CHAPTER 3: NATURAL GAS IN MONTANA: CURRENT TRENDS, FORECASTS AND THE CONNECTION WITH ELECTRIC GENERATION

Many of the electricity generation plants proposed for Montana are planning to use natural gas. At the same time, natural gas is a major source of energy for Montana's homes and industries. This paper lays out the history and current trends in natural gas use in Montana. These are set in the context of the U.S. natural gas industry. Montana is part of a continental gas market, with prices and availability set more by events outside than inside Montana. As electricity generation around the country comes to rely more on natural gas, the price and availability of gas are already moving in ways Montanans have not previously experienced.

1. Natural Gas Supplies for Montana and the U.S.

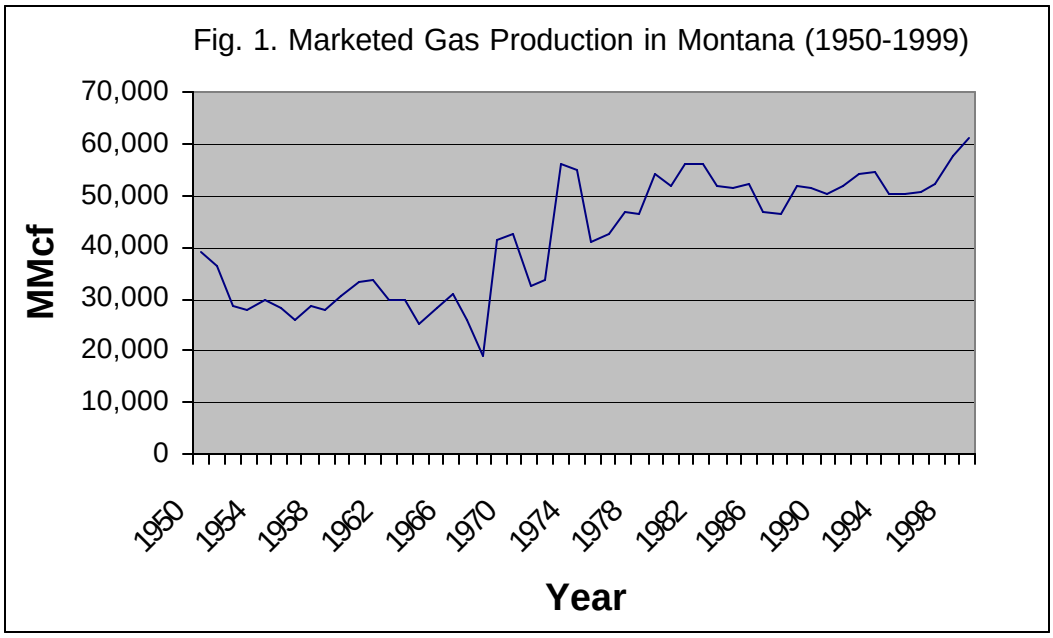
Alberta is by far the largest source of natural gas for Montana. The next largest source is in-state wells mostly located in the north-central portion of the state. Supplies from the other Rocky Mountain states represent only a small portion of total in-state usage and continue to decline from historic levels.

Future changes in supplies from in-state development and other states are uncertain at this point. Coal bed methane (CBM) may eventually increase the portion of gas that comes from the Rocky Mountain states, especially Colorado and Wyoming, but the peak of that production is still a few years off. CBM development in Montana has not yet become significant, due in part to difficult environmental issues, and is still in the permitting stage. The future extraction of existing gas reserves along Montana's Rocky Mountain Front also is uncertain at this point. Alberta's natural gas supply will likely remain the largest source for Montana in the years to come.

Montana actually produces about as much gas as it consumes, but the bulk of that is exported. In 1999, Montana produced 61.6 billion cubic feet (bcf) and exported 51.8 bcf total to North Dakota, South Dakota and the Midwest. The north-central portion of the state accounted for 80 percent of Montana's production, and the northeastern portion of the state another 11 percent (MBOGC 2001). In-state production has been increasing in recent years (Figure NG1, below). Because most of it is exported, however, increases or decreases in natural gas production in Montana may have little impact on Montana consumers.

U.S. natural gas supplies are largely domestic, supplemented by substantial imports from Canada. About half of U.S. reserves are in Texas, Louisiana and offshore in the Gulf of Mexico. About a quarter are in the Rocky Mountain states of New Mexico, Wyoming, and Colorado. The Rocky Mountain states are the most important source of domestic natural gas supply to the Pacific Northwest. Alaska's North Slope is potentially the largest source of new natural gas resources for the nation as a whole (U.S. EIA 2001c).

Figure NG1. Marketed gas production in Montana (1950-1999)



Source: U.S. EIA, Natural Gas Annual Reports, 1950-1999 (Table NG1).

