



**PAPER
EXCELLENCE**

Prince Albert Restart

August 16, 2022

WE GRATEFULLY ACKNOWLEDGE THAT WE OPERATE ON
THE TRADITIONAL LANDS REFERRED TO AS TREATY 6
TERRITORY AND THE HOMELAND OF CREE, DENE,
DAKOTA AND MÉTIS NATIONS

- Our goal with today's session is to share information about the Prince Albert Pulp Inc (PAPI) restart project with the public.
 - Specifically, details about greenhouse gas emissions, the mill's effluent treatment plant, air emissions, and other environmental components of the project.
- In addition to last October's open house in Prince Albert, this virtual information session is an important part of our permitting process with the Ministry of Environment.
- To date, the Prince Albert Pulp Inc project **remains subject to permitting approvals and market conditions.**

SUBMITTING QUESTIONS DURING THE SESSION

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- Submit written questions to the presenters
 - Facebook Comments or Website Stream.
- Call-in Questions can also be asked by calling in on your phone.
 - 1-866-383-2732. Hit *3 to talk to one of our staff and ask a question.
- We hope to answer as many questions as we possibly can during this information session.

PAPER EXCELLENCE CANADA OPERATIONS

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1 CROFTON / BRITISH COLUMBIA / 565 EMPLOYEES
 Production - 334,000 T paper / 380,000 T Kraft pulp
 Economic Contribution - \$1 billion annually
 Local Taxation - \$4.6 million annually

2 PORT ALBERNI / BRITISH COLUMBIA / 310 EMPLOYEES
 Production - 260,000 T paper
 Economic Contribution - \$500 million annually
 Local Taxation - \$4.3 million annually

3 tsulmat (Curtailed) / BRITISH COLUMBIA
 Production - 334,000 T paper
 Economic Contribution - \$500 million annually
 Local Taxation - \$3.4 million annually

4 HOWE SOUND / BRITISH COLUMBIA / 360 EMPLOYEES
 Production - 455,000 T Kraft pulp
 Economic Contribution - \$350 million annually
 Local Taxation - \$1.5 million annually

5 RICHMOND HQ / BRITISH COLUMBIA / 175 EMPLOYEES

6 SURREY DISTRIBUTION CENTRE / BRITISH COLUMBIA / 80 EMPLOYEES

7 SKOOKUMCHUCK / BRITISH COLUMBIA / 280 EMPLOYEES
 Production - 280,000 T Kraft pulp
 Economic Contribution - \$400 million annually
 Local Taxation - \$400,000 annually

8 MEADOW LAKE / SASKATCHEWAN / 201 EMPLOYEES
 Production - 420,000 T BCTMP pulp
 Economic Contribution - \$470 million annually
 Local Taxation - \$1 million annually

9 PRINCE ALBERT (Curtailed) / SASKATCHEWAN
 Production - 300,000 MT of Unbleached Kraft Pulp (UKP)
 Economic Contribution - \$300 million annually
 Local Taxation - \$1.3 million annually

10 NORTHERN PULP (Curtailed) / NOVA SCOTIA
 Production - 280,000 T Kraft pulp
 Economic Contribution - \$315,000 annually
 Local Taxation - \$500,000 annually

BUILDING ON OUR SUCCESS AT MEADOW LAKE

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Paper Excellence bought Meadow Lake Mechanical Pulp in 2007

- producer of high quality Bleached Chemi-Thermo Mechanical Pulp (BCTMP)
 - Primarily Aspen
- **197** full time employees
- Almost **1,300** direct, indirect and induced jobs in Saskatchewan
- Annual economic contribution of **\$500** million
- Long term co-management of forest led by Indigenous partnerships



STEWARDSHIP THROUGH INDIGENOUS PARTNERSHIPS

OUR EXPERIENCE

Paper Excellence has more than 10 years of positive experience working in partnership with the Meadow Lake Tribal Council through NorSask and Mistik Management Limited. In addition, as a shareholder in Sakâw Askiy Management Inc. and through conducting our forestry operations, we have had significant interaction with other tribal councils and individual First Nations. From that interaction we have developed a good understanding of both the successes and challenges facing Saskatchewan's Indigenous Peoples.

