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June 4, 2014

In re: Case No. 14-1009-EL-AEC

The original and three (3) copies of the CONFIDENTIAL EXHIBIT B for filing under seal will follow by overnight mail.

Respectfully yours,

Michael L. Kurtz, Esq.

Jody Kyler Cohn, Esq.

MLKkew
Encl.

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Technician Date Processed JUN 05 2014

**BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Warren Steel Holdings, LLC for Approval of a Reasonable Arrangement	: : : :	Case No. 14-1009-EL-AEC
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**APPLICATION AND
REQUEST FOR EXPEDITED TREATMENT**

1. This Application for approval of a Reasonable Arrangement is submitted by Warren Steel Holdings, LLC ("Warren Steel" or "Customer") to the Public Utilities Commission of Ohio ("Commission") pursuant to R.C. §4905.31 and Ohio Adm. Code §4901-1-38-05. Warren Steel is a mercantile customer as defined by R.C. §4928.01.
2. Warren Steel is an ISO 9001 certified electric arc furnace melt shop and casting facility, producing carbon and alloy steel continuously cast rounds, squares, and rectangles for use in the specialty steel consuming industries including the energy, construction, and automotive industries. The state-of-the-art electric arc furnace at the Warren Steel facility is capable of producing 1 million tons of steel annually.
3. Warren Steel is located at 4000 Mahoning Avenue, Warren, Ohio, situated on approximately 369 acres in the townships of Warren and Champion, both in Trumbull County, Ohio.
4. Warren Steel is within the certified service area of Ohio Edison Company ("Ohio Edison" or "Company"). Ohio Edison is an electric distribution utility as defined in R.C. Section §4928.01.
5. Warren Steel was formed and incorporated as a Delaware Limited Liability Company ("LLC") on November 19, 2001. That year, Warren Steel purchased the approximately 369 acre site formerly owned by Copperweld Steel Company (later renamed "CSC"). CSC had been engaged in steel production on the site since 1939, but filed for bankruptcy in 2001. After decades of steelmaking, the CSC facility was permanently shut down and all of the employees lost their jobs. Warren Steel purchased the state-of-the-art melt shop and continuous caster newly installed at the site by CSC prior to its bankruptcy, and resurrected the CSC site, making substantial investments and modernization improvements. Therefore, while the plant site contains many older buildings no longer in use, the electric arc furnace and continuous caster are virtually brand new equipment. Because Warren Steel has only a single electric arc furnace, its load factor is inherently low.
6. In 2006, Warren Steel began planning and preparation for the restart of steelmaking at the site. A year later, Warren Steel began to hire and train a new workforce. The workforce is relatively young and is highly productive.

7. In 2009, steelmaking operations resumed at the site. Warren Steel has since invested significant capital in its facility, with ownership capital contribution approaching \$90 million, loans exceeding \$60 million, capital investment totaling over \$24 million, and working capital expenditures approaching \$125 million.
8. Due to continued operating losses, the facility was shutdown in late March 2014. Operations at Warren Steel have not resumed.
9. The plant shutdown was necessitated by a number of factors, but was primarily caused by Warren Steel's high energy costs. The rate that Warren Steel paid for electricity when operating was much higher than the rates paid by its predecessor, CSC, or any of its competitors. Warren Steel's electric cost prior to shutdown exceeded \$75/MWh on average over the last twelve months. Warren Steel's in-state and out-of-state competitors were paying rates of approximately \$48/MWh on average, based upon May 2012 data.
10. Without a competitive power rate, Warren Steel does not have a near-term plan to restart operations.
11. Warren Steel currently employs approximately 180 wage and salary workers and 66 full-time contractors. When overtime is taken into account, Warren Steel employs 309 full-time equivalents. The annual payroll is \$15.4 million, plus \$5 million in fringe benefits. These are family-supportive jobs that are highly valued in Trumbull County.
12. Warren Steel is a driver of economic activity in Warren, Ohio and the region. An independent economic impact study found that Warren Steel's total net annual impact in the region is 1,128 jobs and \$53.2 million in employee compensation. That study is attached as "Exhibit A" to this Application.
13. Warren Steel made purchases of \$81 million from Ohio vendors in 2013. The companies were located in 117 zip codes across the state.
14. In 2013, state and local governments in Ohio received \$4.3 million in tax revenues related to the Warren Steel plant operation.
15. No current Warren Steel employees have been laid off yet, but layoffs are likely unless Warren Steel restarts operations.
16. In order to restart operations on a timely basis, Warren Steel needs approval by the Commission of the proposed Reasonable Arrangement outlined below. Warren Steel cannot sustain its current losses indefinitely and needs a competitive electric rate in order to remain in business. After scrap metal and labor, electricity is the third largest expense for an electric arc steel manufacturer. Electric pricing is absolutely critical to the success of any steel manufacturer in Ohio or elsewhere.

17. The proposed Reasonable Arrangement will provide Warren Steel with a competitive electric rate and will help ensure the long-term viability of the plant. The Reasonable Arrangement is part of a comprehensive strategy to return Warren Steel to a viable and sustainable business.
18. Failure to provide Warren Steel with a competitive electric rate places at risk 309 direct and full-time equivalent jobs. Plant closure could cost the local economy 1,128 jobs and \$53.2 million in employee compensation.
19. Approval of the Reasonable Arrangement will allow Warren Steel to attract strategic partnerships, which support its growth and expansion. Warren Steel is currently negotiating a strategic partnership with a major steel producer to supply product out of Northern Ohio, but Warren Steel must compete with an electric arc furnace operation in a southern state that has been offered \$50/MWh fixed pricing from its fully-regulated utility supplier. The proposed Reasonable Arrangement will allow Warren Steel to compete with the southern state manufacturer.
20. Warren Steel has a second strategic opportunity available with an Ohio-based company that would increase its production by 6,000 tons per month, but that opportunity is contingent upon the Warren Steel plant reopening and approval of a competitive power rate for Warren Steel, such as the one proposed by the Reasonable Arrangement outlined below.
21. Warren Steel also has plans to improve operational reliability, quality, expand its product offering, and increase production. While Warren Steel was producing at an annualized rate of 240,000 tons per year, it has the capability to produce at a far greater level (1 million tons). However, capital expenditures of approximately \$10 million in the first year and up to an additional \$33 million in the next three to four years will be required to achieve full capacity.
22. Competitive electric pricing would enable Warren Steel to undertake a \$2.1 million upgrade its substation to state-of-the-art, which could save 1,179,303 kWh, based upon 70,000 tons per month production. It would also enable Warren Steel to undertake a \$600,000 Smart-ARC electric arc furnace modernization, which could save 4,724,629 kWh, based upon 70,000 tons per month production.
23. At higher production levels, Warren Steel anticipates potential workforce requirements rising to 374 full-time equivalent jobs. This would result in total direct, indirect, and induced jobs of 1,466 and employee compensation of \$69.2 million. Government revenues would rise to \$5.5 million annually.
24. Warren Steel has compiled a detailed restart plan that could occur if the Reasonable Arrangement is approved. That plan outlines anticipated increases in capital expenditures and employment levels, and is provided confidentially as "Exhibit B" to this Application.
25. Delta revenue related to this Reasonable Arrangement will be recovered through Ohio Edison's Delta Revenue Recovery ("DRR") or a successor recovery mechanism only if Warren Steel resumes operations. Therefore, any delta revenue recovered will be directly tied to economic development benefits for the state of Ohio. Warren Steel estimates that the delta revenue to be

