

Scott Powell: Hello, and welcome to Manitoba Hydro's public accountability video series. I'm Scott Powell, Director of Corporate Communications for Manitoba Hydro. And today we're speaking to Hal Turner, Vice-President of Asset Planning and Delivery. Asset Planning and Delivery, that's a bit of a mouthful of a title. What is it and what do you guys do?

Hal Turner: Well, Scott, it's actually pretty simple and it's all right there in the name. Having an electric and natural gas utility, that's an asset intensive business. We have tens of billions of dollars of assets, that's things like there's more than a million wood poles installed in Manitoba. There's 14,000 kilometres of transmission lines, and we've got 17 generating stations across the province.

So, our job in Asset Planning and Delivery is managing those assets to create value for Manitobans. So, that's about making sure the existing assets are in good condition and are performing at the level that our customers expect and it's about planning for new assets to meet our customers' future needs.

In addition to that, we execute a lot of the capital work for Manitoba Hydro. So, that's the major refurbishment for repairs or replacements of those existing assets. If you think about your home, when do you need a new roof? When do you need to renovate your kitchen, or do you repair that leaky faucet, or replace that leaky faucet? Those are the kind of decisions that Asset Planning and Delivery makes on behalf of Manitoba Hydro, and then we go about executing those decisions as well.

Scott Powell: Certainly a broad base of work that you do. Specifically, what type of activities does your group do on a day-to-day basis?

Hal Turner: You'll often see the Asset Planning and Delivery folks on the streets in and around Winnipeg or the communities you live in. So, for example, when we have to change hydro poles or upgrade voltages in neighborhoods, we'll do that work. There's a big project right now on Dawson Road where we are refurbishing a substation and redoing the lines along Dawson Road. We're doing things like voltage upgrades and reducing the number of circuits on the poles. We do that for a number of reasons. It improves the reliability for our customer, it makes it safer for our staff to work and if we do have an incident, those poles are right along the street if a car happens to hit it, by reconfiguring it the way they are, we'll be able to respond quicker and get the power back on for people faster.

Scott Powell: Now, you mentioned customers a few times in your last answer, what's the connection, the direct connection between Asset Planning and Delivery and our customers? How does what you do impact what they see?

Hal Turner: Everything we do at Manitoba Hydro is about our customers and for our customers. There's a direct connection between the work that AP and D does and making sure that our customers have the electricity and gas they depend

on. So again, we're making sure that the electric and natural gas systems are in good working order and performing at the level that meets our customers' expectations and we want to do that at the lowest possible cost. We do the repairs, replacements, refurbishments, and planning, and as well as managing the construction for new assets. Those are the things that our customers need to make sure the energy's there to run their households or their businesses. We also engage with our customers, Scott. Whether it be locally when we're working on a project or across the province on a big undertaking, like the integrated resource plan.

Scott Powell: Very interesting, Hal. With that in mind, what has Asset Planning and Delivery been up to over the past 12 months? I know there's a lot of projects underway, some of the voltage upgrades that you mentioned, but I know we've also made tremendous progress at Keeyask.

Hal Turner: You're right, Scott, it is been a busy few years for Asset Planning and Delivery. At any given time, we've got hundreds of projects on the go, and I'm glad you mentioned Keeyask. Keeyask is our biggest project, and I'm happy to report on March 9th, the seventh and final unit was put into service. That was a momentous day for the project. Keeyask is going to be delivering clean, renewable electricity for generations to come. Now, we're not done yet at Keeyask. Our focus is going to turn to decommissioning the construction infrastructure, returning the area around the generating station back to nature, as well as remediating some of the environmental impacts associated with Keeyask.

I talked a little bit about that work at Dawson Road. Last year we had a big project on Ness Avenue, so for our customers in Winnipeg, you may have seen us working around there. Another exciting project we're working on is the Portage Area Capacity Enhancement project, and that's about building a new transmission station, just west of Portage la Prairie and connecting it with a new line from Dorsey Converter Station. This is going to allow us to invest in and improve the electricity system in Southwest Manitoba.

It's one of the fastest growing areas in the province, and we need to invest and build this infrastructure to meet that growing demand for electricity and to enable economic development. Now, executing projects might be the most visible thing we do in Asset Planning and Delivery, but it's not the only thing we do. Planning -- planning is a huge part of our job. Whether that be planning for new assets, or planning on the repair or refurbishment, or even retirement, of our existing assets.