After declining during the 1990s, natural gas drilling in the U.S. picked up dramatically in early 2000 in response to higher prices, only to recently fall off again as prices returned to their historic levels. Domestic natural gas production, with its large and accessible resource base, is expected to increase from 18.7 trillion cubic feet (tcf) in 1999 to 29.0 tcf in 2020 to meet growing domestic demand. Increased production would come primarily from lower-48 onshore conventional sources, although onshore *un*conventional production is expected to increase at a faster rate than other sources (U.S. EIA 2001c).

In 2000, the United States imported 3.6 tcf of natural gas from Canada; 0.5 tcf of this Canadian supply was imported to the Pacific Northwest. Net natural gas imports are expected to increase from 3.4 tcf in 1999 to 5.8 tcf in 2020 (U.S. EIA 2001c). Alberta, which contains a significant share of Canadian supply, sends gas to the West Coast of the U.S. primarily through the GTN pipeline, which enters the U.S. in Idaho. Alberta sends gas to the U.S. Midwest through the Alliance and Northern Border pipelines. The Northern Border, which passes through the northeast part of Montana, is the largest pipeline in the state, though it has no injection points in Montana. The large Alliance pipeline (1.3 bcf transport capacity per day) runs from the Edmonton, Alberta area to the Chicago, Illinois area and allows other parts of the U.S. to compete with Montana and the Pacific Northwest for Alberta's large gas supply (Smith 2001). All of these Alberta lines also tie in with the large Trans-Canadian Pipeline that runs east to west across Canada.

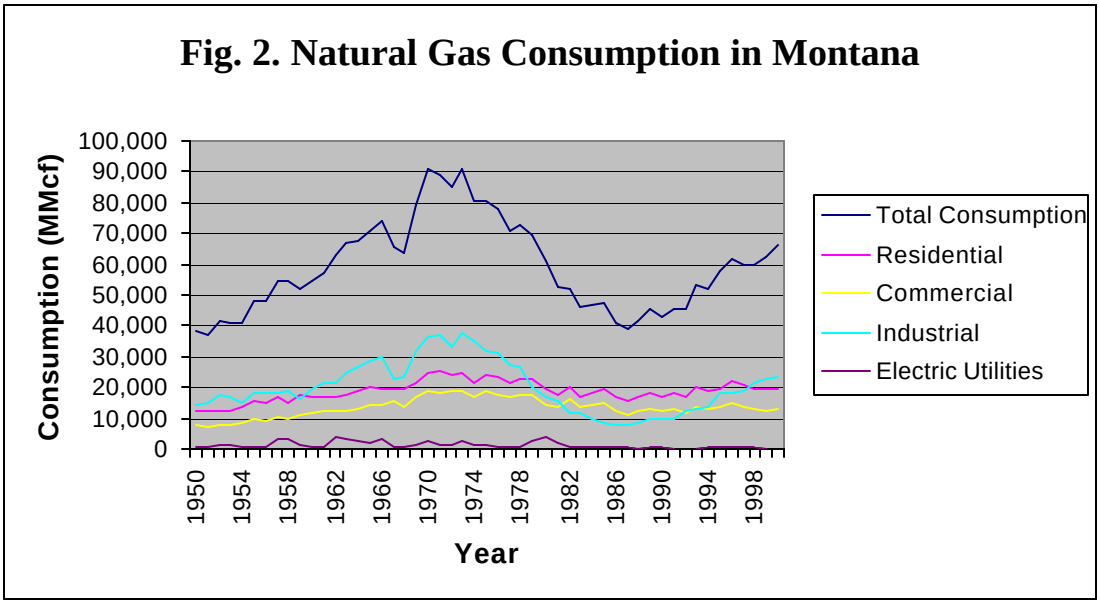
It is hard to predict how much natural gas is left for U.S. consumption from North American reserves. Reserves are constantly being consumed and replaced and the relative rates of

consumption and replacement vary with economic conditions and natural gas prices. The Northwest Power Planning Council estimates between 2,100 and 2,650 tcf remaining of North American gas reserves (excluding Mexico). Using these numbers and assuming that U.S. and Canadian consumption grows at 2.3 percent per year from current levels, estimated remaining North American resources would satisfy North American consumption for about 40 or 50 more years (not including imports and exports). The entire world is estimated to contain 13,000 tcf in natural gas reserves with much of that located in the Middle East (Morlan 2001).

2. Natural Gas Consumption in Montana

Recent Montana natural gas consumption has been around 60 billion cubic feet (bcf) per year. Future Montana natural gas consumption, excluding that for new electric generation, is expected to increase slowly at less than 1 percent annually according to utility projections. The reason for this slow expected increase is illustrated in Figure NG2. Both residential and commercial gas consumption are expected to grow very slowly, and usage by industry is expected to stay fairly level. In the 1970's, the industrial sector used much more natural gas than it does now. The closure of smelters in Anaconda, in particular, contributed to the drop in industrial usage that occurred in the 1980's.

