

July 12, 2005

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PUBLIC SERVICE
COMMISSION

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Ms. Elizabeth O'Donnell
Executive Director
Public Service Commission
211 Sower Boulevard, P.O. Box 615
Frankfort, Kentucky 40602-0165

RE: PSC Administrative Case NO. 2005-00090

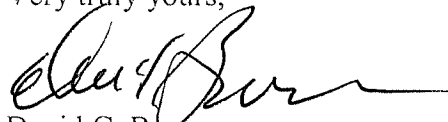
Dear Ms. O'Donnell:

Please find enclosed for filing with the Commission in the above referenced proceeding an original and ten (10) copies of a Motion of Alcan Primary Products Corporation and Century Aluminum of Kentucky, LLC to make a certain document a part of the record in this case.

An original and ten (10) copies of the above referenced document are also enclosed for filing, subject to the Commission's Order.

Also enclosed for filing are an original and ten (10) copies of a Notice to all counsel of record advising that a copy of the report will be made available to them upon request.

Very truly yours,



David C. Brown

DCB:rdh

Enclosures

cc: Service List

AL080:0AL19:464047:1:LOUISVILLE

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

JUL 13 2005

PUBLIC SERVICE
COMMISSION

In the Matter of:

AN ASSESSMENT OF)	
KENTUCKY'S ELECTRIC)	ADMINISTRATIVE
GENERATION, TRANSMISSION)	CASE NO. 2005-00090
AND DISTRIBUTION NEEDS)	

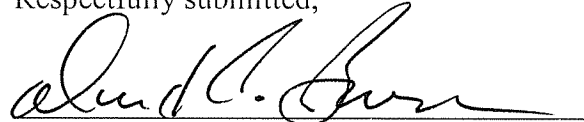
JOINT MOTION OF ALCAN PRIMARY PRODUCTS CORPORATION
AND CENTURY ALUMINUM OF KENTUCKY, LLC

Alcan Primary Products Corporation ("Alcan") and Century Aluminum of Kentucky, LLC ("Century") (collectively, the "Smelters") move the Commission to accept into the record of this administrative proceeding a document entitled "*The Estimated Economic and Fiscal Impacts of a Shut-Down of Kentucky's Two Aluminum Smelters*" by Dr. Paul A. Coomes, Ph.D.

Alcan and Century intervened in this proceeding and participated in the technical conference held June 14, 2005. In their presentation the Smelters referred to the above report and quoted certain statistics from it. The report has now been finalized and, subject to the Commission approval, the Smelters desire to make it a part of the record of this proceeding.

WHEREFORE, Alcan and Century respectfully request the Commission enter an Order making the above report a part of the record herein.

Respectfully submitted,



David C. Brown, Esq.

STITES & HARBISON, PLLC

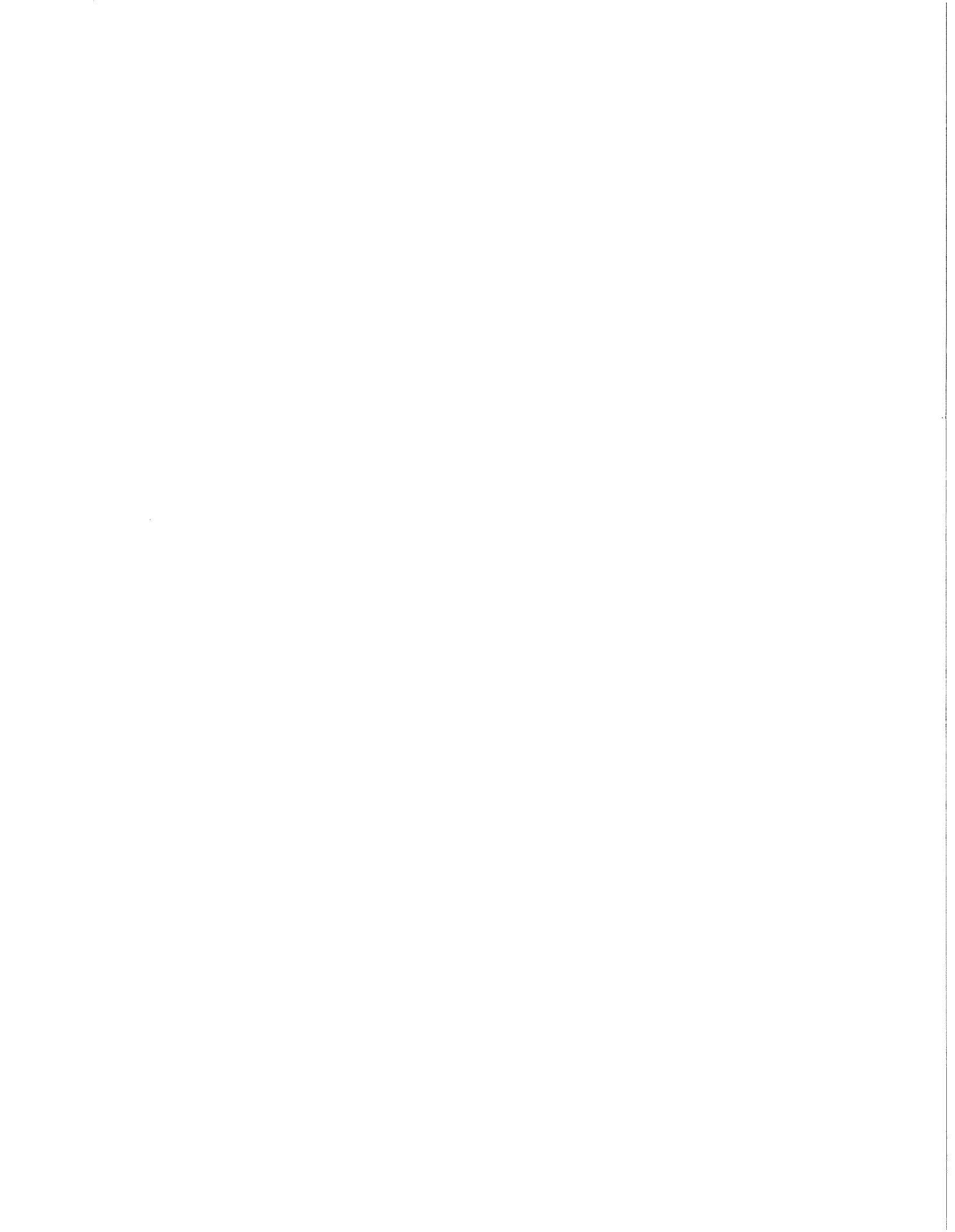
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**COUNSEL FOR ALCAN PRIMARY
PRODUCTS COMPANY AND CENTURY
ALUMINUM OF KENTUCKY, LLC**



The Estimated Economic and Fiscal Impacts of a Shut-down of Kentucky's Two Aluminum Smelters

by

Paul A. Coomes, Ph.D.
Consulting Economist

a research report for
Century Aluminum and Alcan Aluminum

July 11, 2005

Executive Summary

Kentucky has two aluminum smelters, one near Hawesville and the other about fifty miles west at Sebree. These smelters are major employers and taxpayers in the greater Owensboro-Henderson-Evansville regional economy. Should electricity prices rise sufficiently these two plants could be closed, as have several recently in Oregon and Washington. The effects of smelter shut-downs on small communities in the northwest are clear, with rising unemployment, a falling tax base, and newspaper reports of spillovers to housing and retail markets, as well as increased social problems.

The two Kentucky smelters together employ around 1,400 persons, who collectively earn over \$100 million annually in wages, salaries, and benefits. I have used regional data and industry-specific multipliers to estimate the negative economic and fiscal impacts of such a possible shut-down. I estimate that the total net annual loss in the region would be 5,200 jobs and \$179 million in payrolls. State and local governments in Kentucky would lose around \$14 million annually. These estimates are for the economic and fiscal categories most easily quantified. There would be many other negative impacts, though they are harder to measure with any precision. Local real estate and retail markets would likely be depressed, unemployment and crime rates would rise, retraining and social services costs would increase, and many ancillary tax revenues would fall as economic activity in the region diminished.

Background and Methodology

There are two aluminum smelters in Kentucky, one operated by Century near Hawesville and the other by Alcan at Sebree. Smelters can demand as much electricity load as a mid-sized city. With inexpensive power available to many new international aluminum smelters, the economic viability of these two Kentucky smelters depends critically on the cost of electricity. Shutting down the smelting operations would jeopardize the viability of related business activities, both upstream and downstream. Among the supporting industries that would be affected are river barges (that bring in alumina), electricity producers, engineering firms, maintenance contractors, trucking firms, and the other

vendors to the smelting plants. Downstream, the smelters supply raw aluminum to rolling and extruding mills in the region, which are clustered to support wire plants, auto parts plants, can factories, and other heavy aluminum users in the region. The Southwire Rod and Cable Mill, adjacent to the Hawesville smelter, could be immediately shut-down if the smelter were to close, since its current business model depends upon the low costs associated with immediate access to molten aluminum that meets its stringent purity specifications.

