

Date: October 21, 2020

To: Governor's Council on Biofuels

From: Bob Patton (Bob.Patton@state.mn.us, 651-201-6226)
Jordyn Bucholtz (Jordyn.Bucholtz@state.mn.us, 651-201-6685)

RE: Cover Memo and Status Report on GCB Recommendations

At the October 23rd meeting, we will overview and discuss the recommendations as they currently stand. The objective will be to have discussed all the recommendations currently ready, or at least fleshed out enough for discussion, so that the Council will be better prepared to adopt recommendations on Friday, October 30th.

Following is a status report on the recommendations, which we will use for discussion. Note the agenda does not provide time for discussion of vehicles and biofuels or benzene. There is brief discussion of F-factor below, and the letter that is currently in progress. Further agency discussion of the path forward on benzene is needed, as is also discussed briefly below.

The packet includes:

1. Agenda
2. Report of the Infrastructure Subcommittee (with attachments)

Status Report

Recommendations as they currently stand and discussion follow.

E15 and mid-level blends

Recommendation

No current recommendation; see discussion below.

Discussion

As discussed, recommendations on E15 and higher blends have been highly dependent on the results of discussion about recommendations on biofuels infrastructure. As mentioned below, the Infrastructure Subcommittee adopted two recommendations by consensus, which are shown below. A third recommendation, on content requirements and an implementation timeline, could constitute a recommendation on E15 and higher blends, but since it was not adopted by the Infrastructure Subcommittee, it is not included here.

Ethanol tax and retail incentives have also been proposed. We are aware of pros and cons about such incentives and will work to develop a path forward for discussion at the October 30th Council meeting.

Biodiesel

Recommendation

No current recommendation; see discussion below.

Discussion

Moving to blends of biodiesel higher than B20 also involves compatibility of infrastructure, and so is also highly dependent on the recommendations for biofuels infrastructure.

Biofuels infrastructure

Recommendations

1. Develop a state funding package with a dedicated funding source, modeled after the Petrofund (possibly named the Infrastructure Fund), with the following features:
 - Funded by a fee on petroleum products. Any cost to consumers would be offset by broad benefits, since increased blends result in reduced carbon emissions, better air quality, health benefits, and the likelihood of lower fuel prices. The fee could be levied on:
 - High carbon (high petroleum) fuels; or
 - All motor fuels
 - The fee and financial assistance program would be administered by a board in conjunction with state agencies (MPCA and Commerce). The board could take into account ability to pay, such as greater assistance to independents/small chains.
 - Funds generated could be used to leverage federal funds and funds from private sources through public/private partnership with biofuel interests and other vested parties.
 - Grants should be augmented by a low-interest loan or loan guarantee program.
2. Adopt a minimum compatibility standard for new infrastructure:
 - By a date certain, all new fuel storage and delivery systems should, at a minimum, be compatible with ethanol blends up to E25.
 - The law should provide that, when there is a new mid-level blend certification for ethanol or biodiesel, the minimum compatibility standards will be revisited.

Discussion

The above recommendations were adopted by consensus by the Infrastructure Subcommittee. See the *Report of the Infrastructure Subcommittee* included in this packet.

Low Carbon Fuel Standard (LCFS)

Recommendation Option A – setting a deadline for establishment of a working group

Propose and advocate for a Low Carbon Fuel Standard (LCFS)/Clean Fuels Policy (CFP) that builds on the vision, principles, and considerations of the white paper *A Clean Fuels Policy for the Midwest (2020)* from the Midwestern Clean Fuels Policy Initiative, and to the vision and principles of the Governor's Council on Biofuels.

By May 1, 2021, establish a working group that will ensure that the process of adoption and policy design includes advice from a broad spectrum of stakeholders and interests, including those of agriculture and biofuels, such as through a task force.

Discussion

Adoption of a Low Carbon Fuel Standard (LCFS) would advance the goals in Executive Order 19-35 by incentivizing advancement of carbon efficiency improvements of biofuels plants and sources of biofuels feedstocks and by providing opportunities and benefits related to biofuels production for farmers, rural communities, the natural environment, and economically disadvantaged populations.

By establishing a working group for LCFS, the State can ensure that this conversation will continue, and decision-makers will be equipped to take action.