Figure NG2. Natural gas consumption in Montana



Source: U.S. EIA, *Natural Gas Annual Report*, 1950-1999 (Table NG2).

With projected new gas-fired electric generation, total gas consumption in Montana is expected to significantly increase over current levels. The Montana First Megawatts gas-fired electric generation plant, which is currently under construction in Great Falls, will create a significant increase in total Montana annual consumption. Average new usage by this plant could be up to 13 bcf per year once the first 160 MW are built. This is about 20 percent of the current total

consumption in Montana. If the Silver-Bow electrical generation plant comes on line its estimated 30 bcf per year would equal almost 50 percent of current total Montana consumption.

3. Natural Gas Consumption in the U.S.

In 2000, the U.S. consumed over 22 trillion cubic feet (tcf) of natural gas, the highest level ever recorded. U.S. consumption is increasing at a healthy pace, and the Pacific Northwest is no exception. Three reasons for increased use in the Pacific Northwest are ample, attractively priced supplies, strong economic growth and increased gas-fired electrical generation. The EIA forecasts that U.S. total natural gas consumption will increase from the current level of about 22 trillion cubic feet per year to nearly 35 trillion cubic feet per year in 2020 (U.S. EIA 2000).

A number of changes in energy markets, policies, and technologies have occurred which explain the increased use of natural gas in the U.S. in the past 15 years (U.S. EIA 2001c):

- Deregulation of wellhead prices begun under the Natural Gas Policy Act of 1978 and accelerated under the Natural Gas Wellhead Decontrol Act of 1989;

- Federal Energy Regulatory Commission (FERC) Orders 436 (1985), 636 (1992), and 637 (2000) separating natural gas commodity purchases and transmission services and affecting access to shipping capacity;

- Passage of the Clean Air Act Amendments of 1990 and subsequent regulations affecting air quality standards for industries and electricity generators in nonattainment areas favor natural gas, since it burns relatively cleaner compared to coal;

- Deregulation of the wholesale electricity market. High-efficiency combined cycle combustion turbine technology, coupled with low gas prices, has made gas the fuel of choice for conventional electric generation nationwide. Though coal is expected to continue to be the leading fuel for electricity generation, the natural gas share of total electric generation is expected to increase from 16 to 36 percent between 1999 and 2020. Over 95 percent of new electric generation in the western U.S. is gas fired;

- Improvements in exploration and production technologies and reduction in their associated costs, improving the return for exploration and production efforts;

- Investment in major pipeline construction expansion projects from 1991 through 2000 adding about 50 billion cubic feet per day of capacity; and

- Increased imports from Canada.