recovered from customers during the first year of this Agreement would be \$7.25 million. This delta revenue calculation is provided in "Exhibit C" to this Application. The initial delta revenue charge to be recovered from the average residential customer would be approximately 10.5¢ per month. Under the proposed Reasonable Arrangement, the maximum monthly delta revenue charge to the average residential customer would be approximately 14.5¢ per month. This delta revenue calculation is provided in "Exhibit D" to this Application.

26. R.C. §4905.31 permits the Commission to approve a Reasonable Arrangement between a mercantile customer and an electric distribution utility or a public utility electric light company. By this Application, Warren Steel is requesting that the Commission approve this Reasonable Arrangement in order to provide Warren Steel with competitive electric power pricing necessary to restart operations at the plant and to facilitate the long-term jobs and economic development described above.
27. Warren Steel submits the structure and content of the Reasonable Arrangement below, as required by Ohio Adm. Code §4901:1-38-05.

A) Term and Effective Date

The term of this Reasonable Arrangement shall be six years. The term may not commence until the Commission approves Warren Steel's Application. The earliest the term may commence is the first of the month following Commission approval, and the term must commence no later than thirty (30) days after a Commission order approving Warren Steel's Application. Within those parameters, the term will commence upon Warren Steel notifying Ohio Edison in writing of the restart of operations at its plant. The effective date of the reasonable arrangement will be the date the term starts, as determined under this provision. Beginning on the effective date of the Reasonable Arrangement, each successive twelve month period constitutes a term year of the Reasonable Arrangement. Ohio Edison and Warren Steel will enter into a written contract ("Agreement") that is consistent with the Application approved by the Commission in this proceeding.

B) Pricing

i. General Terms and Conditions

1. Customer will shop for electric generation service from a competitive retail electric service ("CRES") provider.
2. Customer will initially take transmission and distribution service from Ohio Edison under Rate GT, or its successor. There is no minimum bill, demand ratchet, or take or pay obligation under this Reasonable Arrangement except as provided under Rate GT.
3. Customer will receive a Rate Discount (delta revenue) from Ohio Edison over the term of the Reasonable Arrangement. The amount of the Rate Discount will be determined on a monthly basis by first subtracting the target price for a given

year of the Reasonable Arrangement term from the monthly “all-in” rate/MWh that Customer would otherwise pay for electric generation, transmission, and distribution service including all applicable riders (excluding the self-assessed state kilowatt hour tax). That difference will then be multiplied by the monthly MWh consumption of Warren Steel to calculate the Rate Discount.

4. The target price for each year of the Reasonable Arrangement will be as follows:
 1. Year One - \$50/MWh. This initial target price was chosen since that is the rate being offered to a competitor in a southern state, and that is a rate which will allow Warren Steel to be competitive with Ohio’s other electric arc furnace steel manufacturers.
 2. Year Two - \$51/MWh.
 3. Year Three - \$52.5/MWh
 4. Year Four - 20% less than the applicable Ohio Edison SSO (non-shopping) price. “SSO price” means the price that Warren Steel would be obligated to pay if it were taking electric service from Ohio Edison on a non-shopping basis, excluding the self-assessed state kilowatt hour tax.
 5. Year Five - 10% less than the applicable Ohio Edison SSO (non-shopping) price
 6. Year Six - 5% less than the applicable Ohio Edison SSO (non-shopping) price
5. The maximum Rate Discount received by Customer each year of the Reasonable Arrangement will be capped at \$10 million. If during any month prior to the end of the term year the maximum annual Rate Discount is realized, then the Rate Discount will be suspended in that month for the remainder of the term year. The Rate Discount will begin again at the start of the next term year. The maximum Rate Discount received by Customer over the six year term of the Reasonable Arrangement will be capped at \$35 million. If during any month prior to the end of the Reasonable Arrangement, the maximum Rate Discount is realized, then the Rate Discount will terminate and Warren Steel will be obligated to pay for electric service with no Rate Discount.
6. Except with respect to Ohio Edison’s ability to fully recover delta revenue, nothing in this Agreement prohibits Customer from seeking modifications from the Commission to this Reasonable Arrangement.
7. Customer commits to have a minimum of 200 direct Warren Steel employees and 25 direct contractors after the first full month of restarted operations. If these job commitments are not achieved, without valid justification, then the Commission may reduce the annual and total delta revenue amounts provided for under this Reasonable Arrangement in proportion to the percentage of job commitments that were not achieved (e.g. if Warren Steel’s job commitments

are missed by 2%, then the delta revenue amounts may be reduced by 2%). Customer will provide quarterly reports to Commission Staff on the status of employment levels. Ohio Edison shall continue to bill Warren Steel under the terms of the approved Reasonable Arrangement and Agreement until otherwise directed by the Commission.

