The Revenue Impacts of Project Poppy in Mississippi

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INTRODUCTION

Project Poppy will be located in Marshall County, Mississippi. The state has negotiated an incentive package that is evaluated in this report. Please note the local government has costs and benefits that are not evaluated in this report as URC focuses on state-level costs and benefits. The estimated cost to the state is $354,227,702. This amount includes capital investment, training, utilities, the Western Exchange roadway, and the initial cost of securing bonds. It does not include interest that may be paid on potential future bonds or the $127 million for the Eastern Exchange roadway. The total value of the capital investment is $2.35 billion with the firm providing the investment not provided by the state. The firm has also agreed to support at least 2,000 jobs by 2029.

We divide this report into two sections. The first part discusses the initial investment which will be mostly construction but will also include other capital acquired by the firm. The second section estimates the state's revenue from the first ten years of the firm's operation.

METHODOLOGY

The University Research Center (URC) uses the REMI-Tax PI software to estimate changes in state revenue and expenditures resulting from an economic development project or change in state tax policy. The first step in the analysis of this project was to run the model to establish a baseline projection for eleven categories of State taxes. This baseline model run projects the taxes that would likely accrue in the absence of any net, new economic activity in the State. The second step is to shock the model by adding the new firm, in this case Project Poppy. The difference between the baseline results and the results after adding the new firm is the estimated impact of the new firm.

The Regional Simulation estimates the direct, indirect, and induced effects associated with the new firm. Direct effects are "inside the plant gate" effects. MDA provided the direct effect which was inserted into REMI-Tax PI to shock the model. The firm must purchase inputs to produce the goods or services it sells and must employ workers to produce those goods or services. When firms purchase inputs from suppliers in Mississippi, they create jobs, income, and state taxes that were not previously here. The indirect effect includes the new jobs, income, and taxes created by the suppliers as a result of increased demand from the original firm. Both the employees at Project Poppy and the Mississippi suppliers of inputs to Project Poppy spend their wages in the Mississippi economy to buy the things needed to support their households (groceries, clothing, entertainment, etc.). When these purchases are made from Mississippi merchants, they create new jobs, income, and state tax revenue. The impact of these purchases is referred to as the induced effect. The sum of these three effects (direct, indirect, and induced) is the total impact of the project.

The increase in demand for state government services was addressed by utilizing a balanced budget methodology. New revenues were mapped to each expenditure category to create a balanced budget: new revenue and new expenditures resulting from this project. The new expenditures are estimated based on the demand for each category of expenditures. Due to differences in demand for each expenditure category, the new revenues augment the expenditure categories with the greatest demand.

INITIAL INVESTMENT

URC must make several assumptions to estimate the impact of Project Poppy. First, we assume that bond funding is secured, but funds used for this project are appropriated by the legislature and therefore will not require the state to make interest payments. We add the estimated interest payments as a possible scenario in our alternative calculations section.

URC also excludes the Eastern Exchange roadway from our baseline analysis, but not the Western Exchange roadway. This Eastern Exchange roadway is excluded from the baseline analysis for two reasons. The first and most important is that this roadway will only be built when there is enough traffic in the area to justify a new roadway. As such, it is very difficult to predict when the new roadway will be necessary. The second reason is that it is unlikely that Project Poppy will create all the traffic necessary to drive demand for this roadway alone. Other businesses must also relocate or expand in the area to drive demand. This further complicates when and how to assign the Eastern Exchange roadway cost. We will mention this cost again in our alternative calculations section.

Due to the proximity of Marshall County to the Tennessee state line, not all workers will be residents of Mississippi. This means that those residing in Tennessee will likely pay some of the estimated sales tax, use tax, and other taxes to Tennessee and not Mississippi. Mississippi requires all employees working in the state to pay income taxes and rebates funds to them that they pay to their home state. Since Tennessee does not have an income tax, we do not expect any funds to be rebated. Therefore, we estimate that all income taxes will be paid to and remain in Mississippi. URC identified eleven counties from which future employees at Project Poppy are likely to reside in (see Table 1). At the time of the 2020 census, approximately 70 percent of the individuals in these eleven counties were residents of Tennessee, while the remaining 30 percent were residents of Mississippi. Our baseline assumption is that this pattern will remain, however we acknowledge that people may move to the nine Mississippi counties as production increases. URC estimates corporate income taxes will remain in the state at a higher rate than sales, use, and other taxes. We expect many of the new businesses in the area to be suppliers and/or support firms for Project Poppy. As such we estimate 50 percent of corporate income taxes will remain in the state.