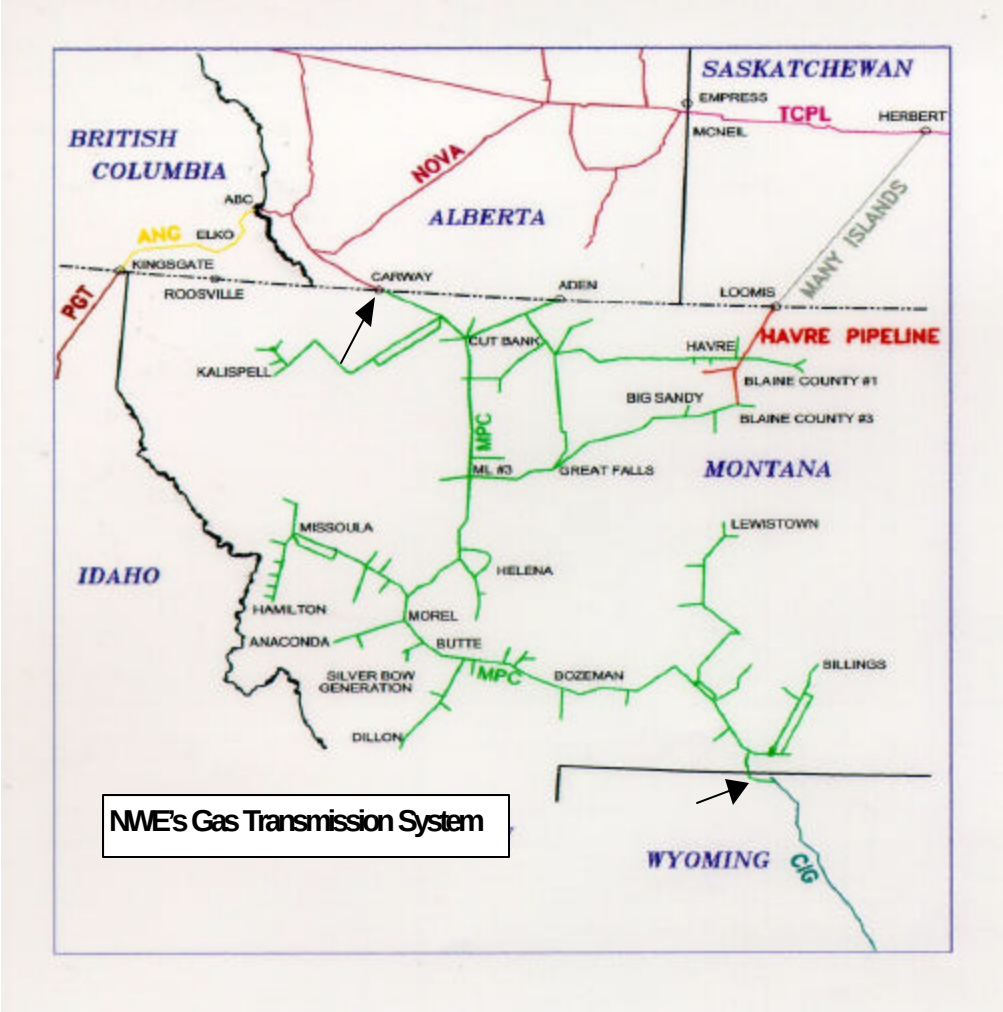
4. Montana's Natural Gas System

Three distribution utilities and two transmission pipelines handle over 99 percent of the natural gas consumed in Montana (Table NG5). The distribution utilities are NorthWestern Energy (NWE; previously the Montana Power Company), Montana-Dakota Utilities Co. (MDU) and

Energy West of Great Falls, which uses NWE for transmission. NWE and Williston Basin Interstate pipeline (affiliated with MDU) provide transmission service for in-state consumers and, with a handful of other pipelines, export Montana natural gas.

Northwestern Energy is the largest provider of natural gas in Montana accounting for about 60 percent of all sales in the state according to annual reports from Montana utilities. NWE provides natural gas transmission and distribution services to 151,000 natural gas customers in the western two-thirds of Montana. These customers include residences, commercial businesses, municipalities, state and local governments and industry. NorthWestern's gas transportation system, both long-distance pipeline transmission and local distribution, lies entirely within Montana. Therefore, it is regulated by the Montana Public Service Commission and not FERC. The system consists of over 2,100 miles of transmission pipelines, 3,300 miles of distribution pipelines and three in-state storage facilities. NorthWestern's system has pipeline interconnections with Alberta's NOVA Pipeline, the Havre Pipeline Company, the Williston Basin Interstate Pipeline Company and the Colorado Interstate Gas Company. The Havre pipeline also is regulated by the Montana Public Service Commission.

NorthWestern Energy's Gas Transmission System



Alberta sends natural gas to Montana primarily through NorthWestern Energy's pipeline at Carway where it ties in with Alberta's NOVA Pipeline. NWE's pipeline system runs in a north-south direction from Carway (top arrow) and Aden at the Canadian border down through Cut Bank and south towards Helena approximately paralleling the Rocky Mountain Front. Near Helena, the main pipeline turns west and runs close to Highway 12 and then turns south and runs close to I-90 passing near Anaconda. It then turns east towards Butte, still following I-90. From Butte, it runs approximately east passing near Bozeman. At Big Timber it turns southeast and runs towards the Grizzly Interconnect near the Wyoming Border where it connects (bottom arrow) with the Colorado Interstate Gas line (CIG) and the Williston Basin Interstate/Warren line (WBI). The NWE gas system branches out from the main pipeline at various locations and runs to Missoula, Great Falls, Dillon, Livingston and Billings. NWE's natural gas delivery system includes two main storage areas. The Cobb Storage is located north of Cut Bank near the Canadian border. The Dry Creek storage is located northwest of the Grizzly Interconnect, near the Wyoming border.

A majority of NorthWestern's natural gas comes from Alberta. The total NWE system has a daily peak capacity of 300 million cubic feet of gas (MMcf). The system delivers about 40 billion cubic feet (bcf) of gas throughput per year to its customers compared with total annual Montana consumption of about 60-65 bcf. About one half of the total throughput is used by "core" customers who include residential and commercial business users. NWE has the obligation to meet all the supply needs of core customers. The other half is used by non-core users including industry, local and state governments and by Energy West, which supplies Great Falls. NWE only provides delivery service for these customers; they contract on their own for their gas supply. Peak usage occurs on cold weather days when daily demand is often close to peak pipeline capacity. Significantly smaller amounts are used when the weather is warm (Waterman 2001).