ECOSYSTEM MANAGEMENT

Paper Excellence respects the cultural and ecological value of the North Saskatchewan River Delta to Indigenous Peoples. Our Environmental Assessment process highlights only one part of a deeper long-term relationship building process with downstream Indigenous communities.

ECONOMIC OPPORTUNITIES

This project will take Saskatchewan's leading Indigenous participation in the forest sector to an even higher level of integration and become the Canadian model for innovative partnerships in natural resource development.

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9,000 JACK PINE SEEDLINGS DONATED

"Over the coming decades we'll see
a new forest emerge on our
reserve."
- Ron Burns, Director of Forest
Mgmt, James Smith Cree Nation



JOINT LETTER OF INTENT SIGNING



1,000 TREE SEEDLINGS DONATED



PRINCE ALBERT MILL

WHERE IS THE PROJECT TODAY?

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We are planning to start the mill to produce Unbleached Softwood Kraft Pulp (UKP)

- Market opportunities with box and packaging papers
- Simplify the start-up process and project execution
- Preserve the ability to transition to Northern Bleached Softwood Kraft (NBSK) in the future - the Environmental Impact Statement (EIS) will reflect an NBSK scenario

Basic Engineering is underway

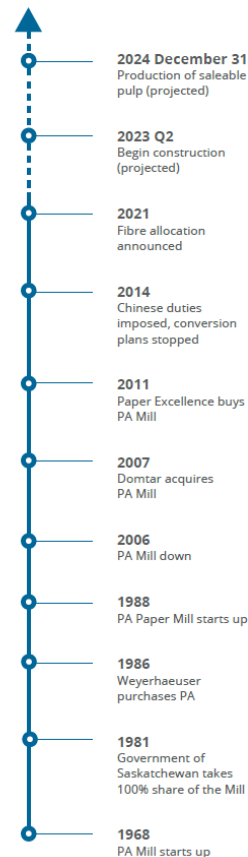
- The engineering team is developing the detailed plans for equipment layouts, geotechnical studies, vessel inspections, etc.

Indigenous Partnership Development

- The Indigenous Relations team is engaging with communities to identify interests in participating in future operations from forest management/operations through to pulp production.

Regulatory and Policy

- We have been working on the feedback that we received on our draft EIS
 - submitted in December 2021
- We will submit the updated EIS by the end of September 2022



- Lumber is a renewable building material that can displace more carbon intensive materials like concrete and steel.
- However, there is wood that cannot be turned into lumber
 - The bark and chips generated in the sawmill
 - small diameter trees, treetops
- Restarting the Prince Albert Pulp Mill ensures that nothing harvested is wasted
- Restarting the mill supports the existing industry by
 - Utilizing some of the stands that are unsuitable for sawmills
 - Reducing the distance to market for their chips
 - Providing an outlet for their bark that is presently being burned