The smelters and related aluminum processing operations are among the largest employers in the Owensboro-Henderson-Evansville economic area. The two companies are interested in learning about and documenting the regional economic importance of the operations, so they can better communicate the ramifications of rising electricity costs should prices reach a threshold such that the smelting operations were financially threatened. The purpose of this report is to document and communicate the regional economic and fiscal importance of these aluminum plants.

Importance to Hancock and Henderson counties, entire region

It is not hard to see in publicly available data how important aluminum is to the regional economy. In the next two tables, I have organized information on the largest industrial employers in Hancock and Henderson counties, as currently display on the web site of the Kentucky Cabinet for Economic Development. I have highlighted in red the firms that produce or process aluminum. Note that in Hancock County six out of eight of the top employers are aluminum-related. The Century smelter is the second largest manufacturing employer in the county. Similarly, in Henderson County two of the top four manufacturing employers are aluminum-related. The Alcan smelter is the fourth largest employer in Henderson County.

Largest Industrial Employers, Hancock County

Firm	Products	Employment	Date established
Commonwealth Aluminum Corp Lewisport LLC	Coils, aluminum tubing & flexible conduits	830	1966
Century Aluminum of Kentucky LLC	Aluminum castings, sows & smelting	739	1967
Weyerhaeuser Company	Fine paper and baled bleach pulp.	470	1967
Southwire Co	Aluminum wire strand & rod wire	247	1967
Alcoa Automotive Casting Inc	Aluminum foundries, castings/forgings, auto	246	1995
Dal-Tile International Corp	Quarry tile	143	1959
Roll Coater Inc	Steel & aluminum coil painting & coating service	106	1989
McElroy Metal Inc	Steel & aluminum fabricating	30	1964
Precision Roll Grinders Inc	Roller repair & precision cylindrical grinding	28	1998
Yager Materials LLC	Ready-mixed concrete	16	1964
Maxwell Brothers Lumber Co	Sawing & rough lumber	16	1984
Crescent Paper Tube Co Inc	Paper tubes	8	1990
Wroe Pallet & Skids Corp	Wooden pallets & skids	7	1985

Source: Kentucky Economic Development Cabinet, May 2005 (www.thinkkentucky.com/edis/cmnty/cmntyindex.htm)

There are about 354,000 private sector jobs in the region, of which 73,000 are in the manufacturing sector. Due to confidentiality laws, the federal statistical agencies do not disclose enough data to accurately measure the total aluminum-related employment and payroll in the region. But using some published and unpublished estimates, it seems

likely that primary aluminum and aluminum-processing operations account for about 4,000 of the region's manufacturing jobs. Clearly, aluminum production and processing are critical to the health of the regional economy.

Largest Industrial Employers, Henderson County

Firm	Products	Employment	Date established
Tyson Foods Inc	Chicken slaughtering, processing & packaging	1,350	1995
Gibbs Die Casting Corp	Aluminum & magnesium die castings, headquarters	1,000	1966
Dana Corporation	Truck axles & brake components	700	1970
Alcan Primary Metal Group	Aluminum extrusion billets & ingots	650	1972
Gameco Products Co	Nonferrous & zinc die castings	425	1956
Vincent Industrial Plastics Inc	Custom plastic injection molding, decorating and assembly, injection mold	300	1981
Brenntag Mid-South Inc	Chemical blending, industrial chemical distribution	175	1947
Atlantis Plastics Inc	Thermoplastics & plastic injection molding, finishing, fabricating & subcontract	172	1951
Sights Denim Systems Inc	Denim finishing	171	1995
Audubon Metals LLC	Heavy-media separator and secondary specification aluminum alloy producer.	160	1996
Hugh E Sandefur Training Ctr	Vocational rehabilitation, manufacturing plant producing corrugated products;	130	1967
Cresline Plastic Pipe Co Inc	Plastic pipe & fittings	120	1966
Service Tool & Plastics	Injection molded plastics	120	1977
Sonoco	Aluminum & steel can ends	108	1967
Service Tool & Die Inc	Tool & die	88	1969
Weyerhaeuser Co	Recycled linerboard	85	1994
The Gleaner	Newspaper publishing, offset printing, computer typesetting, side & saddle stitch	80	1885
Royster's Machine Shop LLC	Machine shop: general & CNC machining, drilling, boring, cutting, honing,	79	1975
Valley Grain Products	Milled Mexican corn flour	72	1988
Shamrock Technologies Inc	Teflon recycling, micronized polytetrafluoroethylene, dry lubricant powders.	65	1997

Source: Kentucky Economic Development Cabinet, May 2005

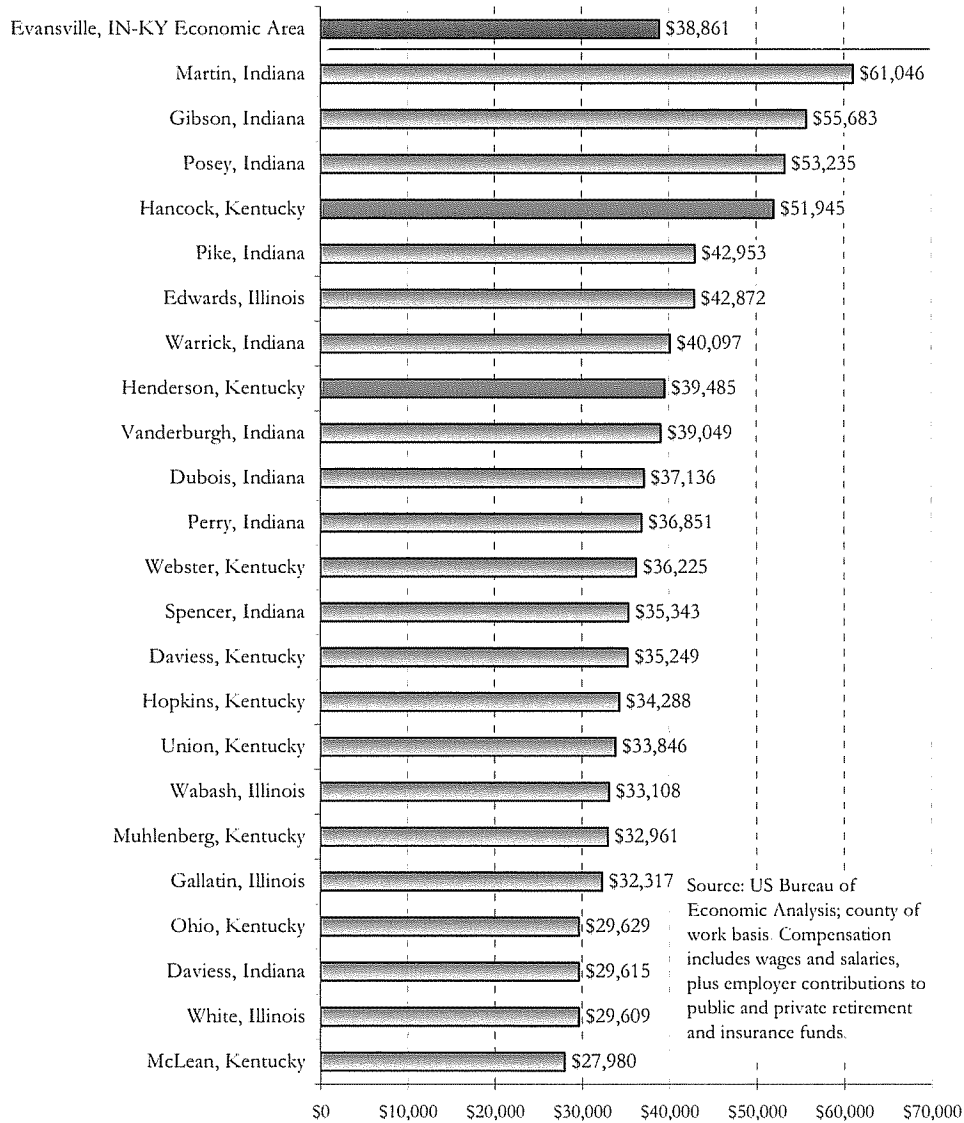
Moreover, the two smelter operations are crucial components of the tax and economic base in Hancock and Henderson counties. The Century operation in Hawesville accounts for almost twenty percent of all wages and salaries earned in Hancock County, contributing a similar share of the county's occupational tax receipts. The Hawesville plant also accounts for about fifteen percent of all property taxes collected to support the Hancock County Public School system and county government operations. The Alcan operation accounts for almost five percent of wages and salaries in (much more populated) Henderson County, and about three percent of all property taxes collected for public schools and county government. Alcan is the largest single taxpayer in Henderson County.