There is no unused firm capacity on the NWE system. This means that no one else of significant size, such as a large industrial company, can obtain guaranteed, uninterrupted gas delivery on the current system. By 2003, customer peak daily demand on the system will be an estimated 300 mmcf, and the system's maximum daily capacity will be matched by peak demand. At that time, the system will have to expand to meet its projected peak load. The projected growth rate of maximum daily load and thus of required daily pipeline capacity, excluding the proposed Silver-Bow plant and the Montana First Megawatts plant, is 1.7 percent annually or 5 mmcf/day annually. This growth would come almost solely from core customers (Waterman 2001). Meeting the demands of the Montana First Megawatts gas-fired plant under construction (240 MW when completed) will require pipeline upgrades beyond those already needed in 2003. The same is true for the proposed 500 MW Silver-Bow plant near Butte.

Montana-Dakota Utilities Co. (MDU) is the second largest natural gas utility in Montana and accounts for about 25-30 percent of all gas sales in Montana. It distributes natural gas to most of the eastern third of the state—Billings and areas further east. MDU uses the Williston Basin Interstate/Warren (WBI) line for the transmission of its purchased gas. The WBI gas pipeline provides service for other utilities and is regulated at the federal level by FERC. MDU buys its gas from over 20 different suppliers. Most of its purchased gas is domestic with about 50 percent coming from Wyoming, various percentages coming from North Dakota and Montana,

and about 10 percent coming from Canada. MDU buys a certain amount of pipeline capacity on the WBI to match what it feels will be needed for the busiest usage day, based on the number of homes in its area. MDU expects less than 1 percent growth per year in its sales (Ball 2001).

Energy West (formerly Great Falls Gas Co.) is the third largest gas provider in Montana, accounting for about 11-13 percent of all gas sales in Montana. The other Montana utilities account for about 1 percent of all gas sales and include the Cut Bank Gas Company and Shelby Gas Association. All of these rely on NWE to provide transmission service.

5. Natural Gas Prices in Montana and the U.S.

Natural gas prices are measured at different points in the gas supply system. The "wellhead" price is the price of the gas itself right out of the ground. The "citygate" price typically reflects the wellhead price *plus* pipeline transmission fees. The "delivered" price we pay in our homes and businesses is the citygate price *plus* local distribution fees and other miscellaneous charges from the utility. Transmission and distribution fees are set by utilities and/or pipelines and are regulated by state and federal agencies. The delivered price for natural gas is currently at least twice the wellhead price in Montana. Thus, less than 50 percent of what residences pay in their gas bill typically is for the actual gas itself, although this varies greatly by location.

Natural gas prices in the marketplace are measured in several ways. There are spot market prices for immediate sales, and futures market prices for long-term contracts. Spot prices are volatile and represent a small portion of market sales. One pays the current market price on the spot market for natural gas, just as one would pay the current price for a stock in a financial market. Futures prices is the cost of natural gas obtained by contract for delivery at some future point at a set price. Futures contracts are more commonly used by larger buyers than spot prices and cover purchases over some length of time. NorthWestern Energy, as an example, buys much of its natural gas for core customers using long-term contracts (1 year) to lock in an acceptable price and to avoid large price swings on the spot market (Smith 2001).

Gas prices are measured at different market locations throughout the United States including the Gulf Coast, the U.S.-Canadian border and the Northeast. Prices are also measured for different end-user groups such as residential, commercial, or industrial consumers and electric utilities.

The wellhead price for natural gas (which varies a bit from region to region) is set in the national wholesale market, which was deregulated by the federal government in 1978. No state, including Montana, can regulate this wholesale market. Because Montana continues to rely on Alberta for much of its natural gas, what happens with Alberta gas directly affects Montana. Alberta basically sets the wellhead price for natural gas in Montana and in other parts of the U.S. that directly obtain their supply from there. The wellhead price of Alberta natural gas, in turn, is determined by the North American free market, subject to the contract conditions agreed to by each buyer and seller.

Prices in Alberta's main trading forms are determined by the AECOC index. This index, named after the AECO C storage hub in Alberta, is the equivalent in our area of the New York

Mercantile Exchange (NYMEX) for gas and is very liquid for trading. The AECOC index generally tracks the Henry Hub Index with some price differential. The Henry Hub Index is measured at the Henry Hub in southern Louisiana, a major pipeline interconnection and transshipment point. It is America's largest natural gas index and basically sets the nationwide price. AECOC's price is often 20 to 30 cents cheaper per thousand cubic feet (Mcf) than the Henry Hub price due mainly to its geographic location. Using the AECOC, gas can be bought in spot or futures markets (Morris 2001).

Increases in demand for Alberta gas tend to cause contracted gas prices to rise in Montana, all else being equal. Conversely, as exploration and drilling increase and Alberta's supply increases, prices in Montana tend to go down, all else being equal. It is the interplay between the supply and demand of Alberta's gas that has the greatest effect on the gas prices paid in Montana. Today, this interplay occurs both on a national level and regionally for both supply and demand.

