

COMMONWEALTH OF KENTUCKY
BEFORE THE STATE BOARD ON ELECTRIC
GENERATION AND TRANSMISSION SITING

In the Matter of:

The Application of the Illinois)	
Municipal Electric Agency and the)	
Indiana Municipal Power Agency)	Case No. 2005-00152
For a Merchant Electric Generating)	
Plant Certificate to Construct)	

TESTIMONY OF PAUL A. COOMES, PH.D.

1 Q. 1 STATE YOUR NAME AND BUSINESS ADDRESS.

2 A. Paul A. Coomes, Ph.D., University of Louisville, Louisville, KY 40292

3 Q. 2 WHERE ARE YOU EMPLOYED AND IN WHAT CAPACITY?

4 A. I am Professor of Economics and National City Research Fellow in the College of
5 Business and Public Administration at the University of Louisville,

6 Q. 3 WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

7 A summary of my educational and business experience is attached as PAC exhibit 1.

8 Q. 4 HAVE YOU BEEN RETAINED BY THE JOINT APPLICANTS IN THIS

9 MATTER TO PERFORM AN ECONOMIC ANALYSIS OF THE PROPOSED

10 TRIMBLE COUNTY GENERATING STATION, UNIT 2?

11 A Yes, the Joint Applicants requested that I prepare a study in conformity with KRS
12 278.706(2)(j), which I have done. That study is attached to my testimony as exhibit 2.

13 Q. 5 WHAT CONCLUSIONS DID YOU REACH IN YOUR STUDY?

14 A. The study concludes that there is a positive economic impact on the region and state as
15 a result of the construction of the proposed facility.

Q. 6 WHAT INFORMATION DID YOU RELY ON TO PREPARE YOUR STUDY?

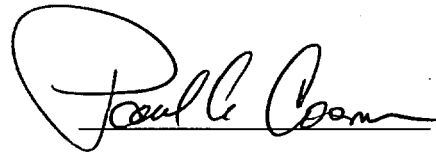
A. I used publicly available economic data from Kentucky and Indiana as well as the federal Bureau of Economic Analysis. I was provided information by representatives of LG&E on the specific information related to the project.

Q. 7 IS THE METHODOLOGY USED FOR THE STUDY ONE THAT IS GENERALLY ACCEPTED AS APPROPRIATE TO MEASURE REGIONAL ECONOMIC IMPACTS?

A. Yes, the methodology uses standard regional economic impact methods to evaluate the economic impact of the proposed plant.

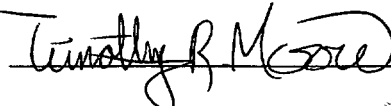
Q. 8 DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes.



Paul A. Coomes, Ph.D.

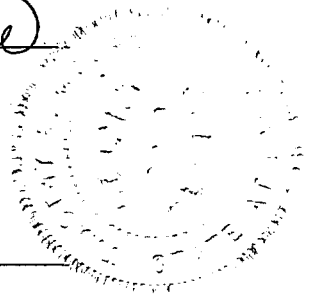
Sworn and subscribe before me, a notary public, this the 2nd day of May, 2005.



Notary Public

My commission expires:

7/19/06



VITA

Paul Anthony Coomes

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Academic training

Ph.D. in Economics, 1985, University of Texas, Austin TX; Fields: Control Theory, Mathematical Programming, Econometrics; Dissertation: "Optimal Stochastic Control and U.S. Agricultural Policy"

M.S. in Economics, 1975, Indiana University, Bloomington IN

B.S. in Economics, 1973, Brescia College, Owensboro KY

Professional experience

Professor of Economics, and National City Research Fellow, College of Business and Public Administration, University of Louisville, July 1999 forward.

Executive Director, School of Economics and Public Affairs, College of Business and Public Administration, University of Louisville, August 1996 to June 1999.

Associate Professor of Economics and National City Research Fellow, College of Business and Public Administration, University of Louisville, January 1995 to June 1999.

Associate Professor of Economics, College of Business and Public Administration, University of Louisville, 1991-1999.

Assistant Professor of Economics, School of Business, University of Louisville, 1985-1991.

Teaching Assistant, Economics Department, University of Texas, Spring 1983 and 1985.

Research Associate, Bureau of Business Research, University of Texas, Fall 1981 to Summer 1983.

