LAND IS A LIMITED RESOURCE

By Reg Warkentin, Government Relations and Policy Manager, Team Alberta Crops

I have little doubt conflicts surrounding land use have been occurring ever since humans stopped chasing their food and started growing it. Why go through all that work to cut down some trees and get rid of the rocks when you could build a hut on a clear and conveniently placed piece of land used to graze livestock or grow crops?

Many of the resources we rely on are limited. Through the 1970s, the "oil shocks" resulted in car makers focusing on efficiency and led to NASA's research into wind and solar power. Through market forces and advancements in technology, concerns about "peak oil" are few and far between and not taken overly seriously. In Alberta alone we have 162 billion barrels of proven reserves. Based on Canada's current average consumption of 2.1 million barrels per day, Alberta has enough oil to provide over 200 years of energy to our country.

It's amazing what technology, research and innovation can accomplish. As a kid in the 1990s, the talk about deforestation for pulp and paper was a constant concern. Thankfully, we had cartoons like *Captain Planet* to villainize the miners and loggers, as well as educate the millennials and those younger about the threat caused by industry and progress.

In a surprise to nobody paying attention, beneficial management practices implemented in the forestry, mining, and oil and gas sector have made great strides in long-term sustainability. Regenerative forestry practices protect the ecosystem while allowing for a sustainable logging sector. Similarly, it is impossible to recognize a reclaimed oil sands operation for what it is – a huge tract of land that had the oil "cleaned" from the sand is now a thriving ecosystem full of natural trees, grasses and wildlife.

The exploitation of natural resources, and the land required to do so, is what it is. We have no choice but to utilize the land available to us to extract oil, lumber, coal, raise our livestock, and, of course, our crops. We also need places to build our homes, churches, shopping centres, schools and so on.

Today, with global climate objectives, we now need a place to harvest renewable energy. There is significant demand for tens of thousands of acres of land that can be used for solar panels and wind turbines. This is an issue that was brought up extensively throughout director and advisor meetings happening throughout our Team Alberta Crops partners, and for

There is significant demand for tens of thousands of acres of land that can be used for solar panels and wind turbines.

a good reason. Just one project near Lomond is utilizing 3,300 acres to produce 465 megawatts of electricity. This is just one of dozens of projects currently under construction or proposed.

Heather MacKenzie, Executive Director for Solar Alberta, estimated the production from solar projects will increase tenfold in the next two years, from 736 megawatts of utility to 9,174 megawatts. She said: "When you add it all up and online and/or coming online, more than 10,000 megawatts in the next two years."

Based on several of the projects currently underway or proposed in Alberta, and some back of the napkin math, we can deduce that it requires around 160 acres worth of panels to create 28 megawatts of electricity. From that, we know that 10,000 megawatts of solar power would require approximately 57,000 acres of land.

On one hand, this presents an incredible opportunity for farmers and landowners planning their

Windmills such as these dot the agricultural landscape in southern Alberta.

retirement, next investment, or inheritance for the family, and with electricity rates being what they are, project proponents are paying huge sums of money. It is no coincidence that land that is great for agriculture is also great for renewable projects. Both require huge tracts of clear land, long sunny days and a decent proximity to regional infrastructure.

On the other hand, there are serious questions about how the mass conversion of arable land into solar and wind projects will affect Alberta agriculture over the long-term. As mentioned previously, is this driving up the price of land? What happens at the end of the project's life or if the company goes bankrupt? Could this end up being like the orphan-well situation, but instead we have millions of pounds of silicon and concrete above ground across hundreds of acres instead of a gravel road, well head and underground pipeline?
It is an especially interesting situation given the distribution of powers. With the powers granted by the province, municipalities are tasked with allocating land use. Many rural municipalities seem to agree that arable land is best utilized for agriculture. For reasons beyond the scope of this column, the Alberta Utilities Commission (AUC) has the power to override municipalities and approve something like a 3,300-acre solar project even though the elected representatives of the municipality did not think it fit within their vision for land use. The AUC is tasked with administering our utilities in a way "that is fair, responsible and in the public interest."

The part about public interest is especially interesting and needs further investigation. I think pretty much everyone agrees that fundamentally speaking, renewable projects are a good thing. However, there is a need for honest and open discussion about converting tens of thousands of acres into fields of concrete and silicon, especially when those fields were highly productive for the farmers that worked them.

It's certainly an interesting issue, and one where we need to be careful. No doubt there is a need to respect the property rights of our landowners and recognize the financial opportunity this presents; we also need to have an honest conversation about the implications. At this current rate of transformation, how will this affect Alberta agriculture's long-term sustainability? How will this affect ongoing issues related to land fragmentation, land prices and eventually, the price for food? Land, especially higher quality arable land needs to be recognized and treated for what it is – a limited resource.