6. Future Price Increases and Price Volatility

The wellhead price Montana pays for gas is likely to remain fairly close (within the 30 cent differential mentioned above) to average U.S. prices on the national market. Average U.S. wellhead prices are expected to increase about 3 percent annually in the next 20 years. They are expected to average $2.04/Mcf in 2002 and $3.20-$3.70/Mcf in 2020 using current dollars (U.S. EIA 2001c). This modest increase will be driven by natural gas demand growth, particularly in electric generation, and the natural progression of the discovery process from larger and more profitable fields to smaller, more costly ones. The U.S. price this spring was in the $2.50-$3.00/Mcf range. In contrast, the average U.S. gas price for 2001 was just over $4.00/Mcf at the wellhead due in part to the energy crisis in California.

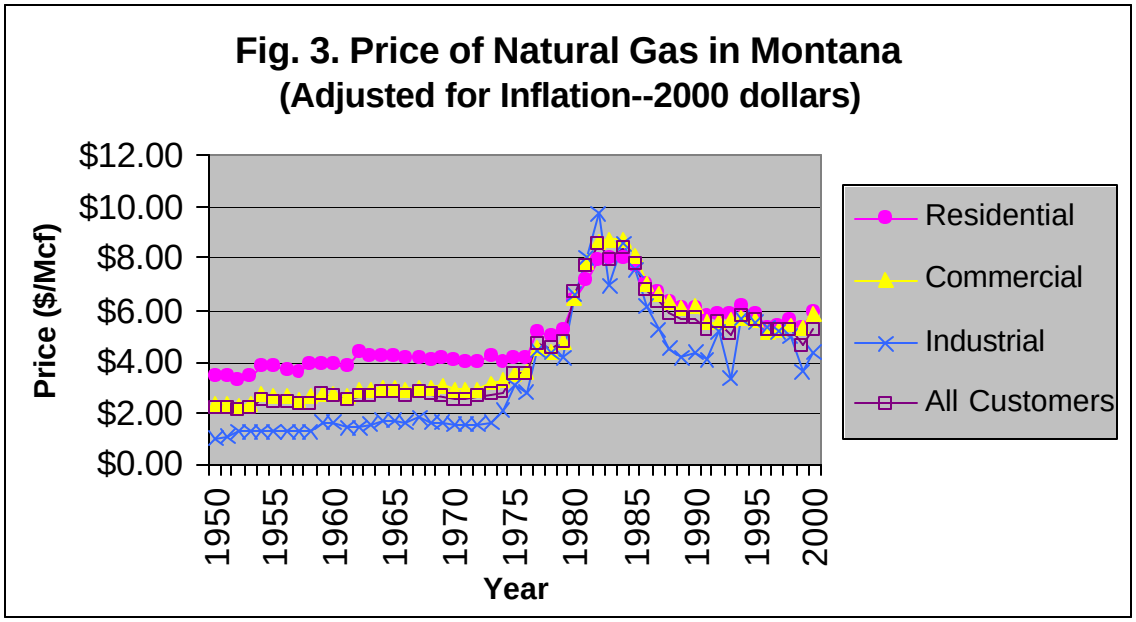
The Northwest Power Planning Council predicts that prices in our region in the long-term will be about $0.30/Mcf below national prices due to AECOC's price differential with Henry Hub. It is likely that any price differential will partially depend both upon how much Canadian supply is available and how much pipeline capacity there is to get that gas to its demand base. Because natural gas prices are determined on a national level, any single large project built in Montana such as the proposed Silver-Bow plant should have no significant effect on the Alberta gas price and thus no long-term effect on Montana's price (Smith 2001).

The U.S. Energy Information Administration, in its current short-term outlook, predicts that wellhead natural gas prices over the next five months should remain in the $2-$3 range, with prices easing toward the lower end of that range during the off-season in 2002. The U.S. EIA predicts that the relatively low gas prices should persist throughout 2002 due to weak industrial demand and relatively high gas inventories that are likely to continue throughout the winter, assuming normal weather and barring any major supply disruptions. Expected reductions in gas drilling due to currently falling prices, are likely to produce an increase in natural gas prices going into 2003, especially if the U.S. economy stages a solid economic recovery beginning by mid 2002 (U.S. EIA 2002). In 2002, EIA expects gas inventories to remain at relatively high levels and expects the average annual wellhead price to be about $2.04/Mcf or about 50 percent of 2001 levels (U.S. EIA 2001c).