The importance of the aluminum-related jobs in the region stems from (a) their large number, (b) their linkages to other jobs in upstream and downstream industries, and (c) their high average pay and benefits. Average pay at the Alcan and Century facilities is \$48,000 per job. Company-provided benefits for health insurance, unemployment insurance, worker's compensation insurance, vacations, retirement, payroll taxes and the like boost this to about \$75,000 per job.

The concentration of many such aluminum-related jobs in Hancock and Henderson counties puts those two near the top in the region in terms of earnings per job. The relationship is particularly easy to see in Hancock County, as the county is lightly populated and aluminum is the most important industry. At \$40,600 Hancock has the second highest average wages and salaries per job in the region, and is fourth highest in terms of total compensation per job. Henderson County posts a slightly higher

compensation per job figure than Vanderburgh – its highly urbanized and industrialized neighbor across the Ohio River. Also, Warrick County is home to the large Alcoa smelter and electricity plant. These high paying aluminum-related jobs are responsible for the county’s seventh place ranking in the comparison chart.

Average Compensation per Job, 2003 Evansville-Owensboro-Henderson Economic Area



Case study: smelter shut-downs in the Northwest

One indication of the regional economic importance of an aluminum smelter is the effect that plant closures have had on small and mid-sized communities in Washington, Oregon and Montana. Some of the plants that were idled recently are in heavily populated areas, with many other major employers, and hence the effect of a shut-down would be harder to detect in county-level economic data. But several are in lightly populated counties, and a plant shut-down should ripple hard through the local community. The table provides

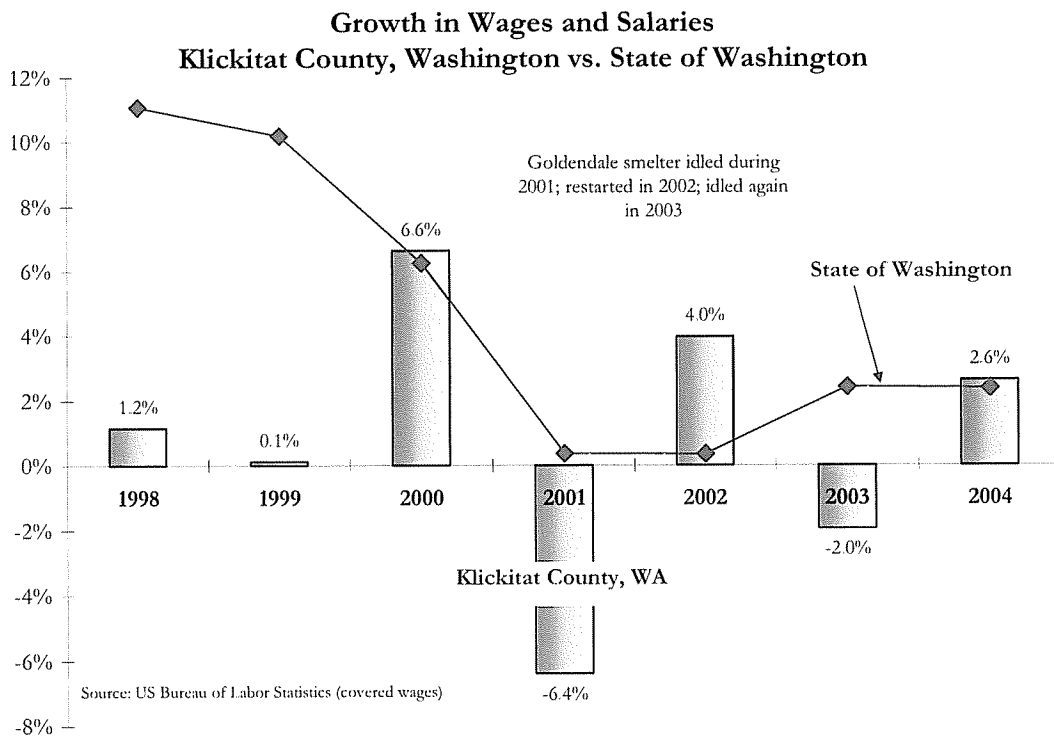
summary data for ten smelters in the Northwest that have been idled recently. The dates were provided by Century Aluminum. County population estimates are for July 2003, and are from the US Bureau of Economic Analysis.

Northwest Smelters Recently Idled or Closed Permanently

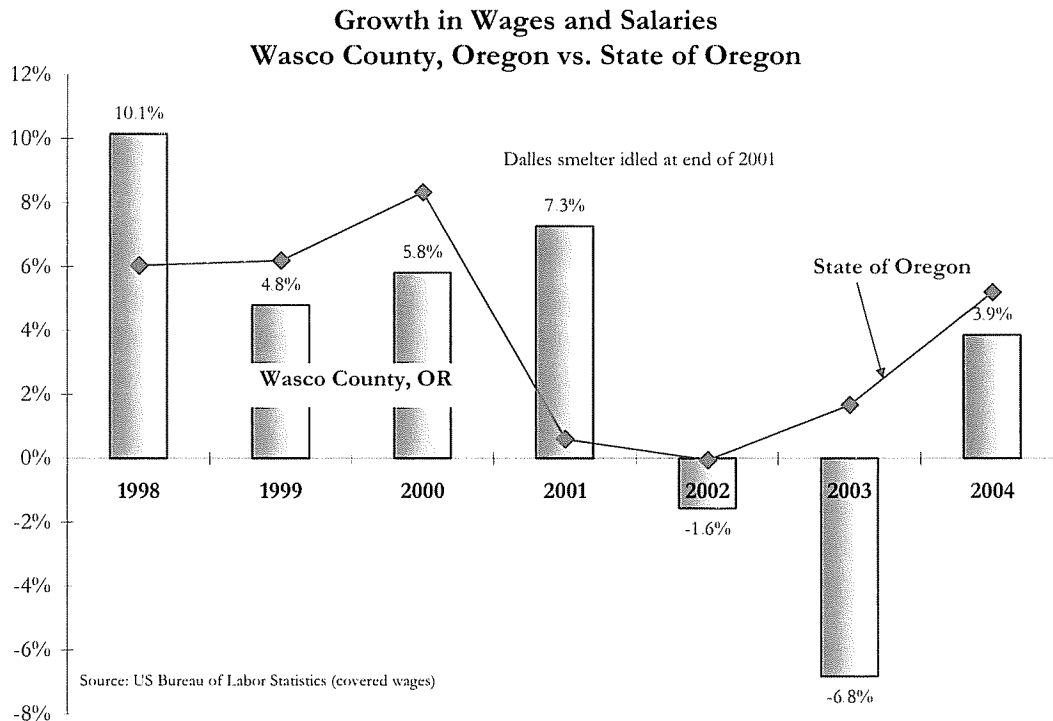
Company (location)	County	County Population	idled or shut-down quarter	restart quarter
Alcoa Intalco (Ferndale, Washington)	Whatcom	174,066	2001 I	
Alcoa (Wenatchee, Washington)	Douglas	33,261	2001 I	2004 IV
Glencore (Vancouver, Washington)	Clark	379,985	2000 II	
Golden Northwest (Goldendale, Washington)	Klickitat	19,393	2000 IV	
Kaiser (Mead, Washington)	Spokane	427,287	2001 I	
Reynolds (Longview, Washington)	Cowlitz	94,544	2001 I	
Kaiser (Tacoma, Washington)	Pierce	740,472	2000 II	
Golden Northwest (Dalles, Oregon)	Wasco	23,579	2000 IV	
Reynolds (Troutdale, Oregon)	Multnomah	675,438	2000 II	
Glencore (Columbia Falls, Montana)	Flathead	79,476	2001 I	

Source: Century Aluminum

For example, Klickitat County in southern Washington has less than 20,000 residents. Payrolls fell dramatically in the county when the Goldendale smelter was idled in 2001, rose in 2002 when it was briefly restarted, and then fell in 2003 when it was idled again. Overall, wages and salaries in the county were \$11 million lower in 2001 than in 2000. While this was a recessionary period nationally, note that payrolls in the State of Washington never failed to grow from year to year.



