The Economic Effects on Michigan of the Global Engine Manufacturing Alliance II Expansion

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Abstract

Global Engine Manufacturing Alliance II is considering a 460,000-sq.-ft. expansion of its facility in Dundee, Michigan. The facility would employ an additional 300 people by 2010. We estimate that by 2025, this expansion will have generated a total of 842 jobs in the state. Total state government revenues through 2025, net of MEGA costs and adjusted for inflation, would increase by $64,488,000 (2004 dollars) due to the expansion of Global Engine Manufacturing Alliance II.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan if Global Engine Manufcturing Alliance II constructs a 460,000-sq.-ft. expansion of its facility in Dundee, Michigan (SIC 3714). This project is the second phase in the construction of a four-cylinder engine manufacturing facility being operated in a joint venture by DaimlerChrysler, Mitsubishi, and Hyundai. (The MEGA board approved phase one of this project in February 2003.) Investment activity would take place between 2004 and 2008, with an investment of $323.2 million. The facility would employ an additional 300 people by 2010.

The estimates of the benefits include the total number of jobs created in Michigan (by major industry, including spin-off jobs), and the associated personal income and state government revenue. Benefits net of the MEGA incentive package, from 2004 to 2025, are shown in the attached table. The MEGA incentive package includes relief from 100 percent of the single business tax for the period 2006 through 2011, and 60 percent in 2012; it also includes a tax credit to the company for the period 2006 to 2025 equal to 100 percent of the state income tax rate on the payroll (gross wages) of employees hired at the facility as a result of the project.

The total employment effects, reported in the first line of the table, include the direct jobs created at the facility itself plus spin-off jobs. The spin-off jobs are generated from two sources, increased purchases from Michigan suppliers and spending by people who receive income due to the increased economic activity. The investment activity is expected to generate a total of 746 jobs in 2004, 538 jobs in 2005, 273 jobs in 2006, and 5 jobs in 2007; almost all of these jobs are temporary. In 2010, the first year of full operations, an additional 743 jobs are generated in the state. We estimate that by 2025, this expansion will have generated a total of 842 additional jobs in the state. The total number of jobs created (direct plus spin-off) for every direct job introduced constitutes the "employment multiplier." The employment multiplier for the expansion averages 2.6 over the period 2010 to 2025. Sectoral detail on the employment gains is also shown in the table.

Personal income is shown in the next section of the table. Personal income is defined as the income of Michigan residents from all sources, after deduction of contributions to social insurance programs but before deduction of income tax and other personal taxes. As shown in the table, if Global Engine Manufacturing Alliance II were to expand its operations in Michigan under the incentive program, state personal income in 2010 would be higher by $55.8 million (in current dollars) than it would be without the expansion, and in 2025 it would be $105.2 million higher. Adjusted for inflation, these numbers in 2004 dollars would be $48.3 million in 2010 and $67.4 million in 2025.

The gain in economic activity results in higher state government revenues. We estimate that in 2010, the first year of full operations, the expanded facility would generate $4,291,000 in additional gross state government revenue, and that the MEGA package would provide a $2,716,000 incentive to Global Engine Manufacturing Alliance II. Thus, the Global Engine Manufacturing Alliance II expansion would increase state government revenues in 2010 by $1,575,000, net of MEGA incentive costs.

Over the period 2004 to 2025, gross state government revenue is projected to increase by $112,066,000 (in current dollars) due to the expansion of Global Engine Manufacturing Alliance II. The MEGA incentive package for Global Engine Manufacturing Alliance II is forecast to cost $26,569,000 over the period, resulting in a net increase in state government revenue of $85,497,000. Adjusted for inflation, the total net increase in state government revenue from 2004 to 2025 would be $64,488,000 in 2004 dollars.

None of these estimates include the nonmeasurable effects that would produce additional economic and fiscal benefits for Michigan, such as the intangible advantages of influencing other location and expansion decisions.

Economic and Fiscal Effects on Michigan of the Global Engine Manufacturing Alliance II Facility Expansion
Net Benefits with the Incentive Package

Economic/Fiscal Indicator	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	Total 2004-2025
Total Employment	746	538	462	433	444	446	743	748	787	842	—
Manufacturing	55	47	120	181	210	217	338	326	330	336	—
Nonmanufacturing	691	491	342	252	234	229	405	422	457	506	—
Retail Trade	82	58	55	54	56	56	96	90	94	102	—
Services	164	135	126	91	80	81	146	134	154	185	—
Other	445	298	161	107	98	92	163	198	209	219	—
In current dollars (thousands):											
Personal income	35,500	31,200	31,100	31,900	34,000	35,500	55,800	70,000	85,200	105,200	1,457,300
Gross state revenue	2,730	2,399	2,392	2,453	2,615	2,730	4,291	5,383	6,552	8,090	112,066
MEGA cost	0	0	1,190	1,363	1,751	2,551	2,716	717	960	1,358	26,569
State revenue net of MEGA cost*	2,730	2,399	1,202	1,090	864	179	1,575	4,666	5,592	6,732	85,497
Adjusted for inflation (thousands of 2004 dollars):											
Personal income	35,500	30,101	29,671	30,605	32,437	33,415	48,338	54,855	60,783	67,422	1,119,646
Gross state revenue	2,730	2,315	2,282	2,354	2,495	2,570	3,717	4,218	4,674	5,185	86,101
MEGA cost	0	0	1,136	1,308	1,671	2,402	2,353	562	685	870	21,613
State revenue net of MEGA cost*	2,730	2,315	1,146	1,046	824	168	1,364	3,656	3,989	4,315	64,488

*These estimates do not include any state government revenue losses due to the Property Tax Credit or the Investment Tax Credit.