8. Customer commits to have capital/spares and major repair expenditures of \$10 million over the first twelve months of restarted operations. Over the full term of the Reasonable Arrangement, Customer commits to total capital/spares and major repair expenditures of up to \$33 million, based upon achievement of Warren Steel's business expansion model. If a new air separation plant is added, then an additional capital investment of approximately \$15 million will be required. If these capital/spares and major repair expenditure commitments are not achieved, without valid justification, then the Commission may reduce the annual and total delta revenue amounts provided for under this Reasonable Arrangement in proportion to the percentage of capital/spares and major repair expenditure commitments not achieved. This proportional delta revenue reduction would be in addition to any reduction due to missed job numbers. Customer will provide annual reports to Commission Staff on the status of capital/spares and major repair expenditures on a cumulative to-date basis. Ohio Edison shall continue to bill Warren Steel under the terms of the approved Reasonable Arrangement and Agreement until otherwise directed by the Commission.
9. Customer will use best efforts to minimize its electric costs, including bidding interruptible load into the PJM Interconnection, LLC capacity market. Revenue received as a result of Customer's participation in the PJM markets will be used to reduce the delta revenue recovered pursuant to the Reasonable Arrangement.
10. Customer will dedicate the energy efficiency/peak demand reduction savings resulting from the upgrade of its substation, the Smart-ARC project, and any additional capital/spares and major repair expenditures made during the term of the Reasonable Arrangement to Ohio Edison at no additional cost to Ohio Edison. Customer will not seek an exemption from the Demand Side Management and Energy Efficiency Rider during the term of the Reasonable Arrangement. Nor will Customer opt-out of Ohio Edison's energy efficiency/peak demand reduction portfolio plan during the term of the Reasonable Arrangement.
11. The Rate Discount under this Reasonable Arrangement shall be recovered through Ohio Edison, The Cleveland Electric Illuminating Company, and The Toledo Edison Company's DRR riders, or other successor recovery mechanism(s). If Ohio Edison is not permitted to timely recover the Rate Discount through the DRR rider, or other successor recovery mechanism, then this Reasonable Arrangement will automatically terminate at that time.
12. Customer commits to pay its account(s) with Ohio Edison in full and to remain in good standing prior to commencement of the Reasonable Arrangement. If Customer's account(s) with Ohio Edison are not paid in full and in good

standing at any time during the term of the Reasonable Arrangement, the Reasonable Arrangement and associated discounts will be suspended until the account(s) are paid in full and returned to good standing.

- ii. Assignment. This Reasonable Arrangement, including all rights and obligations hereunder, shall be fully assignable by Warren Steel to any new owner or operator of the plant with the written consent of Ohio Edison and the Public Utilities Commission of Ohio, which consent shall not be unreasonably withheld. Except as provided herein, all standard terms and conditions of Ohio Edison will be applicable.
- iii. Termination Rights. Any time during the contract term, Warren Steel can elect to terminate this Reasonable Arrangement with prior written notice to Ohio Edison. Such termination may not take effect at the earliest until the first day of the billing period following written notice to Ohio Edison.
- iv. Repayment. Warren Steel shall not be required to repay any Rate Discount received or accrued under this Agreement, except in the case where Customer violates the law or this Reasonable Arrangement or commits fraud or misrepresentation.

C) Service Level

This Reasonable Arrangement is for up to 70,000 kW electric demand as measured during a thirty-minute integrated billing period for steel manufacturing at Warren Steel. If Warren Steel adds production facilities during the term of this Reasonable Arrangement, then the service level electric demand will be increased accordingly.

- 29. Approval of this Application will advance state policy as set forth in R.C. §4928.02. Specifically, approval of the Reasonable Arrangement will facilitate Ohio's effectiveness in the global economy by avoiding the layoff of 309 full-time equivalent jobs in Northern Ohio that may otherwise be lost. Additionally, approval will allow Warren Steel to potentially increase its workforce to 374 full-time equivalent jobs. Once Warren Steel restarts operations, then the total net annual impact in the region will be 1,128 jobs, \$53.2 million in employee compensation, \$4.3 million in tax revenues and \$81 million in purchases from Ohio vendors.¹
- 30. Ohio Adm. Code §4901:1-38-05 requires a demonstration that a proposed Reasonable Arrangement does not violate R.C. §§4905.33 and 4905.35. Warren Steel represents that the proposed Reasonable Arrangement is not anti-competitive, discriminatory, or unduly preferential and does not disadvantage any CRES provider. Under the Reasonable Arrangement, Warren Steel agrees to shop for electric generation service from a CRES provider. But for the Reasonable Arrangement, there may be no Warren Steel load available to shop. Warren Steel proposes this Reasonable Arrangement solely for purposes of attempting to create a viable and sustainable business model for Warren Steel that will allow it to restart operations.

¹ Warren Steel respectfully submits that this information satisfies the requirements of Ohio Adm. Code §4901:1-38-05(C).

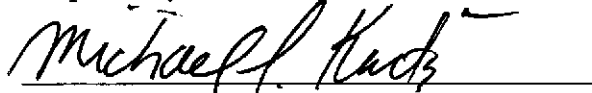
REQUEST FOR EXPEDITED TREATMENT

31. In order to create a viable and sustainable business model for Warren Steel as soon as possible, Warren Steel requests that the Commission approve this Application on an expedited basis, i.e. within thirty (30) days. Expedited approval by the Commission within thirty (30) days is necessary in order to secure the strategic partnership with the Ohio-based company discussed above and to allow Warren Steel to restart operations without layoffs. Warren Steel's current circumstances necessitate expedited Commission approval of the rates proposed herein as emergency relief authorized pursuant to R.C. §4909.16.
32. Through the attached affidavits and the economic impact study attached as "Exhibit A," Warren Steel submits that it has met its burden of proof to demonstrate that the proposed Reasonable Arrangement is just and reasonable. Further, Warren Steel avers that Ohio Edison does not oppose this Application.

CONCLUSION

33. For the foregoing reasons, Warren Steel urges the Commission to find that the arrangement described herein is just and reasonable and promptly act to approve this Reasonable Arrangement between Warren Steel and Ohio Edison on the terms and conditions described herein.