The final delivered price Montana customers pay (wellhead fees + transmission fees + delivery and other fees) is likely to be significantly lower than average U.S. prices due mainly to relatively low transmission fees in this state since we live fairly close to large gas producing regions in Alberta. Average delivered natural gas prices for the U.S. are forecast to increase slowly over the next 20 years at a rate of about 0.5 percent per year. Montana residences can expect to pay a home delivered price of around $5.00-$5.50/Mcf through 2010 (in current dollars), while the average U.S. residence can expect to pay $6.00-$7.00/Mcf (U.S. EIA 2001c). These forecasts represent long-term averages.

Despite slow expected price growth over the next 20 years, many Montanans will likely see an increase in their gas bill in July 2002. Although NWE currently has access to inexpensive Alberta gas, these low price contracts for its core customers will end June 30, 2002. At that time, NWE may not be able to secure such low prices and its Montana customers may have to pay gas prices closer to average U.S. prices than at present. This could lead to an increase in gas bills for NWE customers, all else equal. (Smith 2001).

Figure NG3. Price of natural gas in Montana



Source: Table NG3.

Figure NG3 shows *delivered* natural gas prices in Montana adjusted for inflation and reported in 2000 dollars. These are the prices that residents and businesses see in their final energy bill reflecting all charges. It is clear that prices for all consumer classes including residential, commercial and industrial, were relatively low in real dollars (below $4/Mcf) until the 1980's. Prices then rose in the mid-80's and have since settled in the $5-6 range. Natural gas still remains a relatively inexpensive way to perform certain services such as heating one's home.

Although gas prices are expected to increase slowly in the long run, Montanans may be subject to increasing gas price volatility from extreme or unexpected events such as the California energy crisis of last year. One reason for this is the increased pipeline capacity from Alberta out to the U.S. Midwest and East Coast. This increased capacity means that the wellhead price paid in Montana today is closely tied to prices paid nationwide. National prices are sometimes affected by unexpected events worldwide like cold snaps and political turmoil. The Pacific Northwest, for example, now feels the effects of cold snaps in the Northeast that drain storage fields and compete for gas with new gas-fired generators from California to Florida (WA OTED). Events outside of Montana will affect prices in Montana more than ever before.

Price volatility also can be expected due to increased use of natural gas nationwide for electric generation. Wholesale electric and natural gas prices are becoming intimately linked. Increasing convergence of the electricity and natural gas markets means that extreme events like the California energy crisis are likely to affect both electricity and gas markets simultaneously. Increases in the price of electricity nationwide could increase the demand for and price of natural gas as occurred in 2000-2001. Gas prices rose nationwide because supplies of natural gas were temporarily tight, due in part to low storage and pipeline constraints. Utilities paid more for natural gas than they did before, but high electricity prices encouraged them to produce electricity anyway, further straining gas supply (Morlan 2001).

All of these factors affected gas prices in parts of Montana and much of the U.S. During 1998 and 1999, wellhead gas prices hovered around $2.00/Mcf at the Henry Hub. In the summer of 2000, wellhead prices had increased to about $3.60/Mcf and then shot up to $5/Mcf in the fall. This was more than double the average spot price a year earlier. In late November, gas spot prices moved past $6/Mcf, reaching as high as $10.53 on December 29, 2000. Since that point spot wellhead prices have fallen and are back down to “normal” levels under $3 on the NYMEX.

The effects of new gas-fired power plants around the nation upon Montana’s gas supply and price will depend on the number and timing of both the new plants coming on line and available gas supplies (WA OTED 2001). While the demand from new gas-fired power plants in California and other western states will place pressure on the Northwest’s natural gas infrastructure, Montana’s infrastructure that runs directly from Alberta and Wyoming will likely not be as strained. Thus, Montana will likely experience more moderate price fluctuations than in other areas of the U.S.

This convergence of the electricity and gas markets bears a number of implications for regional electricity and natural gas utility systems and for industrial customers purchasing their supplies directly. Electric utilities that were caught short in the 2000 energy crisis will likely pursue strategies that provide better insurance against future price volatility. New electric generating facilities that do not use natural gas will be more attractive options. For example, BPA announced in February 2001 that it would seek to acquire up to 1000 MW of wind power, at least partially because of the hedge that fixed-priced wind power could provide against volatile natural gas prices. NWE included 150 MW of wind generated power into its proposed default supply portfolio. Finally, energy efficiency investments are also more attractive than they have been in recent years. BPA, for example, announced that its conservation and renewables discount plan would begin several months earlier than previously planned.

The California energy crisis and high gas prices during that time point out three lessons for Montana. First, our natural gas prices are affected by a number of factors beyond any one entity's or state's control. Second, the growing use of natural gas for electricity generation has the potential to upset the traditional seasonal patterns of natural gas storage and withdrawals. This could lead to high or volatile prices not experienced before. Finally, to the extent that the western United States depends on natural gas for new electricity generation, the price of natural gas will be a key determinant of future electricity prices. Economic theory suggests that in the long run electricity prices will be equal to the cost of new sources of gas.