Assistant Director, Center for Applied Economic Research, University of Kentucky, 1981.

Consulting Economist, May to December 1980.

Manager, Kentucky Economic Information System, Kentucky Council of Economic Advisors, University of Kentucky, Lexington, January 1977 to May 1979.

Instructor, Brescia College, Owensboro KY, 1975-76 academic year.

Courses taught

Urban Economics (Ph.D. and undergraduate levels), Intermediate Microeconomic Theory, Economic Analysis and Forecasting (MBA and undergraduate levels), Senior Seminar in Economics, Principles of Economics, Economic Foundations for MBA students.

Other relevant experience, distinctions

2004 Chairman's Award, KentuckianaWorks.

2003 Community Service Award, Greater Louisville Inc Technology Network.

Member, Board of Director, Bluegrass Institute for Public Policy, January 2004 to present.

Member, Board of Directors, Thomas D. Clark Foundation, March 1998 to present

Consulting Editor (Economics), *The Louisville Encyclopedia*, Fall 2000.

First Place Winner, Research Publication Category, American Council of Economic Development, 1996

Associate Editor, *Journal of Urban Affairs*, 1995 to 1998

President, Kentucky Economic Association, 1993-94.

Frankenthal Group faculty research award, academic years 1990-91 and 1991-92.

Board of Directors, Kentucky Economics Association, 1988-1991.

1988 Distinguished Faculty Service Award, School of Business, University of Louisville.

Speaker's Bureau, University of Louisville

Co-developer of *MODLER BLUE* software for advanced econometrics work on microcomputers, by contract with Alphametrics Corporation, Philadelphia, 1985-86.

Editor, *Kentucky Economy: Review and Perspective*, a quarterly publication of the Kentucky Council of Economic Advisors, Vol. 2, No. 2 through Vol. 3, No. 1.

Staff member, Indiana Public Interest Research Group (INPIRG), Bloomington IN, 1974-75.

Professional organization membership

American Economic Association

North American Regional Science Association

Kentucky Economics Association

**Estimates of Regional Economic and Fiscal impacts of the
Proposed Trimble County Electricity Generating Plant**

by
Paul A. Coomes, Ph.D.
Consulting Economist

May 4, 2005

Executive Summary

Four parties have entered into a participation agreement to build a 750 megawatt coal-fired electricity generation plant in Trimble County, Kentucky. The proposed plant will be adjacent to an existing 500 megawatt plant, which has a similar participation agreement. The parties are the Louisville Gas and Electric Company, Kentucky Utilities, Illinois Municipal Electric Agency, and the Indiana Municipal Power Agency.

Because one-fourth of the plant will be owned, and one-fourth of the power is expected to be exported, to municipally-owned utilities in Indiana and Illinois, some of the economic activity from the construction and operation of the plant can be considered 'new' to Kentucky and the counties surrounding Trimble. Therefore, the net economic impact will be positive for Kentucky and the region around the plant. In terms of net new activity only, I estimate that the construction phase will generate regionally a total of 1,540 job-years, \$97.8 million in payrolls, and \$11.2 million in new state and local tax revenues. I estimate that the operation of the plant will generate annually 29 new regional jobs, \$840,000 in payroll, and \$688,000 in state and local tax revenues. Over the next thirty years, including the construction phase, I estimate that the plant will generate net new revenues to Kentucky state and local governments of \$23.0 million.

Introduction, Methodology, and Assumptions

The new Trimble plant is to be built and jointly owned by four parties. By arranging for participation by the Indiana and Illinois municipalities, the plant can be sized to a larger customer base, and take advantage of the economies of scale that come with a larger plant. Both LG&E Energy customers and the Indiana and Illinois municipally-owned electricity customers will benefit, from the reliable electricity stream and from lower costs than alternative energy sources.

Overall costs are lower per kilowatt with a 750 megawatt plant relative to a 500 or 250 megawatt plant. It is beyond the scope of this report to precisely estimate the reduction in costs per kilowatt. Black and Veatch, a utility engineering and consulting firm, provided a range of generation costs for "LGE's 2004 Integrated Resource Supply-Side Data" filing. Some relevant estimates are reproduced in the table below. One can clearly see the reduction in cost per kilowatt as the peak load rises for both the subcritical and supercritical units. The supercritical 750 MW plant has the lowest average cost per kilowatt.

