

Keeping Electricity Competitive

By Martin Merritt

A few weeks ago, this newspaper carried an item reporting that Alberta had just set a new summer record for power consumption, eclipsing last summer's record by 2.3 per cent. The good news is that we had plenty of supply to meet this record. The concern is that as we continue to post records we may not have the transmission to ensure that the lowest cost supplies reach us as consumers.

As a consumer, I get the best deal for myself if I can buy things – cars, groceries, gasoline and other forms of energy – freely on the open market. In a market economy, our choices as consumers give a great incentive for sellers to keep their costs low. If we were constrained to buy from only a few sellers, we would have less choice and prices would likely be higher.

I also wear another hat. As Alberta's Market Surveillance Administrator – the guy responsible for making sure our electricity market functions competitively – I understand that constrained markets can prevent low-cost sellers from prevailing in the marketplace. In the case of electrical power, we need more than the supply necessary to meet Alberta's needs. We need a system that allows electricity to flow freely around the province. That requires adequate transmission capacity.

Alberta's electricity market provides consumers with secure supplies and competitive pricing, but the transmission system is becoming undersized for the job in some places. Whether for home appliances or running business operations, consumers will only get the best deal on power when the transmission system can transport electricity from (almost) any generator in

Alberta to (almost) any consumer in Alberta. This is why I am concerned about the tremendous hurdles facing new transmission projects these days.

Electricity generators are like stores, and the transmission system is like the network of roads that enables us to get to and from the supermarket. If major roadways became so congested that we had to buy all of our groceries from the local convenience store we all know what would happen to our family's food bill.

This isn't just theory. It's already affecting us. Today we are moving a lot more electricity through the transmission system than we did when it went through its last major upgrade over 20 years ago. In constrained areas of our grid, this has dramatically pushed up the energy losses from transportation. For example, between the Lake Wabamun area where about 40% of Alberta's generation is located and the Calgary area, losses average over 10%. According to the Alberta Electric System Operator, additional transmission capacity would save enough energy to power half the City of Red Deer. Losses on that scale are pure economic and environmental waste.

More recently, in the five years from 2002-2007, Albertans paid almost \$300 million in subsidies to electricity generators for helping us get around our transmission bottlenecks. The subsidization rate is presently \$40-\$50 million annually. Some advocate expanding this practice – paying generators to locate in sub-optimal places in order to avoid investing in transmission infrastructure that the province badly needs. This amounts to renting band-aids rather than fixing the root problem. This band-aid approach might work well for the band-aid vendors but it's certainly not in the best interest of Albertans if we expect to continue to realize the larger benefits of a broadly competitive electricity market.

In Alberta today, the wholesale electricity market is worth about \$5 billion a year, less than 10% of this represents the cost of transmission. The economic challenge of trying to avoid or defer transmission investment beyond what we have already realized is that you put the competitive efficiency of a \$5 billion market at risk, in order to chase questionable savings in the 10% piece – penny-wise, but pound-foolish.

Allowing growth in demand to outstrip the capacity of our existing transmission system puts the benefits and perhaps even the reality of a competitive electricity market at risk. Experience in other electricity markets has shown that the practice of subsidizing generators to locate in particular places can have expensive and unintended consequences. Once generation economics start to hinge on capturing subsidies rather than on efficiency and low-cost, the broader benefits of the competitive market become compromised. Consumers expect and need generators to compete with each other on the basis of efficiency and generation cost. Transmission enables this competition to occur. Subsidized generation distorts it.

Unless we invest in transmission, Albertans' bills will continue to reflect the growing cost of rented band-aids, high losses and diminished competition. The longer we take to build the transmission we need, the more rent cheques go down the drain.

In southern Alberta, we have great sites for generating electricity from the wind. Investors are willing to build there, but we have a shortage of transmission. Similarly, northern Alberta is the logical place to locate fossil fuel generators. They are most efficient (both economically and thermodynamically) when they can be located at low altitude, in cooler temperatures and near a substantial supply of water. There too, we have a shortage of transmission. By bringing all electricity supply sources to all consumers across the province, transmission provides us with choice and forces suppliers to compete with each other.

Subsidizing higher cost, less efficient generators to locate in the middle does neither.

These are powerful realities. Some advocates of gas-fired generation in southern Alberta will soon enough be asking for subsidies – for without them their projects are unlikely to be able to compete. About half of Alberta’s residential consumers live in the transmission-constrained southern part of the province, but the case for reinforcing our transmission grid is not an argument for southern consumers alone. All Albertans benefit from the most competitive market possible.

We must find ways to enable the fair and timely development of critical transmission infrastructure. We need more transmission capacity because that – not subsidized generators – is the best way to assure the competitive market that Albertans have come to expect.

Alberta’s Market Surveillance Administrator, Martin Merritt is head of an independent agency developed to ensure that the province’s electric markets operate in a fair, efficient and competitive fashion. The MSA also monitors the retail natural gas market.