

Promoting Energy Supply: Impact on Montana's Economy

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The energy outlook for the U.S. has changed substantially over the last few years as the outlook for natural gas supplies has undergone a complete about-face. There has been little growth in U.S. lower-48 supplies, and imports from Canada have leveled off and may have peaked. LNG is now expected to play a much larger role in meeting the growing demand for natural gas, but its development is subject to myriad regulatory hurdles that may derail many planned projects.

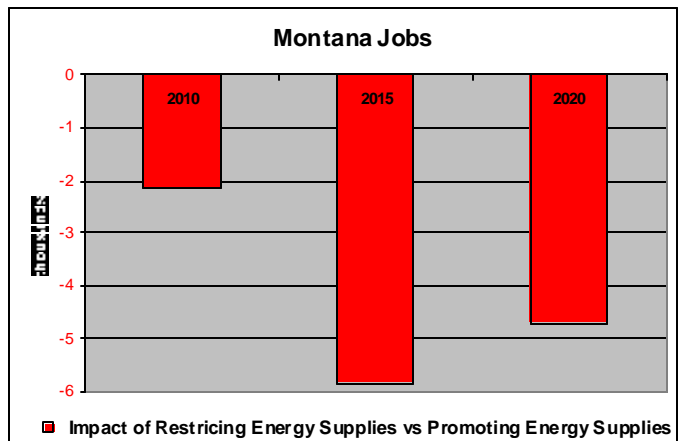
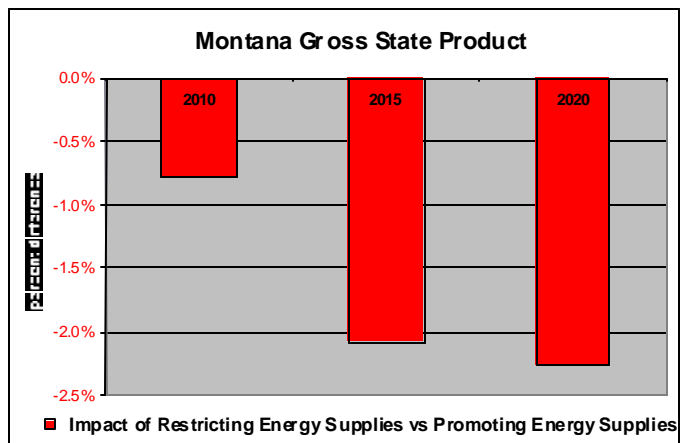
Against the backdrop of a tighter supply picture for natural gas, the fuel substitution option is severely constrained as a mechanism for meeting the steady tightening of emission limits. During the 1990s, it was forecast that the low cost of low-emission gas combined cycle plants combined with the low cost of natural gas would make gas the option of choice for meeting emission limits. As gas supplies have tightened (and gas prices have risen), power generators and large manufacturers are facing tightening emission limits with fewer, more expensive choices.

- Montana's economy would expand by 30% from 2010 to 2020 (at a rate of 2.6% per year) under policies that increase access to domestic energy resources.

- In contrast, policies that restrict energy supplies would reduce Montana's Gross State Product by 2.3% in 2020.

- Jobs are a critical issue for Montana's prosperity. Policies promoting energy supplies would result in 45,000 new jobs in the next decade.

- In contrast, under restrictive energy policies, Montana would have 5,000 fewer jobs by 2020, and hourly wages would be lower.



Looking forward, there are policy options to improve economic performance by **promoting energy supplies** by ensuring adequate supplies at globally competitive prices while making steady improvements in air quality. Likewise, there are policies that would **restrict energy supplies** and lead to lower economic performance without a notable gain in air quality.

Global Insight has been commissioned by the National Association of Manufacturers and the American Council for Capital Formation to measure the impacts on U.S. manufacturing and the overall economy of two scenarios that are defined by key energy and environmental policy options.