Estimated Generation Technology Costs, Low-Sulphur Coal Plants

technology	Peak Load (MW)	Cost per KW of electricity	Fixed O&M \$/KW- year	Variable O&M \$/MWH
Subcritical	250	\$1,615	\$29.8	\$2.0
Subcritical	500	\$1,289	\$22.9	\$1.8
Supercritical	500	\$1,341	\$22.3	\$1.9
Supercritical	750	\$1,211	\$19.1	\$1.9

Source: Black and Veatch, "LGE 2004 Integrated Resource Plan Supply-Side Data", Table 1-1, September 30, 2004.

According to LG&E Energy management, construction is expected to take place over five to six years, with an operational plant in place by 2010-11. The new plant will cost over \$1 billion dollars, and will require an additional \$84 million in transmission towers and lines. The construction is expected to require 5.7 million manhours, across all the crafts, and the anticipated full labor cost to be \$51 per hour. This high hourly rate includes the value of all benefits paid to workers, e.g., health insurance, workers' compensation, unemployment insurance, social security payroll taxes, and pension plan and other contributions. Nationally, the average compensation for construction workers is \$27.53 per hour, of which \$8.78 per hour is for benefits. Using this ratio, the average hourly rate shown on employees' pay stubs would be \$34.65. I assume that during the operations phase, the plant will employ 35 people, earning \$50,000 annually. I also implicitly assume that the workers live and shop in the region in the same proportion as the average of all workers in the region.

Methodology

Electricity generation, transmission, and service operations do not necessarily produce regional economic impacts, in the strict sense of the term 'impact', i.e., bring new dollars into the regional economy. Rather, energy companies respond to growing regional economies by providing more services, and hence are typically considered part of the economic impact of growing export-based industries in the local economy. However, particularly for large-scale generation, it may be valid to treat some of the energy activity as a net economic engine locally. Big coal-fired electricity plants cannot be feasibly operated in every city or even state. Ready access to coal fields, inexpensive water transportation, and proximity to large industrial customers make the Ohio River valley the lowest or second-lowest (after the Pacific northwest) cost place in the United States to generate electricity. With large scale generation capacity, associated low unit costs of production, and advances in transmission technology, it is economically feasible for plants in Kentucky to export power to customers in surrounding states.

In this sense, the proposed Trimble plant can have positive economic and fiscal impacts in Kentucky. The portion of the electricity that is exported to customers in surrounding states supports some of the construction and operations costs, which in turn support jobs and payrolls, and ultimately some new tax revenues for Kentucky state and local

governments. A more subtle impact is that the scale reached through the added customer base makes electricity rates lower in Kentucky than they would otherwise be, thus stimulating further industrial development in the state, and keeping the cost of living lower for all customers.

I use standard regional economic impact methods to evaluate the economic and fiscal impacts of the new plant. Region-specific economic multipliers were obtained from the federal government. The multiplier set provides estimates of induced and indirect effects on sales, jobs, and payrolls for export-based expansions of any of 500 local industries. For example, the labor earnings multiplier for the 'Power generation and supply' industry in the Louisville economic area is 1.918, meaning that for every dollar of new export-based payroll created at a local electric utility another \$0.918 in payrolls are created in other sectors around the region. The job multiplier for this sector in the Louisville area is 3.285, meaning that for every new export-based job created at a local electric utility, another 2.285 jobs are created elsewhere in the region. Similarly, for the regional construction industry, the payroll multiplier is 1.98, and the job multiplier is 2.17.

Regional economists often make the distinction between the induced and indirect components of a multiplier, and in some cases make separate estimates of both. The induced effects refer to the linkages between the exporting industry (electric utilities) and their industrial vendors (coal suppliers, tools, computers, insurance). When the directly impacted industry expands it raises its purchases from its vendors, thus lifting their employment and payrolls. The indirect effects refer to the impact of the new export-based sales on the local economy through the rounds of re-spending of the additional consumer income caused by the expansion. Regional sales of cars, groceries, building supplies, banking services, and so on are all sensitive to growth in disposable income. In this study, I use only a total multipliers for the regional construction and electric utility industries, ones that summarizes both the induced and indirect effects on the economy.