Similarly, the idling of the Dalles smelter in northern Oregon had a pronounced negative effect on payroll growth in Wasco County. While the State of Oregon posted good payroll growth in 2003, Wasco County payrolls fell by 6.8 percent. Overall, wages and salaries in the county fell from \$268 million to \$245 million between 2001 and 2003. Some of the negative ripple effects in a county are offset by unemployment insurance payments to laid off workers. UI payments to unemployed workers living in Wasco County averaged about \$3.7 million annually during the 1990s, but jumped to over \$10 million in 2002 and 2003. This softened, but did not eliminate, the blow to the local economy.¹



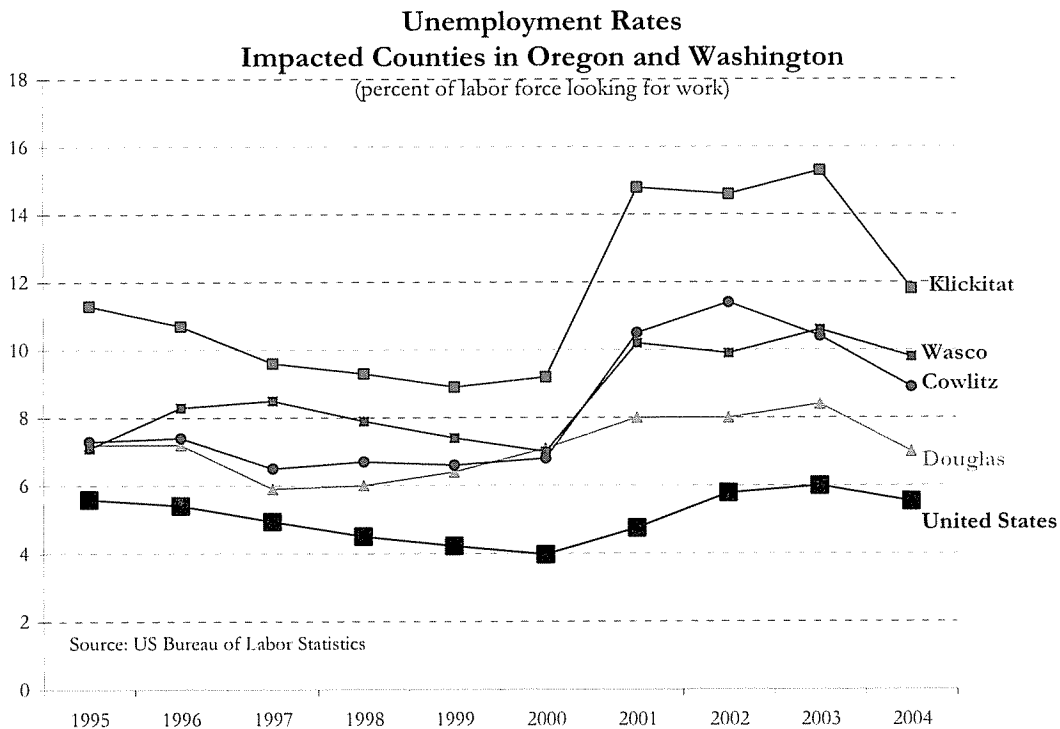
The effect of losing a large employer, particularly in a lightly populated county, goes far beyond the loss of payrolls. Often the company is the primary force in the local housing market, the largest contributor of property taxes to the local school system, the largest contributor of health care benefits and therefore the largest indirect customer of the local hospital, and the largest contributor of dollars and time to local charities. Moreover, when a large plant closes, not only do public revenues fall but public costs go up. Other statewide employers and employees must contribute to pay for the unemployment

¹ The closure of the large Ormet facility in Hannibal Ohio is too recent to show up in many regional economic data series. The company emerged from bankruptcy in April of this year, but the Hannibal smelter lines have been operating well below capacity for two years. BLS data show that wage and salary payments by all employers in Monroe County, Ohio were off about ten percent in 2004 compared to 2003, reflecting the importance of the smelter to the local payroll base.

benefits to laid off workers, increased Medicaid costs as families lose income and health insurance coverage, and overall increased social services costs. Crime rates tend to rise with unemployment, as do alcohol and drug addiction. Local community and technical colleges see enrollments surge as laid off workers try to retrain. And major community investments must be made in economic development efforts to replace the lost engines.

The linkage between smelter closures and local unemployment is clear from the public data on the Northwestern counties most impacted. In the next chart I provide the official estimates of unemployment rates in some of the counties in Oregon and Washington where an aluminum smelter shut-down during 2000 or 2001. The national unemployment rate is also shown as a reference. One can see the effects of the recession, though the national unemployment rate only rose from four to six percent, before falling in 2004.

The unemployment rates in the four smaller impacted counties rose much higher. While all started with a higher pre-recession unemployment rate than did the US as a whole, note that the increase in the county unemployment rates was dramatic during 2001-03. Klickitat County saw its unemployment rate rise by over six percentage points, from 8.9 to 15.3 percent. Wasco and Cowlitz counties saw a rise of four percentage points. All rates remain well above the national average.



The shut-downs in these Northwestern counties are attributed to rising electricity prices and global competition. The current sensitivity of US aluminum smelting operations to world production capacity, electricity prices, and labor costs is evident in the declining number of viable operations. There are only around a dozen smelters now in operation in the US, including the two in Kentucky. This is down from over thirty smelters just twenty-five years ago. Moreover, aluminum prices are currently at near record highs.

Given that there are so few US smelters operating during a time of such high aluminum prices suggests that production costs in the US have become uncompetitive relative to other countries.

Methodology

Because the aluminum and related manufacturing operations serve primarily national and international markets, they bring new dollars into the regional economy. In this sense, a shut-down of the two smelters would have large and predictable negative economic and fiscal impacts in western Kentucky, southern Indiana and throughout the two states. The activity supports thousands of jobs and millions of dollars in payrolls, and ultimately large tax revenues for Kentucky and Indiana state and local governments.

I use standard regional economic impact methods to evaluate the economic and fiscal impacts of the loss of the two plants. Region-specific economic multipliers were obtained from the federal government for the primary aluminum production industry. This industry is defined according to the North American Industrial Classification System (NAICS) code 331312. The official definition is as follows:

“This U.S. industry comprises establishments primarily engaged in (1) making aluminum from alumina and/or (2) making aluminum from alumina and rolling, drawing, extruding, or casting the aluminum they make into primary forms (e.g., bar, billet, ingot, plate, rod, sheet, strip). Establishments in this industry may make primary aluminum or aluminum-based alloys from alumina.”

www.census.gov/epcd/naics02/def/ND331312.HTM#N331312

The multiplier set provides estimates of induced and indirect effects on sales, jobs, and payrolls for export-based expansions or contractions of any of 500 local industries. For example, the labor earnings multiplier for the primary aluminum production industry in the Evansville-Henderson-Owensboro economic area is 2.524, meaning that for every dollar of new export-based payroll created at a local aluminum smelter another \$1.524 in payrolls are created in other sectors around the region. The job multiplier for the primary aluminum sector in the area is 3.549, meaning that for every new export-based job created at a smelter, another 2.549 jobs are created elsewhere in the region. (Similarly, for an aluminum rod mill, classified under NAICS 331319, the labor earnings multiplier is 3.058, and the job multiplier is 3.599.)

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 (aluminum) and their industrial vendors (electricity, barges, tools, computers, insurance). When the directly impacted industry expands it raises its purchases from its vendors, thus lifting their employment and payrolls. 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 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