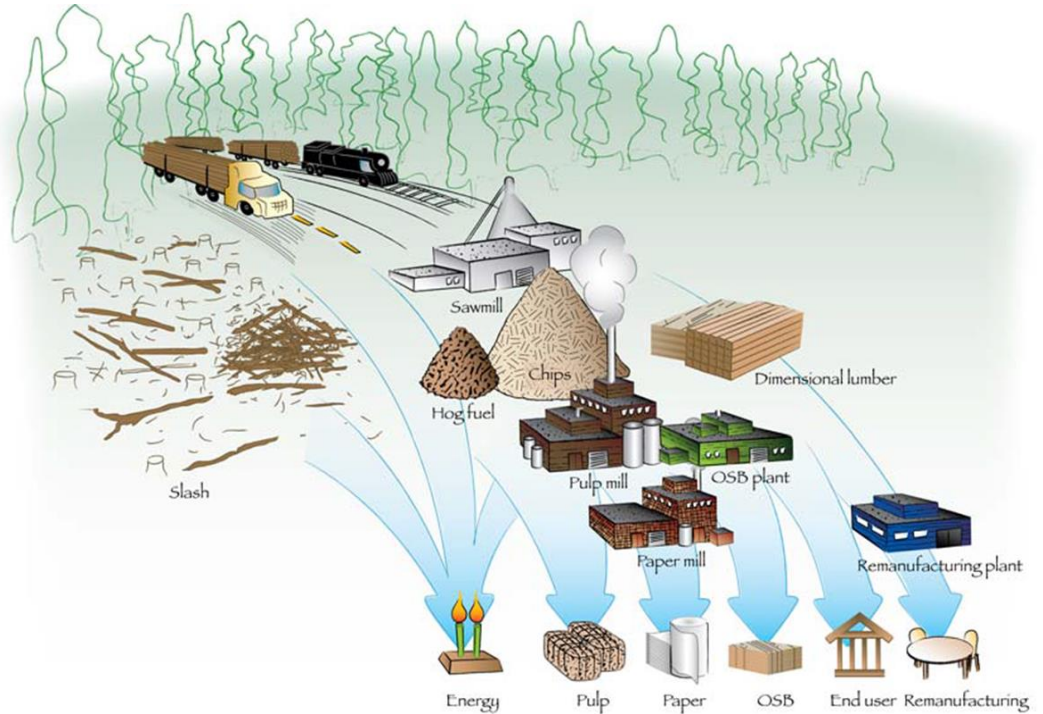
WOOD SUPPLY

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The mill will convert softwood, pine and spruce, chips into premium pulp that can be recycled many times.

Three sources of similar volume

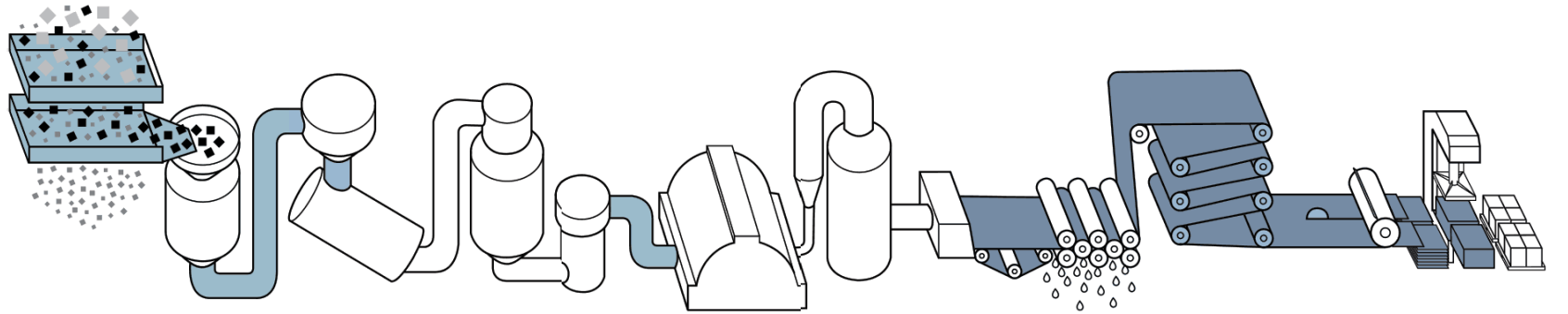
- Sawmill chips from wood that is already being processed in SK
- Treetops, rejected sawlogs and sustainably harvested pulp stands from the Prince Albert FMA
- Wood sustainably harvested from other parts of SK



From PWC Report on Industry Competitiveness

HOW WE MAKE KRAFT PULP

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Wood Chips

Softwood chips are pre-steamed and then cooked in a pressurized digester with chemicals and heat to dissolve the lignin glue which holds the wood fibres together.

Digester

The digester's pressure is relieved into a blow tank which separates the chips into unbleached pulp fibre.

Screening & Washing

Residual chemicals and wood lignin are recovered for recycling

Bleaching

Pulp is bleached bright white

Pressing & Drying

The bleached pulp is then diluted to a slurry where it is sprayed across a pulp machine screen to form the pulp mat and begin the dewatering process of pressing and drying in the dryer section.

Pulp Bales

The dried pulp is then cut and baled into bales in preparation for transport around the world.