Note that such multipliers vary substantially by industry and region. Generally speaking, small undiversified economies have low economic multipliers, since so much of the inputs to production must be imported from other regions. Bigger, and more diversified, economies have larger multipliers. Detailed county-specific data on employment by industry are used by the federal government to estimate the net effects of these imports and exports. For example, if a local auto parts manufacturer requires steel to make its product and there are no local steel plants, the methodology assumes the steel is imported, thus lowering the local economic multiplier for the auto parts producer.

There are no good national sources of data on which to make estimates of the fiscal impacts of a regional expansion. However, there are plentiful data available from state and local governments. I have compiled several years of tax receipts data from Kentucky and Indiana state governments, as well as tax information from city and county governments in the region. By comparing the growth in tax receipts to the growth in payrolls historically, I calculate 'effective' tax rates and use those to estimate the new income, sales, and occupational taxes generated from the export-based electricity industry growth. The tax calculations are discussed in more detail below.

Geographic Issues

While Trimble County will be the site of the plant, the economic and fiscal impacts will permeate a much larger region. In this section, I discuss various geographic measures and explain how the choice of study impact region was made.

Trimble County is part of the both the Louisville Metropolitan Statistical Area (MSA) and the greater Louisville Economic Area, a 25-county region defined by the US Bureau of Economic Analysis. The latest definitions for economic areas were released in 2004, and are based primarily on commuting patterns data from the 2000 Census.

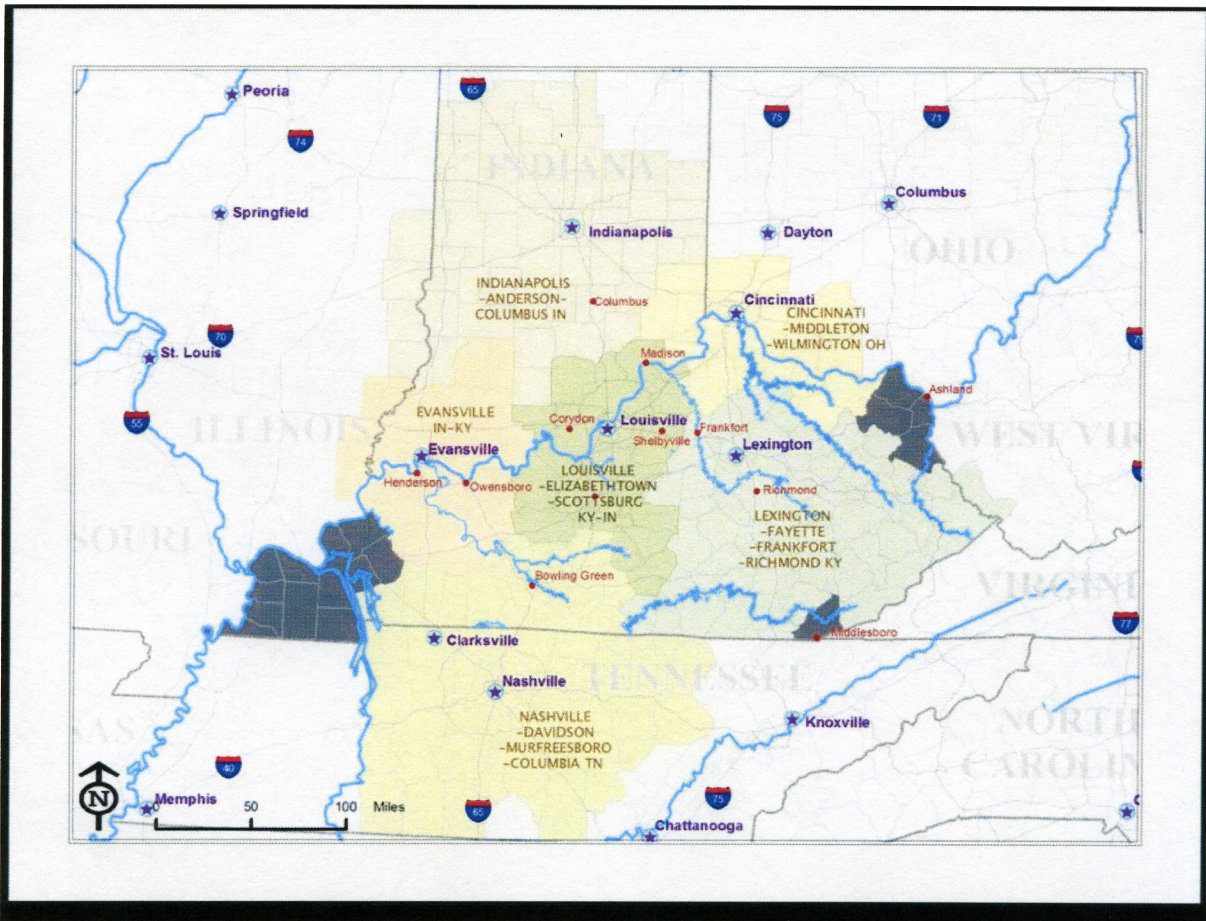
The first map below shows the component counties, most cities, plus major road and water features in the Louisville Economic Area. The red star denotes the approximate position of the Trimble County electricity generating plant. All the counties shaded in gray or green are part of the economic area, while those in the darker green are also part of the Louisville Metropolitan Statistical Area. The lighter green shading refers to the new Elizabethtown MSA, which is part of the Louisville economic area. The economic area classification was developed by the US Bureau of Economic Analysis, and assigns all US counties to some regional economy. This broader definition is very useful in analyzing the markets for labor, major retail purchases, television and print media, air transportation, higher education, and major medical and professional services.