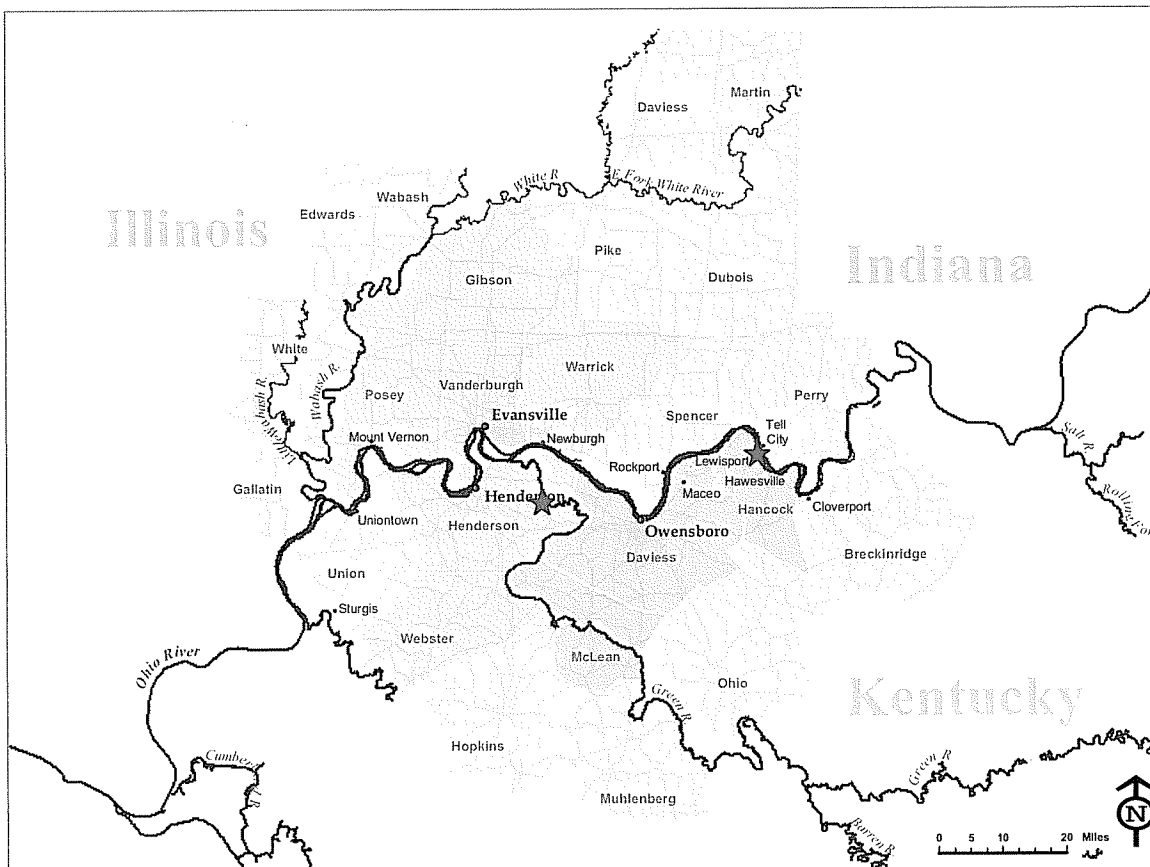
this study, I use only a total multiplier for the regional aluminum industry, one that summarizes both the indirect and induced effects on the economy.

There are no good national sources of data on which to make estimates of the fiscal impacts of a regional expansion or contraction. 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 loss of income, sales, and occupational taxes due to the simulated loss of aluminum industry payrolls. The tax calculations are discussed in more detail in the section following our analysis of geographic issues.

Geographic Issues

While Hancock and Henderson counties are the sites for the plants, 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.

Both counties are part of the greater Evansville-Owensboro-Henderson Economic Area, a 23-county region in Kentucky, Indiana, and Illinois, as 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. Hancock County



is also part of the Owensboro MSA, a three-county designation. Henderson County is part of the Evansville-Henderson MSA, a six county designation.

The map shows the component counties, major cities, road and water features in the economic area. The red stars denote the approximate position of the Century and Alcan smelter plants. All the counties shaded in gray or green are part of the economic area, while those with the darker green shading are also part of the Evansville-Henderson or Owensboro Metropolitan Statistical Areas. 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, industrial supplies, major retail purchases, television and print media, air transportation, higher education, and major medical and professional services.

The latest population estimates are provided in the accompanying table. Note that the complete economic area has a population of about 750,000, with the Evansville-Henderson MSA accounting for 46 percent of the total, and the

Owensboro MSA accounting for 15 percent of the total. Henderson County, right across the Ohio River from Evansville, has the fifth largest population of any county in the economic area. Hancock County has the third lowest population of any county.

The Evansville area also has a number of important aluminum operations, though it is beyond the scope of this study to analyze them. Warrick County, for example, is home to the giant Alcoa plant upstream from Evansville on the Ohio River. The region as a whole is one of the biggest concentrations of aluminum production and downstream processing in the US. The plants are linked indirectly through the transportation, energy, auto parts sectors that are prevalent regionally.

Population of Evansville IN-KY Economic Area, 2003

Geocodes	County	Residents
18051	Gibson, IN	33,017
18129	Posey, IN	26,931
18163	Vanderburgh, IN	172,629
18173	Warrick, IN	54,701
21010	Henderson, KY	45,234
21233	Webster, KY	14,086
21780	Evansville, IN-KY Metropolitan Statistical Area	346,598
21059	Daviess, KY	92,471
21091	Hancock, KY	8,445
21149	McLean, KY	9,922
36980	Owensboro, KY Metropolitan Statistical Area	110,838
17047	Edwards, IL	6,834
17059	Gallatin, IL	6,221
17185	Wabash, IL	12,688
17193	White, IL	15,121
18027	Daviess, IN	30,055
18037	Dubois, IN	40,350
18101	Martin, IN	10,389
18123	Perry, IN	18,858
18125	Pike, IN	12,949
18147	Spencer, IN	20,287
21107	Hopkins, KY	46,800
21177	Muhlenberg, KY	31,738
21183	Ohio, KY	23,275
21225	Union, KY	15,684
57054	Evansville, IN-KY Economic Area	748,685

Source: US Bureau of Economic Analysis

Taxes and fiscal impacts

The plants generate an array of taxes for state and local governments. The value of real estate and tangible property is quite large, and thus the plants generate substantial property taxes for the state of Kentucky and Hancock and Henderson county governments, including the two county public school systems. The workers associated with the plant 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 tax impacts 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., the City of Owensboro, Kentucky. Gasoline taxes, coal severance taxes, unemployment insurance taxes, insurance premiums taxes, building permit fees, motor vehicle sales taxes, and many other business tax categories would see some decline due to plant shut-downs. Employees would 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.

Estimates of new Kentucky and Indiana state individual 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 and salaries 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 the statutory sales tax rate of six percent times expected retail sales. Similarly, 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. An appendix provides a summary of the effective tax rate calculations used in the impact assessment.

Impacts

In this section, I display and explain my estimates of the economic and fiscal impacts of the two aluminum smelters. I am essentially simulating what would happen if the two operations were removed from the region. In the first table, I organize data and estimates of the direct impacts of the two plants. That is, I am considering only the jobs, payrolls and taxes paid by the operations, and am not yet considering any spinoff effects in the regional economy.

The plants employ over 1,400 persons and have a combined annual payroll of over \$70 million, excluding benefits. The companies and their employees pay over \$9 million in taxes to Kentucky state government, and \$1.4 million to county governments and local public school districts. All the entries except that on line 5 were provided by the two companies that own and operate the smelters. The companies do not know the amount of Kentucky state income taxes actually paid by their employees, since employees file income tax returns from their place of residence. Companies do withhold state income taxes from workers paychecks, but have no way of knowing how much additional tax employees end up paying, or how big of a tax refund they receive each year. To estimate the Kentucky state income taxes paid, I applied an effective income tax rate, one that was calculated by dividing Kentucky state income taxes paid by Kentucky wages and salaries earned. The rate is 4.81 percent of payrolls.

Direct Annual Economic and Fiscal Impacts of Shut-down Two Aluminum Smelter Plants in Western Kentucky

Direct Impacts		
1	Total jobs	1,466
2	Average pay per job	\$48,315
3	Total wages and salaries	\$70,830,002
4	Occupational taxes to Hancock and Henderson counties	\$475,375
5	Kentucky state income taxes paid by employees	\$3,408,227
6	Property and other taxes to Hancock and Henderson county governments	\$299,550
7	Property and other taxes to Hancock and Henderson county public schools	\$638,052
8	Property taxes to State of Kentucky	\$713,603
9	Corporate income and license taxes, State of Kentucky	\$2,700,000
10	Other taxes (fuel, sales, energy), State of Kentucky	\$2,424,852
11	Subtotal: local governments in Kentucky	\$1,412,977
12	Subtotal: Kentucky state government	\$9,246,682
13	Total Kentucky state and local governments	\$10,659,659

In the second table, I provide estimates of the total effects – direct plus spinoff. Here I use the economic multipliers to estimate the loss in jobs and payrolls regionally. Then I

use effective tax rates to estimate the additional loss in income and sales taxes to Kentucky state government.

**Total Annual Economic and Fiscal Impacts of Shut-down
Two Aluminum Smelter Plants in Western Kentucky**

Total Impacts		
1	Lost jobs in region	5,203
2	Lost annual payroll in region	\$178,803,258
3	Lost property taxes - county governments	\$299,550
4	Lost property taxes - schools	\$638,052
5	Lost property taxes - Kentucky state government	\$713,603
6	Lost occupational taxes - local governments	\$475,375
7	Lost Kentucky state income tax receipts	\$5,033,459
8	Lost Kentucky state sales tax receipts	\$1,877,712
9	Lost other Kentucky state taxes	\$5,124,852
10	Subtotal: local governments in Kentucky	\$1,412,977
11	Subtotal: Kentucky state government	\$12,749,626
12	Total Kentucky state and local governments	\$14,162,603

I estimate the total job loss in the region to be 5,200 jobs, and the payroll loss to be \$179 million annually. The total loss to Kentucky state government is much more than when considering only the direct impacts. I estimate that Kentucky will lose an additional \$2.1 million in income and sales taxes due to the spinoff effects of the plant shut-downs.

