



Date: June 30, 2020

To: Governor's Council on Biofuels (GCB) Executive Committee

From: Bob Patton
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Agricultural Marketing and Development Division
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RE: Packet for June 30, 2020 meeting

Enclosed in the packet are:

- Agenda
- Categorized Governor's Council on Biofuels' Policy Proposals
- Printouts of individual councilmembers' proposals
- Letter from Bob Worth

We took a shot at grouping and categorizing proposals in the document, "Categorized Governor's Council on Biofuels' Policy Proposals." Where proposals contained multiple ideas, they were broken apart and grouped accordingly. Note that this process was not perfect, and your groupings might have been done differently. But we're hoping the document will make it easier to see similarities and differences among policy ideas. The individual printouts from the survey and the letter from Bob Worth are included for additional detail.

Please don't hesitate to contact Jordyn or me if you have questions.

Governor's Council on Biofuels – Executive Committee

June 30, 2020 Meeting

12:30 to 2:30 p.m.
Webex Video Conference

Agenda

12:30 p.m.

Welcome and introductions

Commissioner Thom Petersen, Minnesota Department of Agriculture (MDA)

12:35 p.m.

Overview of agenda

Bob Patton, Energy and Environment Supervisor, MDA

12:40 p.m.

Review Councilmembers' policy proposals

Bob Patton and Executive Committee

1:55 p.m.

Plan July 9th full Council meeting

Bob Patton and Executive Committee

2:15 p.m.

Public comment and questions

2:30 p.m.

Adjourn

Categorized Governor's Council on Biofuels' Policy Proposals

for Executive Committee Review June 30, 2020 Meeting

I. E15 and mid-level blends

1. State and local fleets

[Anderson]

- Review state procurement contracts (e.g., F-531(5)) within 45 days to ensure they include competitively priced and available E15 and E85.
- Require, within 60 days, the use of E15 in all 2001 and newer state fleet vehicles and E85 in the flex fuel vehicles.
- Promote the E15 and E85 procurement contracts to all other units of government and require, within 90 days, the appropriate fuel use.
- Consult with the appropriate technical and legal sources to define, within 60 days, the testing protocol and regulatory process that must be followed to obtain a US EPA certified higher ethanol blend fuel for use in non-flex fuel legacy vehicles. Use the findings to start, in no more than 90 days, a mid-level blend project to timely obtain certification for a higher ethanol blend fuel.
- Create access to the use of all ethanol blends greater than E10 with the State Voyager Card

[McCaherty]

- Require state fleet to use higher blends
- Design and sponsor an E30 structured state fleet demonstration project

2. E15 mandate

[McCaherty]

- Replace E10 with E15 as the new regular

[Miller]

- MN should provide a grant program to assist stations with infrastructure needs to comply by June 1, 2023 and require those with updated infrastructure to comply by June 1, 2021. The replacement mandate would still allow (actually require) E10 be offered as a fuel choice but in the form of premium E10 and/or a stand alone pump such as most of the E85 pumps in the state. MN shall also require that any infrastructure upgrades be E30 compatible positioning MN for the higher level blends once E15 use is widely adopted and proven as a safe, effective, cleaner, less expensive alternative to E10.

[Bull]

- The state should enact the Better Fuel Initiative, to increase the existing biofuel blending standard of 10 percent to 15 percent biofuel.

[Klatt]

- State should take a look at MN Corn Growers Legislation. HF3699 Put a timeline for retailers to be in compliance. MN petroleum retailers to be compliant/mandated to sell E15 at their place of locations by 2027. Give retailers 6 years to replace infrastructure or to sell property for redevelopment. For the next 6 years, MN issues \$20 million per year in grants to MN retailers for Advanced Ethanol infrastructure. Grant covers 75% of infrastructure costs. Retailers cover the other 25% max of \$175,000 per location for grants. Grants divided up by independent and large retailers. Recommend grants be used for blender pumps as retailer has to be able to sell E15/E85 for a period of 10 years before they are owned.
- Stores could pay for their own infrastructure and every year, file for an ethanol credit of \$.40 per gallon of E85 /qtr to reimburse for infrastructure until cost is paid in full.

[Crow]

- If the state increases the minimum biofuel content requirement to 15 percent, the state should determine a way to verify there is no net loss of native prairie land (never before tilled grasslands) as a result of the increased demand for corn supply to ethanol production.

[Thalmann]

- Minnesota should increase the existing minimum biofuel content requirement to 15 percent. MN Statutes 239.791
- Could consider if the requirement should exempt fuel retailers with less than 500,000 gallons in annual fuel sales from the standard.
- Could also consider if the standard could be increased over time when a federal waiver for higher biofuel blends in vehicles is attained. The federal waiver would be automatic trigger for the standard increasing (e.g. 20 or 25 percent).

[Hanson]

- MN should implement a tiered approach to implement E15 as the base fuel for all retail stations in the state. Tiers:
 - As of August 1, 2021, any replacements of fueling station components in gasoline service (tanks, piping, fittings, dispensers) must be compatible with up to E30.
 - All retail stations with E15 compatible equipment must provide E15 as their base fuel at >75% of their dispensers after June 1, 2021.
 - The State will provide grants to convert all stations to E15 in the following tiers:
 - Stations with >20 dispensers will convert no later than June 1, 2022
 - Stations with <20 dispensers and no UST replacement needed will convert by June 1 2023
 - Stations with <20 dispensers and UST replacements will convert by June 1 2024
 - Stations with USTs >40 years old will receive grants from the Petrofund to replace equipment by June 1 2024

3. E30 demo

[McCaherty]

- Design and sponsor an E30 structured state fleet demonstration project

4. E30 as certified fuel

[McCaherty]

- Register E30 as a certified fuel

II. Biodiesel

Note: The Biodiesel policy proposals were paraphrased from the letter from Bob Worth to Bob Patton.

1. B30 mandate

[Worth]

- Request that the Walz administration supports a move to B30 or higher. Higher blends of homegrown biofuels should be a priority of the state. States should start looking at how this can happen – as opposed to why it can't.

2. Manufacture engines to support blends higher than B20

[Worth]

- Encourage engine manufacturers to support higher blends in order to prevent reaching our ceiling with B20.

3. B100 in state fleets

[Worth]

- Encourage all State of Minnesota departments to use B100 in state fleets.

III. Biofuels infrastructure

1. E15 mandate

[Hanson]

- MN should implement a tiered approach to implement E15 as the base fuel for all retail stations in the state. Tiers:
 - As of August 1, 2021, any replacements of fueling station components in gasoline service (tanks, piping, fittings, dispensers) must be compatible with up to E30.
 - All retail stations with E15 compatible equipment must provide E15 as their base fuel at >75% of their dispensers after June 1, 2021.
 - The State will provide grants to convert all stations to E15 in the following tiers:

- Stations with >20 dispensers will convert no later than June 1, 2022
- Stations with <20 dispensers and no UST replacement needed will convert by June 1 2023
- Stations with <20 dispensers and UST replacements will convert by June 1 2024
- Stations with USTs >40 years old will receive grants from the Petrofund to replace equipment by June 1 2024

2. Infrastructure grant program

[Anderson]

- Establish in 2020-2021 a version of the Biofuel Infrastructure Partnership Grant Program that was successfully run and implemented by the Minnesota Department of Agriculture.
- Set the minimum compatibility requirements for fuel dispensing equipment (consider, e.g., anticipated mid-level blends as well as plugin flex fuel hybrids which could use both EV chargers and E85).
- Consider approaches by which to create Biofuel Dispenser/EV Charger corridors.

[McCaherty]

- Establish a biofuels grant program that supports replacement of aging retail infrastructure.

[Miller]

- MN should provide a grant program to assist stations with infrastructure needs to comply by June 1, 2023 and require those with updated infrastructure to comply by June 1, 2021. The replacement mandate would still allow (actually require) E10 be offered as a fuel choice but in the form of premium E10 and/or a stand alone pump such as most of the E85 pumps in the state. MN shall also require that any infrastructure upgrades be E30 compatible positioning MN for the higher level blends once E15 use is widely adopted and proven as a safe, effective, cleaner, less expensive alternative to E10.

