



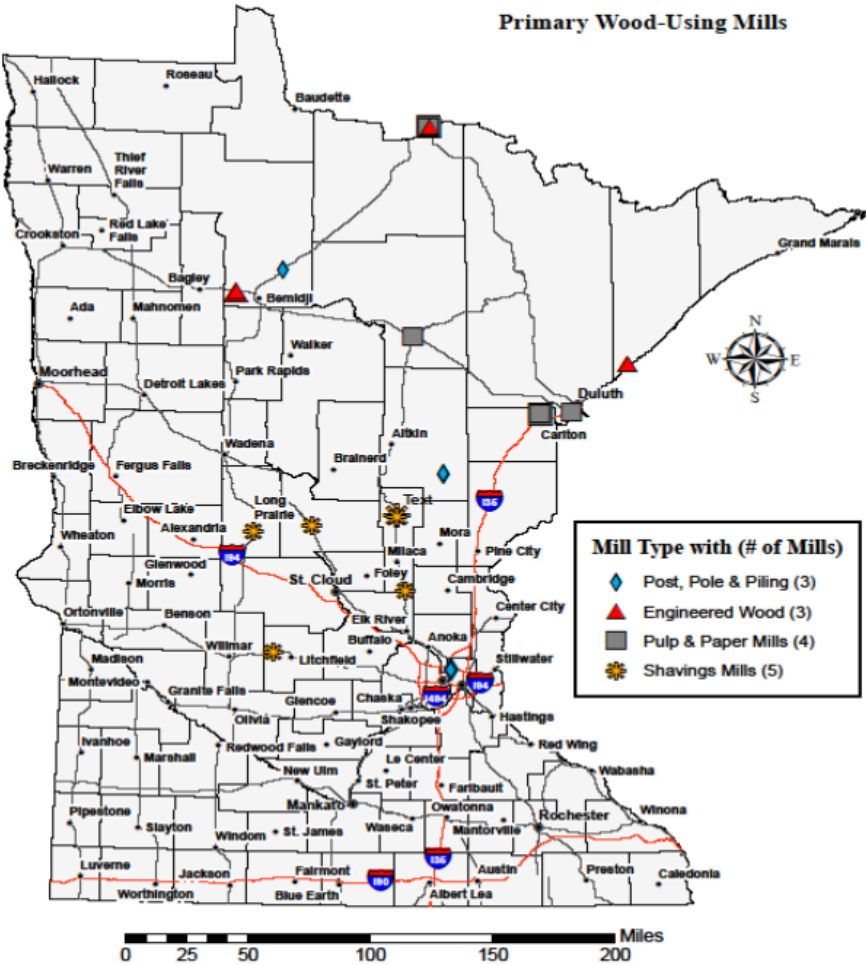
**NorthStar** Pellets



## A Shovel Ready Opportunity for Minnesota

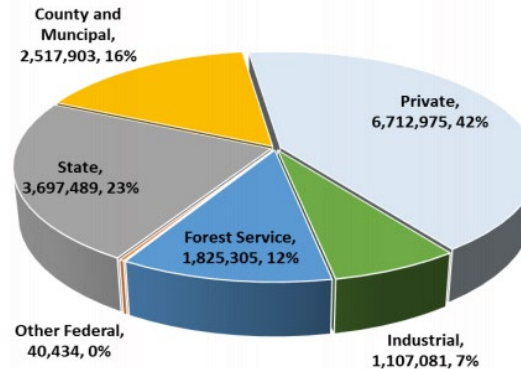
March 9, 2021 – Senate Energy Committee

# Mills in Minnesota

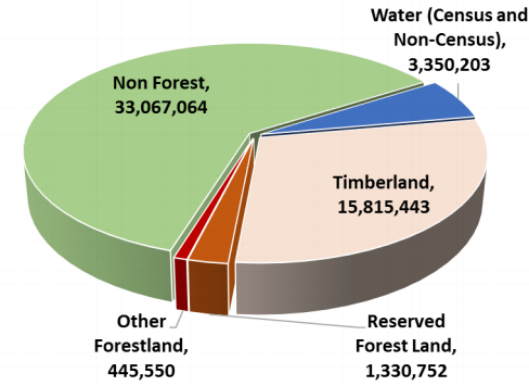


The Forest Industry has a very large statewide impact