Population of Louisville Economic Area, 2002

Clark, Indiana	97,994
Crawford, Indiana	11,088
Floyd, Indiana	71,355
Harrison, Indiana	35,239
Jefferson, Indiana	32,252
Scott, Indiana	23,379
Washington, Indiana	27,660
Adair, Kentucky	17,378
Breckinridge, Kentucky	18,917
Bullitt, Kentucky	63,708
Carroll, Kentucky	10,278
Grayson, Kentucky	24,271
Green, Kentucky	11,661
Hardin, Kentucky	95,767
Henry, Kentucky	15,327
Jefferson, Kentucky	696,241
Larue, Kentucky	13,456
Marion, Kentucky	18,482
Meade, Kentucky	27,420
Nelson, Kentucky	38,893
Oldham, Kentucky	49,192
Shelby, Kentucky	35,032
Spencer, Kentucky	13,589
Taylor, Kentucky	23,220
Trimble, Kentucky	8,644
Total	1,480,443

Source: US Bureau of Economic Analysis

Trimble is situated in the northeastern quadrant of the Louisville economic area. To the east and north are Carroll County, Kentucky and Jefferson County, Indiana, both of which are also in the Louisville economic area. The latest population estimates for the counties are provided in the accompanying table. Note that Trimble has the fewest number of residents among the 25 component counties. The central county, Jefferson KY, is home to nearly one-half the population of the Louisville economic area. Seven of the counties are in Indiana, including another Jefferson County – this one across the Ohio River from Trimble, and home to the city of Madison.



County residents holding a job report that they work in Trimble County. Many more work in nearby Madison IN, Carrollton, KY, and Oldham, Jefferson, and Henry counties. Of the 1,143 people working in Trimble County, all but a few came from counties in the Louisville economic area. Commuting patterns are perhaps our best indicator of the geographic scope of a labor market. Labor markets tend to be coterminous with retail markets. Hence, using this geographic definition is a good basis for examining the spinoff impacts of activity at the Trimble County generation plant.

**Persons Working in Trimble
County, by place of residence**

Trimble Co. KY	849
Oldham Co. KY	72
Jefferson Co. IN	61
Jefferson Co. KY	54
Henry Co. KY	44
Carroll Co. KY	40
other	23
Total	1,143

Source: 2000 Census

Tax Receipts

The new plant will generate an array of taxes for state and local governments. Construction work will generate sales taxes on some of the goods purchased, and construction workers will pay state income and sales taxes. Once operational, the plant will generate property taxes for the state of Kentucky and Trimble County governments, including the county public school system. And the new workers associated with the plant will spend much of their income in the regional economy, generating state income, state sales, and local occupational taxes. I provide estimates of all these tax flows below. Additional taxes are also likely, though much harder to quantify. For example, proprietors and corporations around the region will be liable for state individual and corporate income taxes, and for some 'net profits' taxes in cities and counties where these are levied, e.g., Jefferson County, Kentucky. Gasoline taxes, coal severance taxes, insurance premiums taxes, building permit fees, motor vehicle sales taxes, and many other government revenue categories will see some growth due to the plant. These categories are much harder to measure, but fortunately are not as important dollar-wise as the main taxes I do measure in this report.