[Klatt]

- State should take a look at MN Corn Growers Legislation. HF3699 Put a timeline for retailers to be in compliance. MN petroleum retailers to be compliant/mandated to sell E15 at their place of locations by 2027. Give retailers 6 years to replace infrastructure or to sell property for redevelopment. For the next 6 years, MN issues \$20 million per year in grants to MN retailers for Advanced Ethanol infrastructure. Grant covers 75% of infrastructure costs. Retailers cover the other 25% max of \$175,000 per location for grants. Grants divided up by independent and large retailers. Recommend grants be used for blender pumps as retailer has to be able to sell E15/E85 for a period of 10 years before they are owned.
- Stores could pay for their own infrastructure and every year, file for an ethanol credit of \$.40 per gallon of E85 /qtr to reimburse for infrastructure until cost is paid in full.

3. Minimum infrastructure specs

[McCaherty]

- Define minimum specifications of all new infrastructure to ensure biofuel compatibility

[Thalmann]

- Adopt a requirement that when refueling infrastructure (pumps, tanks etc.) need to be replaced due to routine maintenance or end of useful life, newly installed equipment should meet highest available biofuel compatibility from UL or ASTM certification (current spec is 25%).

[Miller]

- MN should provide a grant program to assist stations with infrastructure needs to comply by June 1, 2023 and require those with updated infrastructure to comply by June 1, 2021. The replacement mandate would still allow (actually require) E10 be offered as a fuel choice but in the form of premium E10 and/or a stand alone pump such as most of the E85 pumps in the state. MN shall also require that any infrastructure upgrades be E30 compatible positioning MN for the higher level blends once E15 use is widely adopted and proven as a safe, effective, cleaner, less expensive alternative to E10.

4. Aging infrastructure-funding

[McCaherty]

- Establish a biofuels grant program that supports replacement of aging retail infrastructure.
- Much of the aging infrastructure needs replacement simply based on years in service and replacement should not be linked to biofuels. The replacement of this infrastructure should tap into state funds specifically related aging infrastructure. This will complement any funding earmarked for biofuels and new infrastructure should have specifications that accommodate biofuels

[Thalmann]

- On or before the Petrofund expires in 2022, the Petroleum Tank Release Cleanup statute should be amended from just providing funds for when a release occurs requiring a cleanup, to a source of funds that can replace old and outdated equipment before a release occurs.
- In addition, the fund should include bulk blending infrastructure, rail load out infrastructure (100 unit train for export) and direct load out to domestic stations.
- Revise the purpose of the Petrofund to a more proactive source of funds to prevent releases instead of paying for cleanup and replacing equipment after the release has occurs.

5. Funding alternatives

[Thalmann]

- State should explore all options for financing biofuels infrastructure and work to implement an ongoing funding source to fund the long-term needs of increasing biofuel blends in Minnesota. The most used example in the past has been grant funding, and that could continue in the future, but we acknowledge that new state sources of funding will be tight. Could also actively support federal options, such as the Clean Fuels Deployment Act or

USDA CCC funds (HBIIP). Low interest loans or revolving loan funds should be explored in addition to tax policy options to provide access to low cost capital and other financial incentives.

[Christianson]

- State government should help retail station owners leverage the federal programs available for infrastructure updates.

IV. Clean Fuels Policy/LCFS

1. Should adopt

[Bull]

- The state should move ahead to establish a Clean Fuels Policy along the lines of what has been developed by the Midwestern Clean Fuels Initiative coordinated by the Great Plains Institute.

[Anderson]

- Use an executive order to implement a Clean Fuels Policy (CFP) that recognizes the benefits of biofuels and agronomic practices (GREET model) to reduce the carbon intensity of Minnesota's transportation fuel. by some significant amount by some yet to be determined date.

[McCaherty]

- Minnesota should implement, through legislation or rulemaking, a Clean Fuels Policy to reduce carbon intensity of transportation fuel. Minnesota should seek to pass legislation in 2021, in order for rulemaking to initiate in that same year. The Clean Fuels Policy should support a move towards higher blends of biofuels, improve agricultural and forestry economies, and benefit consumers. The Clean Fuels Policy should support demand for E15, mid-level blends of ethanol, and biodiesel by providing consumers incentives for these fuels. It should rely on the Argonne GREET model and recognize GHG reductions on the farm, and fairly compensate farmers for the emissions reductions they can provide.

2. Cost at pump

[Horton]

- The State should develop a Midwest (or even solely Minnesota) low carbon fuel standard that is technology and feedstock neutral. This will reward developers and producers of low carbon intensity fuels with funds generated from high carbon fuels. But every effort should be made to ensure that this does not result in increased cost at the pump for consumers.

3. Decision support tools

[Horton]

- The state should develop regionally-relevant decision support tools to make informed decisions on deployment of bio-based fuels programs. A low carbon fuel standard would require a standardized assessment of the carbon intensity of every form of fuels production technology and methodology.

4. Clean fuels task force

[Christianson]

- State government should participate in the task force to establish a MN Clean Fuels Policy.

V. Public understanding and marketing

1. State agencies

[Anderson]

- Include biofuels (ethanol) description in roster of tools that Agencies can use to reduce GHG emissions.

2. Education/marketing program/campaign

[McCaherty]

- Sponsor a professional marketing campaign to educate consumers on the benefits of biofuels

[Christianson]

- State Government should establish a grant program for the educational opportunities for people to understand and create awareness of the economic, environmental, security, human health benefits of lowering GHG emissions by using higher blends of ethanol.

3. Technology demonstrations

[Horton]

- The state should support technology demonstrations of unblended biofuels. These include demonstrations of renewable fuels such as bio-gasoline, renewable diesel, and renewable jet fuels that are fully infrastructure compatible with current piston and turbine engines without the need to blend with petroleum-based fuels.

4. Educate dealerships and mechanics

[McCaherty]

- Sponsor program to train and educate auto dealerships and mechanics on biofuels

5. As part of E15 mandate (Better Fuels Initiative)

[Bull]

- The state should enact the Better Fuel Initiative, to increase the existing biofuel blending standard of 10 percent to 15 percent biofuel.

VI. Vehicles and biofuels

1. Provide incentives that encourage FFV purchases and retrofitting

[Anderson]

- Open the Clean Cars Minnesota Low Emission Vehicle portion of the rulemaking process to consider the provision of incentives for vehicle manufacturers to offer vehicles such as a plugin flex fuel hybrid, flex fuel hybrid and evolving technology such as the solid oxide fuel cell (uses 100 percent ethanol and water: <https://usa.nissannews.com/en-US/releases/nissan-unveils-world-s-first-solid-oxide-fuel-cell-vehicle>).

2. Consult CARB to explore vehicle regulations that support the use of higher blends

[McCaherty]

- Provide incentives/tax breaks that encourage increased purchases of FFVs. Or could we require all new vehicles be retrofitted to all be FFV
- Provide incentives for car dealers to retrofit existing vehicles to FFV
- Initiate a dialogue with the California Air Resources Board to explore the establishment of vehicle regulations that support the use of higher blends. This could be a requirement for an E30 vehicle, or a mandate or incentive for FFVs. Gov. Walz should reach out directly to Gov. Newsom to initiate a dialogue between MN agencies and CARB.

3. Advocate for federal policy that credits vehicle manufacturers to produce vehicles for E15 and higher

[Thalmann]

- State should actively support federal policy that would provide a credit for vehicle manufactures to produce vehicles that can run on blends of ethanol higher than 15 percent. In the past there has been a flex fuel vehicle credit. It could be a return of that credit or another type of credit mechanism that would enable production of high compression engines that use a 25 percent or higher blend of ethanol. This policy would need to be enacted at the federal level (policy or regulation) but the state could help advocate for it with the delegation and through other policy venues, such as MW Association of State Departments of Agriculture.