Construction impacts are typically strong and short lived. Once the construction is complete, construction firms move to the next project and many of the economic benefits of having had those firms and workers present begin to dissipate. Fortunately, production will begin as construction is ending. Those benefits are discussed in the next section.

Table 2 shows the estimated new revenue as a result of Project Poppy. As mentioned in the methodology this estimate includes direct, indirect, and induced effects. The construction phase should create approximately $36.7 million in tax revenue over a five-year period. URC estimates that approximately $22.3 million will be collected in the state of Mississippi.

County	State	2020 Census Population Estimates
Benton County	Mississippi	7,644
DeSoto County	Mississippi	185,317
Lafayette County	Mississippi	55,812
Marshall County	Mississippi	33,755
Panola County	Mississippi	33,209
Pontotoc County	Mississippi	31,192
Tate County	Mississippi	28,066
Tippah County	Mississippi	21,810
Union County	Mississippi	27,782
Fayette County	Tennessee	42,002
Shelby County	Tennessee	929,722
Total Population		1,396,311
% Tennessee population		69.6%

Table 1. URC estimates these counties will be the primary suppliers of employees for Project Poppy.

	FY2024	FY2025	FY2026	FY2027	FY2028
Sales Tax	$776,985	$2,742,254	$3,978,666	$2,304,112	$324,643
Individual Income Tax	$964,942	$4,133,069	$6,498,223	$3,913,428	$494,104
Corporate Income Tax	$691,225	$1,738,938	$2,087,891	$1,121,279	-$19,470
Use Tax	$111,597	$393,866	$571,450	$330,936	$46,628
Other	$255,242	$925,752	$1,361,777	$797,804	$111,644
Total	$2,799,991	$9,933,880	$14,498,006	$8,467,560	$957,550
Lost to Tennessee	$1,284,535	$4,060,567	$5,599,848	$3,187,892	$324,412
Mississippi Gains	$1,515,457	$5,873,313	$8,898,158	$5,279,668	$633,138

Table 2. This table shows the baseline estimated revenue gain during the initial investment period of Project Poppy.

Operation

The operation will begin in 2026 with 150 employees and ramp up to 2,000 employees by 2029. The wages are higher than the average manufacturing wages in the state. We calculate the adjustment to wages by subtracting the manufacturing wage predicted for the state in REMI from the company-specific wage predicted by MDA. We then adjust the REMI wage by that amount so that REMI's wage and MDA's wage is the same. We also adjust for revenue we estimate will be lost to the state of Tennessee. It is possible that a small number of employees may come from Arkansas as well, but we estimate that number to be negligible. The impacts are small in FY26 and FY27 because the company is using this time to put management in place, train/hire employees and prepare for full production.

URC estimates that over the first 15 years of operation, Project Poppy will create $461.9 million in tax revenue. We further estimate that $298 million will be collected in the state of Mississippi (Table 3).

	FY2026	FY2027	FY2028	FY2029	FY2030
Sales Tax	$234,379	$734,461	$2,210,876	$5,157,609	$7,241,715
Individual Income Tax	$440,382	$1,396,975	$4,211,577	$9,850,631	$13,855,796
Corporate Income Tax	$185,731	$576,651	$1,741,060	$4,043,703	$5,522,211
Use Tax	$33,664	$105,489	$317,545	$740,779	$1,040,116
Other	$81,436	$255,779	$765,662	$1,775,855	$2,477,202
Total	$975,591	$3,069,356	$9,246,719	$21,568,577	$30,137,040
Lost to Tennessee	$337,501	$1,055,336	$3,176,388	$7,393,821	$10,292,429
Gains to Mississippi	$638,091	$2,014,020	$6,070,331	$14,174,755	$19,844,611

Table 3 part 1. This table shows the estimated revenue gain during the first five years of operation of Project Poppy.