The Southwire rod mill employs around 250 persons, with a payroll of about \$12 million annually. Should it also close, the additional negative economic impact in the region would be 890 jobs and \$36 million in payroll. Kentucky state and local governments would lose at least an additional \$1.5 million tax revenues annually.

References

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>

Kentucky Cabinet for Economic Development, "Profile of the Aluminum Industry in Kentucky", by Rene True, May 2005.

www.thinkkentucky.com/kyedc/pdfs/Aluminum_Report.pdf

APPENDIX

State Individual Income and Sales Tax Revenues

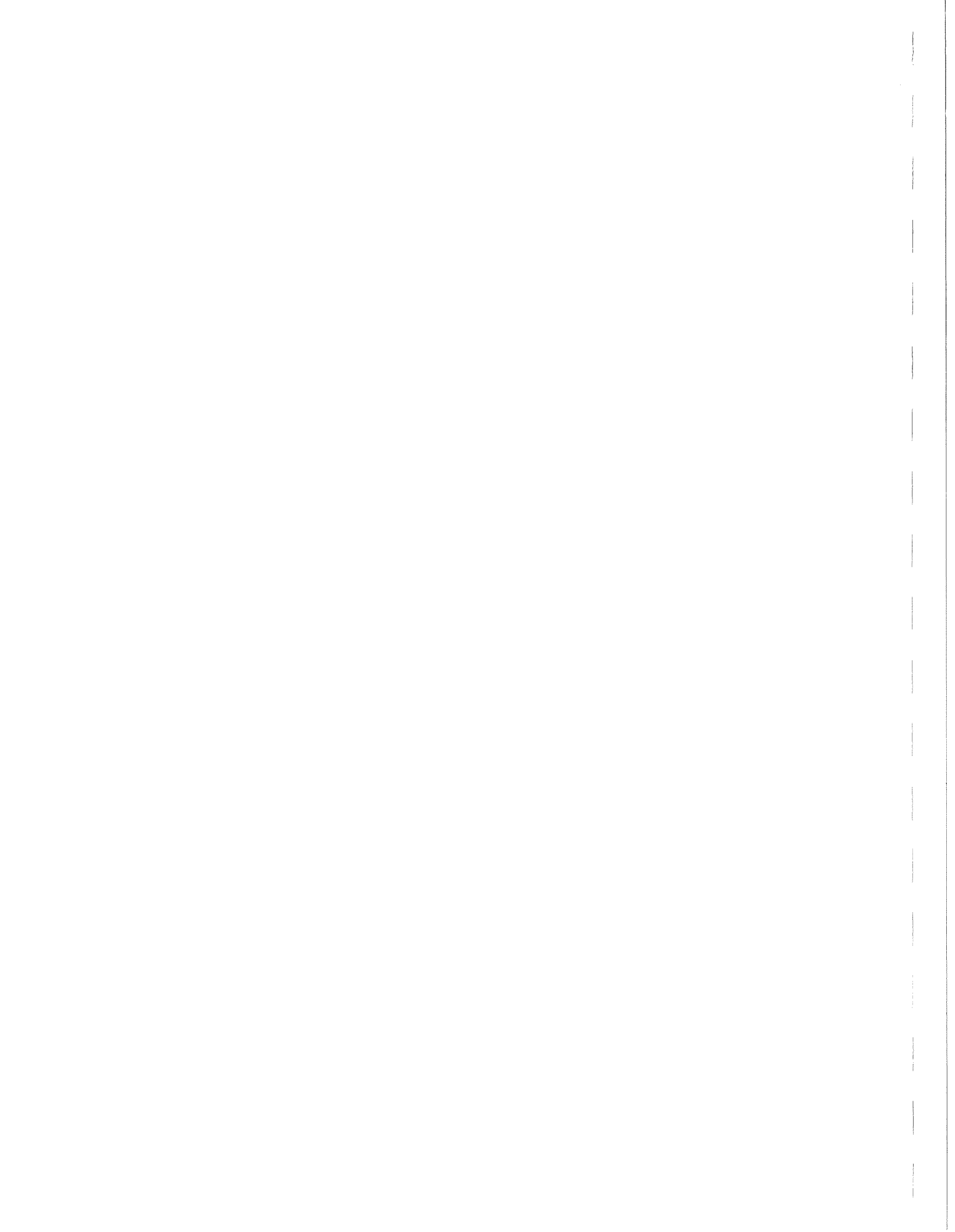
I have calculated effective tax rates for both Kentucky and Indiana income and sales taxes, summarized in the table on the next page. I show these in two ways, one as a percentage of total regional wages and salaries, and second as a percentage of just the wages and salaries earned in each state. The effective state tax rate is obviously much smaller when the entire regional payroll is considered, since each state makes up only a fraction of the region. In the fiscal impact estimates provided, I use these state effective tax rates calculated as a percentage of the total regional payroll. Since the economic multiplier effects are analyzed over the entire 23-county economic area, we see the effect of the aluminum operations on wages and salaries throughout the region. Hence, the regional effective tax rates are more applicable.

Note that the Kentucky effective income tax rate is 1.51 percent. This means that Kentucky state government can expect to receive (lose) in income taxes that percentage of wages and salaries *in the region* when payrolls grow (shrink). Similarly, the Kentucky effective sales tax rate is 1.05 percent of wages and salaries in the region. The effective tax rates for Indiana state government are higher than for Kentucky state government, reflecting the higher proportion of payrolls, income taxes, and sales taxes on the Indiana side of the regional economy. The Kentucky effective income tax rate is higher than the effective sales tax rate, while in Indiana the effective sales tax rate is higher than the effective income tax rate. This reflects both Kentucky's higher income tax rate (topping at 6% compared to Indiana's which tops out at 3.4%), and the concentration of retail activity in Evansville.

Payrolls, State Income and Sales Taxes

County	Total Wages and Salaries, by County of Work (000)			State Income Tax, by County of Residence, 2003	State Sales Tax, by County of Sales, 2003
	2001	2002	2003		
Edwards, Illinois	\$83,324	\$87,338	\$90,748		
Gallatin, Illinois	\$40,443	\$38,596	\$38,835		
Wabash, Illinois	\$114,347	\$114,267	\$110,522		
White, Illinois	\$122,224	\$126,543	\$131,824		
Daviess, Indiana	\$247,314	\$256,250	\$268,455	\$13,211,703	\$11,086,697
Dubois, Indiana	\$837,354	\$853,505	\$874,200	\$24,640,955	\$31,589,979
Gibson, Indiana	\$441,379	\$511,465	\$601,369	\$16,039,451	\$6,790,384
Martin, Indiana	\$284,458	\$305,491	\$332,534	\$4,365,204	\$2,680,795
Perry, Indiana	\$166,110	\$176,750	\$190,463	\$8,206,551	\$7,626,812
Pike, Indiana	\$110,172	\$110,855	\$116,387	\$5,738,808	\$1,261,154
Posey, Indiana	\$389,928	\$381,330	\$366,496	\$14,534,446	\$6,470,532
Spencer, Indiana	\$224,233	\$231,073	\$231,390	\$9,947,363	\$4,818,816
Vanderburgh, Indiana	\$3,584,543	\$3,679,417	\$3,754,548	\$88,243,818	\$145,010,568
Warrick, Indiana	\$456,003	\$481,866	\$484,062	\$34,506,960	\$6,452,160
Daviess, Kentucky	\$1,213,770	\$1,233,828	\$1,263,549	\$61,433,798	\$48,235,720
Hancock, Kentucky	\$205,973	\$198,958	\$195,197	\$5,267,282	\$2,871,781
Henderson, Kentucky	\$647,410	\$671,695	\$716,154	\$29,446,998	\$23,724,319
Hopkins, Kentucky	\$478,030	\$506,339	\$519,890	\$24,471,687	\$18,792,535
McLean, Kentucky	\$40,240	\$41,055	\$43,133	\$5,057,885	\$2,583,061
Muhlenberg, Kentucky	\$267,409	\$280,628	\$278,599	\$13,784,939	\$7,447,223
Ohio, Kentucky	\$143,329	\$148,875	\$160,128	\$10,153,742	\$4,691,183
Union, Kentucky	\$155,873	\$168,922	\$165,480	\$8,976,271	\$5,554,564
Webster, Kentucky	\$124,040	\$123,110	\$113,769	\$7,699,763	\$2,117,944
	\$10,377,906	\$10,728,156	\$11,047,732	\$385,727,627	\$339,806,228
Evansville, IN-KY Economic Area					
Kentucky subtotal - 9 counties	\$3,276,074	\$3,373,410	\$3,455,899	\$166,292,367	\$116,018,330
Indiana subtotal - 10 counties	\$6,741,494	\$6,988,002	\$7,219,904	\$219,435,260	\$223,787,898
<i>Kentucky effective tax rate, collections as percent of Economic Area payroll</i>				<i>1.51%</i>	<i>1.05%</i>
<i>Kentucky effective tax rate, collections as percent of KY payroll</i>				<i>4.81%</i>	<i>3.36%</i>
<i>Indiana effective tax rate, collections as percent of Economic Area payroll</i>				<i>1.99%</i>	<i>2.03%</i>
<i>Indiana effective tax rate, collections as percent of IN payroll</i>				<i>3.04%</i>	<i>3.10%</i>

Sources: Wages and salaries from the US Bureau of Economic Analysis (www.bea.gov). State income and sales tax data are from the Indiana and Kentucky Departments of Revenue. Out-of-state collections allocated to Kentucky counties pro rata. Income tax collections from Kentucky counties in 2003 are estimated from actual 2000 data, using growth of the state total.