VII. Other

1. Fully fund Bioincentive Program

[Bull]

- The state should appropriate \$5,000,000 in fiscal year 2020 and \$5,000,000 in fiscal year 2021 are appropriated from the renewable development account in the special revenue fund to the commissioner of agriculture to issue payments to producers of advanced biofuels, renewable chemicals, and biomass thermal energy under Minnesota Statutes, sections 41A.16, 41A.17, and 41A.18.
- These appropriations are onetime and are available until June 30, 2022.

[Horton]

- Maintain and fully fund the AGRI Bioincentive program, which encourages commercial-scale production of advanced biofuels through production incentive payments. The program was undersubscribed in FY18, but oversubscribed in FY19 and again in FY20, despite increasing funding that year. As a result in FY21 if there is more demand than available funding the money will be pro-rated and each producer will get less than they earned. This weakens the entire program and reduced the incentive to create bioenergy, advanced biofuels and bio-based chemicals.

[McCaherty]

- Fully fund the Bioincentive Program as a way to support commercial deployment of advanced biofuels such as corn kernel cellulosic ethanol, renewable natural gas, and wood-based renewable diesel.

2. State carbon sequestration goal

[Crow]

- The state should set a carbon sequestration goal for E15 to expand the adoption of practices that have benefits for both clean water and carbon sequestration.

3. Loan program, access to grant opportunities, fund studies

[Horton]

- The state should develop creative programs for financially fostering advanced fuels, including;
 - Issuing state bonds to financially support developing a cellulosic biofuel plant.
 - Initiating a biofuel or co-product low-interest direct loan program.
 - Developing a clearinghouse of information on appropriate grant opportunities, and of companies or agencies that have made commitments to source non-petroleum based fuels (e.g., DoD)
 - Establish a biofuel grant program to continue research and development efforts, to increase the scale and volume of cellulosic biofuel production

- Fund a study to determine opportunities for biofuel use at the Duluth port and the Minneapolis-St. Paul Airport.
- Fund a study on needed infrastructure to increase and facilitate the transport, storage and blending of advanced biofuels, including diesel, jet and ethanol.
- Create financial incentives for forest landowners for practices that lower carbon intensity of wood cellulosic biofuel feedstock

4. Support changes to EPA 2007 Energy Security and Independence Act

[Horton]

- Work with and encourage the Minnesota Congressional Delegation to support changes to EPA definitions and changes to the 2007 Energy Security and Independence Act (which contains the Renewable Fuels Standards (RFS)) to address barriers to the development of advanced biofuels in the US, including:
 - EPA does not define woody biomass as "carbon neutral"
 - RFS does not allow using wood from federal lands for biofuels, and mill residues from such lands must be kept separate (rather than using weigh balance).
 - RFS does not allow slash from natural forests to be used for biofuels, it must be from plantations.
 - RFS registration, reporting, recordkeeping and product transfer document (PTD) requirements do not allow production of intermediate products at a site, with finishing elsewhere.
 - RFS definitions of slash and pre-commercial thinnings is ambiguous and creates uncertainty.

5. Dedicate funds for clean water practices

[Thalmann]

- Constitutionally dedicated funds for clean water activities, through the Clean Water Fund, should be geared towards implementation and providing incentives to farmers to adopt management practices that will improve water quality but also reduce the carbon intensity of feedstocks for ethanol production. Examples of practices could include reduced tillage, nitrogen BMPs (side/dress and split application equipment, slow release fertilizers) and cover crops.
- Using Clean Water Funds for this purpose achieves multiple outcomes for every dollar directed towards implementation. Clean Water Funds are a readily available source of funds to achieve goals and do not require the creation of a new funding stream.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Gary Anderson

Main Topic:

E15 and mid-level blends: **X**

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

- A. Review state procurement contracts (e.g., F-531(5)) within 45 days to ensure they include competitively priced and available E15 and E85.
- B. Require, within 60 days, the use of E15 in all 2001 and newer state fleet vehicles and E85 in the flex fuel vehicles.
- C. Promote the E15 and E85 procurement contracts to all other units of government and require, within 90 days, the appropriate fuel use.
- D. Consult with the appropriate technical and legal sources to define, within 60 days, the testing protocol and regulatory process that must be followed to obtain a US EPA certified higher ethanol blend fuel for use in non-flex fuel legacy vehicles. Use the findings to start, in no more than 90 days, a mid-level blend project to timely obtain certification for a higher ethanol blend fuel.
- E. Create access to the use of all ethanol blends greater than E10 with the State Voyager Card

What is the purpose of the action? How will the action address barriers and opportunities?

- A. Removes barriers that prevent state, county and municipalities from having access to and using E15 and E85 in their fleets.
- B. Removes ambiguity about biofuel use in state fleet vehicles. Acts as model for other units of government.
- C. Provide sustained awareness and prompts to use biofuels. Normalizes the use of E15 and E85 in respective ethanol compatible vehicles.
- D. Gather facts and set timelines for action to obtain US EPA certification of a higher ethanol fuel blend for use in legacy non flex fuel vehicles. This action would create a process by which to study the issue, implement a legitimate testing protocol to secure the necessary information, and understand and engage in the regulatory process to certify the higher blend fuel.
- E. To assure access to all ethanol blends greater than E10. Eliminates the restriction on E85 only use and allows for E15 and mid-level blends to be purchased by cardholders.

How will the action move us toward the adopted vision and meet the principles?

- A. Increases awareness, acceptance and the use of biofuels.

- B. Offers value and benefits for taxpayers: homegrown fuel, fewer harmful tailpipe and GHG emissions.
- C. It is a means by which to make E15 the base fuel (new regular).
- D. Provides the method to obtain from the US EPA a higher ethanol blend certified fuel for use in legacy non flex fuel vehicles.
- E. Offers greater value for the taxpayer dollar used to purchase fuel and helps to reduce GHG emissions.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Jeanne McCaherty

Main Topic:

E15 and mid-level blends: **X**

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

- 1) Replace E10 with E15 as the new regular
- 2) Require state fleet to use higher blends
- 3) Design and sponsor an E30 structured state fleet demonstration project
- 4) Register E30 as a certified fuel

What is the purpose of the action? How will the action address barriers and opportunities?

- 1) Increase biofuel utilization by 50% on primary fuel
- 2) Increase utilization
- 3) Set up next step in the biofuels journey
- 4) Address hurdles in establishing E30 as a mainstream fuel

How will the action move us toward the adopted vision and meet the principles?

Each of the actions increases the utilization of biofuels which decreases the GHG, improves air quality, and decreases costs to the consumer

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Chris Hanson

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure: X

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

MN should implement a tiered approach to implement E15 as the base fuel for all retail stations in the state. Tiers:

- 1) As of August 1, 2021, any replacements of fueling station components in gasoline service (tanks, piping, fittings, dispensers) must be compatible with up to E30.
- 2) All retail stations with E15 compatible equipment must provide E15 as their base fuel at >75% of their dispensers after June 1, 2021.

The State will provide grants to convert all stations to E15 in the following tiers:

- 3) Stations with >20 dispensers will convert no later than June 1, 2022
- 4) Stations with <20 dispensers and no UST replacement needed will convert by June 1 2023
- 5) Stations with <20 dispensers and UST replacements will convert by June 1 2024
- 6) Stations with USTs >40 years old will receive grants from the Petrofund to replace equipment by June 1 2024

What is the purpose of the action? How will the action address barriers and opportunities?

Adding infrastructure for higher ethanol blends will create a new market for both MN biofuels and the corn they are made from. This will advance the MN petroleum replacement goals, reduce carbon intensity of our fuel system, and reduce GHG from transportation.

Added infrastructure offers a choice for consumers which they do not have today. Added choice in fuels will save money for the consumer, which benefits all in MN across the spectrum socioeconomic status.

How will the action move us toward the adopted vision and meet the principles?

Adding fueling infrastructure for higher ethanol blends is the fastest and most impactful way to meet nearly all of the items listed in the vision and principles.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Mick Miller

Main Topic:

E15 and mid-level blends: X

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other: Adopt an E10 replacement with E15.