When it comes to planning, it's about balance. Balancing costs against performance and risk. That's one of the most important decisions we make. We strive to have our systems meet our customers' expectations for performance and things like reliability. We want to do that at a risk level that our customers expect and we always want that at the lowest possible cost. We're always

looking for new ways of doing things to improve that balance. A great example that's got would be our cable injection program.

So, in a lot of communities and subdivisions people get their power underground. It comes into their house underground, and those distribution cables have been in the ground now for 40, 50 years, they're nearing the end to their life. In some instances, we can inject silicone into those cables for a fraction of the cost of replacing them and extend those lives by decades.

Scott Powell: Now, doing things with more efficiency and cost savings, that's a big factor for all of Manitoba Hydro, not just Asset Planning and Delivery, correct?

Hal Turner: That's correct, Scott. We always want to get better at what we do. We want to empower employees, allow them to serve our customers better. We want to work more efficiently and effectively, again, all with the intent of doing a better job for our customers at the lowest possible cost.

Scott Powell: Now, customer input is very important to the whole organization, but especially to your group, because the projects you work on have an immediate impact on Manitobans, all of our customers. How are you incorporating the needs and desires of communities and our customers into your work plans? Not just next year, but certainly on a go forward basis?

Hal Turner: Well Scott, we're always learning, we're always trying to do a better job, engaging with our customers and finding new ways to talk to them and understand what's important to them. Sometimes we're learning things the hard way. For example, it was in the news the last few years when we're doing some tree trimming work. So, it's important that we manage of vegetation around our lines to ensure that they can operate reliably for our customers. These trees, they can be a big part of the community and so, for example, in Sandra Crowson Park or Omand's Creek, we needed to do some work to maintain the reliability of those lines, but we didn't do as good a job as we could have engaging with our customers and fortunately, they let us know about it and we could learn from those mistakes. So, we're trying to do a better job engaging our customers ahead of time before we do work. That's a big part of asset management Scott, is making sure that you meet your customers' expectations, and that really starts with engagement.

A great example of engagement is on that transmission line I spoke about from Dorsey to Portage la Prairie. Routing of transmission lines is challenging. Everybody wants and needs electricity, but understandably, people don't necessarily want a transmission tower in their property or in their yard. So, we work closely with communities to try and find that optimal routing to balance performance, cost, and risk.

We've had many engagement sessions with communities and land owners along the potential routes and we're going to continue engage with them until that

route is finalized. Engaging with customers directly influences the routing of the line and that's important to Manitoba Hydro.

Scott Powell: Manitoba Hydro has just started and is currently undertaking our very first Integrated Resource Plan or IRP. So what is the IRP and what are we hoping to learn from it now?

Hal Turner: Scott, I'm happy to talk about Integrated Resource Plan, or the IRP. As you mentioned, it's our very first IRP and we are very excited about it. An IRP is essentially a roadmap and it's going to help position Manitoba Hydro to meet our customers' energy needs both now and into the future. It sounds simple, but it's a lot of work. It's a massive undertaking, and it's going to take us over a year and a half to complete.

The energy world is changing. We have in Manitoba Hydro, what we call the three Ds, which is decarbonization, decentralization, and digitalization. These factors are influencing and changing the energy landscape, not just here in Manitoba, but around the world.

A big part of integrated resource planning is stakeholder engagement. Now, this includes meeting and talking to individual customers, interest groups, associations, communities, subject matter experts, and anybody else who's interested in the energy landscape, so we can better understand their current and future energy needs. Based on this engagement, a number of potential future scenarios for the energy systems in Manitoba are identified. We then study and model these scenarios to determine how the energy landscape in Manitoba could evolve and identify ways that Manitoba Hydro can position itself to meet the future needs of Manitobans. This could include new Manitoba Hydro assets, new customer-owned assets, or third-party assets, such as like the wind farms that we see in St. Leon and St. Joseph, it's a really broad undertaking.

Scott Powell: What role will our customers play in that integrated resource planning process? I mean, if it's that broad, where do we really get started?

Hal Turner: So Scott, absolutely the customers have a huge role in the plan and you talked about engagement. There's layers and layers of engagement as part of the IRP. I think we've got four or five engagement sessions planned, and really it's about customers telling us what do they expect? What do they expect from their energy utility? What do they expect from energy usage in Manitoba, both now and in the future?

Scott Powell: Well, it's been a remarkable couple of years to say the least, coming out of COVID-19 and we're looking at even more change on the horizon for Manitoba Hydro. Can you talk a little bit about how Asset Planning and Delivery is managing those challenges that were looking at in the future? Not just this year, but maybe three, five years down the road?

