



# BIOECONOMY

## COALITION OF MINNESOTA

### Minnesota Bioincentive Program

Minnesota is building on our strong foundation of biofuels production and forest products utilization to create a global center for bioeconomy project development that will utilize our abundant agricultural and forestry feedstocks to add value to local economies and manufacture sustainable fuels, chemicals, and thermal energy.

- Created by the legislature in 2015 to attract commercial-scale production of advanced biofuels, renewable chemicals, and biomass thermal energy.
- Administered by the Minnesota Department of Agriculture.
- Eligible facilities must be located in Minnesota and must source raw materials from Minnesota agricultural or forestry sources or from solid waste.
- Eligible facilities must begin operation after July 1, 2015 and includes new facilities as well as existing facilities with significant retrofits to allow new production.

### Production Incentive Levels

**Advanced Biofuels** are renewable fuels designated by the Environmental Protection Agency under the Renewable Fuel Standard to have lifecycle greenhouse gas emissions that are least 50 percent less than gasoline. Facilities must produce at least 23,750 MMBtu quarterly to be eligible. Incentive payments are calculated on a per million btu (MMbtu) basis at the following levels:

- \$2.1053 per MMBtu for advanced biofuel from cellulosic biomass
- \$1.053 per MMBtu for advanced biofuel from sugar, starch, or oil (corn ethanol and soy biodiesel excluded)

For **cellulosic biofuel utilizing crop residues** there is a requirement for facilities to add in the use of perennial crops or biomass from cover crops as a feedstock source. Requirements apply to the payment schedule for an individual project and not when the program is authorized or in effect. Eligible facilities would receive a production incentive for 10 years following successful commissioning.

- a. Year 1: 10%
- b. Year 3: 30%
- c. Year 5 and beyond: 50%

**Renewable Chemical** is a chemical, polymer, monomer, or plastic that is not sold primarily for use as food, feed, or fuel and that has a biobased percentage of at least 51 percent as determined by testing representative samples using American Society for Testing and Materials specification D6866. Facilities must produce at least 750,000 pounds of renewable chemicals quarterly to be eligible. Incentive payments are calculated on a per pound basis at the following levels:

- \$0.06 per pound of cellulosic-derived renewable chemical
- \$0.03 per pound of sugar-derived renewable chemical
- \$0.03 per pound of cellulosic sugar (defined as sugar derived from cellulosic biomass from agricultural or forestry resources)

**Biomass Thermal Production** is the generation of energy for commercial heat or industrial process heat from cellulosic material or other material composed of forestry or agricultural feedstock, as considered

under Minnesota Statutes. Facilities must produce at least 250 MMbtu quarterly to be eligible. Incentive payments are calculated on a per million btu (MMbtu) basis at the following levels:

- \$5.00 per MMbtu of biomass thermal production

### Maximum Payments

The production incentive program is structured to offer an annual payment to eligible facilities for a maximum of ten years. Program goes into effect on July 1, 2015 and facilities have until June 30, 2025 to come online. The program sunsets June 30, 2035. A facility producing renewable chemicals using agricultural cellulosic biomass is eligible for a 20% bonus payment for each pound produced from agricultural biomass that is derived from perennial crop or cover crop biomass and for each MMbtu of biomass thermal energy produced.

	Quarterly Production Levels for Eligibility	Annual Payment Cap	Lifetime (10 year) Facility Cap
Advanced Biofuels			
Sugar, starch, oil <sup>1</sup>	23,750 MMbtu	\$3 million	\$30 million
Cellulosic	23,750 MMbtu	\$6 million	\$60 million
Renewable Chemicals			
Sugar, oil <sup>1</sup>	750,000 lbs	\$3 million	\$30 million
Cellulosic	750,000 lbs	\$6 million	\$60 million
Biomass Thermal	250 MMbtu	\$150,000	\$1,500,000

<sup>1</sup>Does not include corn ethanol or soybean biodiesel

## Feedstock Sustainability Requirements

*Forestry* derived cellulosic biomass must follow the Minnesota biomass harvesting guidelines as developed by the Minnesota Forest Resources Council (MFRC). Brushland harvesting would use guidelines specific to brushlands. If biomass is harvested from land parcels greater than 160 acres, certification is required from Forest Stewardship Council, Sustainable Forestry Initiative, or American Tree Farm System. Uncertified land from parcels 160 acres or less and federal land must be harvested by a Minnesota logger who has completed training for biomass harvesting from the Minnesota logger education program and have a forest stewardship plan. For all of these provisions, equivalent standards and certifications from neighboring states can also be used.

*Agricultural* derived cellulosic biomass receiving a production incentive is required to submit a Responsible Biomass Sourcing Plan to the Commissioner of Agriculture. Plan should outline how agricultural biomass will be managed to preserve soil quality, not increase soil and nutrient run-off, avoid introduction of invasive species, limit negative impacts on wildlife and reduce GHG emissions. Plan should also include numeric targets, producer verification methods, and strategies for continuous improvement of biomass management. Facilities will annually report to MDA on plan progress and goal attainment. MDA will review submitted reports and is authorized to reduce or cease payments for failure to comply with plan specifications.

### For more information or questions contact:

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Please visit the Minnesota Department of Agriculture's website, [www.mda.state.mn.us](http://www.mda.state.mn.us) for specific program information or to begin an application.



Facilitated by the Great Plains Institute ([www.betterenergy.org](http://www.betterenergy.org)), the Bioeconomy Coalition of Minnesota brings everyone involved in the bioeconomy together to collaborate and grow the industry, along the entire value chain from research and development to production and use. The Coalition aims to position Minnesota as a global leader in the bioeconomy by working together on a shared strategy.