What Action:

MN should provide a grant program to assist stations with infrastructure needs to comply by June 1, 2023 and require those with updated infrastructure to comply by June 1, 2021. The replacement mandate would still allow (actually require) E10 be offered as a fuel choice but in the form of premium E10 and/or a stand alone pump such as most of the E85 pumps in the state. MN shall also require that any infrastructure upgrades be E30 compatible positioning MN for the higher level blends once E15 use is widely adopted and proven as a safe, effective, cleaner, less expensive alternative to E10.

What is the purpose of the action? How will the action address barriers and opportunities?

This will immediate create additional demand for biofuels while reducing petroleum use and carbon emissions.

How will the action move us toward the adopted vision and meet the principles?

We are not on track to meet MN's petroleum replacement goals and this action supports all those listed in the Vision Statement as well as most everything in the Biofuels Principals. This is a bold move, it's direct and to the point and can be accomplished as MN did with E10 some 20 years ago.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Mike Bull

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS: X

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

The state should move ahead to establish a Clean Fuels Policy along the lines of what has been developed by the Midwestern Clean Fuels Initiative coordinated by the Great Plains Institute.

What is the purpose of the action? How will the action address barriers and opportunities?

A well-designed clean fuels policy has numerous positive attributes for the economy and environment:

- Designed to be technology-neutral.
- Compensates any clean fuel or low carbon fuel¹ provider that can achieve a lower carbon-intensity the policy requires.
- Supports a portfolio of clean fuels and compensates fuel producers based on their actual carbon performance without discriminating against or disproportionately favoring any fuel.
- Encourages a competitive marketplace in clean fuels and offers incentives to support access to the market.
- Supports development of a variety of clean fuel types, including but not limited to biofuels, electricity, and hydrogen.

How will the action move us toward the adopted vision and meet the principles?

The Clean Fuels Initiative would move Minnesota forward on all three key policy attributes listed:

- Policies that accelerate achievement of the petroleum replacement goals outlined in Minnesota Statutes 2018, section 239.7911
- Policies and programs to advance and invest in carbon efficiency improvements of biofuels plants and sources of biofuels feedstock
- Policies that utilize biofuels to help Minnesota achieve its greenhouse gas reduction goals under the 2007 Next Generation Energy Act

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Mike Bull

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other: Bioincentive program. It's time to fully fund the bioincentive program, along the lines of what's been proposed in SF 41, for action in the 1st special session 2020.

What Action:

The state should appropriate \$5,000,000 in fiscal year 2020 and \$5,000,000 in fiscal year 2021 are appropriated from the renewable development account in the special revenue fund to the commissioner of agriculture to issue payments to producers of advanced biofuels, renewable chemicals, and biomass thermal energy under Minnesota Statutes, sections 41A.16, 41A.17, and 41A.18. These appropriations are onetime and are available until June 30, 2022.

What is the purpose of the action? How will the action address barriers and opportunities?

The Minnesota State Legislature established the Bioincentive Program in 2015 to encourage commercial-scale production of advanced biofuels, renewable chemicals, and biomass thermal energy through production incentive payments.

How will the action move us toward the adopted vision and meet the principles?

The Agricultural Growth, Research, and Innovation (AGRI) Program supports the advancement of Minnesota's agricultural and renewable energy industries. AGRI has made significant economic impacts by supporting jobs, increasing productivity, improving efficiency, and assisting the development of agricultural products.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Mike Bull

Main Topic:

E15 and mid-level blends: X

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other: The Biofuels Council should support the Better Fuel Initiative.

What Action:

The state should enact the Better Fuel Initiative, to increase the existing biofuel blending standard of 10 percent to 15 percent biofuel.

What is the purpose of the action? How will the action address barriers and opportunities?

- **BETTER for HEALTH** According to the USDA, using ethanol made from corn helps reduce harmful greenhouse gas emissions by 39-43% compared to gasoline. That's why higher blends of ethanol are recognized as a Clean Air Choice© by the American Lung Association.
- **BETTER for the ENVIRONMENT** Ethanol is a biodegradable fuel made from field corn, a renewable fuel source. Growth in ethanol helps reduce our reliance on petroleum - a finite resource.
- **BETTER OCTANE** Ethanol has a higher octane rating than regular gasoline, resulting in more engine power efficiency. Nine out of 10 vehicles on the road today are approved by the EPA to safely use E15 fuel.
- **BETTER for CONSUMERS** Minnesota drivers are using a cleaner burning, higher octane, and lower priced option when they fill up with ethanol-blended fuel. It's good for our air, safe for most vehicles, and supports economic development right here in Minnesota

How will the action move us toward the adopted vision and meet the principles?

The Better Fuel Initiative addresses all three key components for the GBC:

- Policies that accelerate achievement of the petroleum replacement goals outlined in Minnesota Statutes 2018, section 239.7911
- Policies and programs to advance and invest in carbon efficiency improvements of biofuels plants and sources of biofuels feedstock
- Policies that utilize biofuels to help Minnesota achieve its greenhouse gas reduction goals under the 2007 Next Generation Energy Act

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Rick Horton

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS: X

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

The State should develop a Midwest (or even solely Minnesota) low carbon fuel standard that is technology and feedstock neutral. This will reward developers and producers of low carbon intensity fuels with funds generated from high carbon fuels. But every effort should be made to ensure that this does not result in increased cost at the pump for consumers.

What is the purpose of the action? How will the action address barriers and opportunities?

Advanced biofuels development has been hampered by a lack of a clear pathway to federal RINS credits under the Renewable Fuels Standard. This would remove that barrier to development by creating an entirely new pathway based on carbon intensity rather than production volumes.

How will the action move us toward the adopted vision and meet the principles?

It would result in the development of new facilities in northern Minnesota producing liquid fuels from woody biomass, thus meeting the following Vision items:

- Create pathways for advanced biofuels development.
- Protect and enhance air quality and public health, water quality, wildlife habitat, biodiversity, soil productivity and other associated ecological services, and ensure healthy and vibrant forest-reliant communities.
- Improve the economic vitality of the state, particularly in rural Minnesota and in the renewable energy, agricultural, and forest sectors.

This is in accordance with the following Principles:

- Advance and invest in carbon efficiency improvements of biofuels plants and sources of biofuels feedstock.
- Consider the relation of biofuels production to the impacts to, and opportunities for, farmers, forest landowners, rural communities, the natural environment, and economically disadvantaged populations.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Rick Horton

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS: X

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

Maintain and fully fund the AGRI Bioincentive program, which encourages commercial-scale production of advanced biofuels through production incentive payments. The program was undersubscribed in FY18, but oversubscribed in FY19 and again in FY20, despite increasing funding that year. As a result in FY21 if there is more demand than available funding the money will be pro-rated and each producer will get less than they earned. This weakens the entire program and reduced the incentive to create bioenergy, advanced biofuels and bio-based chemicals.

What is the purpose of the action? How will the action address barriers and opportunities?

When the public seeks changes for the public good, businesses often call on them to help fund those changes, particularly if there are less costly but less desirable alternatives. The AGRI Bioincentive program provides production incentives for advanced biofuels production, which is preferable to direct subsidies, as it requires the producer to build, and then get rewarded for production.

Program enrollment started slow, but now the demand outpaces the available funding. Currently there is \$5 million per biennium, but the projected demand is \$20 million per biennium. Funding the program at the level of demand would make the funding stable, dependable and reliable. Companies need that level of assurance when making significant investment in the state.

How will the action move us toward the adopted vision and meet the principles?