**Minnesota Timberland Ownership**

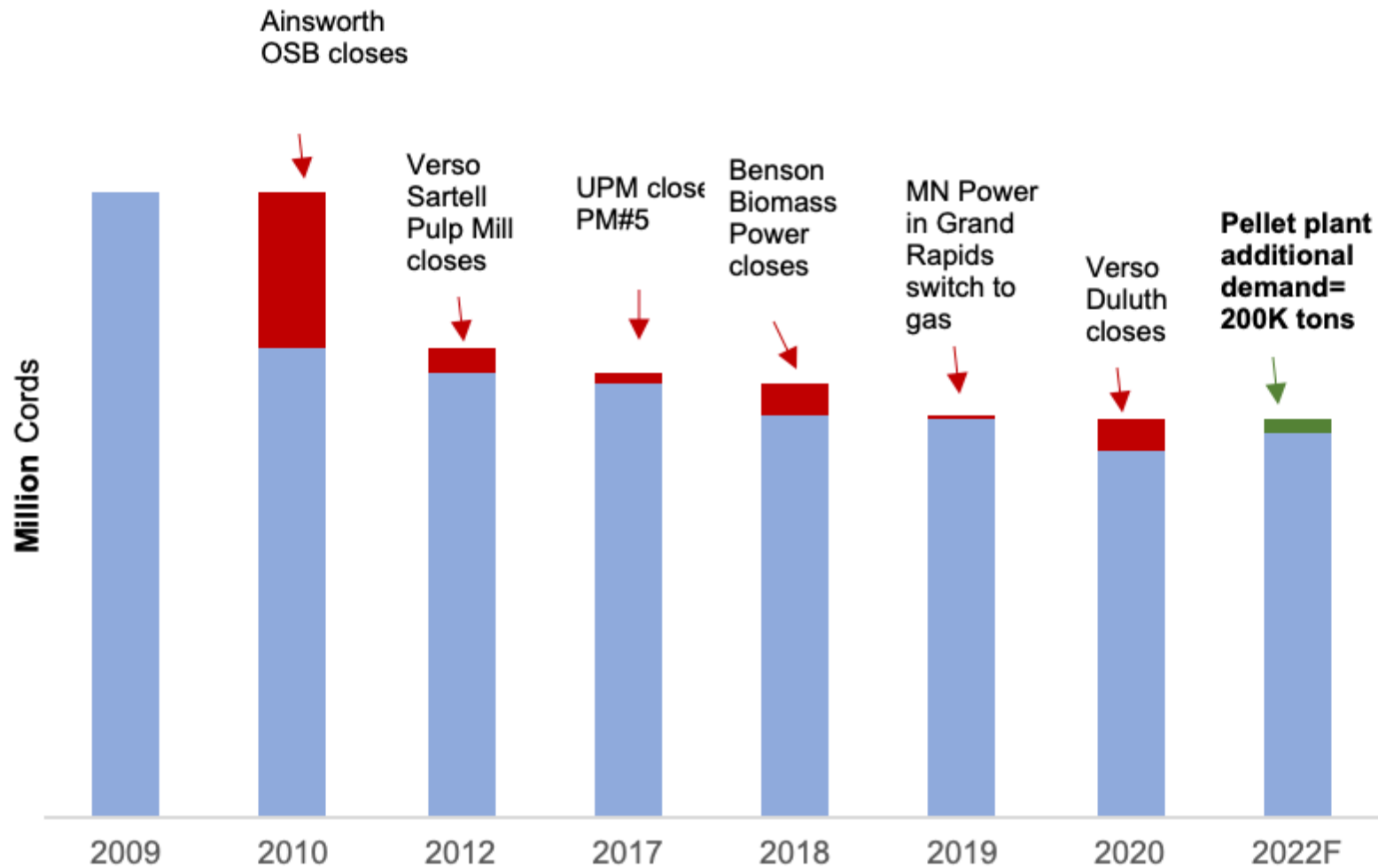


**Minnesota Acres of Land by Major Category**  
Approximately 54,000,000



But it is an industry that has been in **decline**

# Minnesota Wood Fiber Demand



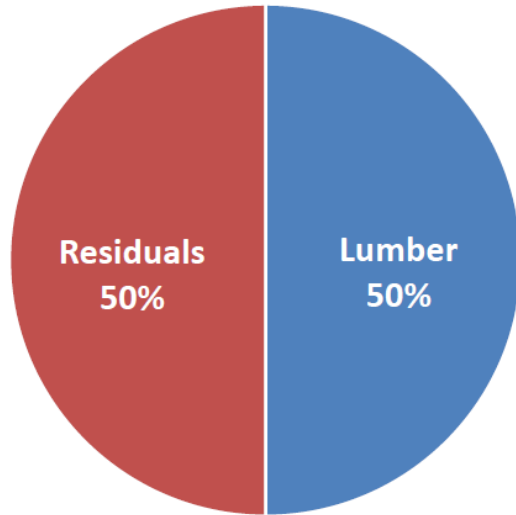
**Since 2009 Minnesota has lost over 1.5 million cords of industrial wood use capacity.**