Respectfully submitted,



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June 4, 2014

**COUNSEL FOR WARREN STEEL
HOLDINGS, LLC**

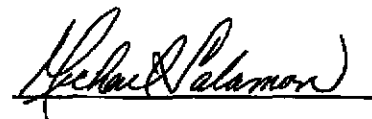
AFFIDAVIT

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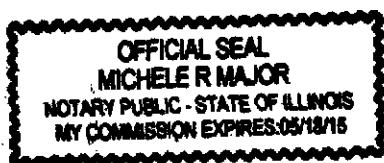
I, Michael Sakuma being first duly sworn, verify that I have reviewed the foregoing Application and that the allegations contained in the Application are true and accurate to the best of my knowledge and belief, including, but not limited to, the following allegations:

1. Warren Steel is an ISO 9001 certified electric arc furnace melt shop and casting facility, producing carbon and alloy steel continuously cast rounds, squares, and rectangles for use in the specialty steel consuming industries including the energy, construction, and automotive industries. The state-of-the-art electric arc furnace at the Warren Steel facility is capable of producing 1 million tons of steel annually.
2. Warren Steel has invested significant capital in its facility, with ownership capital contribution approaching \$90 million, loans exceeding \$60 million, capital investment totaling over \$24 million, and working capital expenditures approaching \$125 million.
3. Due to continued operating losses, the facility was shutdown in late March 2014. Operations at Warren Steel have not resumed. The plant shutdown was necessitated by a number of factors, but was primarily caused by Warren Steel's high energy costs.
4. Warren Steel's electric rate prior to shutdown exceeded \$75/MWh on average over the last twelve months. Warren Steel's in-state and out-of-state competitors were paying rates of approximately \$48/MWh on average, based upon May 2012 data.
5. Without a competitive power rate, Warren Steel does not have a near-term plan to restart operations.
6. Warren Steel currently employs approximately 180 wage and salary workers and 66 full-time contractors. When overtime is taken into account, Warren Steel employs 309 full-time equivalents. The annual payroll is \$15.4 million, plus \$5 million in fringe benefits. These are family-supportive jobs that are highly valued in Trumbull County.
7. No current Warren Steel employees have been laid off yet, but layoffs are likely unless Warren Steel restarts operations.

8. In order to restart operations on a timely basis, Warren Steel needs approval by the Commission of the proposed Reasonable Arrangement. Warren Steel needs a competitive electric rate in order to remain in business.
9. Approval of the Reasonable Arrangement will allow Warren Steel to attract strategic partnerships, which support its growth and expansion. Warren Steel is currently negotiating a strategic partnership with a major steel producer to supply product out of Northern Ohio, but Warren Steel must compete with an electric arc furnace operation in a southern state that has been offered \$50/MWh fixed pricing from its fully-regulated utility supplier. The proposed Reasonable Arrangement will allow Warren Steel to compete with the southern state manufacturer.
10. Warren Steel has a second strategic opportunity available with an Ohio-based company that would increase its production by 6,000 tons per month, but that opportunity is contingent upon the Warren Steel plant reopening and approval of a competitive power rate for Warren Steel, such as the one proposed by the Reasonable Arrangement.
11. Warren Steel also has plans to improve operational reliability, quality, expand its product offering, and increase production. While Warren Steel was producing at an annualized rate of 240,000 tons per year, it has the capability to produce at a far greater level (1 million tons). However, capital expenditures of approximately \$10 million in the first year and up to an additional \$33 million in the next three to four years will be required to achieve full capacity.
12. Competitive electric pricing would enable Warren Steel to undertake a \$2.1 million upgrade its substation to state-of-the-art, which could save 1,179,303 kWh, based upon 70,000 tons per month production. It would also enable Warren Steel to undertake a \$600,000 Smart-ARC electric arc furnace modernization, which could save 4,724,629 kWh, based upon 70,000 tons per month production.
13. At higher production levels, Warren Steel anticipates potential workforce requirements rising to 374 full-time equivalent jobs. Based on an economic study commissioned by Warren Steel, this would result in total direct, indirect, and induced jobs of 1,466 and employee compensation of \$69.2 million. Government revenues would rise to \$5.5 million annually.



Sworn to and subscribed before me, a Notary Public, this 1 day of June, 2014.



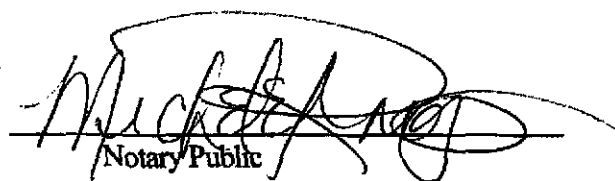

Notary Public

EXHIBIT A

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The Estimated Economic and Fiscal Impacts of Warren Steel's Operations in Ohio

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

a research report for
Warren Steel Holdings, LLC

May 19, 2014

EXECUTIVE SUMMARY

Warren Steel Company, located in Warren Ohio, is a major producer of high quality steel in the United States. The plant employs around 250 people, including wage and salary workers, as well as on-site contractors. Accounting for overtime and for part-time work, the company reports a full-time equivalent workforce of 309. The annual payroll is about \$15.4 million, plus \$5.0 million in fringe benefits. Employees live in fifteen counties in Ohio and Pennsylvania, of which 85 percent reside in two Ohio counties - Trumbull and Mahoning.

Warren Steel Holdings, LLC is interested in learning about and documenting the regional economic importance of its operations. The purpose of this report is to document and communicate the regional economic and fiscal importance of this steel plant. I have used regional economic data and a custom input-output model to estimate the economic and fiscal impacts of the operation. I estimate that the total net annual impact in the region is 1,128 jobs and \$53.2 million in employee compensation. State and local governments in Ohio received at least \$4.3 million in tax revenues related to the plant operation last year.

Management sees potential to take production levels up to 1 million tons per year, and requiring a workforce of 325 people, with an FTE of 374 jobs. Scaling up my estimates to this potential results in a total of 1,466 total jobs in the region and employee compensation of \$69.2 million. Government revenues would rise to \$5.5 million annually.

These estimates are for the economic and fiscal categories most easily quantified. There are other impacts, though they are harder to measure with any precision. For example, the local real estate market is linked to the payrolls at the steel plant, but it is very difficult to sort out all the factors that contribute to housing values and commercial

properties. Real estate markets are impacted over decades by complex interactions among many factors, including retirements, migration, mortgages, second incomes, second careers, children, and all the other industrial changes in the marketplace. Social indicators, like unemployment and crime, also are related to the plant's employment levels, as are public costs for unemployment benefits, retraining, and social services.