This action would provide public assistance for increasing the production of advanced biofuels in Minnesota. This increases the likelihood of building new facilities utilizing woody feedstock, thus meeting the following Vision items:

- Create pathways for advanced biofuels development;

- Protect and enhance air quality and public health, water quality, wildlife habitat, biodiversity, soil productivity and other associated ecological services, and ensure healthy and vibrant forest-reliant communities;
- Improve the economic vitality of the state, particularly in rural Minnesota and in the renewable energy, agricultural, and forest sectors;

And meeting the following Principles:

- Foster growth and use of biofuels including higher blends and supporting policies
- Advance and invest in carbon efficiency improvements of biofuels plants and sources of biofuels feedstock
- Utilize biofuels to help Minnesota achieve its greenhouse gas reduction goals under the 2007 NGEA.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Rick Horton

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other: Influencing Federal Policy

What Action:

Work with and encourage the Minnesota Congressional Delegation to support changes to EPA definitions and changes to the 2007 Energy Security and Independence Act (which contains the Renewable Fuels Standards (RFS)) to address barriers to the development of advanced biofuels in the US, including:

- EPA does not define woody biomass as "carbon neutral"
- RFS does not allow using wood from federal lands for biofuels, and mill residues from such lands must be kept separate(rather than using weigh balance).
- RFS does not allow slash from natural forests to be used for biofuels, it must be from plantations.
- RFS registration, reporting, recordkeeping and product transfer document (PTD) requirements do not allow production of intermediate products at a site, with finishing elsewhere.
- RFS definitions of slash and pre-commercial thinnings is ambiguous and creates uncertainty.

What is the purpose of the action? How will the action address barriers and opportunities?

While the Governor of Minnesota and the state legislature do not set federal policy, there is an opportunity to implement the above policy recommendations through our Congressional delegation. Other states have been working on this issue for years, including Maine, Oregon and Arkansas. Teaming with them as part of a broader coalition of forested states may build enough momentum to affect a change in federal policy.

Potential developers of facilities to produce ethanol, jet fuel and renewable diesel need a level playing field and clear understanding of the compliance rules in order to invest in Minnesota.

Creating a Midwest Low Carbon Fuel Standard may take years of effort. These changes to federal policy could be made and implemented in less than a year. Investors are standing by ready to build once they get a pathway to the marketplace. This is the short-term solution, with perhaps the Midwest Low Carbon Fuel Standard being the long term solution.

How will the action move us toward the adopted vision and meet the principles?

By removing federal barriers to advanced biofuels Minnesota could quickly see investors begin the process to develop wood-based facilities in this state. This would address the following Vision items:

- Create pathways for advanced biofuels development;
- Protect and enhance air quality and public health, water quality, wildlife habitat, biodiversity, soil productivity and other associated ecological services, and ensure healthy and vibrant forest-reliant communities;
- Improve the economic vitality of the state, particularly in rural Minnesota and in the renewable energy, agricultural, and forest sectors;

And the following Principles:

- Advance and invest in carbon efficiency improvements of biofuels plants and sources of biofuels feedstock
- Utilize biofuels to help Minnesota achieve its greenhouse gas reduction goals under the 2007 NGEA
- Consider the relation of biofuels production to the impacts to, and opportunities for, forest landowners, rural communities.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Rick Horton

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other: Financing Facility Development

What Action:

The state should develop creative programs for financially fostering advanced fuels, including;

- Issuing state bonds to financially support developing a cellulosic biofuel plant.
- Initiating a biofuel or co-product low-interest direct loan program.
- Developing a clearinghouse of information on appropriate grant opportunities, and of companies or agencies that have made commitments to source non-petroleum based fuels (e.g., DoD)
- Establish a biofuel grant program to continue research and development efforts, to increase the scale and volume of cellulosic biofuel production
- Fund a study to determine opportunities for biofuel use at the Duluth port and the Minneapolis-St. Paul Airport.
- Fund a study on needed infrastructure to increase and facilitate the transport, storage and blending of advanced biofuels, including diesel, jet and ethanol.
- Create financial incentives for forest landowners for practices that lower carbon intensity of wood cellulosic biofuel feedstock

What is the purpose of the action? How will the action address barriers and opportunities?

The purpose would be to provide direct funding support for development projects, comprehensive information on other potential funding sources, funding for research on technology, infrastructure and potential outlets, and incentives for forest landowners to reduce the carbon intensity of feedstocks even further.

Funding assistance for research, development, construction and land management could create an environment for industry growth in the state. That said, any form of public assistance should be structured so that it is widely available, not just targeted to an individual entity.

How will the action move us toward the adopted vision and meet the principles?

Providing financial assistance may attract investors to build wood biomass-based cellulosic fuels facilities to the state. Using wood in this way will allow forest landowners to address forest

health issues, manage for biodiversity and wildlife habitat, and utilize tree species that don't have commercial markets any more.

It would also create natural resource-based jobs in rural northern Minnesota, which would increase the economic vitality of the state.

To meet the Principles, it would advance and invest sources of biofuels feedstock, and utilize biofuels to help Minnesota achieve its greenhouse gas reduction goals under the 2007 Next Generation Energy Act.

Such an industry would have positive impacts to, and opportunities for, forest landowners, rural communities, the natural environment, and economically disadvantaged populations.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Lance Klatt

Main Topic:

E15 and mid-level blends: **X**

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other: Should create a "E-Fund" similar to "Petro-Fund". Fund be used for Additional MPCA inspectors and future spills at sites carrying E15 and higher ethanol fuels. Retailers pay in \$.02 a gallon on all E85 and E15 fuels when purchased. Stores can use their current infrastructure to sell E15. MPCA is concerned about compatibility. Let's help them monitor our sites and establishing specific guidelines to sell e15. Stores have to be responsible also. (paperwork, monitoring etc.)

What Action:

State should take a look at MN Corn Growers Legislation. HF3699 Put a timeline for retailers to be in compliance. MN petroleum retailers to be compliant/mandated to sell E15 at their place of locations by 2027. Give retailers 6 years to replace infrastructure or to sell property for redevelopment. For the next 6 years, MN issues \$20 million per year in grants to MN retailers for Advanced Ethanol infrastructure. Grant covers 75% of infrastructure costs. Retailers cover the other 25% max of \$175,000 per location for grants. Grants divided up by independent and large retailers. Recommend grants be used for blender pumps as retailer has to be able to sell E15/E85 for a period of 10 years before they are owned.

Stores could pay for their own infrastructure and every year, file for a ethanol credit of \$.40 per gallon of E85 /qtr to reimburse for infrastructure until cost is paid in full.

What is the purpose of the action? How will the action address barriers and opportunities?

The purpose of this action is to allow equal opportunity in the retail fueling marketplace. Allows small and large sites to be able to compete for grants and ethanol volume. What comes first, chicken or the egg? The more sites offering e15 and additional ethanol products, the faster we can meet our goals as a council. Only way to maximize ethanol sales in MN is to install blender pumps and educate retailers not just customers.

State can give MN consumers a Rewards program for buying E15 and E85. For every gallon they buy, they get \$.03 per gallon credit off their state taxes. Consumer saves receipts and hands them in on their year end state taxes. Sites like Minnoco and Kwik Trip, could sue rewards programs to track for customers also for a annual statement. Average customer buys 1,000 gallons annually, can save \$300 on their taxes. Program to be called "ETAX". Businesses and state could utilize this program also.

How will the action move us toward the adopted vision and meet the principles?

Easy- The more ethanol products available at the pump, the more you will sell. The more ethanol you sell, the less greenhouse emissions you will have and the goal of decarbonization will be in play. MN farming communities and ethanol plants economic platforms will be stronger than ever!

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: John Christianson

Main Topic:

E15 and mid-level blends: X

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

Phase 1: Adopt Unleaded 88 as MN base gasoline fuel next legislative session and phase in over the next 3 years.

Phase 2: Work to adopt a MN Clean Fuels Policy (LCFS) over the next 2 - 4 years. Set GHG emissions reductions targets that will encourage and require the use of E-30 to achieve the goal. Midwest states are watching MN to take the lead and determine a path for them to follow.

What Action:

1. State Government should establish a grant program for the educational opportunities for people to understand and create awareness of the economic, environmental, security, human health benefits of lowering GHG emissions by using higher blends of ethanol.
2. State government should help retail station owners leverage the federal programs available for infrastructure updates.
3. State government should participate in the task force to establish a MN Clean Fuels Policy.

What is the purpose of the action? How will the action address barriers and opportunities?