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## What are Sawmill Residuals

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Sawmills residuals are the byproducts created when making lumber  
Only 50% of a **tree** makes lumber – the rest become residuals



Ash

Sawdust/Fines

Chips

Dry Trims

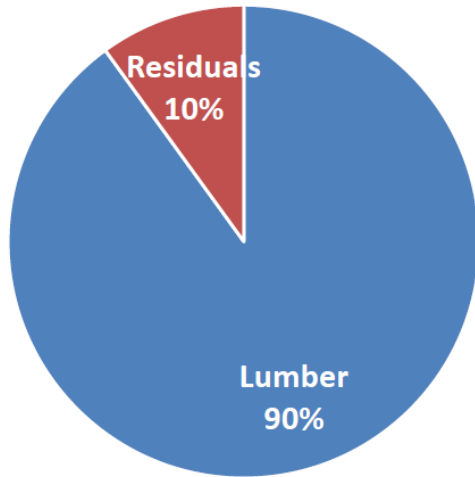
Bark

Dry Shavings

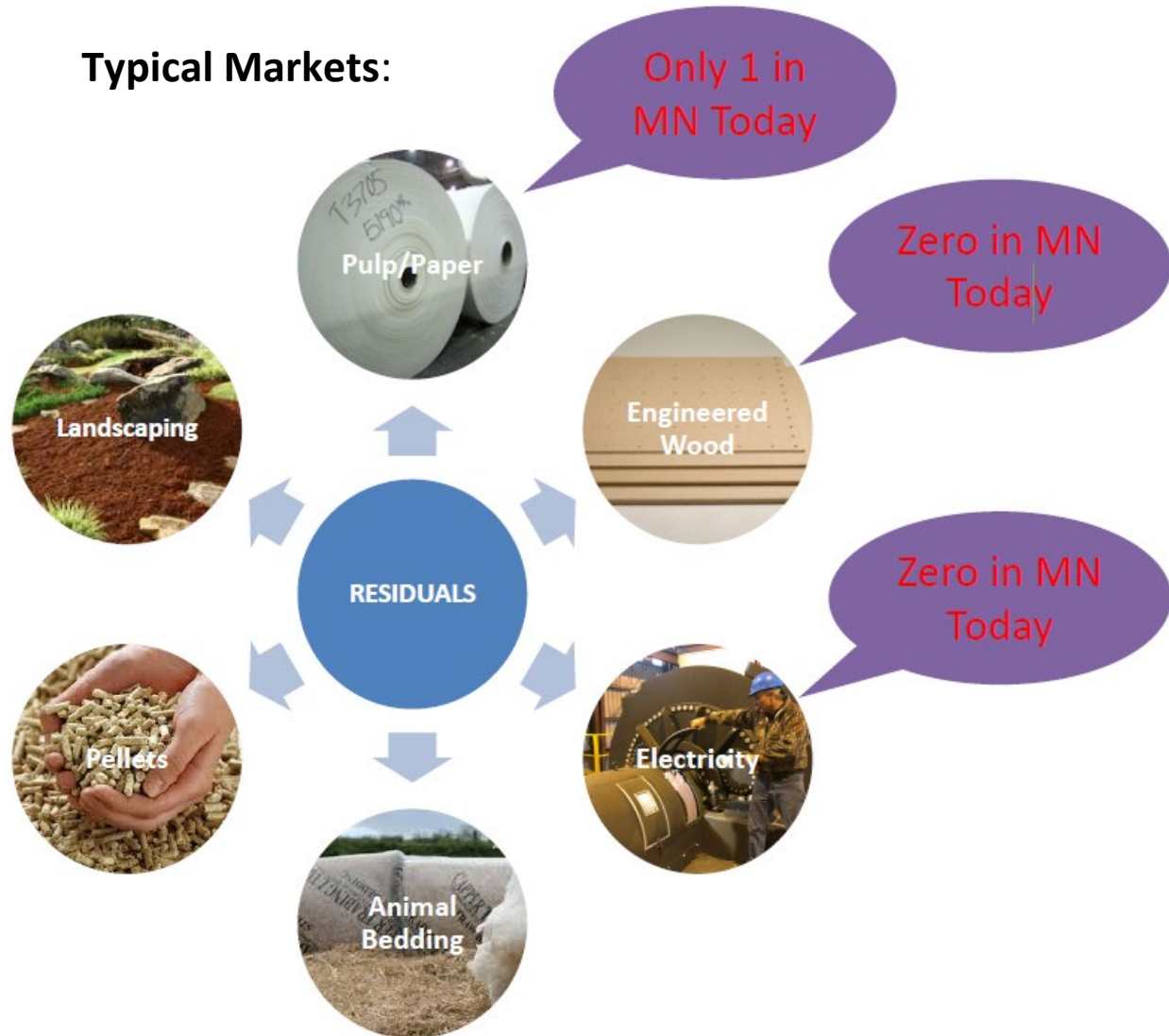


# Sawmill Markets

**Revenue** from sawmill residuals is typically what is left for a profit



## Typical Markets:





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# Highland Pellets – Pine Bluff Arkansas