PROJECT CONSTRUCTION SITES

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1. Woodroom
2. Chip Stacker/Reclaim
3. Digester Brownstock Washing
4. Bleach Plant
5. Pulp Machine/Drying,/Baling
6. Bubbling Fluidized Bed (BFB) Boiler
7. Recovery Boiler #3
8. Concentrated Non-Condensable Gas (CNCG)
9. Recausticizing
10. Lime Kiln
11. Water Treatment Plant
12. Effluent Primary Clarifier
13. Activated Sludge Treatment
14. Effluent Secondary Clarifier
15. Sludge Handling Building
16. Spill Pond



NEW EFFLUENT TREATMENT SYSTEM

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12. Effluent Primary Clarifier

The sewer flows here first to settle out and remove any solids as sludge and the clarified effluent can be sent on for treatment.

13. Activated Sludge Treatment

The effluent is aerated and mixed with microbes that feed on any components in the effluent to make it acceptable for discharge into the river.

14. Effluent Secondary Clarifier

This clarifier settles out and removes the microbes, sludge, from the previous process and the clarified treated effluent is sent to the diffuser.

15. Sludge Handling Building

The clarifier sludges are combined and dewatered and sent to the biomass boiler for incineration.

16. Spill Pond

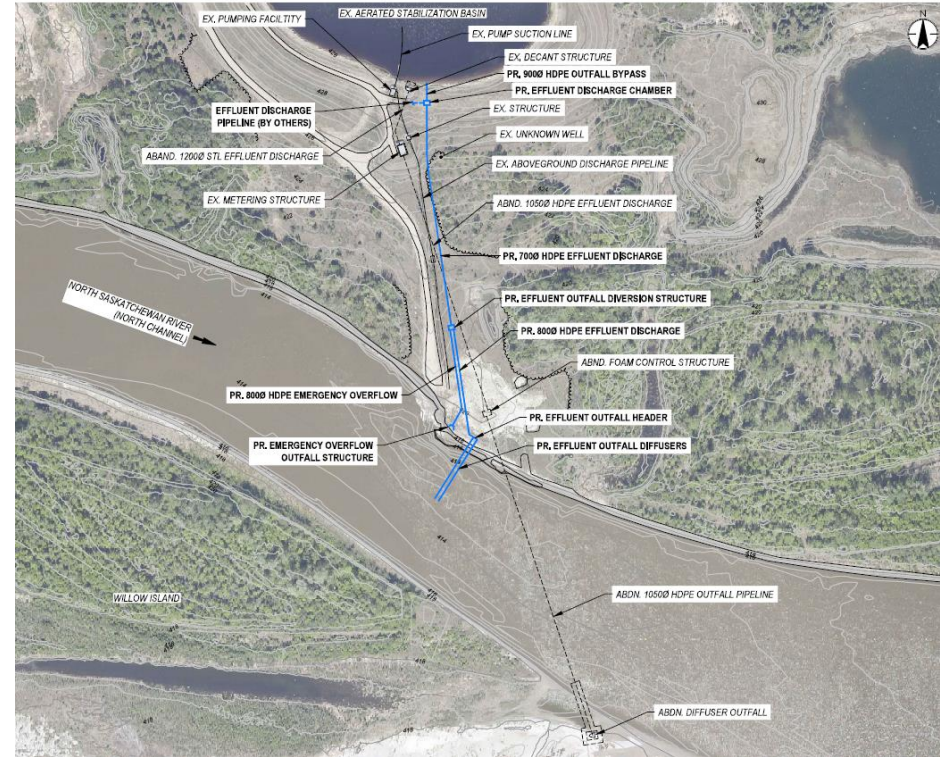
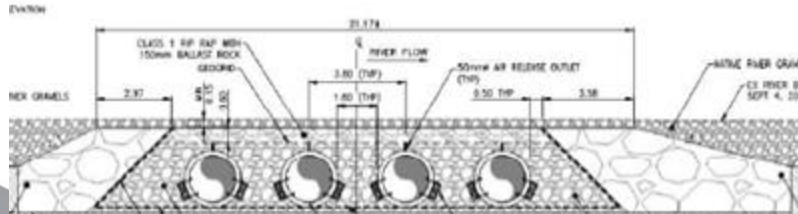
This provides storage if there is an upset in our process and allows us the opportunity to address issues without discharging to the river.



