In this question and answer document, we respond to some of the frequently asked questions received from our customers through the 2023 annual public meeting process.

How are Manitobans going to be weaned off of using natural gas for heating?

Natural gas in Manitoba is an important source of energy both for industrial process use and to heat homes and buildings reliably and cost-effectively. One that is not easy to stop using.

During winter, natural gas serves more energy demand in Manitoba than electricity. If we were to serve our current natural gas demand exclusively with electricity, Manitoba Hydro would have to more than double the size of our current electricity system.

An important question our Integrated Resource Plan will consider is what role natural gas has in meeting future energy requirements. This analysis will include looking at customer choices and preferences, policy requirements and technology capabilities.

There are ongoing efforts to review and evaluate options to reduce carbon emissions from natural gas systems. Alternatives such as renewable natural gas (RNG) and hydrogen are in scope of the Integrated Resource Plan to review and will be discussed in the report when it's released this summer.

With the amount of net income expected this year and the reduction in fees paid to the Provincial Government, why does Manitoba Hydro need a rate increase at all?

We've heard directly from customers that rate stability and predictability are important – it allows for better budgeting and financial planning. However, our net revenues are not predictable from year to year. They can vary dramatically due to factors outside of our control, such as increasing interest rates, decreasing export prices, and droughts like what we experienced in the 2021-22 fiscal year.

The proposed rates increases are part of a long-term two percent rate path focused on providing rate stability and predictability to customers. The rate increases will ensure that we have the financial resources needed to address the volatility inherent in our operations. They will allow us to start reducing our debt while continuing to make needed investments in our system to maintain reliable service to our customers. And, they will protect our customers from unexpected, significantly higher rate increases.

Regular, predictable rate increases put us in a better position to meet the needs of the province and the growing demand for electricity to support energy policy goals and economic development priorities, now and in the future

Is Manitoba Hydro supportive of electric vehicles? How are we preparing for more EVs in the province?

We're watching the growth of electric vehicles, or EVs, closely, as are all energy utilities. It could impact our business, by increasing demand for electricity or influencing the peak demand depending on how consumers charge their vehicles. This in turn impacts our capacity and grid delivery system.

Through our Integrated Resource Planning process we are looking at how we can prepare to meet the needs of our customers for the next 20 years and beyond. Not surprisingly, the adoption of EVs is one of the key inputs identified for study in that process. Managing EV charging, for example, will be critically important to ensuring the ongoing reliable, affordable supply and delivery of electricity.

Future Integrated Resource Plans may consider approaches for managing EV charging, which may include different rate structures, to understand any impact they have in keeping overall investment costs low. Any implementation of new rate structures will need to follow established processes of review and approval by the Public Utilities Board.



With electric vehicles becoming more prevalent demanding more electricity and people considering ways to use less natural gas meaning more electric demand, how real is the possibility of electricity cost increases over the next 10-20 years and how high are prices likely to go?

Manitoba Hydro is projecting annual two per cent rate increases for 19 years starting in 2023/24 to 2041/42. This will keep rate increases at or below inflation while also ensuring system investments can be made to modernize the grid and be prepared for the potential increase in electric demand driven by things like electric vehicles. All proposed rate increases are subject to review and approval by the Public Utilities Board as part of a public regulatory review process.

We are currently developing our first Integrated Resource Plan to understand how uncertainty and timing of decarbonization, decentralization and digitalization changes, customer energy choices, and changing policy may impact the future energy needs of Manitoba. This work will help us to effectively plan and respond to the evolving energy landscape and its impacts on our customers.

How is Manitoba Hydro planning for more customers and growing demand for electricity? Are we going to need new hydro stations, nuclear or solar projects?

As part of our Integrated Resource Planning process, Manitoba Hydro is exploring how factors such as decarbonization could impact the demand for energy in Manitoba and how we might meet that demand. That includes looking at a broad range of energy supply resources including, but not limited to, new hydropower, wind, solar, small modular nuclear reactors, natural gas fuelled combustion turbines, and demand side management. What we are seeing in our initial modelling results is no new hydropower generation is selected.

There is also no new solar generation selected – largely because in winter, when we need the energy most, there is little sunlight available. Wind energy is identified as a cost-effective resource that provides significant energy, but it is a variable renewable (or intermittent) resource and needs to be paired with a dispatchable resource. One such resource could be thermal generation, an economic resource that can produce energy when it's needed.

Again, these are only initial results. Additional study is underway and the results will be detailed in the final Integrated Resource Plan report when it's released this summer. It will provide a roadmap and near-term actions that will guide us as we continue to build our understanding of what the future could look like and what Manitoba Hydro needs to do to ensure we are able to continue to meet the energy needs of our customers.

The initial modelling results of the Integrated Resource Plan show new sources of electricity are needed under all scenarios by 2033. Are any future export contracts being considered with a term beyond 2033?

Exports of electricity will continue to play a role in Manitoba Hydro's operations for the foreseeable future. The modelling for our Integrated Resource Plan assumes that current firm export agreements would expire at the end of their contracts and not be renewed. The model does assume that opportunity sales of exports will continue.

Since climate change is going to increase the severity and lengths of droughts in the future, what plans does Manitoba Hydro have to diversify its energy sources?

Manitoba Hydro has been considering the potential implications of climate change for decades, integrating it into assessments of hydropower and transmission developments, such as the Keeyask generating station. We've participated in research to advance how climate change is incorporated into our energy planning process and we continue to improve our understanding of sensitivities which can help us identify energy resource



options that are robust under various potential future conditions.