7. November 2002 Addendum

Price Increase for NorthWestern Energy Customers

The majority of natural gas consumers in Montana soon will be exposed to market prices as a result of energy deregulation. NorthWestern Energy's (NWE) 158,000 consumers may face a 35 percent increase in their natural gas bills by mid-December under a proposed rate hike filed with the state Public Service Commission (PSC) on November 13, 2002. NWE (formerly Montana Power Company) seeks a $54.2 million annual increase in natural gas revenue in Montana due to higher projected costs of supplying gas.

According to the company, the typical NWE customer using 10 dekatherms of natural gas monthly would pay $16.10 more in natural gas bills each month if the PSC approves the full request. The total bill for this consumer would increase from the current $46.04 to $62.14 a month. NWE asked the PSC to allow the requested rate increase go into effect on a temporary or interim basis on December 15, 2002. When the PSC makes a final decision, rates could be adjusted for any differences between temporary and final rates.

Natural gas customers of NWE historically have paid relatively low energy rates. Prior to the restructuring of the natural gas industry, government regulations kept prices low. Then, in 1997, as part of Montana Power's deregulation process, MPC sold the natural gas assets of its affiliate NARCO to Pan-Canadian (now merged into ENCANA). Through that deal, MPC received a five-year, inexpensive gas contract fixing the price of gas at about $1.60/Mcf through June 30, 2002. NWE received around 40% of its gas from this fixed-price contract. When the contract expired last summer, the price of gas on the open market was about double that under the contract.

The price change requested by NWE must be approved by the Public Service Commission in what is called a 'tracker' hearing. A tracker hearing covers only the cost of purchased gas, and not any of the other costs of the utility. Trackers usually are routine procedures. Due to the potentially large increase in gas prices for the next tracker filing, however, this hearing may be less routine. The two main issues at this hearing will be deciding whether the contracts into which NWE entered were prudent (and therefore the extent to which the costs should be passed on to the consumer), and determining how to phase in the large rate hikes to consumers caused by increased exposure to the market.

National Situation

In the U.S. as a whole, supplies of natural gas should be sufficient to satisfy all residential consumers' needs through the 2002-2003 winter season. This is assuming normal winter weather and no catastrophic disruptions of supply. According to its "Winter Fuels Outlook: 2002-2003, October 2002," the U.S. Department of Energy Information Administration estimates that the average residential price of natural gas will be about 6 percent higher than last winter, and that the total amount paid for gas consumed by residential customers during this winter will be about 19 percent more than last winter (http://www.eia.doe.gov/emeu/steo/pub/pdf/win0203.pdf). These estimates are based on two assumptions: First, a return to normal winter temperatures will result in colder weather than the relatively mild weather of last winter, thereby increasing the amount of gas used per household. Second, along with increased gas use per customer, the increased overall demand is expected to result in higher prices. How these national trends will affect Montanans, in addition to the NWE price hike, remains to be seen.

Extensions of Current Northwestern Pipeline System

NorthWestern Energy's natural gas pipeline system will require expansion in the next few years to meet the growing demand from its customer base. This growth is largely due to new residential and commercial development and a growing population in the system area. NWE has some remaining excess capacity on its current system, and plans no expansions in 2003. In the future, NWE intends to build partial loops (in addition to existing loops) on its gas lines to Kalispell and Missoula in order to increase capacity to those areas. The Bitterroot Valley (fed by the Missoula line) and the Flathead Valley (fed by the Kalispell line) were two of the fastest growing areas in Montana in the 1990's. The time scope of these two loop extensions is within the next two or three years.

Any new gas fired electrical generation would require pipeline expansion beyond that described above. Additional expansions would depend, in part, upon the progress of generation projects such as Montana First Megawatts (Great Falls), Basin Creek (Butte) and Silver Bow (just west of Butte). The first two developments are under construction. Currently, the status of the Silver Bow plant is uncertain. It has not yet begun construction and its permits currently are being challenged in court. The amount of pipeline expansion needed will depend on which plants actually get built. Nationwide, many gas plants proposed to go online in the next few years have been cancelled due to a variety of factors including lower electricity prices and slower growth in demand for electricity.

Update On Coal Bed Methane

Coal bed methane (CBM) gas development in the Powder River Basin of Southeastern Montana is currently on hold until the final Environmental Impact Statement is released. The U.S. Bureau of Land Management and the Montana Department of Environmental Quality are the co-authors of this document. The final EIS probably will be out in January 2003. Recent higher natural gas prices in the $3.50/Mcf range are likely to increase the interest in developing CBM. Some residents in Montana have forcefully opposed methane development, especially in or near the

Powder River Basin and in Park and Gallatin counties. A development timetable is unknown at this point.

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