Promoting Energy Supplies Increases US Economic Performance, US Manufacturing Output Expands, 18 Million Jobs are Created

Under the **Promoting Energy Supplies** scenario, US economic performance is enhanced by the availability of energy resources at globally competitive prices. Continued reliance on domestically produced fuels, a steady increase in economically attractive renewable resources and the building of several new nuclear units contributes to a strong economy. Over the period 2010-2020,

- Real GDP growth averages 3.1%.
- Business fixed investment grows at an annual rate of 6.3% per year.
- Industrial production increases at 3.5% per year.
- Real disposable income rises 3.2% per annum.
- Employment expands 1.25% per year; 18 million new jobs are created.
- Manufacturing output grows 3.0% per year.
- Manufacturers employ more than 13 million people.

Restricting Energy Supplies Would Cost the US Economy 1.3 Million Jobs, Manufacturing Output would be 6% Lower

Under the **Restricting Energy Supplies** scenario, tightening mercury emission limits, enactment of severe limits on carbon dioxide emissions, and barriers to development of natural gas supplies combine to dramatically increase the cost of energy and reduce economic growth compared to the Promoting Energy Supplies scenario.

- Homeowners would pay 26% more for natural gas in 2010, and 21% more for electricity. By 2020, natural gas would cost 31% more, and electricity prices would be 61% higher.
- Manufacturers would see similar price hikes, reducing global competitiveness.
- The economy's performance would be weaker.
- Real GDP would fall 2.3% below the Promoting Energy Supplies case by 2020.
- Industrial production would be 12% lower by 2020.
- Real disposable income would be 2.2% below the Promoting Energy Supplies case by 2020.

Montana Gains Jobs and Better Wages with Policies that Promote Energy Supplies

Montana's economic performance would benefit from policies that encourage development of domestic energy supplies, but could be damaged by stringent controls on mercury and greenhouse gas emissions. Montana's economy would expand by 2.6% per year next decade, resulting in more and better paying jobs.