1. Education will create the awareness for public support of the state's policy goals. More public awareness creates the desire for reducing GHG emissions further.
2. MN should be aware of all infrastructure programs currently available for fuel retailers and help them maximize those program benefits.
3. State representatives as part of the task force can help guide a Clean Fuels Policy that will avoid some of the problems CA LCFS deals with and can ensure the GHG emission reduction targets are set to encourage higher blends of ethanol.

How will the action move us toward the adopted vision and meet the principles?

1. A better educated public that has awareness of the benefits of higher blends of ethanol will provide for better adoption and demand for higher blend ethanol.
2. We want as many MN retailers to upgrade their tank and pump infrastructure while spending as few of dollars as possible.
3. Development of a Midwest Clean Fuels Policy will create the incentive for innovation in Ag production practices and ethanol production to reduce their GHG emissions and lower their

carbon score. We will be benefiting the Mn ag industry and the ethanol/renewable fuels industries.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Gary Anderson

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure: X

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

- A) Establish in 2020-2021 a version of the Biofuel Infrastructure Partnership Grant Program that was successfully run and implemented by the Minnesota Department of Agriculture.
- B) Set the minimum compatibility requirements for fuel dispensing equipment (consider, e.g., anticipated mid-level blends as well as plugin flex fuel hybrids which could use both EV chargers and E85).
- C) Consider approaches by which to create Biofuel Dispenser/EV Charger corridors.

What is the purpose of the action? How will the action address barriers and opportunities?

- A. Provide a limited grant program to increase the total number of fuel retailers that offer E15 and higher ethanol blends in Minnesota to reach 20% market penetration (target number is 660; approx. 370 currently offer E15). This program, with the proper design and management, can increase the availability of and access to E15 and higher ethanol blends to Minnesotans.
- B. Clarifies dispenser compatibility standards for E15 and higher blends. Sets the standard to plan for at least mid-level blends (check and verify whether component compatibility is similar for E25 vs E85).
- C. Maximize opportunities for Minnesotans to have access to and use renewable biofuel and/or vehicle chargers.

How will the action move us toward the adopted vision and meet the principles?

- A. With a greater number of fuel retailers/brands offering E15 and higher blends, E15 can become the new base fuel.
- B. This action will facilitate the use of biofuels and thereby help to reduce GHG emissions in the transportation sector.
- C. By overlaying renewable biofuels and EV chargers, Minnesota can accelerate the reduction of GHG emissions in the transportation sector. See, e.g., current E15+ locations by selecting all ethanol options and use "Minnesota" in address line:

<https://www.mnbiofuels.org/resources/e15-e85-blender-pump-map/map2>

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Gary Anderson

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS: X

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

- A) Use an executive order to implement a Clean Fuels Policy (CFP) that recognizes the benefits of biofuels and agronomic practices (GREET model) to reduce the carbon intensity of Minnesota's transportation fuel. by some significant amount by some yet to be determined date.

What is the purpose of the action? How will the action address barriers and opportunities?

- A) Jump start a process to systematically reduce the carbon intensity of transportation fuels offered in Minnesota. This action could, e.g., give fuel refiners the incentive to make E15 the new regular fuel and incentives to promote higher blends since it could help refiners reduce the carbon intensity of gasoline.

How will the action move us toward the adopted vision and meet the principles?

- A) Given the economic and environmental benefits of renewable ethanol, a CFP could provide incentives to ethanol producers to further lower the carbon intensity of ethanol and incentives to farmers to lower the carbon intensity of the biomass. This action has potential to protect and enhance air quality and public health, water quality, wildlife habitat, biodiversity, soil productivity and other associated ecological services, and ensure healthy and vibrant forest-reliant communities.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Gary Anderson

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing: X

Vehicles and biofuels:

Other:

What Action:

- A) Include biofuels (ethanol) description in roster of tools that Agencies can use to reduce GHG emissions.
- B) Offer a state funded program to educate consumers on the positive attributes of biofuels and to increase their usage.

What is the purpose of the action? How will the action address barriers and opportunities?

- A) Align policies across state agencies, such as the MnDOT Decarbonization Recommendations with messaging on renewables. This action will provide greater opportunities for state employees and the public to learn about biofuels as an alternative to petroleum.
- B) Maximize the investment in infrastructure. This will increase consumer awareness and normalize the use of E15 and higher blends.

How will the action move us toward the adopted vision and meet the principles?

- A) A broader, consistent set of information across multiple internal and external media holds the potential to increase public awareness and acceptance about, and utilization of biofuels.
- B) A broader, consistent set of information across multiple internal and external media holds the potential to increase public awareness and acceptance about, and utilization of biofuels.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Gary Anderson

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels: X

Other:

What Action:

- A) Open the Clean Cars Minnesota "Low Emission Vehicle" portion of the rulemaking process to consider the provision of incentives for vehicle manufacturers to offer vehicles such as a plugin flex fuel hybrid, flex fuel hybrid and evolving technology such as the solid oxide fuel cell (uses 100 percent ethanol and water: <https://usa.nissannews.com/en-US/releases/nissan-unveils-world-s-first-solid-oxide-fuel-cell-vehicle>).

What is the purpose of the action? How will the action address barriers and opportunities?

- A) Use an existing rulemaking process to make systemic change. Potential to provide incentives for create opportunities for new vehicle engine technology that can use greater amounts of renewable ethanol.
- B) Take advantage of the high octane properties of ethanol and its ability to reduce tailpipe and GHG emissions. Protect and enhance air quality and public health

How will the action move us toward the adopted vision and meet the principles?

- A) It holds potential to further replace petroleum with renewable fuel and thereby lower GHG emissions in the transportation sector.
- B) Improves the economic vitality of the state, particularly in rural Minnesota and in the renewable energy and agricultural sectors.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Rick Horton

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS: X

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

The state should develop regionally-relevant decision support tools to make informed decisions on deployment of bio-based fuels programs. A low carbon fuel standard would require a standardized assessment of the carbon intensity of every form of fuels production technology and methodology.

What is the purpose of the action? How will the action address barriers and opportunities?

Biofuels show great promise in reducing the carbon footprint of our transportation infrastructure, but there are widely varying data about the true sustainability and carbon footprint of biofuel production technologies. An accurate sustainability assessment requires data unique to each region's climate, industry, soil, and water resources. Without science-based decision support tools, policy decisions surrounding biofuels deployment can become derailed by emotional and opinion-dominated arguments. A standardized robust decision support tool can help the public, industry, and lawmakers craft policy that has broad support.

How will the action move us toward the adopted vision and meet the principles?

This policy recommendation would support development of a low carbon fuel standard, thereby creating pathways for advanced biofuels development. Additionally, having this data publicly available in order to compare carbon intensities of different processes would increase public awareness, acceptance, and utilization of biofuels.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Rick Horton

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing: X

Vehicles and biofuels:

Other:

What Action:

The state should support technology demonstrations of unblended biofuels. These include demonstrations of renewable fuels such as bio-gasoline, renewable diesel, and renewable jet fuels that are fully infrastructure compatible with current piston and turbine engines without the need to blend with petroleum-based fuels.

What is the purpose of the action? How will the action address barriers and opportunities?

Currently renewable and bio-based fuel markets are limited to blendstock for the petroleum-fueled infrastructure. As such they bear risks associated with the petroleum markets, including price fluctuations and unsustainable production costs. Furthermore, there is a risk of market decline for internal combustion engines as they cannot meet efficiency and cost (spark emission) and pollution (compression emission) standards.

There are opportunities to expand markets, especially in commercial airline fuels and medium-heavy duty applications (farming, trucking, mining, rail). Most of these technologies exist today but lack market awareness to support their commercial growth. Increasing public awareness will help set up the biofuels industry to support the transportation infrastructure of the future.

How will the action move us toward the adopted vision and meet the principles?

At some point we need to move beyond simply adding biofuels to petroleum fuels. By increasing public awareness, acceptance, and utilization of biofuels we will create pathways for advanced biofuels development.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Liz Crow

Main Topic:

E15 and mid-level blends: **X**

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

If the state increases the minimum biofuel content requirement to 15 percent, the state should determine a way to verify there is no net loss of native prairie land (never before tilled grasslands) as a result of the increased demand for corn supply to ethanol production.

