facility located in the project parishes, along with a CO₂ pipeline and a sequestration site beneath Lake Maurepas. The project has an estimated direct capital investment of \$8 billion.

During pre-construction and construction, the project is expected to contribute \$10.9 billion to national GDP and \$6.3 billion to national labor income over the construction period, as well as support 20,700 jobs per year nationally. Once operational, we estimate the project will contribute \$191 million to national GDP and \$102 million to national labor income annually, as well as support 1,300 jobs per year nationally.

At the state level, the project is expected to contribute \$4.5 billion to Louisiana's GSP and \$2.5 billion to labor income in Louisiana over the construction period, as well as support 8,800 jobs per year in the state. Once operational, we estimate the project will contribute \$132 million to GSP and \$70 million to Louisiana labor income annually, as well as support 900 jobs per year.

In the project parishes, we estimate the construction phase will support 4,150 jobs and \$1.2 billion in labor income, while the annual operations of the project will support 460 jobs and \$36 million in labor income.

The economic activity associated with the project is anticipated to support an estimated \$369.4 million in state and local revenues during preconstruction and construction, and an additional \$24.1 million per year once in operation. Note that this does not include local property and sales taxes paid directly by the project itself. In the project parishes specifically, we estimate that rent and injection fees, as well as property, sales, and other taxes paid directly by the project over the estimated 35-year project lifetime (including pre-construction, construction, and operation), will generate a net present value of \$606 million to \$1.4 billion in local revenues, using 8% and 2% discount rates, respectively.

References

Horowitz, Karen J. and Mark A. Planting, "Concepts and Methods of the Input-Output Accounts," Technical Report, Bureau of Economic Analysis. U.S. Department of Commerce 2009.

Appendix: Parish-Level Economic Impacts

Table 5: Estimated Economic Impacts During Construction

	(1) Employment	(2) Earnings	(3) Value Added
Panel A: Ascension			
Direct	1,690	\$520.0	\$900.0
Indirect	610	\$200.0	\$330.0
Induced	990	\$240.0	\$450.0
Total	3,290	\$960.0	\$1,680.0
Panel B: St. James			
Direct	100	\$30.0	\$50.0
Indirect	40	\$10.0	\$20.0
Induced	60	\$10.0	\$30.0
Total	200	\$50.0	\$100.0
Panel C: St. John the Baptist			
Direct	70	\$20.0	\$40.0
Indirect	20	\$10.0	\$10.0
Induced	40	\$10.0	\$20.0
Total	130	\$40.0	\$70.0
Panel D: Livingston			
Direct	190	\$60.0	\$100.0
Indirect	60	\$20.0	\$40.0
Induced	110	\$30.0	\$50.0
Total	360	\$110.0	\$190.0
Panel E: Tangipahoa			
Direct	90	\$30.0	\$50.0
Indirect	30	\$10.0	\$20.0
Induced	50	\$10.0	\$20.0
Total	170	\$50.0	\$90.0

LEIM and author's calculations. Discrepancies in totals may arise due to rounding. Dollar values estimated in millions of 2025 dollars.

Table 6: Estimated Annual Economic Impacts Once Operational

	(1) Employment	(2) Earnings	(3) Value Added
<i>Panel A: Ascension</i>			
Direct	70	\$11.8	\$21.8
Indirect	120	\$9.0	\$17.2
Induced	150	\$6.8	\$12.9
Total	340	\$27.6	\$51.9
<i>Panel B: St. James</i>			
Direct	10	\$1.3	\$2.3
Indirect	10	\$1.0	\$1.8
Induced	20	\$0.7	\$1.4
Total	40	\$3.0	\$5.5
<i>Panel C: St. John the Baptist</i>			
Direct	-	\$1.0	\$1.0
Indirect	10	-	\$0.8
Induced	10	\$0.3	\$0.6
Total	20	\$1.3	\$2.4
<i>Panel D: Livingston</i>			
Direct	10	\$1.2	\$2.2
Indirect	10	\$0.9	\$1.7
Induced	20	\$0.7	\$1.3
Total	40	\$2.8	\$5.2
<i>Panel E: Tangipahoa</i>			
Direct	-	\$0.6	\$1.1
Indirect	10	\$0.5	\$0.9
Induced	10	\$0.4	\$0.7
Total	20	\$1.5	\$2.7

LEIM and author's calculations. Discrepancies in totals may arise due to rounding. Dollar values estimated in millions of 2025 dollars.

Table 7: Estimated Project Parishes Local Impacts

	(1) Direct Property	(2) Other Local Revenues	(3) CCS Rent and Injection Fees	(4) Total Local Revenues
Panel A: Ascension				
No Discounting	\$1,421	\$279	\$0	\$1,700
2% Discount Rate	\$949	\$231	\$0	\$1,180
4% Discount Rate	\$654	\$197	\$0	\$851
6% Discount Rate	\$463	\$172	\$0	\$636
8% Discount Rate	\$337	\$153	\$0	\$490
Panel B: St. James				
No Discounting	\$4	\$27	\$0	\$31
2% Discount Rate	\$3	\$19	\$0	\$22
4% Discount Rate	\$3	\$14	\$0	\$17
6% Discount Rate	\$2	\$11	\$0	\$13
8% Discount Rate	\$2	\$8	\$0	\$10
Panel C: St. John the Baptist				
No Discounting	\$19	\$64	\$93	\$176
2% Discount Rate	\$15	\$43	\$66	\$124
4% Discount Rate	\$13	\$30	\$48	\$91
6% Discount Rate	\$11	\$22	\$37	\$69
8% Discount Rate	\$9	\$17	\$28	\$54
Panel D: Livingston				
No Discounting	\$2	\$16	\$120	\$138
2% Discount Rate	\$1	\$12	\$85	\$98
4% Discount Rate	\$1	\$9	\$62	\$72
6% Discount Rate	\$1	\$7	\$47	\$55
8% Discount Rate	\$1	\$6	\$37	\$43
Panel E: Tangipahoa				
No Discounting	\$2	\$12	\$10	\$24
2% Discount Rate	\$2	\$8	\$7	\$17
4% Discount Rate	\$1	\$6	\$5	\$13
6% Discount Rate	\$1	\$5	\$4	\$10
8% Discount Rate	\$1	\$4	\$3	\$8

Includes the net present value over 35 years in millions of dollars.



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