I now turn to a discussion of the methods used to measure the regional economic and fiscal impacts. Then I provide my estimates.

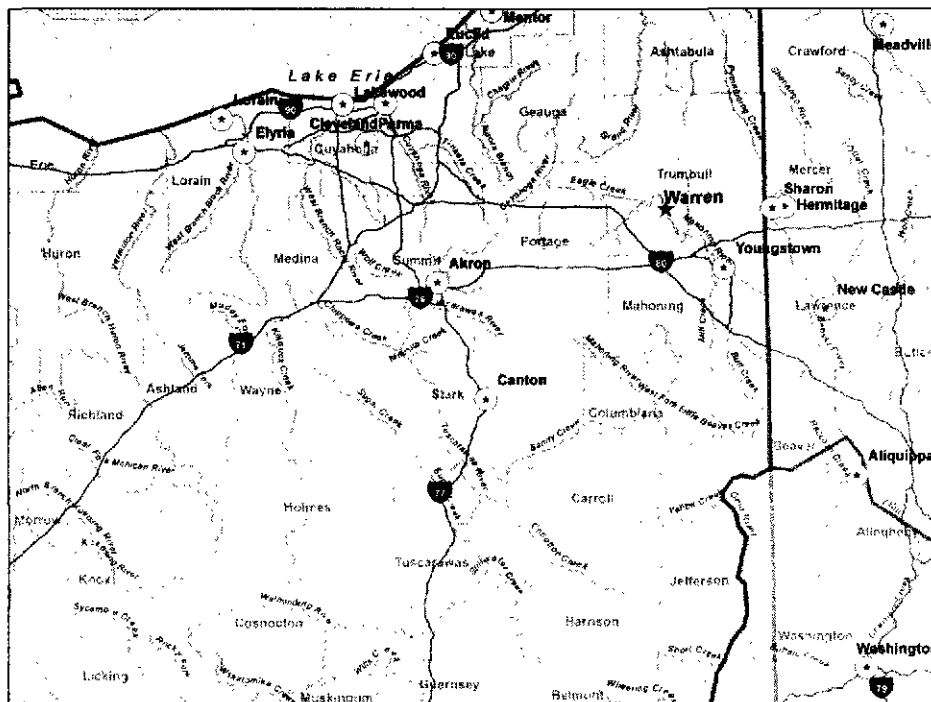
METHODOLOGY

Because the steel and related manufacturing operations serve primarily national and international markets, they bring new dollars into the regional economy. In this sense, the opening or closing of the steel plant would have large and predictable economic and fiscal impacts in northeast Ohio. The activity supports hundreds of jobs and millions of dollars in payrolls, as well as significant tax revenues for Ohio state and local governments. In this section, I explain how I defined the regional economic footprint for purposes of this impact study, and discuss in some detail the input-output model and tax rate calculations used to measure the regional impacts.

The Regional Economy

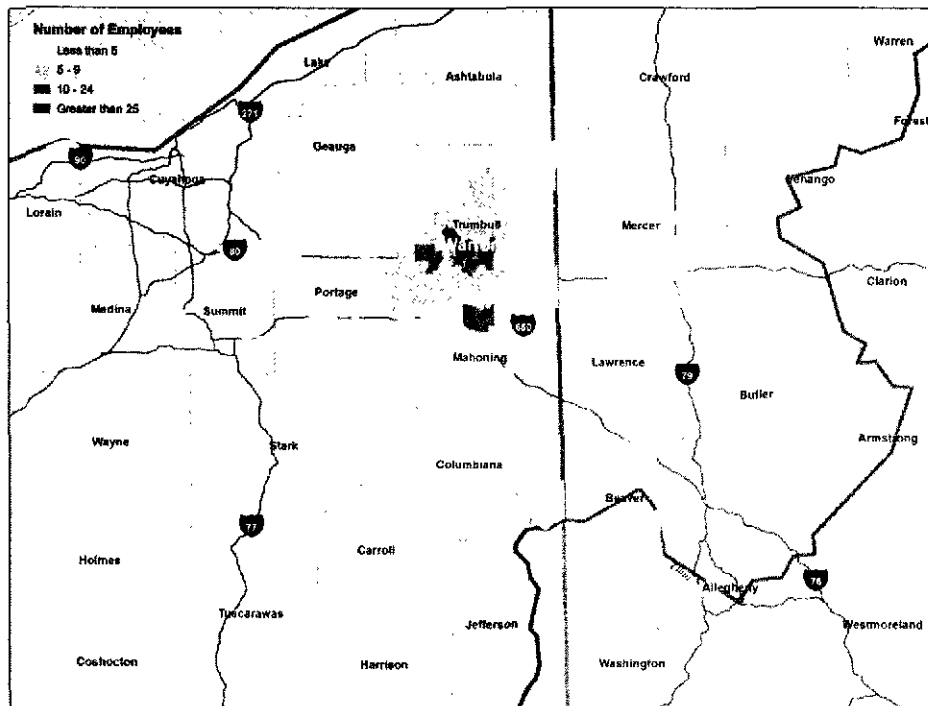
The plant is located in Trumbull County, about 50 miles southeast of Cleveland, in the townships of Champion and Warren. The City of Warren is the county seat of Trumbull. While workers reside in fifteen counties, most live in the Ohio counties of Trumbull and

Warren Ohio and Surrounding Region



Mahoning. Because most of the employees and vendors are located in the two central counties, I use those as my definition of the impact region for purposes of estimating the economic and fiscal impacts.

Residence of Warren Steel Employees, February 2014



Input-output model of the region

I use standard regional economic impact methods to evaluate the economic and fiscal impacts of the steel plant. I obtained detailed economic data for the two counties most impacted, and used them to build an IMPLAN input-output model of the region¹. The model is able to simulate the effects of changes in economic activity for any of 440 regional industries. It also can predict detailed inter-industry purchases and household spending related to industrial changes. Such region-specific models have the advantage that they take account those industrial supplies and retail items likely available in the region, and thus provide more precise economic impact estimates than one that assumes everything is available in the region. The more that local industries can support the plant operation and the employees' household demands, the greater the regional economic multipliers, and hence the greater the regional economic impact.

