Lindsay Hunter: Welcome to Manitoba Hydro's Information Session on our modelling process that we're using to support our 2023 Integrated Resource Plan or IRP development.

Manitoba Hydro has a presence across this province on Treaty 1, Treaty 2, Treaty 3, Treaty 4, and Treaty 5 lands, and the original territories of the Anishinabe, Cree, Oji-Cree, Dakota, Dene Peoples, and the homeland of the Metis Nation. We acknowledge these lands and pay our respects to the ancestors of these territories.

My name is Lindsay Hunter, and I am the project manager for our IRP development process. I'm presenting today with Ryan Bernier, senior planning engineer, who will be sharing with you on our modelling process.

For today's agenda, we are going to be running through some of our background of our IRP, which includes our development process, what we've heard in our previous rounds of engagement and how we're using them in our IRP development process, and as well we will be talking about how we use our energy in Manitoba, as these are all important things as we develop our IRP. And then Ryan will be taking you through our IRP modelling process and some of our next steps in our IRP development.

At Manitoba Hydro, we supply electricity and natural gas to customers across the Province of Manitoba. That means we have to make sure there is enough supply of these energy sources to meet demand, ensuring the light comes on when a switch is flipped or the heat comes on when a thermostat is turned up. For over 60 years, Manitoba Hydro has been planning to ensure a reliable supply of energy for our customers while balancing any financial impacts. We've also been planning for the infrastructure that delivers this energy to our customers. This includes the pipelines, transmission towers, distribution lines, and the various stations that move energy around the province.

Now, the evolving energy landscape is changing how our customers will use their energy at home for their vehicles and at work. So we need to evolve our planning process to help us prepare. Developing an Integrated Resource Plan is one change we've made. This process is not about how the future should unfold, but ensuring that the path forward can respond to how it might unfold.

Our IRP process breaks down into five stages as shown on this slide. We are now in the modelling and analysis stage. That means we are reviewing the scenarios we discussed with you last round and their impacts on resources, cost, and other factors through a technical lens. As we conclude our modelling and analysis, we will use the information gained to develop the Integrated Resource Plan, including the roadmap and near-term actions. This 20-year roadmap will include long-term strategies to prepare for the evolving energy landscape. It will help define where we want to go or may need to go and identify a number of ways we can get there. The roadmap will allow us the flexibility so we can change direction as the future unfolds.

The IRP planning process is also likely to identify a number of more near-term steps to increase readiness for the future, steps that could happen in the next five years. These steps will be detailed in the near-term actions and are likely to include further interpretation of results, developing a more detailed understanding of potential strategies, and defining the steps for informing potential major infrastructure development or investment decisions.

That brings us to today. The purpose of this session is to share how the modelling process works from the inputs to the modelling process all the way to the outputs that are produced. Our next sessions, starting in late November, will be an opportunity to discuss some of the initial results from our modelling process. We are covering a lot of information in our modelling process and it is very much in context of what is done for the IRP. Our goal is to share as much as we reasonably can in the time allotted, but we cannot cover everything.

We also appreciate that you might have additional questions about the modeling process or an interest in more detailed information. If that is the case, please reach out to us at irp@hydro.mb.ca and we will be happy to follow up. We also have the email address on screen at the end of the presentation.

As we move through our IRP development process, our work continues to build upon previous work. This is also true of our discussions with you. Before we get into the modelling process, I want to review what we discussed during our last round of engagement in the spring and how this is influencing our modelling and analysis work now.

This graphic illustrates the conversations we are having throughout our IRP process. The engagement conversations complement the development process and are aligned with key input-to-development milestones. In our last round of engagement, we discussed the preliminary work to develop the key inputs and scenarios that are the backbone to our analysis of the different energy futures. We hosted a number of different workshops to seek feedback on our initial thoughts on the key inputs and scenarios. We also presented the same information to the general public through our website and to our list of 5,000 subscribers who identified they wanted to participate in our IRP development. We also conducted research with some of our larger customers to understand how their energy use may transition in the future.

Let's review these five key inputs and four scenarios that were the basis of our last round of engagement.

The key inputs were developed to represent the changes that will have a significant impact on future energy needs. They are economic growth, decarbonization policy, electric vehicles, natural gas changes, and customer self-generation. The four scenarios use a combination of the key inputs to represent a specific energy future. The scenarios were set to represent broad possibilities of what the future may be using different amounts of change for each of the five key inputs. The feedback you shared during the last round of engagement

helped us finalize the details of these key inputs and scenarios so we could start the modelling. We have previously shared this feedback and how it was used, but let's review it here quickly.

First, the key inputs. During our discussions last spring, we received a lot of feedback on the key inputs, feedback that helped us feel confident we had correctly identified the key inputs creating the most uncertainty in the evolving energy landscape. We also heard from you that factors driving net zero GHG emissions are top of mind. In addition, we had feedback telling us other inputs are important to consider, such as reconciliation with indigenous peoples, sustainable development, energy efficiency, and factors influencing economic growth.

We've used this feedback in multiple ways. For example, we clarified additional factors that were driving the key inputs, such as technology availability and viability, particularly with electric vehicles. The feedback you shared on these other important inputs were also used to help refine and finalize our analysis approach. We will discuss this analysis approach further in our sessions on the preliminary results.

Now let's talk about the scenarios. When we asked you about the scenarios we presented, your feedback was that they were appropriate bookends for the evolving energy landscape so long as scenario four reflected a path towards net zero GHG emissions. We used this feedback to ensure that scenario four did in fact represent such a path. You also shared that you thought there is potential for futures that are different combinations of inputs between the bookends than what we presented. We used this feedback to help refine and finalize our analysis approach, which again, we will discuss further in our next conversation.