**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

AN ASSESSMENT OF)	
KENTUCKY'S ELECTRIC)	ADMINISTRATIVE
GENERATION, TRANSMISSION)	CASE NO. 2005-00090
AND DISTRIBUTION NEEDS)	

**NOTICE OF ALCAN PRIMARY PRODUCTS CORPORATION
AND CENTURY ALUMINUM OF KENTUCKY, LLC**

Please take notice that Alcan Primary Products Corporation (“Alcan”) and Century Aluminum of Kentucky, LLC (“Century”) (collectively, the “Smelters”) have filed a Motion with the Commission requesting entry of an Order that would make the following document a part of the record in this proceeding:

*“The Estimated Economic and Fiscal Impacts of a Shut-Down of
Kentucky’s Two Aluminum Smelters”* by Paul A. Coomes, Ph.D.

The Smelters will make a copy of the report available to any party or counsel requesting it. Requests should be made to the undersigned.



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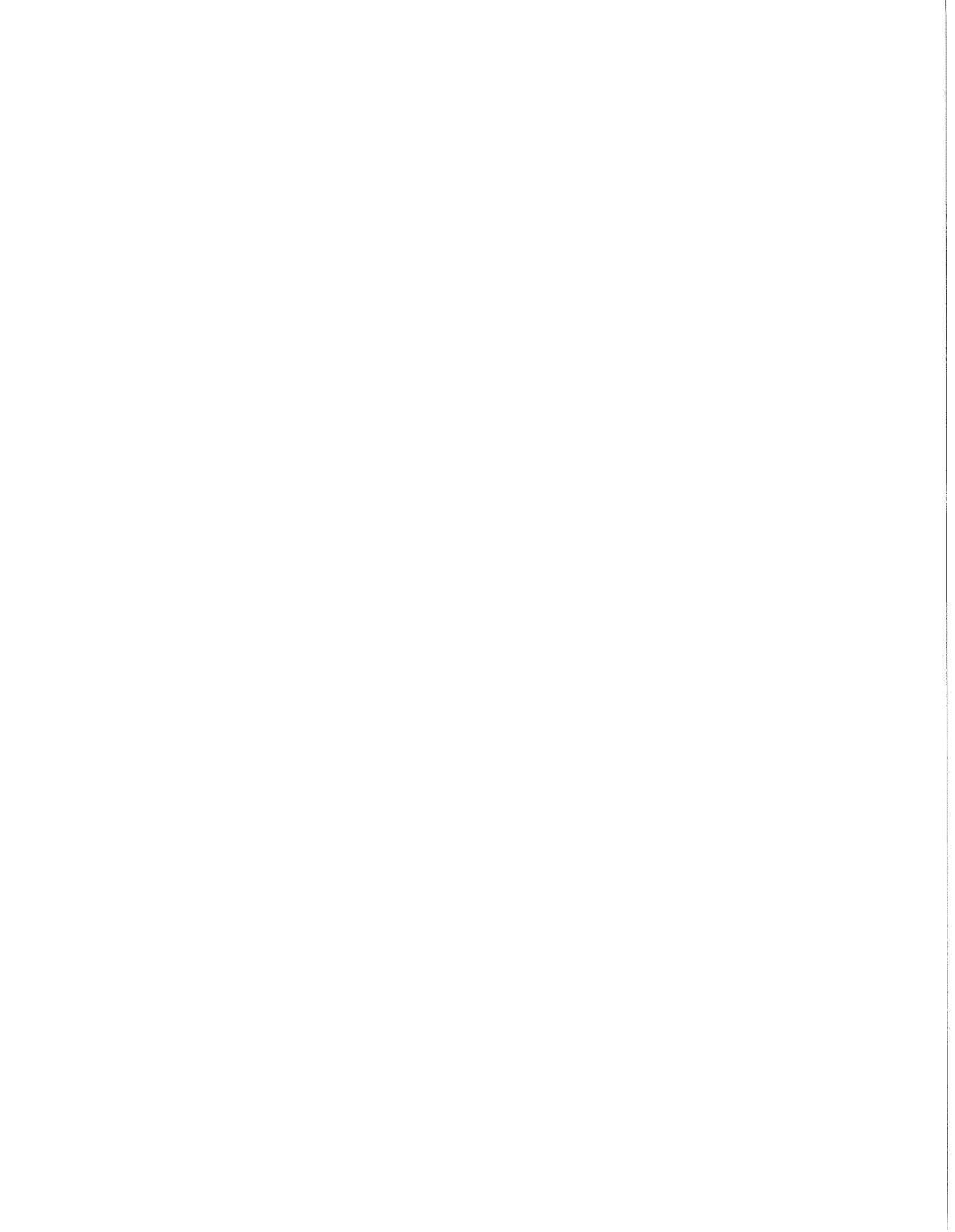
**COUNSEL FOR ALCAN PRIMARY
PRODUCTS COMPANY AND CENTURY
ALUMINUM OF KENTUCKY, LLC**

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Motion and the foregoing Notice have been sent, via first class U.S. Mail, postage prepaid to each person on the attached Service List, this 12th day of July, 2005.



David C. Brown, Esq.