What is the purpose of the action? How will the action address barriers and opportunities?

With only 2 percent of native prairie left in the state of Minnesota, by pairing an increase in the blending requirement with a "no net loss" policy or goal, the state would help ensure that native prairie would be protected from conversion as ethanol production increased.

How will the action move us toward the adopted vision and meet the principles?

It's been said that there is plenty of corn to supply the need that would be created by a minimum 15 percent blending requirement, so this wouldn't restrict that minimum being put in place, but rather ensure that the increase demand would not result in negative impacts to our state's native prairies.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Brian Thalmann

Main Topic:

E15 and mid-level blends: **X**

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

Minnesota should increase the existing minimum biofuel content requirement to 15 percent.
MN Statutes 239.791

Could consider if the requirement should exempt fuel retailers with less than 500,000 gallons in annual fuel sales from the standard.

Could also consider if the standard could be increased over time when a federal waiver for higher biofuel blends in vehicles is attained. The federal waiver would be automatic trigger for the standard increasing (e.g. 20 or 25 percent).

What is the purpose of the action? How will the action address barriers and opportunities?

Will increase the amount of ethanol and other low carbon fuels in passenger vehicle supply market creating opportunities for the state's corn growers and ethanol production facilities. Will help to improve air quality.

Raising the biofuel requirement will remove a barrier of using higher blends.

How will the action move us toward the adopted vision and meet the principles?

Will help Minnesota take a step towards achieving the petroleum replacement goal (accelerate achievement) and will utilize biofuels to help achieve greenhouse gas reduction goals.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Liz Crow

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other: Carbon Sequestration

What Action:

The state should set a carbon sequestration goal for E15 to expand the adoption of practices that have benefits for both clean water and carbon sequestration.

What is the purpose of the action? How will the action address barriers and opportunities?

By expanding the market for corn in Minnesota, the state could also incentivize growers to use practices that would have multiple benefits for the environment including water quality and carbon sequestration. Ethanol in general has benefits for the environment because of lower emissions, but even more could be accomplished and should be considered if we are creating a comprehensive biofuels policy.

How will the action move us toward the adopted vision and meet the principles?

If a carbon sequestration goal is set for corn used in ethanol production, you can use that goal as a guide to where incentives should be targeted for agronomic practices that lower carbon intensity of the biofuels feedstock.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Jeanne McCaherty

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure: **X**

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

- 1) Establish a biofuels grant program that supports replacement of aging retail infrastructure.
- 2) Define minimum specifications of all new infrastructure to ensure biofuel compatibility
- 3) Much of the aging infrastructure needs replacement simply based on years in service and replacement should not be linked to biofuels. The replacement of this infrastructure should tap into state funds specifically related aging infrastructure. This will complement any funding earmarked for biofuels and new infrastructure should have specifications that accommodate biofuels

What is the purpose of the action? How will the action address barriers and opportunities?

Ensure all equipment will accommodate higher biofuel blends

Set standards for new infrastructure to allow for future increases in biofuel blends at no additional costs

How will the action move us toward the adopted vision and meet the principles?

Remove barriers and provide flexibility for retail operators. Which in turn will provide more options for consumers at the pump

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Jeanne McCaherty

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing: X

Vehicles and biofuels:

Other:

What Action:

- 1) Sponsor a professional marketing campaign to educate consumers on the benefits of biofuels
- 2) Sponsor program to train and educate auto dealerships and mechanics on biofuels

What is the purpose of the action? How will the action address barriers and opportunities?

- 1) The biggest barrier to higher demand for biofuels is consumers not choosing biofuels at the pump. Consumers do not understand their fuel and choices. If well informed and myths are dispelled, they will choose biofuels and take advantage of the many benefits
- 2) One of the most trusted sources of car owners are their car dealer and mechanic. Today, these two groups are misinformed about biofuels and provide negative advice to consumers about using biofuels in their vehicles. These key influencers could make a huge difference in the public perception of biofuels. And this group is a small subset that could be addressed through a targeted campaign

How will the action move us toward the adopted vision and meet the principles?

The facts supporting higher biofuel use is very compelling for consumers. The barrier has been the lack of consumer and dealer/mechanic understanding. A program that educated, advertises and encourages more economical, locally grown, environmentally friendly fuels will be very positive for the demand for biofuels

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Brian Thalmann

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure: **X**

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

Adopt a requirement that when refueling infrastructure (pumps, tanks etc.) need to be replaced due to routine maintenance or end of useful life, newly installed equipment should meet highest available biofuel compatibility from UL or ASTM certification (current spec is 25%).

What is the purpose of the action? How will the action address barriers and opportunities?

Ensure that as equipment is being replaced due to normal operations, it is done with equipment that can carry the highest available biofuel blend. This will help to ensure that equipment will carry higher blends of biofuels to help meet our state goals and put us on a cost-effective path for increasing biofuel use over time.

How will the action move us toward the adopted vision and meet the principles?

As equipment is replaced, carrying the highest available blend spec, it will help us cost effectively meet goals of raising biofuel blends and identify the infrastructure needed to meet the petroleum replacement goal.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Jeanne McCaherty

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels: X

Other:

What Action:

- 1) Provide incentives/tax breaks that encourage increased purchases of FFV's. Or could we require all new vehicles be retrofitted to all be FFV
- 2) Provide incentives for car dealers to retrofit existing vehicles to FFV
- 3) Initiate a dialogue with the California Air Resources Board to explore the establishment of vehicle regulations that support the use of higher blends. This could be a requirement for an E30 vehicle, or a mandate or incentive for FFVs. Gov. Walz should reach out directly to Gov. Newsom to initiate a dialogue between MN agencies and CARB.

What is the purpose of the action? How will the action address barriers and opportunities?

- 1) As biofuel consumption increases, it is critical the fleet is equipped to handle the higher blends
- 2) Minnesota is not able to regulate vehicles. Under the Clean Air Act, the EPA can set vehicle regulations, and California can set vehicle regulations that other states can adopt as an alternative to EPA rules. Minnesota has moved to adopt California rules (LEV/ZEV). California has warmed up to biofuels as a way to meet their environmental goals, and has initiated an E15 rulemaking. CARB leadership is open to doing more in partnership with other states. This would be a win-win for CA and MN.

How will the action move us toward the adopted vision and meet the principles?

- 1) A biofuels ready fleet will allow the increased utilization of biofuels. Without the vehicles, little progress will be made
- 2) Increase the sale of higher blends of biofuels.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Jeanne McCaherty

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS: X

Public understanding and marketing:

Vehicles and biofuels:

Other: MN has a very unique opportunity to lead the nation in a clean fuel policy that benefits consumers while recognizing the unique strengths of our state and our agronomic base

What Action:

- 1) Minnesota should implement, through legislation or rulemaking, a Clean Fuels Policy to reduce carbon intensity of transportation fuel. Minnesota should seek to pass legislation in 2021, in order for rulemaking to initiate in that same year. The Clean Fuels Policy should support a move towards higher blends of biofuels, improve agricultural and forestry economies, and benefit consumers. The Clean Fuels Policy should support demand for E15, mid-level blends of ethanol, and biodiesel by providing consumers incentives for these fuels. It should rely on the Argonne GREET model and recognize GHG reductions on the farm, and fairly compensate farmers for the emissions reductions they can provide.
- 2) Fully fund the Bioincentive Program as a way to support commercial deployment of advanced biofuels such as corn kernel cellulosic ethanol, renewable natural gas, and wood-based renewable diesel.

What is the purpose of the action? How will the action address barriers and opportunities?

