Deregulation and Energy Prices – An Impact Assessment for Alberta Pork

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■ Energy Price Components

- The price of natural gas is made up of three cost components: the cost of the gas "commodity", the pipeline and transportation cost and the local distribution cost.

- It is the cost of the gas component that has risen dramatically over the past months. The costs of transportation and distribution account for less than one third of the total and have changed little over the past year.

- The price of electricity is comprised of three components: the cost of electricity generation, the cost of long distance transmission and the cost of local distribution.

- Differences in generation costs account for most of the differences in electricity prices among provinces. The source of electricity has a major impact on the cost of generation; hydro, nuclear and coal are the least expensive while gas-fired generation is currently expensive.

■ Deregulation

- The cost of gas component is now unregulated in Alberta and varies according to the prevailing market conditions.

- Local distribution companies, such as ATCO Gas are not allowed to make any profit on the purchase or sale of the commodity.
- Gas transportation prices remain regulated by the National Energy Board. Investor owned gas distributors such as ATCO Gas and Alta Gas Utilities

are regulated by the Alberta Energy and Utilities Board. They are allows to cam sufficient revenues to cover their costs, including a fair return on their investments, but not on the supply of the gas.

- An accounting system has been set up, whereby any balance due to buying and selling differences is carried forward and recovered or credited to customers. Rates can also be changed mid-season if the variance differs by 3% of the forecast balance.

- The Boards do not set rates for municipally owned gas utilities, rural gas co-ops or natural gas marketers. They are allowed to sell to whoever they want. Right now, U.S. customers are willing to pay high prices for natural gas so prices throughout the industry are high.

- The cost components of the electricity industry are being "unbundled" to create competition by allowing competing generators to submit blocks of electricity.

- Two electricity auctions raised over $2 billion which is being distributed to Alberta consumers in 2001.

■ Prices Within Alberta

- Unlike other gas utilities, ATCO Gas does not hedge, or lock in natural gas prices into the future. It therefore does not gain temporary price advantages in rising markets, but also does not lock into prices which in the future might be higher than spot prices.

- In January 2001, ATCO Gas applied for rate adjustments to collect from customers what it had previously paid for natural gas this winter. It provided the Board with two options of which the board accepted the one with the least aggressive repayment. The rates effective for a 12 month period are $8.76/GJ (North) and $9.80/GJ (South).

- Current demand is so high that companies are not interested in providing discounts to buying groups for volume purchases since they will sell the gas at a higher price elsewhere.

- Delivery charges were reduced by ATCO. They include a 14% reduction for North customers estimated at $28 million in January 2001 and a $23.7 million cost of service refund to South customers in February 2001.
- Electricity rates vary by customer class and in some cases are subject to time-of-use rates.

- The regulated rate for electricity has been set at 11 cents / kwh for 2001. The effective rate that customers will pay has been reduced to approximately 5 cents for residences and 7.4 cents for farms by the Electricity Auction Rebate.

■ Prices in Other Hog Producing Areas

- A summary of gas and electricity prices is provided in Table 5 and 6 respectively. The price of natural gas varies considerably amount other areas with some being somewhat lower than those of Alberta and some being considerably higher. Compared to Alberta, natural gas prices were significantly lower in Saskatchewan and slightly lower in Manitoba. Prices in areas of Ontario and Quebec were similar to those in Alberta whereas prices in British Columbia, Illinois and Ohio were higher.

- Making direct gas price comparisons to other jurisdictions can lead to false conclusions. A number of reasons are offered why prices differ between Ontario and Alberta, many are related to timing market prices with customer payment.

- Comparing electricity prices is particularly problematic due to the numerous pricing structures and formulas that are offered by companies. Many companies different prices based on location, total monthly use, peak use and time of use.

■ Programs Currently Offered by Government

- A long-term energy rebate program is to be announced in late spring.

- An initial one-time Energy Tax Refund of $300 was announced in the fall of 2000. It is comprised of two installments of $150, one in November 2000 and the second in April 2001.

- The current natural gas, propane and fuel oil program includes four $150 payments for residences and a $6/GJ rebate to farm operations. Multiple homes on one meter and residences on the farm meter are eligible. Farmers will received both the $600 and $6 1 GJ rebate on all gas purchased. A summary has been included as Table 7.

- All homes will also receive $40 / month and farms will get 3.6 cents per kwh for electricity. This should keep electricity costs similar to last year's levels.

- Rural Gas Co-op and municipally owned systems will receive both the January and February rebates in February since there was not sufficient time to make ch anges to the billing systems in January.

Recommendations

In light of the many changes and the high level of uncertainty in the Alberta energy sectors, producers should:

- develop an increased awareness of how the energy industries truly function
- become fully aware of their current and future energy requirements
- choose a strategy that is best for their operation
- select suppliers that allow them to implement their strategy.

Impact of Natural Gas and Electricity Prices On the Cost of Production in Alberta

The information obtained from the survey revealed that for the 2000 production year, Alberta pork producers on average:

- paid $2.49 for natural gas per hog that was produced and marketed
- paid $2.46 for the electricity required to produce each market hog.

The average producer that responded to the survey produced 3,000 market hogs in 2000. These producers paid about $7,458 for gas and $7,500 for electricity in 2000. At the current energy prices without rebates, these producers will be required to pay about $14, 238 for natural gas and $13, 770 for electricity. This represents a total increase of $13,050 in energy expenses over last year.

The survey results suggest that regardless of farm size or location, some producers had considerably higher energy costs than the average. These producers, which represent about 20% of the survey respondents, paid $11,650 for natural gas and $8,580 for electricity to produce 3,000 hogs in 2000. These energy costs will increase by $17,729 per year if the price of the energies remain at the current levels ($10.5 0 / GJ; $0. 11 / kWh) and the rebates are no longer being offered.

The above calculations do not take into consideration the impact of increased energy consumption due to colder winters. Information is presented in the report which illustrates the high variability in the duration and severity of the cold temperatures in Alberta. Table 9 of the report presents the dramatic impact that the combination of increased energy costs and higher gas consumption would have on hog production costs. A 50% increase in natural gas consumption at the non-rebated price of $10.50 / GJ which is similar to the costs currently being offered by gas marketers, will result in an increased annual cost from $7,500 to over $20,000.

In total, Alberta pork producers spent approximately $17.5 rnillion on natural gas and electricity in 2000. With weather similar to 2000 and without current rebates, the costs of electricity and natural gas would be twice that in 2001 ($35.5 million).