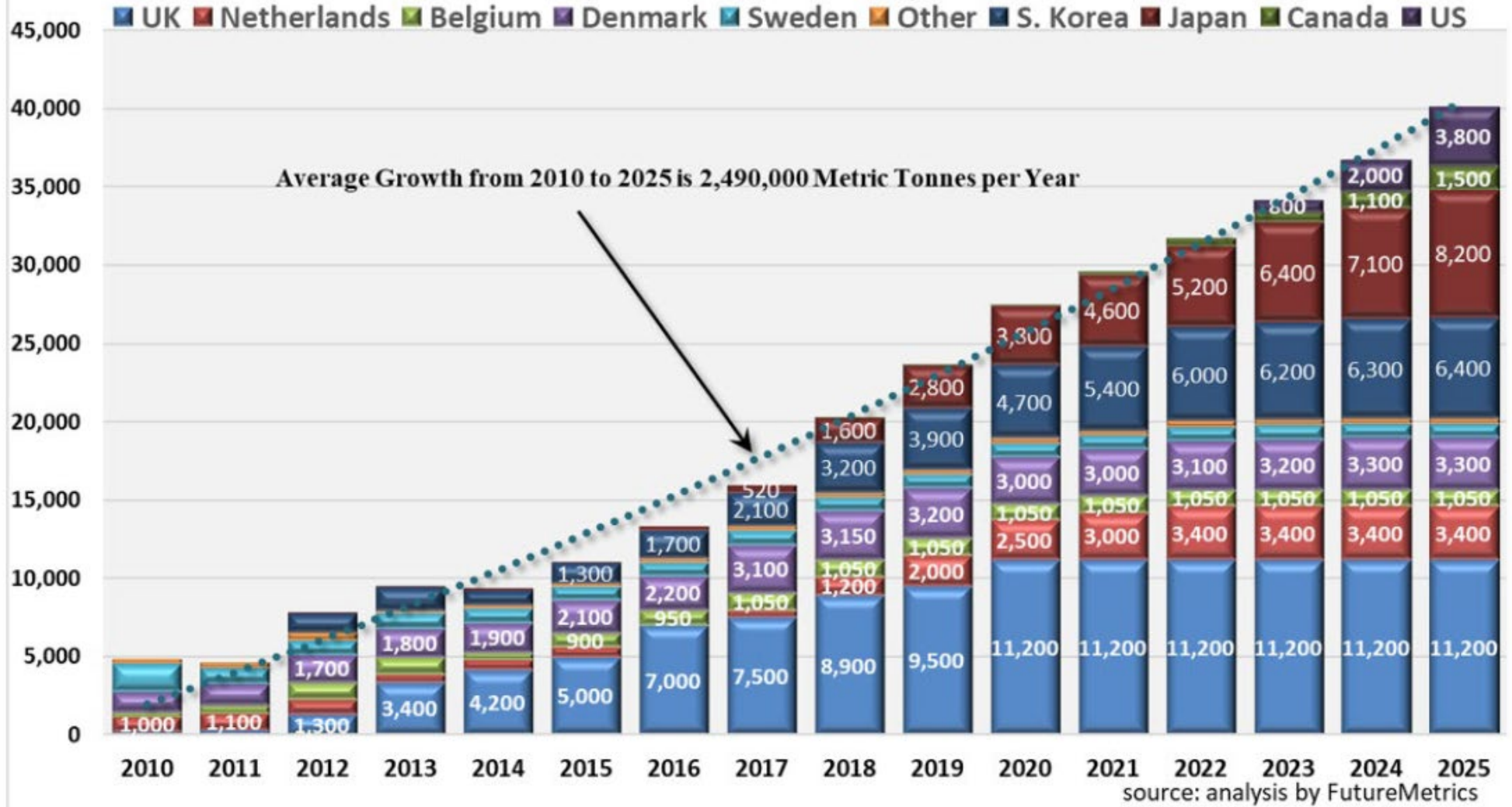
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# Market Growth