¹ IMPLAN is the most widely used regional input-output modeling system in the world. It has been used for thousands of impact studies. It was developed by economists at the University of Minnesota, and is sold by MIG, Inc. See www.implan.com for documentation.

In IMPLAN the sector of interest for this study is number 170, Iron and Steel Mills and Ferroalloy Manufacturing. This industry is defined according to the North American Industrial Classification System (NAICS) code 331111. The official definition is as follows:

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) direct reduction of iron ore; (2) manufacturing pig iron in molten or solid form; (3) converting pig iron into steel; (4) making steel; (5) making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, wire); and (6) making steel and forming tube and pipe.

www.census.gov/naics/2007/def/ND331111.HTM

The IMPLAN model provides estimates of indirect (inter-industry purchases) and induced (household spending) effects on sales, jobs, and payrolls for export-based expansions or contractions of any of 440 local industries. For example, the estimated job multiplier for the steel production industry in the two-county area is 4.512, meaning that for every job at the steel plant, another 3.512 jobs are created elsewhere in the regional economy. Similarly, the labor income multiplier for the industry there is 2.605, meaning that for every dollar of payroll created at the steel plant another \$1.605 in payrolls are created in other sectors around the region.

Estimated Regional Economic Impact of 100 Steel Jobs, Trumbull and Mahoning Counties

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	100	\$10,220,332	\$14,079,937	\$122,500,058
Indirect Effect	225.6	\$11,883,450	\$19,390,715	\$40,546,459
Induced Effect	125.6	\$4,519,066	\$8,743,958	\$13,687,514
Total Effect	451.2	\$26,622,848	\$42,214,611	\$176,734,031
<i>Implied Multiplier</i>	<i>4.512</i>	<i>2.605</i>	<i>2.998</i>	<i>1.443</i>

Source: MIG, Inc., Implan Model version 3.1, using 2012 economic data for Trumbull and Mahoning counties, Ohio.

In the next table, I show the top 20 regional commodities supplied regionally and directly linked to steel production activity, as predicted by the IMPLAN model. Note that the top suppliers are related to raw materials, logistics, transportation and power supply.

Regional economists often make the distinction between the indirect and induced components of a multiplier, and in some cases make separate estimates for each. The indirect effects refer to the linkages between the exporting industry (steel) and their industrial vendors (raw materials, transportation, electricity, tools, computers, insurance). When the directly impacted industry expands, it raises its purchases from its vendors, thus lifting their employment and payrolls. Of course, the vendors also

purchase from each other, so that the total indirect effect includes all the inter-industry linkages.

The induced effects refer to the impact of the new export-based sales on the local economy through the rounds of re-spending of the additional household 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.

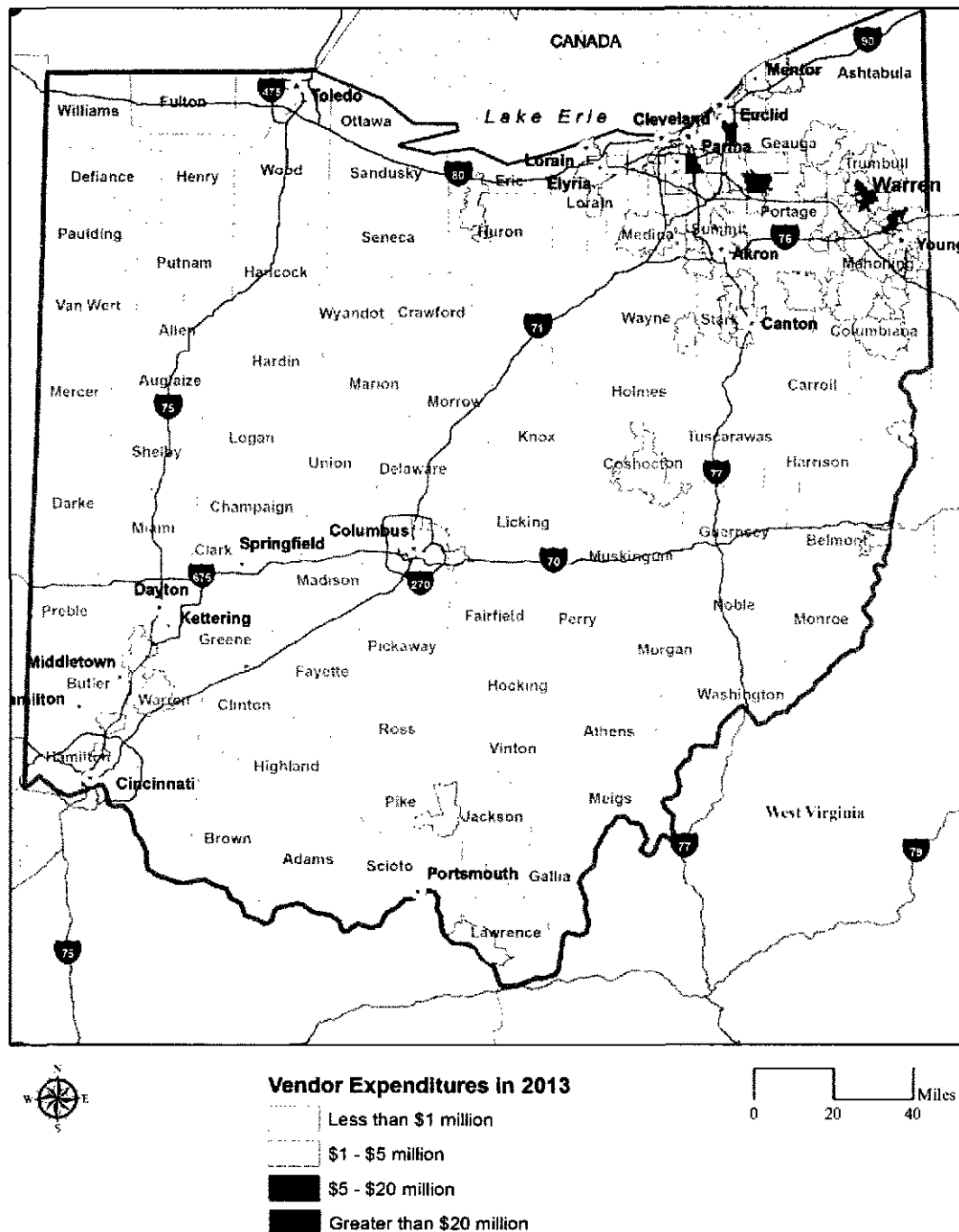
The distinction is evident in the simulation shown above, where I analyzed the regional economic impact of 100 jobs in the regional steel industry. One can see the largest contributor to the total effect is the inter-industry spending, or indirect effect. The induced effect is significant, but accounts for only around half as much as the indirect effect. This model is reflecting the fairly dense network of suppliers to the steel industry that are located in the Trumbull and Mahoning area.