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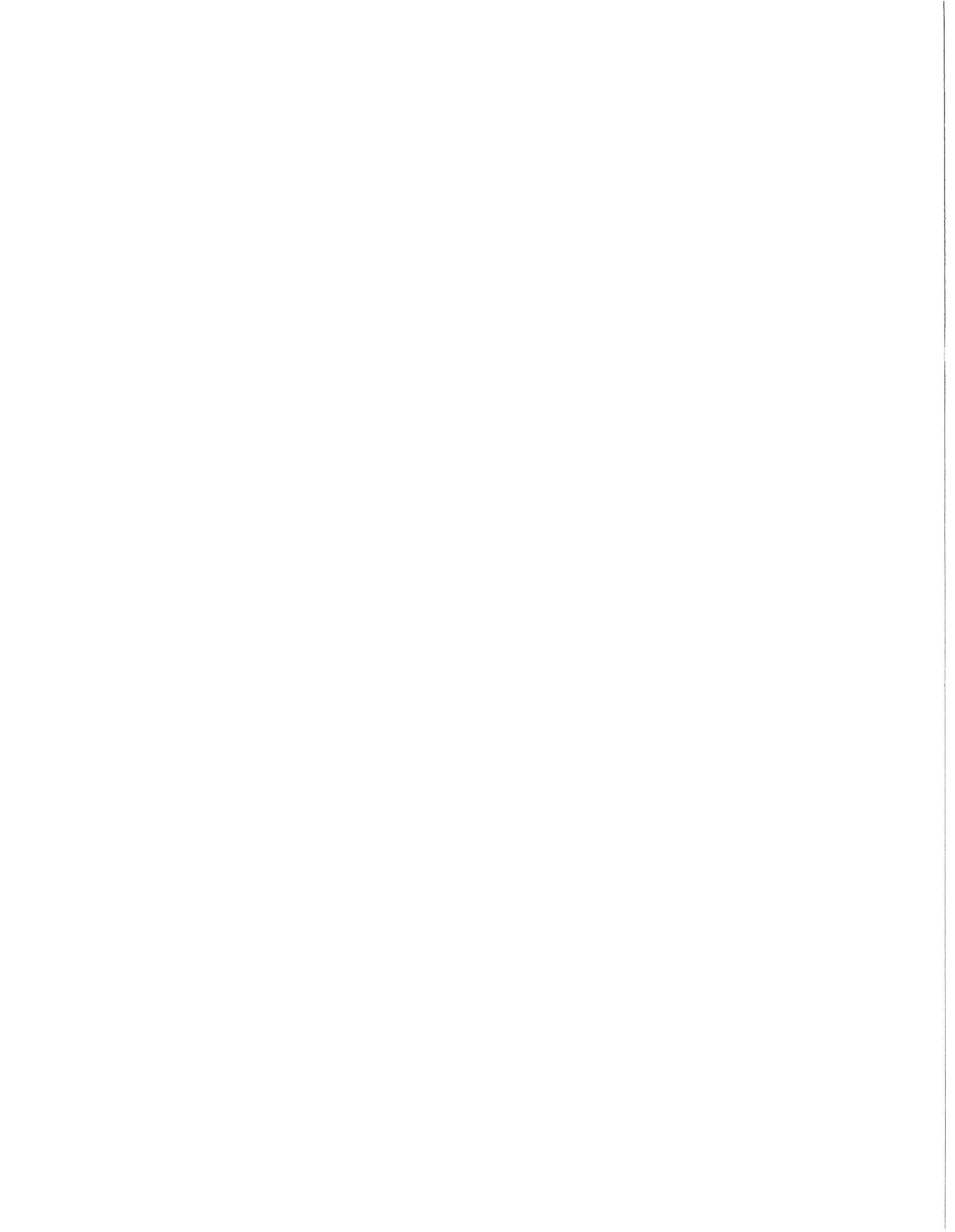
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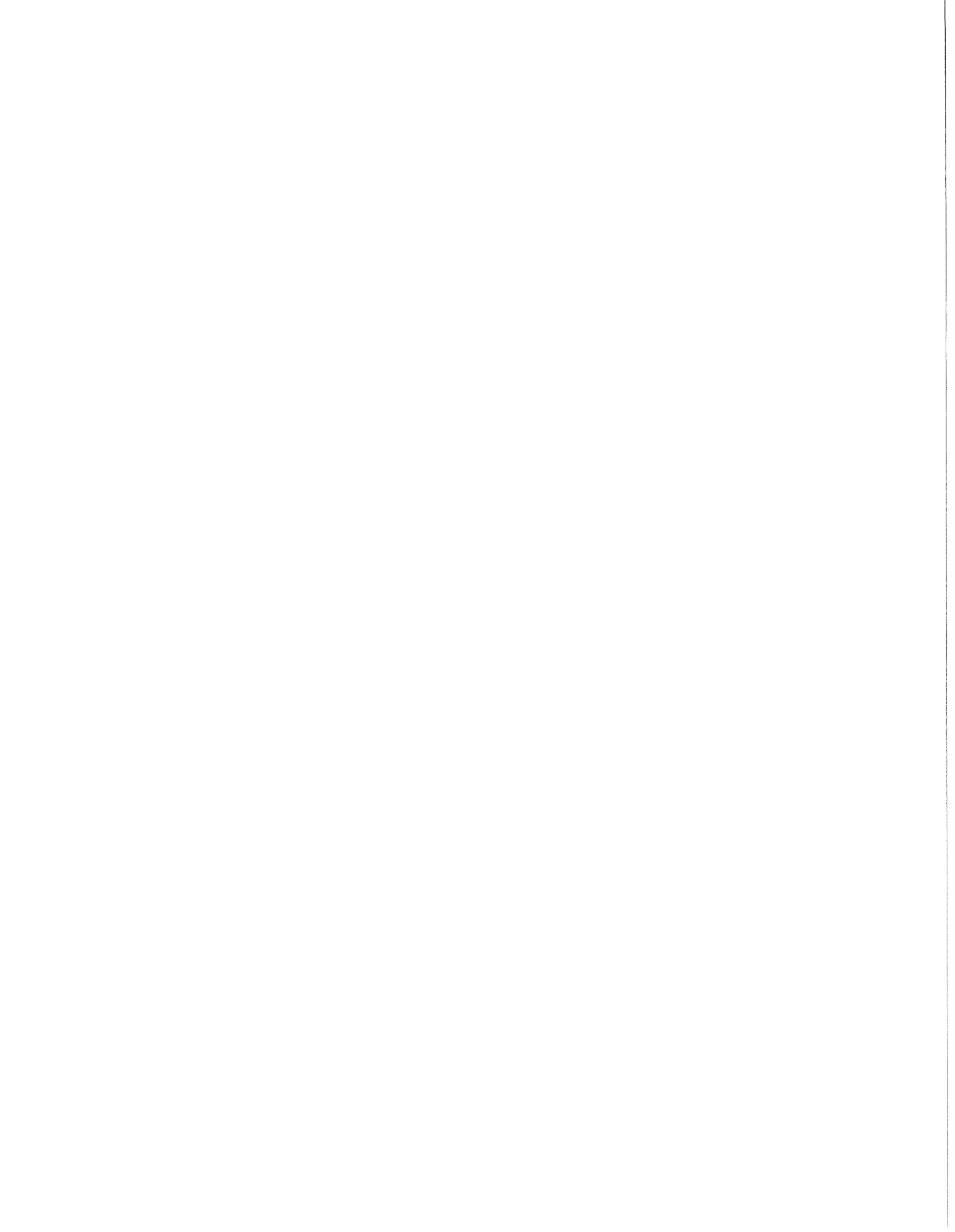
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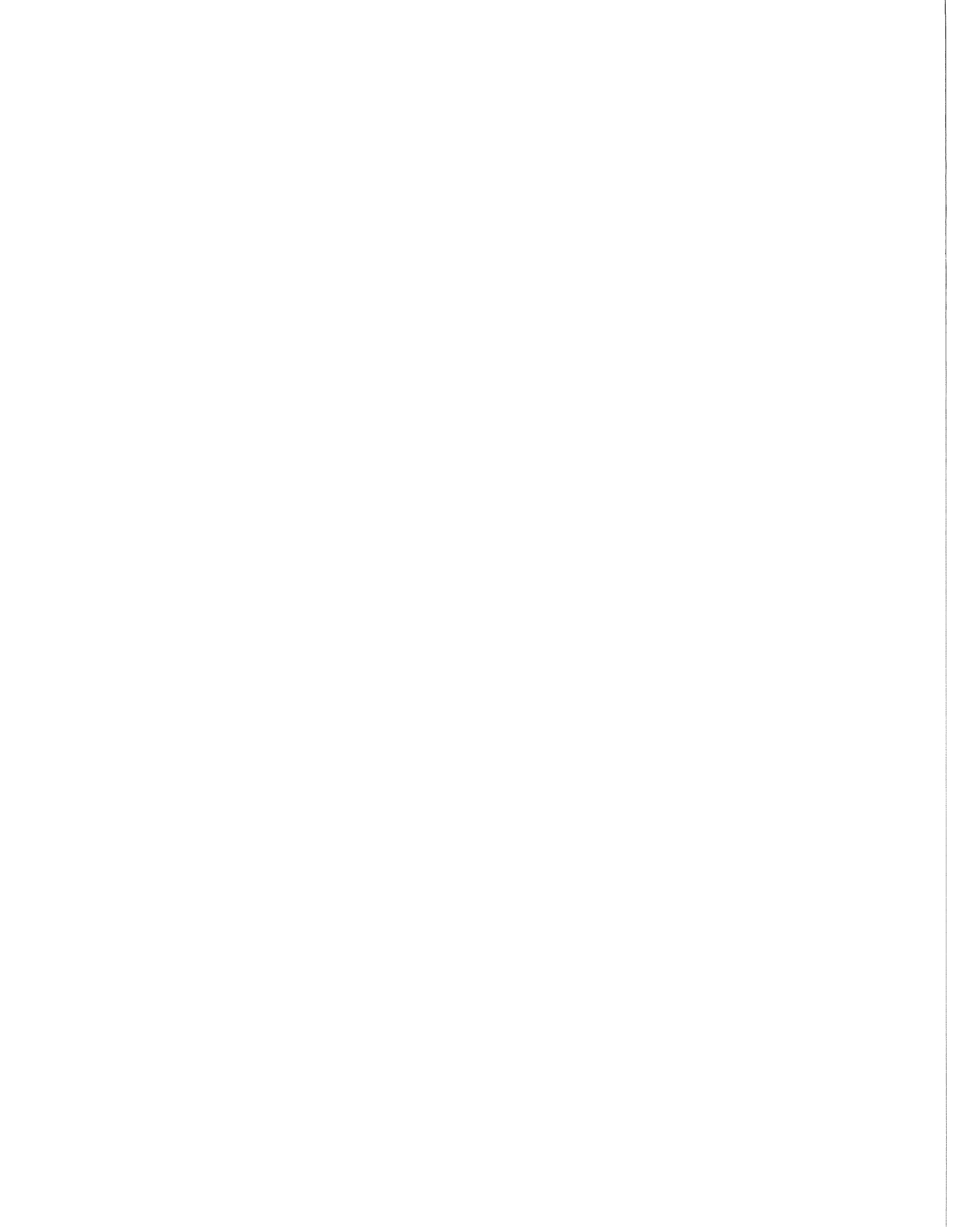
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