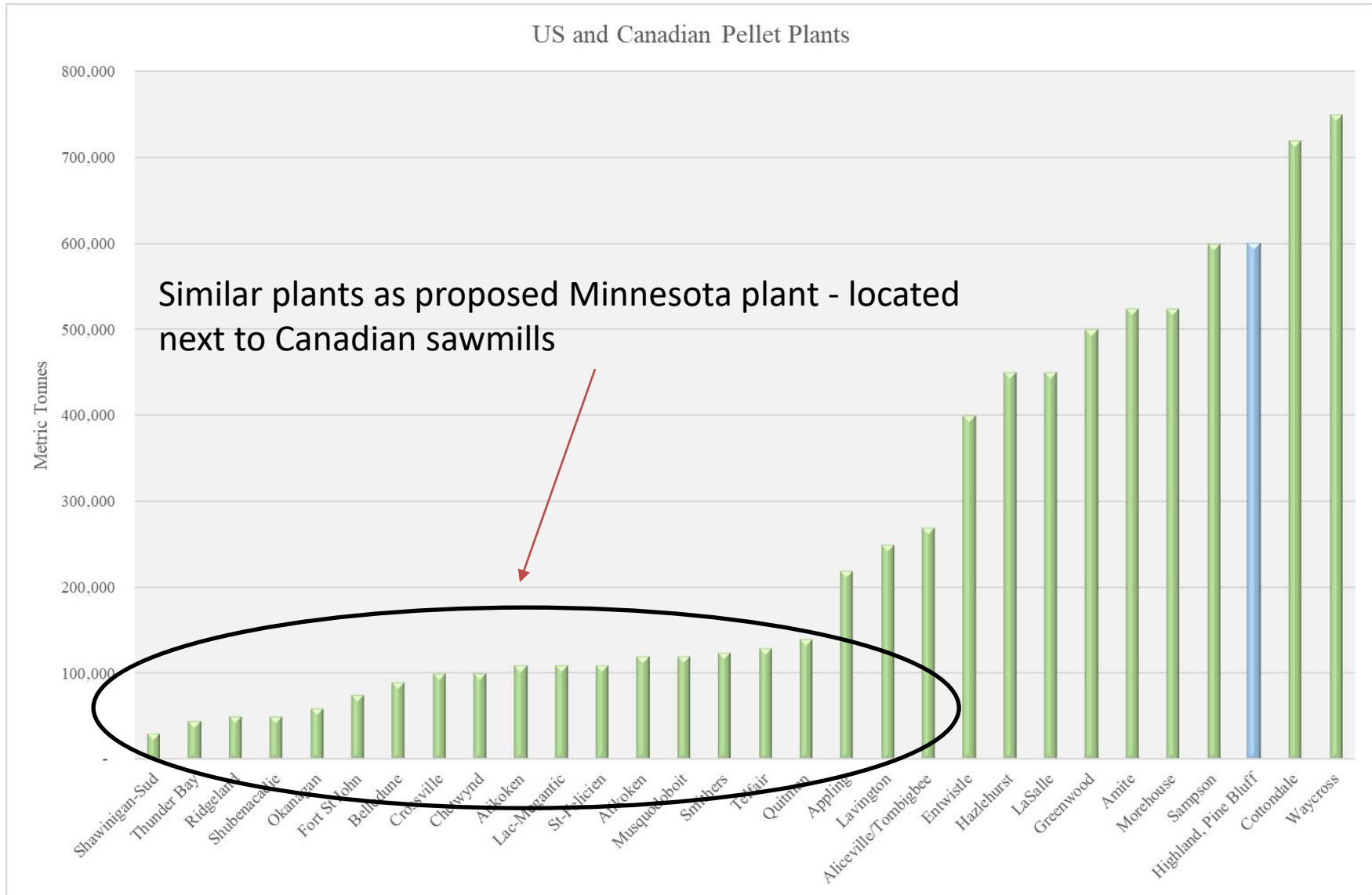
## Industrial Wood Pellet Past Demand and Forecast

(thousands of metric tonnes)





# North American Pellet Mills





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## Project Details

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- ✓ Location: Bemidji and/or Grand Rapids Minnesota
- ✓ \$45 Million Investment per plant
- ✓ No Technology Risk
- ✓ 100% Residual Fiber
- ✓ 330,000 Tons Residuals = 150,000 Metric Tons Pellets
- ✓ Dryer Fuel = 50,000 Tons bark
- ✓ Minor Source Air Permit
- ✓ Transport: BNSF Mainline
- ✓ Port: Vancouver, BC - Leading Wood Pellet Handling Port
- ✓ Export to Asia (15-20 Year Take-or-Pay Agreement)