Hal Turner:

Yeah, you're right. It's been a tough couple years for Manitoba Hydro, and really for all Manitobans. The COVID-19 pandemic was tough on all of us. So listen, again, it's rooted in making sure we make better decisions for our customers and better meet our customers' expectations. So, within Asset Planning and Delivery, we're looking for better ways to balance performance, cost, and risk, and better ways to prioritize which work gets done. We're looking at leveraging technology so we can be more efficient and effective in the way we do things. We're looking to engage more with our customers to inform our work and better understand and meet their expectations. We want to be a positive part of our customer's lives, and we're going to work continuously to improve this.

Asset Planning and Delivery has a big role in making sure that future is a bright one. It's up to us to determine where to put our time and money, which assets do we refurbish and repair, which assets should we retire? What new assets do we need to meet those future demands for our customers? We're charting a good course. It's a long process, but we have a long-term strategic plan to help keep Hydro strong. We have clear direction from our leadership, our customers, and we're starting from a place of strength.

We're vertically integrated, which means total ownership of all our assets and our asset decisions. We have great products and that's clean, renewable electricity to keep things bright and a robust natural gas system to keep people warm. The fundamentals are good.

Scott Powell:

Well, thanks for that Hal. Now, as part of our promotion of these public accountability videos, we asked our customers to submit questions to us via the internet. We've got a couple of those questions for you to answer right here. We've also given a couple to Jay and her video and also to Alex in his video. I'd like to remind our viewers that if they don't hear the answer to their question in any of the videos, we group those questions by theme, and answers are available on our website in print form. So, you're free to visit that area of the website and get the answers to the questions you asked.

So now Hal, first question from our customers. After that huge Thanksgiving 2019 storm, and all the hydro poles that went down and all the repair work we did, why didn't Manitoba Hydro bury those lines?

Hal Turner:

That's a great question and it's a question we get asked often. I talked earlier about balancing performance, cost and risk. At the end of the day, it's as simple as the extra cost doesn't reduce enough risk to justify it. So, let me explain that a little bit. Burying lines is approximately 10 times more expensive than overhead lines. Now yes, if you buried a line, it would be less susceptible to things like an ice storm, but those ice storms, those big ice storms that take down lines over a significant swath of the province like we saw in 2019, they just don't happen very often, Scott. We called the storm in 2019, the storm of the century. Fortunately we haven't had a storm that intense since, and we hadn't had it for many, many decades ahead of time.

So the reality is, it's just not worth the extra cost to bury that line underground, because that cost is going to have to come from our customers. Our natural gas system is underground and that doesn't mean it's immune to damage. We see flooding, shifting of the earth, excavations, people can hit the underground lines. So, just because something's underground, doesn't mean it won't get damaged. In addition, when they are underground, the repairs take longer, which means our customers are without power longer, they're more complex and it's more expensive.

Again, it's as simple as the reduction in risk by going underground just doesn't warrant the extra cost. On a whole, overhead lines make more sense for our customers. It's the right balance of performance, cost and risk.

Scott Powell: And here's one more question directly from our customers. How is Manitoba Hydro accounting for the growth of distributed energy resources like personal solar panels, wind turbines, and localized energy storage in our plants going forward?

Hal Turner: That's a great question, Scott. If you follow the news, there's a lot about solar, especially in the Southern United States and wind. I mean, as the world is moving to decarbonize their energy system, we're just seeing more and more solar and wind. As technologies improve, the cost to install that comes down and it's going to get closer to the cost that Manitobans pay for their energy they buy from us. So, we're monitoring that closely. That's one of the topics we're exploring in the integrated resource plan.

Now, when the penetration of solar or wind is relatively small, the grid is in a pretty good place to take that right now. The one thing we need to do is we need to maybe change the customer's meter. The meters that are currently installed in most of our customers' homes or businesses, they are designed to measure power one way. So, if a customer's putting in a solar, or a ray, or a wind turbine, we need to be able to measure the extra energy they put back on our system, so we need to change their meter. But as this technology continues to develop and get installed by Manitobans, we may need to do some bigger things to the grid to prepare it for greater bidirectional flow. So we're monitoring that, like I said, as part of the IRP process, and we're getting ready that when we need to act, we'll be able to act, to enable customers to have their own generation if that's what they so desire.

Scott Powell: Well, thanks Hal, appreciate you taking the time to speak to us today. Again, a reminder to our viewers, if you didn't get an answer to the question you had submitted on this or any of the other videos we've produced, please go to our website and check out some of the answers that will be provided in print form. So, thanks again for watching and have a great day.