- 1) A Clean Fuels Policy is a market-driven approach for achieving economic, energy security, climate, environmental, and public health goals. It is a performance-based incentive program that supports the commercial deployment of fuels with lower lifecycle carbon emissions. A well-designed clean fuels policy is technology-neutral and compensates any low carbon fuel provider that can achieve a low carbon intensity. It supports a competitive marketplace in clean fuels and offers incentives to improve access to consumers. A clean fuels policy should support a portfolio of clean fuels, achieve reductions in air pollution, increase energy security, and support market access for often lower-cost clean fuels like ethanol and biodiesel.
- 2) The Bioincentive has attracted investment in cellulosic ethanol production at several ethanol plants, and could attract investment in other facilities. At this point the program is underfunded, and facilities will not receive they payments they expect

How will the action move us toward the adopted vision and meet the principles?

- 1) Modeling shows that a Clean Fuels Policy with a 20% carbon intensity standard would require higher biofuel blends and investments in lowering carbon intensity from fuel

providers. The standard would require at least an avg 20% ethanol blend, 20% all-year biodiesel, 10% renewable diesel, and 12% of the diesel fleet powered by renewable natural gas. In addition to supporting increased demand for existing biofuels (ethanol and biodiesel), it would also support new biofuel production in categories such as renewable diesel (from both vegetable oil and woody biomass, renewable NG, and would provide incentives for fuels such as aviation and marine biofuels. Economic modeling demonstrates positive economic benefits for consumers (including households and trucking sector) and fuel producers, and overall net positive economic benefit for the state.

- 2) Supports innovation in the biofuels sector, supports production of advanced biofuels

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Brian Thalmann

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS: X

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

Constitutionally dedicated funds for clean water activities, through the Clean Water Fund, should be geared towards implementation and providing incentives to farmers to adopt management practices that will improve water quality but also reduce the carbon intensity of feedstocks for ethanol production. Examples of practices could include reduced tillage, nitrogen BMPs (side/dress and split application equipment, slow release fertilizers) and cover crops.

Using Clean Water Funds for this purpose achieves multiple outcomes for every dollar directed towards implementation. Clean Water Funds are a readily available source of funds to achieve goals and do not require the creation of a new funding stream.

What is the purpose of the action? How will the action address barriers and opportunities?

Purpose is to provide funding to assist farmers with implementing management practices that can help to decrease the carbon intensity of fuel production and help meet greenhouse emission reduction goals especially as we move towards increased use of ethanol and other biofuel blending.

Using already constitutionally dedicated sources of funds that provide both clean water and carbon reduction outcomes will make a better use of available funding and does not require the establishment of a new funding source.

How will the action move us toward the adopted vision and meet the principles?

Accelerate greenhouse gas reduction goals and provide a source of funds for farmers to implement practices when the current agriculture economy cannot support farmers taking an increased risk to implement practices without financial support.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Brian Thalmann

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure: **X**

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

On or before the Petrofund expires in 2022, the Petroleum Tank Release Cleanup statute should be amended from just providing funds for when a release occurs requiring a cleanup, to a source of funds that can replace old and outdated equipment before a release occurs.

In addition, the fund should include bulk blending infrastructure, rail load out infrastructure (100 unit train for export) and direct load out to domestic stations.

Revise the purpose of the Petrofund to a more proactive source of funds to prevent releases instead of paying for cleanup and replacing equipment after the release has occurs.

What is the purpose of the action? How will the action address barriers and opportunities?

New sources of state funding for biofuels infrastructure are going to be in very limited supply due to the current budget outlook for state finances. Existing sources of funds should be looked at as a source of funds to help meet goals. Utilizing existing funds for this purpose can help to address barriers to infrastructure build out for higher biofuel blends.

How will the action move us toward the adopted vision and meet the principles?

Cost-effective option to help increase greater biofuel blends in Minnesota that meet several of the principles and vision.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Brian Thalmann

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure: **X**

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels:

Other:

What Action:

State should explore all options for financing biofuels infrastructure and work to implement an ongoing funding source to fund the long-term needs of increasing biofuel blends in Minnesota. The most used example in the past has been grant funding, and that could continue in the future, but we acknowledge that new state sources of funding will be tight. Could also actively support federal options, such as the Clean Fuels Deployment Act or USDA CCC funds (HB11P). Low interest loans or revolving loan funds should be explored in addition to tax policy options to provide access to low cost capital and other financial incentives.

What is the purpose of the action? How will the action address barriers and opportunities?

Funding will be needed to help finance equipment replacement that can offer higher blend of biofuels for consumers and meet petroleum replacement goals and reduce greenhouse gas emissions by consumers having access to higher blends of biofuels.

How will the action move us toward the adopted vision and meet the principles?

Fosters growth in use of biofuels, accelerates achievement of petroleum replacement goals, and utilizes biofuels to achieve GHG reduction goals for transportation sector and cost-effective incentives necessary to expedite the use of greater biofuels blends in the state.

Governor's Council on Biofuels' Policy Proposal Survey

June 2020

Name: Brian Thalmann

Main Topic:

E15 and mid-level blends:

Biodiesel:

Biofuels infrastructure:

Clean Fuels Policy/LCFS:

Public understanding and marketing:

Vehicles and biofuels: X

Other:

What Action:

State should actively support federal policy that would provide a credit for vehicle manufactures to produce vehicles that can run on blends of ethanol higher than 15 percent. In the past there has been a flex fuel vehicle credit. It could be a return of that credit or another type of credit mechanism that would enable production of high compression engines that use a 25 percent or higher blend of ethanol. This policy would need to be enacted at the federal level (policy or regulation) but the state could help advocate for it with the delegation and through other policy venues, such as MW Association of State Departments of Agriculture.

What is the purpose of the action? How will the action address barriers and opportunities?

Enable vehicles that would use a higher blend of ethanol and other low-carbon biofuels.

How will the action move us toward the adopted vision and meet the principles?

Help meet state goals of petroleum replacement and GHG reduction. Would be a complement to other policies that state would enact.



Dear Mr. Patton,

As a Minnesota farmer and longtime champion, it has been my pleasure to represent farmers on the Governor's Council on Biofuels. The Council has put forth a number of proposals related to ethanol. Thus, I would like to pass along the following recommendations to the Council in regards to biodiesel.

We feel there's been an inability on the part of state agencies to recognize the progress we've made in the two years since B20 became the law of the land in Minnesota. There have been state agencies who have been reluctant to get behind the many environmental and economic benefits of B20. The state would be wise to fully quantify the "clean air" impacts of biodiesel. We know, nationally, that biodiesel reduces lifecycle greenhouse gases by 86% and hydrocarbon emissions by 67%. And in Minnesota, since we've switched to B20, we've reduced CO2 use by 7.4 billion pounds. While we promote the reductions of emissions of air quality, the state hasn't, in my view, fully recognized these benefits. Farmers have been using B20 throughout the past three growing season. Wouldn't we all be served by studying the effect B20 has had on lowering the carbon intensity with these higher blends of biodiesel?

We also feel Minnesota is missing out on a huge opportunity to utilize B100 in its state fleets. B100 drops greenhouse gas emissions by over 80%. Certainly, the state controls what it uses for fuel for its own fleet; however, we've attempted to have conversations with the Department of Transportation, but have been met with resistance on this front. Other states have been using B100 in their state fleets and it would be a shame to see Minnesota – which is undoubtedly a leader in biofuels – not take the lead with its own fleet.

Another aspect that tends to hinder higher blends of biofuels is the original engine manufacturers are slow in moving to higher blends. In Minnesota, we've artificially topped out at B20 because of these engine manufacturers. We need the state to encourage engine manufacturers to support higher blends; otherwise we'll have reached our ceiling with B20.

Finally, as a farmer and director with the Minnesota Soybean Growers Association, I humbly request the Walz administration to support a move to B30 or higher. During this time of economic strife, higher blends of homegrown biofuels should be a priority of the state. We encourage states to start looking at how this can happen – as opposed to why it can't. When I served as MSGA president during the early days of biodiesel in Minnesota, we never dreamed we'd one day have a B20 mandate in Minnesota. But here we are. Let's keep dreaming big together, and make B30 a reality in the near future.

Thank you for your time and consideration.

Sincerely,

Bob Worth
President, Minnesota Soybean Growers Association