Property Taxes, Trimble County		
assuming \$835 million of new tangible property		
	Tangible Property	
	Rates, 2004	Tax Payments
Trimble County Government	0.00285	\$312,055
Trimble County Schools	0.00512	\$560,604
State of Kentucky - manufacturing machinery	0.0015	\$1,090,215
- other tangible property	0.0045	\$492,719
Total Property Taxes		\$2,455,593
allocable to nonresident electricity sales (25%)		\$613,898

LG&E Energy has used its past property tax records to estimate the additional property taxes likely to be generated from the new plant. Because most of the buildings are simply roofs and walls around equipment, the bulk is categorized for tax purposes as manufacturing machinery, not real estate. Manufacturing machinery is taxed at a lower state rate (.0015) than real estate, and is not taxed at all by local government. Most of the remaining investment, including towers, switch stations, transmission lines, and poles are classified for tax purposes as 'Other Tangible Property'. The state levies a rate of .0045, Trimble County levies a rate of .00285, and the Trimble County School District levies a rate of .00512. These rates have been used to estimate the total additional property taxes generated from the new plant, and then the result is prorated to reflect the fact that 25 percent of the new taxes are due to sales to nonresidents (and hence part of the new fiscal impact). The calculations are based on an assumption of \$727 million in Manufacturing Machinery and \$109 million in Other Tangible Property. Thus the new plant is expected to generate an additional \$614,000 in state and local property taxes annually due to the export activity.

LG&E Energy estimates that Kentucky sales taxes from construction activity will amount to \$2.65 million, of which one-fourth can be treated as new, or export-based. Many of the components purchased during the construction phase are exempt from state sales

taxation. LG&E has used accounting data from past construction projects to estimate the volume of taxable expenditures over the six year buildout, and applied the various exemptions by category to arrive at the estimate. The table above summarizes those estimates. The export-based portion of these sales taxes over the construction phases is one-fourth of the \$2.647 million total, or \$662,000.

Kentucky State Sales Tax Estimates, Construction Phase					
	New/Expanded	Contractor purchases	Kentucky Sales/Use		
		Subject to Sales/Use			
Expenditures	Exemption	Tax (5% of Exp.)	Tax Rate		KY Tax
Plant Expenditures (000's)					
2005	\$7,000	\$6,650	\$350	6%	\$21
2006	\$37,500	\$35,625	\$1,875	6%	\$113
2007	\$130,250	\$123,738	\$6,513	6%	\$391
2008	\$355,050	\$337,298	\$17,753	6%	\$1,065
2009	\$219,000	\$208,050	\$10,950	6%	\$657
2010	\$49,500	\$47,025	\$2,475	6%	\$149
	<u>\$798,300</u>	<u>\$758,385</u>	<u>\$39,915</u>		<u>\$2,395</u>
Transmission Expenditures (000's)					
2005	\$0	\$0	\$0	6%	\$0
2006	\$6,000	\$5,700	\$300	6%	\$18
2007	\$21,000	\$19,950	\$1,050	6%	\$63
2008	\$52,000	\$49,400	\$2,600	6%	\$156
2009	\$5,000	\$4,750	\$250	6%	\$15
2010		\$0	\$0	6%	\$0
	<u>\$84,000</u>	<u>\$79,800</u>	<u>\$4,200</u>		<u>\$252</u>
TOTAL					\$2,647

Estimates of new Kentucky and Indiana state income and sales tax revenues are calculated by multiplying effective tax rates times the new regional payrolls. The ratios of state individual income taxes or sales taxes collected to wages, salaries, and other earnings are very stable historically. Using these ratios, or effective tax rates, is superior to using published nominal tax rates, as the amount of income or sales subject to taxation is always less than total income received. For example, groceries and prescription drugs are exempt from state sales tax in Kentucky, and hence one cannot simply multiply six percent times expected retail sales. Individual income tax rates apply to 'adjusted gross income' or 'taxable income', rather than total income. In Kentucky, residents can deduct such things as medical expenses, mortgage interest payments, charitable contributions, and many other items from their gross income before calculating their tax liability. Looking at historical tax collections as a percentage of payrolls is a more reliable way to estimate the amount of taxes likely to be generated from future payroll growth.

