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The Economic Contributions of Calumet Montana Refining

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The Economic Contributions of Calumet Montana Refining

Calumet Montana Refining LLC has operated a refinery producing gasoline, middle distillates and asphalt for markets in Montana, Idaho and Washington in Great Falls, Montana since acquiring the facility in 2012. After investing more than \$600 million to expand its processing capacity from 10,000 barrels per day (bpd) of crude oil to 30,000 bpd, the refinery has grown in importance as employer of a highly compensated, unionized workforce, a supplier of refined petroleum products to markets, and as a taxpayer to local and state governments.

The Bureau of Business and Economic Research at the University of Montana (BBER) was commissioned by Calumet to assess how its presence in the Great Falls economy ultimately makes the economy larger, more prosperous, and more populous. This analysis will examine (i) the operations of the refinery – its employment, vendor purchases, production and tax payments, (ii) the activity of other production activity not operated by Calumet but linked to the presence of the refinery, including pipelines and other linked activities, and (iii) the impact of the refinery’s production on product markets and prices paid by consumers of its output.

This summary report details the BBER findings on the first component of the analysis – the economic contributions of the refinery operations.

Economic Contributions: Summary

The continued operation of the petroleum refinery owned and operated by Calumet Montana Refinery LLC in Great Falls, Montana makes a large contribution to the economy of the region, and to the entire state. Statewide contributions are reported here. The spending of the company’s 180 well compensated employees, the company’s considerable spending on goods and services, as well as the sizable tax payments made by the company and its employees to state and local governments, help produce an economy which has more jobs, more income and more people than would be the case if the refinery was not present.

Table 1: The Economic Contributions of Calumet Refining: Summary

Category	Units	Impact
Total Employment.....	Jobs	2,643
Personal Income.....	\$ Millions	223.6
Disposable Personal Income.....	\$ Millions	195.9
Selected State Revenues.....	\$ Millions	58.4
Output.....	\$ Millions	1,054.7
Population	People	4,222

Specifically, this report finds that the presence of the Calumet refinery ultimately adds:

- almost 2,650 permanent, year-round jobs, across a broad spectrum of industries;
- \$223.5 million more in annual income received each year by Montana households, of which \$195.9 million is after-tax income, available for spending on goods and services;
- more than \$58 million in tax and non-tax revenue collected by state government;
- over a billion dollars in annual output, or gross receipts received by Montana business and nonbusiness organizations, realized by companies across the entire economy, and

- more than 4,200 additional people

than would exist in the Montana economy if the refinery was not operating. These contributions are significantly in excess of the jobs and direct spending of the facility itself. They come about because of (i) the high levels of compensation of the 180 refinery workers and 75 contract workers, (ii) the highly capitalized, high value-added nature of the manufacturing process, and (iii) the significant spending on inputs, goods and services by the refinery, many of which have a significant made-in-Montana component.

Economic Contributions: Employment Impacts

The fact that the 2,643 jobs which exist in the Montana economy today because of the continued operations of the Calumet Montana Refinery can be found in industries across the entire economy illustrates how the spending flows that are linked to refinery operations propagate as those who receive spending as income add their own production and jobs to the economy.

Thus, as shown in the Table 2, the presence of the refinery in the economy ultimately supports hundreds of jobs in industries such as health care, accommodations and food, and retail trade, that have no direct connection with refining. The larger economy that comes about because of the refinery, there is more income and more spending for the goods and services that ultimately employ more and produce more to support that demand.

Another dynamic that produces job gains across the range of economic activity is the increase in population that ultimately comes about because of the refinery’s operations. The improved economic opportunities in Montana due to the presence of the refinery attracts and retains more people to the state. The population increase is dominated by working-aged people and their families, creating demand for both private and public services. The latter increase helps explain the sizable increase in government jobs that are ultimately due to the refinery

Table 2: Employment Impacts

Industry	Impact
Construction.....	367
Manufacturing.....	279
Mining.....	28
Retail Trade.....	243
Transportation and Warehousing.....	65
Professional and Technical Services.....	149
Administrative and Waste Services.....	104
Health Care and Social Assistance.....	189
Arts, Entertainment, and Recreation.....	36
Accommodation and Food Services.....	190
Other Services, except Public Administration.....	112
Other Private.....	209
Government.....	673
TOTAL.....	2,643

Economic Contributions: Compensation Impacts

Another way to appreciate what the presence of the Calumet refinery in Great Falls contributes to the state economy is to examine the income flows to Montana households that would not occur if the refinery did not exist. Because of the refinery, Montana workers earn \$116.5 million more in wages and salaries annually, as shown in Table 3. These wages come from jobs at the refinery itself, but also from the hundreds of other jobs in seemingly unrelated industries that are larger due to the refinery's presence.

Table 3: Compensation Impacts

Category	Units	Impact
Wages and Salaries.....	\$ Millions	116.5
Compensation.....	\$ Millions	170.3
Earnings.....	\$ Millions	183.2
Earnings per Job, New Jobs.....	\$ Dollars	\$69,302

When the cash value of benefits paid to those workers is included, the total compensation supported by the refinery grows to \$170.3 million. Finally, when business owner income and the income of the self-employed are added, the total earnings of Montanans is \$183.2 million higher each year because of the Calumet refinery. Thus each of the 2,463 jobs that are present in the economy today because the refinery is operating represent average annual earnings of \$69,302 per job.

Economic Contributions: Conclusion

As large as these contributions to the state economy are, they form only part of the picture of how the refinery's presence makes the Montana economic pie larger. A more complete analysis of how a potential shutdown in the Calumet refinery in Great Falls would impact the local and state economies must also take into account the impact on non-Calumet production activities that would come to a halt if the refineries operations were to cease, as well as the impact of its closure on the availability and affordability of refined products to businesses and consumers across the state. The analysis would also consider the cancellation of the sizable investments planned and underway for processing Montana-sourced renewable feedstock for renewable diesel products. This work is ongoing.

How These Findings Were Derived

These estimated economic contributions were produced by the Bureau of Business and Economic Research (BBER) at the University of Montana by applying its policy analysis model to address the research question: what would the economy of the state of Montana look like if the Calumet refinery in Great Falls did not exist? The REMI model, leased from Regional Economic Models, Inc. and calibrated specifically for this purpose, has been employed in hundreds of published studies and peer-reviewed professional articles. It is well suited for this research.

The model is used to construct a "no refinery" scenario for the state economy, which removes the spending flows, production, employment, and tax payments which occur as part of refinery operations. Information on these operational aspects of the refinery were obtained from Calumet. The model reconstructs the level of activity in the economy when this spending is removed, and the economy reaches a new equilibrium, or resting point, with lower levels of investment, output, employment and income. Comparing this no-refinery economy to the actual economy reveals the economic contributions of the refinery, which are reported here.