## Sources and Uses

Sources and Uses		
<i>(\$ in millions)</i>		
Sources of Funds	Amount	%
New Senior Secured Loan	\$20,000,000	44%
Equity	\$23,000,000	51%
IRRRB Forgivable Loan	\$0	0%
TIF	\$2,000,000	4%
MN Deed Job Creation Fund	\$0	0%
MN Labor Training Grant	\$0	0%
NMTC	\$0	0%
<b>Total Sources</b>	<b>\$45,000,000</b>	<b>100%</b>
Uses of Funds	Amount	%
Preclose Budget	\$1,085,150	2%
Land	\$800,000	2%
Buildings	\$450,000	1%
Process Equipment	\$32,929,575	73%
Office	\$100,000	0%
Working Capital	9,635,275	21%
Transaction Fees & OID	0	0%
<b>Total Uses</b>	<b>\$45,000,000</b>	<b>100%</b>

# Profitability – Cash Flow Positive, but Credit metrics and IRR insufficient

Northstar Pellets LLC: Income Statement	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
<b>Volumes (MT):</b>														
Pellet Production	113,442	113,442	121,545	129,648	138,128	137,751	137,751	137,751	137,751	137,751	137,751	137,751	137,751	137,751
Pellet Sales - Off Take	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Pellet Sales - Other	13,442	13,442	21,545	29,648	38,128	37,751	37,751	37,751	38,128	37,751	37,751	37,751	38,128	37,751
<b>Revenues:</b>														
Pellet Revenue - offtake	\$14,823,715	\$14,971,952	\$15,121,671	\$15,272,888	\$15,425,617	\$15,579,873	\$15,735,672	\$15,893,029	\$16,051,959	\$16,212,478	\$16,374,603	\$16,538,349	\$16,703,733	\$16,870,770
Pellet Revenue - other	1,747,460	1,764,935	2,857,147	3,971,027	5,157,954	5,157,968	5,209,548	5,261,644	5,367,387	5,367,403	5,421,077	5,475,287	5,585,325	5,585,341
Interest Income														
Production Incentive	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Gross Revenue</b>	<b>\$16,571,175</b>	<b>\$16,736,886</b>	<b>\$17,978,818</b>	<b>\$19,243,915</b>	<b>\$20,583,571</b>	<b>\$20,737,842</b>	<b>\$20,945,220</b>	<b>\$21,154,672</b>	<b>\$21,419,346</b>	<b>\$21,579,881</b>	<b>\$21,795,680</b>	<b>\$22,013,637</b>	<b>\$22,289,057</b>	<b>\$22,456,111</b>
Rail	\$4,900,000	\$4,949,000	\$4,998,490	\$5,048,475	\$5,098,960	\$5,149,949	\$5,201,449	\$5,253,463	\$5,305,998	\$5,359,058	\$5,412,648	\$5,466,775	\$5,521,443	\$5,576,657
Port Fees	1,275,000	1,275,000	1,287,750	1,300,628	1,313,634	1,326,770	1,340,038	1,353,438	1,366,973	1,380,642	1,394,449	1,408,393	1,422,477	1,436,702
Total logistics costs	\$6,175,000	\$6,224,000	\$6,286,240	\$6,349,102	\$6,412,593	\$6,476,719	\$6,541,487	\$6,606,901	\$6,672,970	\$6,739,700	\$6,807,097	\$6,875,168	\$6,943,920	\$7,013,359
<b>Total Net Revenue</b>	<b>\$10,396,175</b>	<b>\$10,512,886</b>	<b>\$11,692,578</b>	<b>\$12,894,813</b>	<b>\$14,170,977</b>	<b>\$14,261,122</b>	<b>\$14,403,733</b>	<b>\$14,547,771</b>	<b>\$14,746,376</b>	<b>\$14,840,181</b>	<b>\$14,988,583</b>	<b>\$15,138,469</b>	<b>\$15,345,138</b>	<b>\$15,442,752</b>
<b>Cost of Goods Sold (COGS):</b>														
Fiber consumption - Chips	\$3,343,286	\$3,343,286	\$3,343,286	\$3,343,286	\$3,376,719	\$3,410,486	\$3,444,591	\$3,479,037	\$3,513,827	\$3,548,966	\$3,584,455	\$3,620,300	\$3,656,503	\$3,693,068
Fiber consumption - Sawdust	\$1,382,301	\$1,382,301	\$1,382,301	\$1,396,124	\$1,410,085	\$1,424,186	\$1,438,428	\$1,452,812	\$1,467,340	\$1,482,014	\$1,496,834	\$1,511,802	\$1,526,920	\$1,542,189
Fiber consumption - Shavings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total fiber costs	\$4,725,587	\$4,725,587	\$4,725,587	\$4,739,410	\$4,786,804	\$4,834,672	\$4,883,019	\$4,931,849	\$4,981,168	\$5,030,979	\$5,081,289	\$5,132,102	\$5,183,423	\$5,235,257
<b>Gross Profit</b>	<b>\$5,670,588</b>	<b>\$5,787,299</b>	<b>\$6,966,991</b>	<b>\$8,155,403</b>	<b>\$9,384,173</b>	<b>\$9,426,450</b>	<b>\$9,520,715</b>	<b>\$9,615,922</b>	<b>\$9,765,208</b>	<b>\$9,809,202</b>	<b>\$9,907,294</b>	<b>\$10,006,367</b>	<b>\$10,161,715</b>	<b>\$10,207,495</b>