Recommendation Option B – setting a deadline for approving adoption of an LCFS

Propose and advocate for a Low Carbon Fuel Standard (LCFS)/Clean Fuels Policy (CFP) that builds on the vision, principles, and considerations of the white paper *A Clean Fuels Policy for the Midwest (2020)* from the Midwestern Clean Fuels Policy Initiative, and to the vision and principles of the Governor's Council on Biofuels. By May 1, 2021, release a brief proposal detailing a plan for LCFS adoption. By November 1, 2021, release a full proposal for LCFS adoption.

Ensure that the process of adoption and policy design includes advice from a broad spectrum of stakeholders and interests, including those of agriculture and biofuels, such as through a task force.

Discussion

Adoption of a Low Carbon Fuel Standard (LCFS) would advance the goals in Executive Order 19-35 by incentivizing advancement of carbon efficiency improvements of biofuels plants and sources of biofuels feedstocks and by providing opportunities and benefits related to biofuels production for farmers, rural communities, the natural environment, and economically disadvantaged populations. By meeting the six-month deadline, the State can ensure that this process moves forward in a timely manner.

Recommendation Option C – propose a feasibility study for LCFS in Minnesota

Conduct a feasibility study for a Low Carbon Fuel Standard (LCFS) in Minnesota.

Discussion

By conducting a feasibility study, the State can gain knowledge on whether an LCFS will raise the price at the pumps for consumers and can properly assess the role and tradeoffs of biofuels in an LCFS. A feasibility study may inform the necessary off ramps for this policy. The State of Colorado recently finalized a [report](#) from their completed feasibility study.

Biofuels use in the state fleet

Recommendation

Issue an executive order:

- Directing the Departments of Administration, Transportation, Public Safety, and Natural Resources to revise fuel-use tracking in agencies to include tracking of E15 and mid-grade gasoline-ethanol blends and blends of biodiesel in diesel fuel (e.g., B5, B10, B20, and higher blends);
- Directing agencies, assisted by the Department of Administration's Fleet and Surplus Services and Office of Enterprise Sustainability and the interagency Fleet Council, to conduct analysis and planning for increased use of biofuels to be submitted to the Sustainability Reporting Tool and the Fleet Council by March 31, 2021, with an update by March 31, 2022 including:
 - E85 in flex-fuel vehicle (FFVs),
 - E15 in non-FFV internal-combustion vehicles, and
 - biodiesel use in diesel vehicles
- Directing the Department of Agriculture and the Minnesota Pollution Control Agency with the assistance of the Department of Health to develop concise, fact-based information for employees on the comparative health and environmental benefits of biofuels; and
- Encouraging agencies to pilot technology to increase use of biofuels in fleet and other fuel applications in the enterprise, including:
 - Extending the blending of biodiesel to greater levels than mandated in statute;
 - The use of 100% renewable diesel, biodiesel, and blends thereof;
 - Explore strategies to develop the renewable diesel supply in Minnesota.

Discussion

Increased use of E85 in state fleet vehicles provides a significant opportunity to reduce the State of Minnesota's fossil fuel emissions and improve environmental and public health. The intention of an executive order is to make progress toward the State's goals while recognizing and creating flexibility for the challenges regarding data collection and the various needs and missions of individual agencies.

Public understanding and marketing

Recommendation

1. Create a standing Council on Biofuels Education and Promotion run by the Minnesota Department of Agriculture and comprised of representatives of stakeholder groups responsible for developing and directing a coordinated program of education and promotion of biofuels among consumers and auto-industry professionals in Minnesota. This council shall be no larger than 15 people.
2. Establish a regular source of funding for education and promotion of biofuels administered by the MDA with guidance from the Council on Biofuels Education and Promotion.

Discussion

A number of state and national groups engage in education and promotion of biofuels to consumers, and currently MEG Corp (the fuel testing and consulting firm based in Plymouth, Minnesota MEG Corp runs the Diesel Help Line) is certified to instruct auto service professionals on biofuels, and holds an annual course. A

state role can be providing funding and convening a representative advisory group to inform the funding program.

Relevant stakeholders to include on the Council include, but are not limited to: marketing professionals, Growth Energy, RFA, racing industry, boating industry, small engine (ATV, lawnmowers, etc.)