RIVER DIFFUSER

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- Original Diffuser is gone
- Proposed design will ensure good mixing and will:
 - Not interfere with river traffic
 - Operate during low flow conditions
- Consistent with best practices being used across Canada
- Will likely require a coffer dam to install



THE IMPROVED TECHNOLOGY IS FORECAST TO REDUCE THE CONTAMINANTS IN THE EFFLUENT TO
BELOW THOSE WITH THE LEGACY TREATMENT SYSTEM. 15

- Our legacy operation complied with the existing regulations
 - Our new design will comply with the proposed, more stringent, Federal regulations for our industry
- The new design will bypass the Aerated Stabilization Basin on the South side of Hwy 55
 - The biological process operates at 30°-40°C, potential impact on existing fog in the area is a consideration.



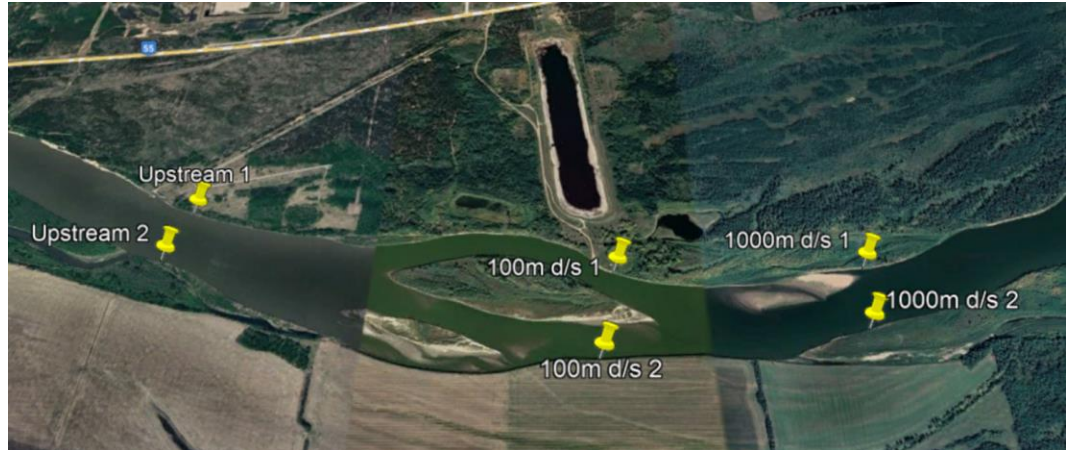
- The mill completed Environmental Effects Monitoring during its operation before 2006, we demonstrated water quality downstream of the mill was not negatively impacted by the operation.
- Our project will reduce effluent flow and meet the proposed more stringent regulations; therefore we do not expect any impacts.

A Downstream User Impact Study has been completed.

- Sampling conducted in June 2022
- James Smith Cree Nation provided an environmental monitor for this work

We are also updating our Groundwater Transport Model.

- Confirm that there will be no impacts on the groundwater during construction



SOLID WASTE MANAGEMENT

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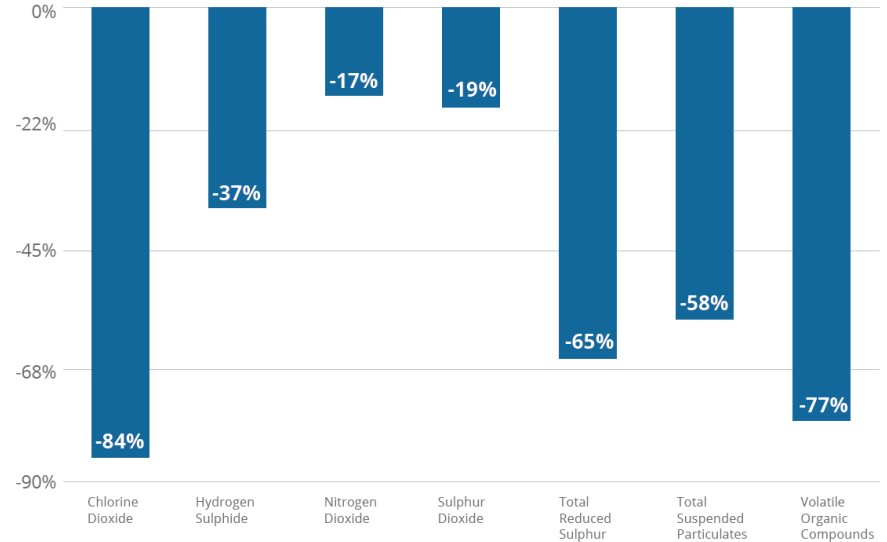
- When the mill was operational, the residuals from the settling ponds were removed at regular intervals and deposited in the site landfill along with ash produced by burning bark in the boiler.
- With the new effluent treatment system, the sludge will be collected, dried, and mixed with the bark to burn in the boiler.
- The boiler ash has potential for alternative uses
 - soil amendment or as an additive for road base.
- Other solid wastes that will be generated during construction and operation are:
 - recyclable materials,
 - inert industrial construction waste, and
 - domestic waste.
 - These will be kept separate and sent to the appropriate location for recycling or landfilling. Hazardous material waste will be collected by an approved hazardous waste contractor and disposed at an approved off-site facility.