Despite some evidence that average precipitation during the summer will decrease across the prairies, the science remains uncertain about how extreme multi-year droughts may change in a warmer climate. The size and hydrologic diversity of the Nelson-Churchill Watershed also creates some challenges in understanding climate change impacts on wide-spread, persistent hydrologic droughts. Manitoba Hydro's total system inflows are the result of conditions across the entire Nelson-Churchill Watershed which encompasses an area of approximately 1.4 million square kilometres and provides geographic diversity as compared to smaller regions.

We continue to monitor the science and participate in research to better understand potential impacts of climate change on droughts and other business interests. Additional information can be found in Sections 4 and 5 of Appendix 5.4 of our recent <u>General Rate Application</u> to the Public Utilities Board and in our <u>Climate Change</u> Report.

What is Manitoba Hydro doing to protect sturgeon from the impacts of operating your hydro generating stations?

Manitoba Hydro conducts a number of Lake Sturgeon stewardship initiatives with the goal of ensuring that Lake Sturgeon populations in the waterways it manages are maintained or enhanced. We base our decisions, designs and actions on scientific and ecological information, and also work to consider Indigenous traditional and local knowledge.

Lake Sturgeon stewardship activities began in the 1980's. In 2008, Manitoba Hydro established a formal province-wide Lake Sturgeon Stewardship & Enhancement Program (LSSEP) to consolidate our Lake Sturgeon stewardship efforts. The vision of the program is "to maintain and enhance Lake Sturgeon populations in areas affected by Manitoba Hydro's operations, now and in the future." The LSSEP is contributing to Lake Sturgeon conservation in Manitoba by increasing knowledge about populations, advancing our understanding of local ecology, supporting

stocking programs, and initiating research to improve the effectiveness of conservation efforts.

The new Keeyask Generating Station is designed to avoid and minimize impacts on individual Lake Sturgeon and their habitat. Measures include turbines that have high survival rates for fish swimming downstream through the powerhouse, barriers that prevent larger fish from passing through the powerhouse, and monitoring to determine if upstream fish passage past the powerhouse is required. New habitat, including spawning habitat, has been constructed to compensate for habitat lost to the project to ensure that habitat for all life stages will be available above and below the generating station. Comprehensive monitoring is also being undertaken so mitigation measures may be adjusted or added if required.

In addition, a Lake Sturgeon stocking program is being implemented to enhance Lake Sturgeon populations in the area directly affected by Keeyask. In partnership with the Nelson River Sturgeon Board, Manitoba Hydro also stocks Lake Sturgeon between the Kelsey and Kettle generating stations, which will assist in the recovery of Lake Sturgeon populations in the broader region.

We also participate in the Nelson River Sturgeon Management Board for the upper Nelson River, the Saskatchewan River Sturgeon Co-Management Board and the Kischi Sipi Namao Committee for the lower Nelson River. Local Indigenous communities and provincial fisheries managers also participate in these boards and committees, which undertake activities to promote the protection and enhancement of Lake Sturgeon populations in their areas of operation.

Why can't I pay my hydro bill with cash anywhere anymore?

We've seen a change in the way our customers want to interact with us, particularly during the Covid-19 pandemic when customers found alternate ways of doing business. Customers are telling us they are looking for more self-service options. That's why we are focused on creating and enhancing those options to better serve our customers the way they want and how they want.



For inquiries and payments, customers can call our Customer Engagement Centre, use our online customer portal or access the Manitoba Hydro app on their phone.

Manitoba Hydro suspended new enrollment of Surplus Energy Program Option 2 in the summer of 2022 well in advance of submitting General Rate Application to the Public Utility Board in November 2022 and Manitoba Hydro formally issued letters in January 2023 not accepting new enrollment. Can you please comment on this business practice?

From time-to-time Manitoba Hydro receives inquiries related to enrollment in the Surplus Energy Program. These inquiries are evaluated against the eligibility criteria of the program as well as the availability of surplus energy and local capacity to serve the load. We informed the Public Utilities Board, and started suspending new enrollments to eligible customers, in December 2022. Prior to the suspension on new enrollments, Manitoba Hydro had not turned down eligible customers whose load requirements could be met with available surplus energy.

If Manitoba Hydro decides to integrate smart meters into its electricity and/or natural gas service delivery infrastructure, how would it accommodate consumers who will NOT accept the installation of these EMF-emitting devices on their homes?

Manitoba Hydro does not currently have plans to introduce smart meters or advanced metering infrastructure (AMI). We have begun research and analysis work to investigate whether there is a business case for implementing smart meters in Manitoba, however nothing has been decided.

Any decisions we make, including opt in or out options, will be subject to customer feedback, costs and benefits analysis, regulatory requirements and consider the best interest of Manitobans.

It should be noted that most utilities across North America have been safely using smart meters for years to provide

enhanced service to their customers including automatic outage reporting and more accurate monthly billing. In fact, Manitoba is one of the last electric utilities in Canada where smart meters are not already in use.

At the current time, Health Canada states there are no health risks from exposure to radio frequency electromagnetic fields from smart meters. This determination has led the federal energy metering regulatory authority, Measurement Canada, to authorize their use in homes and businesses across Canada.

Manitoba Hydro will continue to follow guidance provided by these federal regulators in regards to the safety of available energy metering technologies.

For further information on the safety of smart meters you can visit: Smart meters: Everyday things that emit radiation - Canada.ca.