	FY2031	FY2032	FY2033	FY2034	FY2035
Sales Tax	$7,951,428	$8,600,262	$9,168,556	$9,738,219	$10,318,286
Individual Income Tax	$15,007,956	$15,782,825	$16,331,584	$16,830,830	$17,301,989
Corporate Income Tax	$5,649,634	$5,853,355	$6,148,197	$6,318,940	$6,499,469
Use Tax	$1,142,051	$1,235,242	$1,316,866	$1,398,685	$1,482,000
Other	$2,680,506	$2,843,644	$2,976,020	$3,104,900	$3,233,255
Total	$32,431,574	$34,315,328	$35,941,223	$37,391,575	$38,834,999
Lost to Tennessee	$11,066,606	$11,802,082	$12,497,108	$13,128,733	$13,773,213
Gains to Mississippi	$21,364,968	$22,513,247	$23,444,115	$24,262,841	$25,061,786

Table 3 part 2. This table shows the estimated revenue gain during the next five years of operation of Project Poppy.

	FY2036	FY2037	FY2038	FY2039	FY2040
Sales Tax	$10,906,494	$11,516,456	$12,158,135	$12,829,059	$13,528,191
Individual Income Tax	$17,773,131	$18,270,967	$18,815,135	$19,405,233	$20,040,118
Corporate Income Tax	$6,693,064	$6,905,213	$7,139,311	$7,392,410	$7,663,169
Use Tax	$1,566,483	$1,654,091	$1,746,254	$1,842,618	$1,943,033
Other	$3,361,426	$3,493,514	$3,632,363	$3,777,325	$3,928,074
Total	$40,300,598	$41,840,241	$43,491,198	$45,246,645	$47,102,586
Lost to Tennessee	$14,430,614	$15,117,449	$15,845,383	$16,610,507	$17,411,094
Gains to Mississippi	$25,869,984	$26,722,792	$27,645,816	$28,636,138	$29,691,492

Table 3 part 3. This table shows the estimated revenue gain during the next five years of operation of Project Poppy.

ALTERNATIVE CALCULATION

Our first alternative analysis includes the $127 million cost of the Eastern Exchange Roadway. In this alternative, we subtract the cost of the Eastern Exchange over a 20-year period starting in 2029. This allows the firm time to reach its employment commitment and attract suppliers/other firms. This means that approximately $70 million must be taken from the original estimate assuming these funds are appropriated in 2029 and not funded by issuing bonds. Starting with the $320 million that we estimated from the construction and operation, we estimate that appropriating funds for the Eastern Exchange roadway and assuming that Project Poppy is fully responsible for driving the need for this roadway, the state will gain $250 million over the 15-year period.

The second alternative analysis adds interest payments for bonds to the baseline estimate. In all the calculations above, URC assumes that all funds are appropriated, which means the state does not have an interest payment. Now, we will assume the first $117 million is appropriated and the remaining funds are bonded. This leads to $237 million in bonds (this number excludes the Eastern Exchange Roadway). The $237 million has already been captured in the analysis, however the interest is not included. We assume a 4% interest rate, therefore approximately $108 million will be paid over the 20-year life of the bond, an average of $5.4 million per year. We simply subtract this amount from the previously calculated gains. Our analysis ends in 2040 therefore if the state decided to use bonds for the remaining $237 million in 2025 then interest payments would be made from 2026-2040 for a total of 15 payments at $5.4 million each. This leaves $239 million in additional revenue for the state of Mississippi over the 15-year period. It's possible that fewer bonds will be needed and/or that interest rates may be more favorable when the state decides to use bonds to support the remainder of the project.

Our third alternative analysis we add in a bonded Eastern Exchange to the previous analysis. In this case, we bond $237 million in 2025 and $127 million in 2029. The interest for the 2026-2029 is $5.4 million per year. In 2030, the interest payment increases to $8.3 million. This is approximately $112 million in interest payments over the period, making the state revenue gain over the 15-year period $208 million.

CONCLUSION

In our baseline scenario, we estimate Project Poppy will create $36.7 million in tax revenue during the construction phase and $461.9 million in tax revenue during the first 15 years of operation for a total of $497.7 million in tax revenue. Of that $497.7, we estimate that $320.3 million will be captured by the state of Mississippi. In this baseline scenario where all funds are appropriated and the Eastern Exchange roadway is excluded from this project, we estimate the cost to the state of $354.2 million. This means the project does not breakeven by 2040. We estimate that it would break even in 2042.

We slowly add the Eastern Exchange and bond interest to our analysis. In the final scenario, the first $117 million is appropriated and all other funds (including funding for the Eastern Exchange) are paid by issues bonds at 4% interest. In this case, the state gains $208 million by 2040 and breaks even in 2049.