

Woody biomass utilization will:

- ❑ Restore unhealthy forests
- ❑ Enhance forest productivity
- ❑ Reduce the incidence of wildfire
- ❑ Increase economic development
- ❑ Facilitate transition to renewable energy sources
- ❑ Mitigate GHG/climate change impacts



What is the role of policy in accomplishing these?

Existing policy framework

	Ontario	Michigan	Wisconsin	Minnesota	Example
Tax incentives	1	2	0	1	Ontario Green Energy and Green Economy Act/ Feed in Tariff (FIT)
Cost-share and grants	2	2	5	2	Excel Energy Renewable Development Grants (Minn. Stat. § 116C.779)
Rules and guidelines	5	1	8	5	Wisconsin Renewable Portfolio Standard (Wis. Stat. § 196.378)
Education and consultation	1	1	1	0	Michigan Biomass Curriculum
Finance and contracting	0	0	1	1	Energy Investment Loan Program (Minn. Stat. § 216C.09)

Policy classifications are not mutually exclusive

What's needed?

Action Items – WOOD SUPPLY / PROCUREMENT	Responsibility/ Timeframe
1. Coordination of State/Provincial Supply Assessments – combine methodologies; establish consistent protocols; dissemination	State Foresters, DNRs, MNR
2. Estimate Elasticity of Supply-Demand – estimate allocation of biomass for energy vs. pulpwood given price	USDA Forest Service
3. Increase Size of Wood Basket – Develop plans for procurement from nonindustrial private forests, plantations (where readily feasible), reforestation, under-utilized species (where appropriate), commercial thinning (productivity)	
4. Nonindustrial Private Landowner Incentives – create/expand efforts to incentivize biomass removal; bridge investment gap for planting short-rotation crops or reforestation	
5. Integrated Supply – need to maintain primary forest products industry necessary for the provision of biomass	
6.	

What's needed?

Action Items – EFFICIENCY / SUSTAINABILITY	Responsibility/ Timeframe
7. Encourage CHP/Efficient Conversation – create/expand incentive programs and other financial mechanisms to encourage efficient tech.	
8. Parity for Thermal – level the playing field for thermal by including in RPSs and other standards and incentives for renewable energy	
9. Behind-the-Fence Production – get a better estimate of co-gen production and biomass utilization	
10. Harvest Guidelines – coordinate monitoring and implement adaptive mgt framework that results in real change; longitudinal/control-response	
11. Certified Procurement System – examine protocol and benefits of instituting a system to verify sustainability of non-certified forests, particular private lands	
12.	

What's needed?

Action Items – OTHER / INITIATIVES	Responsibility/ Timeframe
13. MN Forest Bioeconomy Strategic Map – size/nature of biomass supply; policy recommendations to expand supply; evaluate bioenergy market opportunities; recommendations to advance priority markets	MFRC, MN DNR, UMN
14. Facility siting – coordinate/ share information about publicly announced projects; consider synergies among facilities within/adjacent supply circles	
15. Carbon Credits – using state harvesting guidelines as mechanism to verify sustainability for carbon credits; chain-of-custody for tracking (aggregators?)	
16. Carbon Profiles/LCA – move towards lifecycle analysis of carbon/GHG in forest management practices and production	
17. Feed-in-Tariffs – emulate strengths of the Ontario system for biofuels, thermal, and electricity	
18. Environmental Review – further incorporate LCA and other mechanism for accounting for carbon; flipside is pressure to streamline the development process	

[illegible]

Considerations for moving forward:



- ❑ **Law of unintended consequences** – solve one problem but create others (e.g., industry disparity)
- ❑ **Accelerate industry vs. inequitable distribution** – who picks the winners and losers?
- ❑ **Recognizing policy synergies** – complementary policy instruments (e.g., tax incentives, grants)
- ❑ **Articulate government role** – incent uses, provide cost-share/grants, mandates, educate, research, financing/contracting...
- ❑ **Resist becoming paralyzed** – next highest priority?