<b>Production Costs:</b>														
Electrical Energy	765,734	777,220	845,226	915,098	989,580	1,001,679	1,016,705	1,031,955	1,050,304	1,063,146	1,079,093	1,095,280	1,114,755	1,128,384
Bark	180,137	180,137	193,004	205,871	219,337	218,738	218,738	218,738	219,337	218,738	218,738	218,738	219,337	218,738
Repairs & Maintenance costs	645,625	655,310	712,649	771,561	834,361	844,562	857,230	870,089	885,560	896,387	909,833	923,481	939,901	951,393
Sampling & Testing	5,672	5,729	6,199	6,679	7,187	7,239	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321
Employee Health & Safety	56,721	57,288	61,994	66,788	71,868	72,389	83,209	83,209	83,209	83,209	83,209	83,209	83,209	83,209
Production Wages	2,069,443	2,110,832	2,153,048	2,196,109	2,240,031	2,284,832	2,330,529	2,377,139	2,424,682	2,473,176	2,522,639	2,573,092	2,624,554	2,677,045
Railcar Expenses	498,000	498,000	498,000	498,000	498,000	498,000	498,000	498,000	498,000	498,000	570,000	570,000	570,000	570,000
<b>Total Production Costs</b>	<b>\$4,221,332</b>	<b>\$4,284,515</b>	<b>\$4,470,121</b>	<b>\$4,660,107</b>	<b>\$4,860,365</b>	<b>\$4,927,439</b>	<b>\$5,012,732</b>	<b>\$5,087,452</b>	<b>\$5,169,413</b>	<b>\$5,240,977</b>	<b>\$5,391,834</b>	<b>\$5,472,120</b>	<b>\$5,560,077</b>	<b>\$5,637,090</b>
<b>Income after Production Costs</b>	<b>\$1,449,256</b>	<b>\$1,502,784</b>	<b>\$2,496,870</b>	<b>\$3,495,296</b>	<b>\$4,523,808</b>	<b>\$4,499,011</b>	<b>\$4,507,983</b>	<b>\$4,528,470</b>	<b>\$4,595,795</b>	<b>\$4,568,225</b>	<b>\$4,515,460</b>	<b>\$4,534,246</b>	<b>\$4,601,638</b>	<b>\$4,570,404</b>
<b>General and Administrative:</b>														
Management and Office Labor	\$484,404	\$494,092	\$503,974	\$514,053	\$524,334	\$534,821	\$545,518	\$556,428	\$567,556	\$578,908	\$590,486	\$602,295	\$614,341	\$626,628
Office and Administrative Expenses	250,000	255,000	260,100	265,302	270,608	276,020	281,541	287,171	292,915	298,773	304,749	310,844	317,060	323,402
Insurance	100,000	102,000	104,040	106,121	108,243	110,408	112,616	114,869	117,166	119,509	121,899	124,337	126,824	129,361
Property Tax	250,000	252,500	255,025	257,575	260,151	262,753	265,380	268,034	270,714	273,421	276,156	278,917	281,706	284,523
Other G&A Costs	15,000	15,150	15,302	15,455	15,609	15,765	15,923	16,082	16,243	16,405	16,569	16,735	16,902	17,071
<b>Total General and Administrative Expense</b>	<b>\$1,099,404</b>	<b>\$1,118,742</b>	<b>\$1,138,440</b>	<b>\$1,158,506</b>	<b>\$1,178,946</b>	<b>\$1,199,767</b>	<b>\$1,220,977</b>	<b>\$1,242,584</b>	<b>\$1,264,594</b>	<b>\$1,287,017</b>	<b>\$1,309,859</b>	<b>\$1,333,129</b>	<b>\$1,356,835</b>	<b>\$1,380,985</b>
<b>EBITDA</b>	<b>\$349,852</b>	<b>\$384,042</b>	<b>\$1,358,430</b>	<b>\$2,336,790</b>	<b>\$3,344,862</b>	<b>\$3,299,244</b>	<b>\$3,287,005</b>	<b>\$3,285,886</b>	<b>\$3,331,200</b>	<b>\$3,281,208</b>	<b>\$3,205,601</b>	<b>\$3,201,118</b>	<b>\$3,244,803</b>	<b>\$3,189,419</b>
<b>Other</b>														
Depreciation	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648	\$2,357,648
Interest Expense	1,400,000	1,377,865	1,354,181	1,328,839	1,301,723	1,272,709	1,241,664	1,208,446	1,172,902	1,134,871	1,094,177	1,050,634	1,004,044	954,192
<b>Total Other</b>	<b>\$3,757,648</b>	<b>\$3,735,514</b>	<b>\$3,711,829</b>	<b>\$3,686,487</b>	<b>\$3,659,371</b>	<b>\$3,630,357</b>	<b>\$3,599,312</b>	<b>\$3,566,094</b>	<b>\$3,530,550</b>	<b>\$3,492,519</b>	<b>\$3,451,825</b>	<b>\$3,408,283</b>	<b>\$3,361,692</b>	<b>\$3,311,841</b>
<b>NET INCOME (LOSS)</b>	<b>(\$3,407,796)</b>	<b>(\$3,351,471)</b>	<b>(\$2,353,400)</b>	<b>(\$1,349,698)</b>	<b>(\$314,509)</b>	<b>(\$331,114)</b>	<b>(\$312,307)</b>	<b>(\$280,208)</b>	<b>(\$199,350)</b>	<b>(\$211,311)</b>	<b>(\$246,224)</b>	<b>(\$207,165)</b>	<b>(\$116,889)</b>	<b>(\$122,422)</b>