PREDICTED AIR EMISSIONS IMPROVEMENTS

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- We plan to collect vents that contain pollutants of concern and treat them
 - Scrubbing them to remove pollutants
 - Precipitating out small particles
 - Returning to the process to be incinerated and the elements recovered
 - ◆ especially streams containing sulfur compounds.
- Air dispersion modelling has shown
 - we will meet the new provincial ambient air standards and
 - there will be a significant reduction in emissions compared to when the mill was previously operated.

Modelled Air Emission Reductions with the New Project



GHG EMISSIONS REDUCED 66%

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EXPORTING GREEN ENERGY

Our process generates high pressure steam in the chemical recovery process as well as the combustion of the bark generated by our chip supply.

This steam drives our turbine generators which will create electricity as well as lower pressure steam that is used in our process.

- up to 20 MW of green energy to the grid which will reduce the carbon intensity of the SaskPower system.

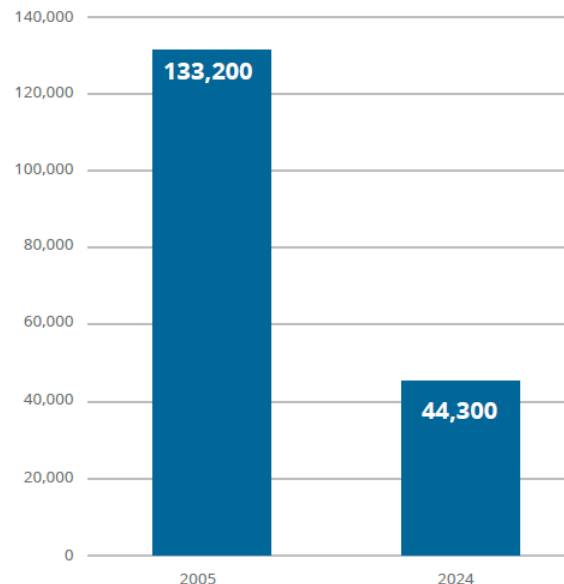
REDUCED GREENHOUSE GAS EMISSIONS

The rebuilt mill will materially change the site's total greenhouse gas (GHG) emissions footprint compared to the previous operation that curtailed in 2006 (see chart right). This is primarily due to efficient steam generation and streamlined process technology.

Overall, we estimate the Scope 1 direct GHG emissions will drop by 66% through a reduction in the use of fossil fuels.

- Equivalent to over 19,000 cars coming off the road

**GHG Emissions Will Be Reduced
By 88,900 MT CO_{2e} Annually**



HOW WILL SASKATCHEWAN BENEFIT ?

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- 1,292 full-time jobs including direct, indirect and induced employment in Prince Albert and the wood supply areas, primarily north of Prince Albert.
- Support for the existing sawmill industry
- Diversion of bark from existing open burners to produce green power for the system
- Includes 500+ new jobs in Indigenous and rural communities
- \$450 million in economic development for the province
- \$1.3 million in property taxes paid to the City of Prince Albert.

Next Steps

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- Complete Environmental Impact Statement
- Respond to questions or concerns raised by the public
- Finalize the design based on the input received
- Obtain the required permits to construct and operate from the City of Prince Albert, Saskatchewan and Canada
- Confirm Final Investment Decision
- Initiate construction in May 2023
- Build the forestry supply chain for the restarted mill
- Continue to grow the mill team



Thank You
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