

**The Economic Effects on Michigan
of the Black and Veatch Facility Location Decision**

**George A. Fulton
Peter Nicolas
Donald R. Grimes**

**University of Michigan
April 8, 1997**

Abstract

Black and Veatch, a leader in design, construction, and construction management of electric generation facilities, transmission and distribution systems, water and wastewater treatment, and industrial facilities, is considering constructing a new facility to house its engineering operations in Ann Arbor, Michigan. By the year 1999, the facility would employ 218 people. We estimate that by 2015, this location will have generated a total of 681 jobs in the state. Total state government revenues through 2015, net of MEGA costs and adjusted for inflation, would be increased by \$46,157,000 (1997 dollars) due to the location of Black and Veatch.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of Black and Veatch constructing a new facility to house its engineering operations in Ann Arbor, Michigan. The company is a leader in the design, construction, and construction management of electric generation facilities, transmission and distribution systems, water and wastewater treatment, and industrial facilities (SIC 8711). Investment activity would take place between 1997 and 1998, with an investment of \$11.2 million, and operations would begin in June 1997. The facility would employ 218 workers by 1999.

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 1997 to 2015, are shown in the attached table. The MEGA incentive package includes a tax credit to the company for the period 1998-2015 equal to 1.32 percent of the payroll (gross wages) of employees hired at the facility as a result of the project. The payroll tax credit represents 30 percent of the maximum employment credit available to a company.

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 construction of the facility is expected to generate a total of 88 jobs in 1997 and 83 jobs in 1998; almost all of these jobs are temporary. In 1999, the first year of full operations, an additional 742 jobs are generated in the state. We estimate that by 2015 this facility will have generated a total of 681 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 location averages 3.0 over the period 1999-2015. 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 Black and Veatch were to locate in Michigan under the incentive program, state personal income in 1999 would be higher by \$36.3 million (in current dollars) than it would be without the facility, and in 2015 it would be \$70.1 million higher. Adjusted for inflation, these numbers in 1997 dollars would be \$30.1 million in 1999 and \$39.1 million in 2015.

The gain in economic activity results in higher state government revenues. We estimate that in 1999, the first year of full operations, the facility would generate \$2,904,000 in additional gross state government revenue, and that the MEGA package would provide a \$121,000 incentive to Black and Veatch. Thus, the Black and Veatch facility location would generate an additional \$2,783,000 in revenue to state government in 1999, net of MEGA incentive costs.

Over the period 1997-2015, gross state government revenue is projected to increase by \$73,288,000 (in current dollars) due to the location of Black and Veatch. The MEGA incentive package for Black and Veatch is forecast to cost \$4,106,000 over the period, resulting in a net increase in state government revenue of \$69,182,000. Adjusted for inflation, the total net increase in state government revenue from 1997 to 2015 would be \$46,157,000 in 1997 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 Black and Veatch Facility Location
Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	1997	1998	1999	2000	2005	2010	2015	Total 1997-2015
Total Employment	460	660	742	709	621	637	681	—
Manufacturing	11	8	0	0	0	0	0	—
Nonmanufacturing	449	652	742	709	621	637	681	—
Retail Trade	74	105	121	113	92	93	98	—
Services	256	398	502	489	453	459	482	—
Other	119	149	119	107	76	85	101	—
In current dollars (thousands):								
Personal income	17,000	29,000	36,300	38,600	46,000	56,200	70,100	916,100
Gross state revenue	1,360	2,320	2,904	3,088	3,680	4,496	5,608	73,288
MEGA cost	0	82	121	176	216	266	326	4,106
State revenue net of MEGA cost	1,360	2,238	2,783	2,912	3,464	4,230	5,282	69,182
Adjusted for inflation (thousands of 1997 dollars):								
Personal income	17,000	25,650	30,082	30,313	31,715	35,259	39,106	615,086
Gross state revenue	1,360	2,052	2,407	2,425	2,537	2,821	3,128	49,207
MEGA cost	0	80	116	163	173	184	194	3,050
State revenue net of MEGA cost	1,360	1,972	2,291	2,262	2,364	2,637	2,934	46,157