# Incentive

Place	Minnesota
Name	Ethanol Production Incentive
Incentive Type	Performance-Based Incentive
Applicable Sector	Industrial
Eligible Technologies	Ethanol
Active Incentive	No
Implementing Sector	State/Territory
Energy Category	Renewable Energy Incentive Programs
Amount	0.20/gallon
Expiration Date	2010-06-30
Maximum Incentive	3 million/year
Program Administrator	Minnesota Department of Agriculture
Website	<a href="http://www.revisor.leg.state.mn.us/slaws/2003/c128.html">http://www.revisor.leg.state.mn.us/slaws/2003/c128.html</a>
References	DSIRE <sup>[1]</sup>

## ADVANCED BIOFUEL PRODUCTION INCENTIVE

Minnesota Department of Agriculture > Environment, Sustainability > Renewable Energy > AGRI Bioincentive Program > Advanced Biofuel Production Incentive Program

AGRI Bioincentive Program

Advanced Biofuel

Renewable Chemicals

Advanced biofuels are fuels made from non-food, non-feed, sustainably-grown feedstocks and agricultural wastes.

For this production incentive program, advanced biofuels must meet the definition of the national [Renewable Fuel Standard \(RFS\) Program](#), including the requirement to improve greenhouse gas emissions by 50 percent over the petroleum-based fuels they replace. However, biobutanol from cornstarch may be reimbursed without meeting RFS advanced biofuel requirements.

### Eligibility

To be eligible for the Advanced Biofuel Bioincentive Program, production facilities must:

- have produced less than 23,750 million British thermal units (MMBtu) or the equivalent per quarter before July 1, 2015.
- produce at least 23,750 MMBtu or the equivalent per quarter to enter the program and during each quarter of participation.

### Payment Amount and Limits

Producers of advanced biofuels will be reimbursed at a rate of:

- \$2.1053 per the equivalent of MMBtu of production from cellulosic biomass, and
- \$1.053 per the equivalent of MMBtu of production from sugar or starch.

### Examples

Fuel	Feedstock	Btu/gallon	Payment/gallon
Butanol	Corn starch	99,837	\$0.11
Ethanol	Sugar beets	76,330	\$0.08
Ethanol	Corn kernel fiber	76,330	\$0.16

*Note: Total payments for an eligible producer may not exceed the equivalent of 2,850,000 MMBtu of production in a fiscal year.*

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## Letters of Support

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- Molpus Woodlands Group
- Jake's Sawmill Products
- Aitkin County (Economic Development & Forestry)
- Scheff Logging and Trucking
- C & M Walsh Logging, Inc.
- Rieger Logging & Trucking, Inc.
- Headwaters Regional Development Commission, Bemidji
- Northwest Regional Development Commission
- Region Five Development Commission
- Heartland Lakes Development Commission, Park Rapids
- Savanna Pallets, McGregor
- PotlatchDeltic
- Itasca Economic Development Corporation, Grand Rapids
- Hubbard County
- Itasca County
- Lake of the Woods Economic Development Authority, Baudette
- Warroad HUB
- Blackduck Development Corporation, Blackduck
- Bemidji Chamber of Commerce
- Associated Contract Loggers & Truckers of Minnesota
- Greater Bemidji
- Maverick Wood Products, LLC
- City of Roseau

500+ signatures on Petition of Support