Stronger Economic Outlook for Montana under the Promoting Energy Supply Scenario

Montana	2010			2015			2020		
	PES	RES	%diff.	PES	RES	%diff.	PES	RES	%diff.
Gross State Product (million 2000\$)	29424	29191	-0.8%	33624	32925	-2.1%	38153	37288	-2.3%
Manufacturing Output (mil. 2000\$)	1663	1637	-1.5%	1919	1835	-4.4%	2192	2059	-6.1%
Manufacturing, Durables	1121	1105	-1.4%	1342	1284	-4.3%	1585	1490	-6.0%
Manufacturing, Nondurables	542	532	-1.7%	576	551	-4.5%	607	569	-6.2%
Non-Manufacturing Output (mil. 2000\$)	27761	27553	-0.7%	31705	31090	-1.9%	35960	35228	-2.0%
Government	4366	4377	0.2%	4742	4748	0.1%	5110	5140	0.6%
Agriculture, Forestry, & Fishing	891	883	-0.9%	954	931	-2.5%	1014	985	-2.9%
Construction	1465	1436	-2.0%	1667	1549	-7.1%	1872	1697	-9.3%
Mining	334	323	-3.1%	291	277	-4.7%	252	216	-14.1%
Educational & Health Services	2728	2723	-0.2%	3107	3082	-0.8%	3499	3486	-0.4%
Financial Activities	4940	4910	-0.6%	5596	5544	-0.9%	6277	6238	-0.6%
Information	1291	1292	0.1%	1618	1608	-0.6%	1999	1977	-1.1%
Leisure & Hospitality	1429	1425	-0.3%	1590	1569	-1.3%	1747	1731	-0.9%
Professional & Business Services	2380	2349	-1.3%	2897	2869	-1.0%	3482	3511	0.8%
Trade & Transportation	6400	6339	-0.9%	7658	7441	-2.8%	9074	8806	-3.0%
Utilities	806	760	-5.8%	767	635	-17.2%	723	507	-29.9%
Other Services	730	736	0.9%	817	837	2.4%	910	934	2.6%
Employment (thousands)									
Total Nonfarm	438	436	-0.5%	459	453	-1.3%	483	478	-1.0%
Manufacturing									
Manufacturing, Durables	12	12	-1.2%	12	12	-5.1%	12	11	-7.8%
Manufacturing, Nondurables	7	7	-0.7%	8	7	-1.6%	8	8	-0.9%
Non-Manufacturing									
Government	90	90	0.3%	94	94	0.5%	98	99	1.2%
Construction, Natural Rsrcs, Mining	34	34	-2.0%	36	34	-6.7%	39	35	-8.8%
Educational & Health Svcs	59	59	-0.1%	61	61	-0.4%	63	64	0.2%
Financial Activities	22	22	-0.6%	23	23	-0.5%	24	24	0.0%
Information	8	8	0.2%	8	8	-0.2%	9	9	-0.5%
Leisure & Hospitality	59	59	-0.3%	61	61	-0.9%	64	64	-0.3%
Professional & Business Svcs	38	37	-1.3%	43	43	-0.6%	48	48	1.4%
Trade & Transportation	88	87	-0.9%	93	90	-2.4%	97	95	-2.4%
Utilities	2	2	-2.6%	2	2	-11.0%	2	2	-19.0%
Other Services	18	18	1.0%	19	19	2.8%	20	20	3.2%
Wages (2000\$)									
Average Hourly Earnings, Manufacturing (15.41	15.28	-0.9%	15.82	15.52	-1.9%	16.22	15.71	-3.2%
Income (Millions, 2000\$)									
Personal Income	26383	26083	-1.1%	29716	29032	-2.3%	33416	32526	-2.7%
Disp. Personal Income	23552	23313	-1.0%	26337	25828	-1.9%	29657	28992	-2.2%
Population (Thousands)	950	950		970	970		988	988	

Source: Global Insight, Inc.

Note: The Promoting Energy Supply Case is denoted by PES, Restricting Energy Supply Case is RES.

Scenario Descriptions

	Promoting Energy Supply Scenario	Restricting Energy Supply Scenario
Climate Change Policy Assumptions	No federal requirements for mandatory reduction in greenhouse gases (GHG)	McCain-Lieberman (S. 139) enacted for GHG emission reductions in 2010 and 2016
Mercury Policy Assumptions	15-ton cap by 2018, with a cap and trade program, no MACT	Emissions reduced by 90% by 2010-2012 through MACT standards, without regard to coal type, no cap and trade and assuming limited technology advancement by 2012
SO₂, NO_x Assumptions	CAIR and all ongoing regulatory programs, including required future phases	CAIR and all ongoing regulatory programs, including required future phases
Natural Gas Supply Assumptions		
Offshore drilling	Restrictions/moratoria removed	No leasing of new areas
Federal Onshore	Federal changes to increase access (excluding Wilderness and Parks) reduce permitting costs and delays by 50% in first five years (as in 9/03 NPC study)	Highly restrictive federal impediments [to access]
Alaskan gas pipeline	Pipeline completed by 2018	No pipeline
Canadian gas	Imports ramp down to 1.0 tcf by 2015	Imports ramp down to zero by 2015
LNG	As many as 5-7 regasification terminals are built before 2015	No new LNG regasification terminals are built other than the facilities that are contracted and under construction.
Nuclear Power Assumption	4 new gigawatts on-line by 2015 (in addition to the rise in nuclear generation due to returning units, uprates of existing units, and increased utilization)	0 new gigawatts on-line by 2015 (but, does include the rise in nuclear generation due to returning units, uprates of existing units, and increased utilization)
Renewable Portfolio Standards Assumption	No new federal or state standards and a permanent extension of the Renewable Energy Production Tax Credits	No new federal or state standards and a permanent extension of the Renewable Energy Production Tax Credits