Top Twenty Commodities Supplied by Region, per \$1 million of Steel Output		
	Iron and steel and ferroalloy products	\$164,143
	Scrap	\$97,098
	Wholesale trade distribution services	\$83,168
	Iron ore	\$48,195
	Electricity, and distribution services	\$45,874
	Steel products from purchased steel	\$41,299
	Rail transportation services	\$38,013
	Natural gas, and distribution services	\$30,103
	Coal	\$29,991
	Truck transportation services	\$25,486
	Maintained and repaired nonresidential structures	\$21,055
	Management of companies and enterprises	\$17,756
	Material handling equipment	\$17,267
	Industrial gas	\$12,887
	Services to buildings and dwellings	\$10,041
	Securities, commodity contracts, investments, and related services	\$9,885
	Semiconductor and related devices	\$9,870
	Rolled, drawn, extruded and alloyed nonferrous metals (except copper and aluminum)	\$8,738
	Nonferrous metals (except copper and aluminum)	\$8,320
	Refined petroleum products	\$7,203
	Lime and gypsum products	\$7,025
	Carbon and graphite products	\$6,893
	Ground or treated mineral and earth products	\$5,608
	Aluminum products	\$5,553
	Commercial and industrial machinery and equipment repairs and maintenance	\$5,321
	Waste management and remediation services	\$5,056
	Specialized design services	\$4,783
	Monetary authorities and depository credit intermediation services	\$4,753
	Architectural, engineering, and related services	\$4,710
	Employment services	\$4,669
	Clay and nonclay refractory products	\$4,592

Source: MIG, Inc., Implan Model version 3.1, using 2012 economic data for Trumbull and Mahoning counties, Ohio.

The company reports that it made purchases of \$81 million from Ohio vendors in 2013. The companies were located in 117 zip codes across the state, as shown in the accompanying map.

Warren Steel Spending with Ohio Vendors, 2013



Economic and Fiscal Impacts

I used this custom input-output model of the region to simulate the impact of 250 steel plant jobs (the average employment at the plant site in 2013) on the two-county region. The estimated total regional employment impact is 1,128 jobs, including the direct steel jobs. And I estimate that the \$20.4 million in direct employee compensation at the plant results in total regional employee compensation of \$53.2 million.

Estimated Regional Economic Impact of Warren Steel Plant, 2013

Direct Impacts

Employment, average in 2013	250
Wages and salaries paid in 2013	\$15,395,519
Fringe benefits paid in 2013*	\$5,024,675
Total employee compensation	\$20,420,194

Taxes paid by company - local governments	\$81,886
- state of Ohio	\$794,847

Total Economic Impacts **

Jobs	1,128
Employee compensation	\$53,192,373

Total Fiscal Impacts

Trumbull and Mahoning counties, sales taxes linked to payrolls	\$318,018
Trumbull County property and income taxes paid by company	\$81,886
State of Ohio individual income taxes linked to payrolls	\$1,583,778
State of Ohio sales taxes linked to payrolls	\$1,749,097
State of Ohio corporate, electricity and sales taxes paid by company	\$518,207
Total State and Local Taxes	\$4,250,987

* Includes company payments for pensions, health and life insurance. Following methods used by the US Bureau of Economic Analysis, I include company payments for unemployment insurance and workers' compensation plans in employee compensation.

** Using custom Implan input-output model of Trumbull and Mahoning counties.

Taxes and fiscal impacts

There are no good national sources of data on which to make estimates of the fiscal impacts of an industrial expansion or contraction in a region; rather analysts must rely on local sources of data. The company has provided detailed records on direct tax payments to local and state governments, including property taxes, sales taxes, and energy taxes. I aggregate these in the impact statement above. However, the impacts on governments are much greater than these direct payments. Employees pay sales

taxes when they spend their wages in the local economy, and are liable for income taxes in Ohio. We can estimate these payments using published data on tax receipts from Ohio state government, as well as tax information from city and county governments in the region. By comparing the ratio of tax receipts to regional employee compensation, I calculate 'effective' tax rates and use those to estimate the amount of Ohio income and sales taxes linked to the steel industry payrolls. I average the rates over five years to smooth over any annual aberrations. For example residents of Trumbull and Mahoning counties paid about \$245 million in Ohio state income taxes in 2011. This is 2.91% of the employee compensation earned by workers in the two counties that year.

The calculations are shown in the next table. One can see that the ratios are fairly stable over the time period analyzed. The average effective tax rates in the bottom right of the table are multiplied by the total regional employee compensation estimated above to predict actual government receipts, as shown at the bottom of the impact table above. I estimate that the steel operations were responsible for about \$3.7 million in taxes to state and local governments in Ohio in 2013 through the payroll linkages.

Effective Tax Rates, Trumbull and Mahoning Counties, OH							
	2007	2008	2009	2010	2011	2012	average
Economic and Tax Receipt Data							
Compensation of employees, by place of work	\$8,761,019,000	\$8,485,073,000	\$7,755,962,000	\$8,020,784,000	\$8,415,863,000	\$8,486,544,000	
Ohio state individual income tax liability	\$286,497,359	\$249,717,243	\$217,533,391	\$237,360,913	\$244,907,080	na	
Ohio state sales tax receipts	\$274,316,500	\$270,047,666	\$249,657,749	\$265,270,849	\$287,192,953	\$295,080,384	
Trumbull and Mahoning counties, sales tax receipts	\$49,875,727	\$49,099,576	\$45,392,318	\$48,231,063	\$52,216,901	\$53,650,979	
Effective tax rates, using employee compensation							
Ohio state income tax	3.27%	2.94%	2.80%	2.96%	2.91%	na	2.98%
Ohio state sales tax	3.13%	3.18%	3.22%	3.31%	3.41%	3.48%	3.29%
Trumbull and Mahoning counties, sales tax	0.57%	0.58%	0.59%	0.60%	0.62%	0.63%	0.60%

Sources: compensation data from US Bureau of Economic Analysis; tax data from Ohio State Department of Revenue.