The table summarizes the effective tax rate calculations used in the impact assessment. Note that the Kentucky effective income tax rate is 3.75%, and the Indiana effective income tax rate is .65%. This reflects the fact that more workers in the regional economy live in Kentucky than in Indiana, as well as the fact that Kentucky's income tax rates are much higher than in Indiana. Similarly, the effective sales tax rate in Kentucky is 3.66%, compared to only .30% for Indiana. This primarily reflects the concentration of retail activity on the Kentucky side of the Louisville Economic Area.

Component Counties	Average Annual Wages and Salaries, 2000-02	Average State	Average State
		Income Taxes Collections, 2000-02	Sales Tax Collections, 2000-02
Clark, Indiana	\$1,348,459,000	\$50,057,814	\$33,872,077
Crawford, Indiana	\$52,027,000	\$3,791,451	\$887,473
Floyd, Indiana	\$807,729,333	\$44,722,938	\$11,693,779
Harrison, Indiana	\$325,832,667	\$17,709,094	\$8,251,150
Jefferson, Indiana	\$363,764,000	\$15,160,698	\$6,386,834
Scott, Indiana	\$192,400,333	\$9,527,937	\$4,767,076
Washington, Indiana	\$174,243,000	\$10,816,879	\$4,615,975
Adair, Kentucky	\$105,867,333	\$4,718,745	\$4,949,660
Breckinridge, Kentucky	\$69,351,333	\$7,586,922	\$3,362,255
Bullitt, Kentucky	\$306,348,333	\$34,036,848	\$11,384,269
Carroll, Kentucky	\$205,665,333	\$5,706,541	\$12,377,261
Grayson, Kentucky	\$192,237,667	\$10,363,277	\$6,684,393
Green, Kentucky	\$44,727,000	\$3,217,690	\$1,927,227
Hardin, Kentucky	\$1,497,622,000	\$48,243,736	\$49,452,998
Henry, Kentucky	\$79,406,333	\$9,828,390	\$6,933,847
Jefferson, Kentucky	\$15,904,748,333	\$616,908,178	\$688,658,607
Larue, Kentucky	\$59,677,000	\$5,938,777	\$1,943,591
Marion, Kentucky	\$154,768,667	\$8,305,145	\$4,050,049
Meade, Kentucky	\$101,608,667	\$9,189,780	\$7,327,373
Nelson, Kentucky	\$373,478,000	\$25,766,872	\$19,349,133
Oldham, Kentucky	\$358,225,667	\$43,910,840	\$10,118,205
Shelby, Kentucky	\$427,308,000	\$23,846,523	\$13,634,754
Spencer, Kentucky	\$37,514,000	\$7,753,083	\$1,452,239
Taylor, Kentucky	\$215,608,333	\$9,731,032	\$12,162,168
Trimble, Kentucky	\$25,257,333	\$3,975,771	\$1,701,269
Total	\$23,423,874,667	\$1,030,814,958	\$927,943,661
Kentucky portion	\$20,159,419,333	\$879,028,147	\$857,469,297
Indiana portion	\$3,264,455,333	\$151,786,811	\$70,474,364
Effective tax rates, collections as percentage of regional wages and salaries			
Kentucky state		3.75%	3.66%
Indiana state		0.65%	0.30%
Local occupational taxes			

Sources: wages and salaries from US Bureau of Economic Analysis; state income and sales tax collections from the Kentucky and Indiana Departments of Revenue.

Kentucky income tax collection data for 2000 only, sales tax collection data for 2003 only.