Additional tax impacts are also likely, though much harder to quantify. For example, proprietors and corporations around the region are liable for state individual and corporate income taxes. Gasoline taxes, unemployment insurance taxes, insurance premiums taxes, building permit fees, motor vehicle sales taxes, and many other business tax categories would see some decline if the steel plant were to shut down. Employees would also pay less in the way of gasoline taxes, motor vehicle sales taxes, and there would be dampening effect on the regional real estate market. These categories are much harder to measure than the income and general sales taxes, but fortunately are not as important dollar-wise as the main taxes I do measure in this report.

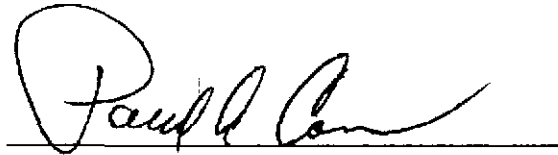
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State of Kentucky

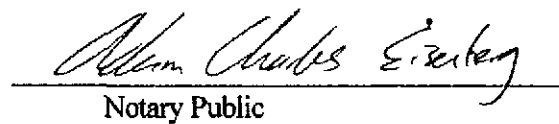
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County of Jefferson

I, Paul Coomes, being first duly sworn, verify that the information contained in my report, *The Estimated Economic and Fiscal Impacts of Warren Steel's Operations in Ohio*, is true and accurate to the best of my knowledge and belief.



Sworn to and subscribed before me, a Notary Public, this 16th day of May, 2014.



Notary Public

EXHIBIT B

**CONFIDENTIAL
(FILED UNDER SEAL)**

EXHIBIT C

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Warren Steel on Rate GT

Not Shopping

April 2014 Rates OE

Billing Data		Average Month	
kWh		20,000,000	
On Pk KVA		70,000	
Off Pk KVA		70,000	
Contracted kVA		833,000	
USF - First 833,000		19,167,000	
USF - Over 833,000		68,000	
Interruptible Load (kW)			
Customer Charge			
Service Charge (Fixed)	\$320.00		
Distribution Charges			
Capacity Charge (> of Max kVA, 100 kVA, Contracted kVA)	\$0.3672000		
Universal Service Fund Rider - USF (per kWh)			
First 833,000	\$0.0015843		
Over 833,000	\$0.0010461		
Total USF Charge			
Delta Revenue Recovery Rider (All kWh)	\$0.0000000		
Distribution Uncollectible Rider - DUN (All kWh)	\$0.0000000		
Demand Side Mgmt & Energy Efficiency Rider - DSE			
DSE1 (All kWh)	\$0.0003060		
DSE2 (All kWh)	\$0.0008120		
Economic Development Rider - EDR			
(c) Non-Residential Credit Provision (All kWh)	\$0.0000000		
(d) Rate GT Provision/Load Factor Provision			
GT Charge (> of monthly on-peak demand or 25% of monthly off-peak demand)	\$8.0000000		
GT Credit (All kWh)	-\$0.0178490		
Total Load Factor Provision Charge			
(g) Infrastructure Improvement Provision (All kWh)	\$0.0000130		
Line Extension Cost Recovery Rider (All kWh)	\$0.0000080		
	Summer	Winter	Average
Non-Residential Deferred Distribution Cost Recovery Rider - NDD (> of Max kVA, 100 kVA, Contracted kVA)	\$0.0000000	\$0.0000000	\$0.0000000
PIPP Uncollectible Rider - PUR (All kWh)	\$0.0000840		
Distribution Charges Total			
Cost Recovery Charges			
Non-Market-Based Services Rider - NMB (> Max kVA, 100 kVA, Contracted kVA)	\$1.4032000		
Phase-In Recovery Rider - PIR (All kWh)	\$0.0003280		
Deferred Fuel Cost Recovery Rider - DFC (All kWh)	\$0.0000000		
Deferred Generation Cost Recovery Rider (All kWh)	\$0.0000000		
Cost Recovery Charges Total			
Bypassable Generation and Transmission Related Charges			
Generation Service Rider			
Capacity Charge (All kWh)	\$0.0015650	\$0.0015650	\$0.0015650
Energy Charge (All kWh)	\$0.0605510	\$0.0520310	\$0.0548710
Generation Cost Reconciliation Rider - GCR (All kWh)			
GCR1 (All kWh)	\$0.0023610		
GCR2 (All kWh)	\$0.0000000		
Non-Distribution Uncollectible Rider - NDU (All kWh)	\$0.0005940		
Alternative Energy Resource Rider - AER (All kWh)	\$0.0017810		
Bypassable Generation and Transmission Related Charges Total			
Total Rate GT (Pre-Tax)			
Total Rate GT \$/kWh (Pre-Tax)			

Calculation of Anticipated Annual Delta Revenue:

\$80.2/MWh - \$50/MWh = \$30.2/MWh

\$30.2/MWh x 20,000 MWh (Monthly Energy Usage Pre-Shutdown) = \$604,000/Month

\$604,000 x 12 months = \$7,248,000

EXHIBIT D

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Anticipated Delta Revenue Charge Calculation		
2013 Total FirstEnergy Retail Sales (MWh)		53,545,439
Anticipated per kWh Delta Revenue Charge (\$7,248,000 million MWh per year ÷ 53,545,439 MWh ÷ 1000)		\$0.000135362
Average 2013 FirstEnergy Annual Residential Usage (MWh)		17,279,152
# of FirstEnergy Residential Customers in 2013		1,851,709
Average 2013 FirstEnergy Monthly Residential Usage (kWh)		778
Average Monthly Residential Usage (778 kWh) * Delta Revenue Charge		\$0.10531
Maximum per kWh Delta Revenue Charge (\$10,000,000 million MWh per year ÷ 53,545,439 MWh ÷ 1000)(kWh)		\$0.000186757
Average 2013 FirstEnergy Monthly Residential Usage (778 kWh) * Maximum Delta Revenue Charge		\$0.14530