Louisville Economic Area includes 25 counties in Indiana and Kentucky, as defined by BEA

For data and definitions, see www.bea.gov/regional/statelocal.htm

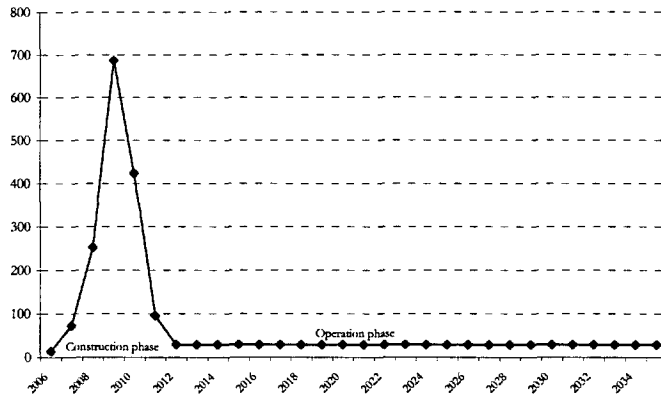
Impacts

In this section I present estimates of the economic and fiscal impacts of the plant, including both the construction and operations phases. The impacts are easiest to perceive from charts, and below I have constructed three figures showing net new regional jobs, regional payrolls, and new Kentucky state and local government revenues. The jobs and payrolls shown include those from direct construction and operations, as well as the regional spinoff activity. Remember that we are only examining the impacts from the out-of-state investment and electricity sales, not the total plant.

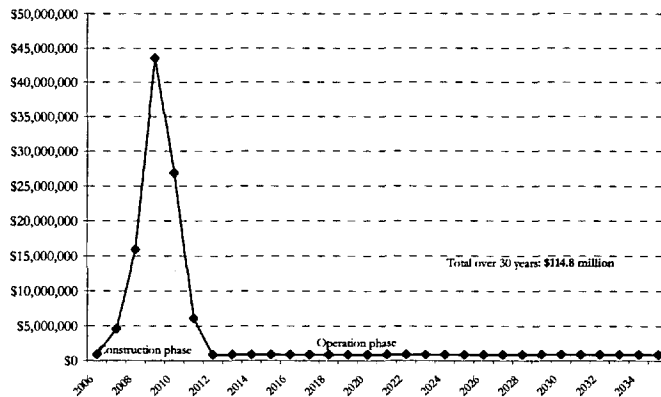
One can see in the first chart the buildup of construction workers at the site, plus the regional multiplier effects, and then the operations phase beginning in 2011. There are a total of 923 job-years assumed directly at the plant, primarily during the construction phase. This translates into 2,234 job-years in the region over thirty years. The impact on regional payrolls is provided in the second chart. The cumulative payroll impact is about \$118 million over the horizon considered, of which \$98 million occurs during the construction phase.

The new state and local tax revenues to Kentucky state and local governments are summarized in the third chart. The cumulative amount is \$23.0 million. The construction phase includes the Kentucky income and sales taxes generated from the new

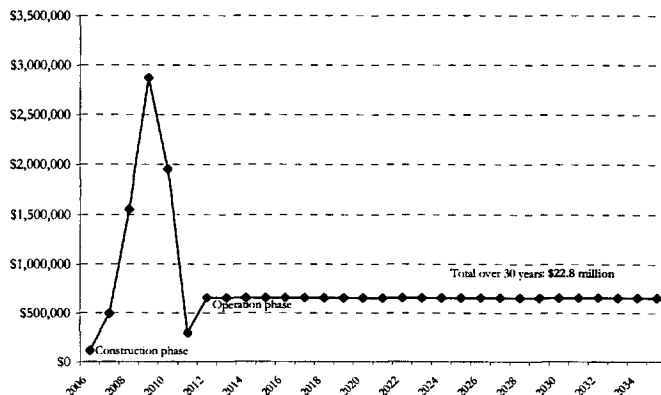
Export-Based New Regional Jobs
Trimble II Plant, Thirty Years



Export-Based New Regional Payrolls
Trimble II Plant, Thirty Years



Export-Based Kentucky State and Local Government Revenues
Trimble II Plant, Thirty Years



payrolls, the Kentucky sales tax on construction materials, and the buildup of property taxes as the plant and transmission lines are constructed. Note that there are very significant new Kentucky tax revenues during the operations phase, due primarily to the \$614,000 in additional annual property taxes paid by the Indiana and Illinois participants. This amounts to \$18.4 million in new Kentucky property tax receipts over the thirty-year horizon considered here. Another \$4.6 million in state and local taxes are estimated to accrue to governments in Indiana over the horizon, primarily for Indiana state income and sales taxes from workers in the region.

Reference

US Bureau of Economic Analysis, *Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II)*, 3rd edition, March 1997.
<http://www.bea.gov/bea/ARTICLES/REGIONAL/PERSINC/Meth/rims2.pdf>