Vehicles and biofuels

Recommendation

None

Discussion

The MPCA and MDA plan to write a joint letter to the U.S. Environmental Protection Agency (EPA) on the “F-factor”, which as discussed previously is a weighting factor meant to represent the real-world percentage use of E85 in flex-fuel vehicles (FFVs), since FFVs can and often are fueled with E10 or E0 gasoline rather than E85. The F-factor is used by the EPA for its GHG programs, and for determining compliance with Corporate Average Fuel Economy (CAFE) standards. The letter would be to provide comments to the EPA on its rulemaking on data sources and analytical approaches for the F-factor (see <https://www.epa.gov/regulations-emissions-vehicles-and-engines/e85-flexible-fuel-vehicle-weighting-factor-f-factor-model#rule-summary>). The comment period closes October 26th.

Advanced biofuels

Recommendations

1. Increase funding for the AGRI Bioincentive Program to provide a stable market and pathway for biofuels development.
2. Advocate for language changes to the United States Renewable Fuel Standard (RFS) under the Energy Independence and Security Act of 2007 to allow feedstocks from Federal Lands to be used in biofuels, allow woody feedstocks from all forest types and establishment regimes to be used in biofuels, clarify the definitions of slash and pre-commercial thinning, and remove all references to keeping materials separate.
3. Establish an Advanced Biofuels Taskforce to provide recommendations, by December 15, 2021, for legislative or administrative state policy (excluding the clean fuels policy referenced in these recommendations) to advance the goal of developing Minnesota’s cellulosic natural resources to lower the carbon intensity of energy use in transportation, electricity, residential and commercial buildings, and industry.

Discussion

The above recommendations were prepared by Rick Horton and Kevin Lee, who also offer the following statements of purpose and rationale:

Developing liquid transportation fuels production in Minnesota is a long term, vital part of the Governor’s vision for reducing carbon emissions from the transportation sector.

Increasing the use of woody feedstocks in advanced biofuels will help improve forest health and other aspects of the natural environment, while bolstering economically-disadvantaged populations. Current language makes it nearly impossible to use woody feedstocks in advanced biofuels.

Consistent with the recommendations of the Intergovernmental Panel on Climate Change, the Biofuels Council believes that Minnesota has bountiful cellulosic natural resources that have enormous potential to help Minnesota achieve its greenhouse gas reduction goals through the use of cellulosic biofuels (biomass-derived hydrogen, methane, gasoline, diesel, and kerosene) to provide lower carbon fuels for the transportation, electricity, industrial, and residential/commercial buildings sectors. In addition to policies such as a clean fuels standard for transportation fuels, state policy can play a critical role in helping to create and sustain markets in these advanced cellulosic biofuels that help to spur investments, reduce long term capital costs through economies of scale, and contain systems costs by leveraging existing infrastructure, including existing workforces that may be impacted by a statewide transition away from carbon-intensive fuels for transportation, electricity, and buildings.

Benzene

Recommendation

No current recommendation; see discussion below.

Discussion

Possible recommendations regarding benzene, and possibly toluene, ethyl benzene, and xylene (collectively referred to as BTEX) are currently being discussed among agencies (MDA, MPCA, and MDH).

Governor's Council on Biofuels

October 23, 2020 Meeting

Noon to 3:00 p.m.
Webex Video Conference

Agenda

12:00 p.m.

Welcome and Introductions

Commissioner Thom Petersen

12:10 p.m.

Agenda overview

Bob Patton

12:25 p.m.

Discuss E15 and mid-level blends, biodiesel, and biofuels infrastructure recommendations

All

1:10 p.m.

Discuss Low Carbon Fuel Standard (LCFS) recommendations

All

1:55 p.m.

Discuss biofuels use in the state fleet recommendations

All

2:20 p.m.

Discuss public understanding and marketing recommendations

All

2:30 p.m.

Discuss advanced biofuels recommendations

All

2:50 p.m.

Public Comment

3:00 p.m.

Adjourn



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RE: Report of the Infrastructure Subcommittee

The memo will provide background about the Infrastructure Subcommittee process, the consensus decision-making process used, and the Subcommittee's recommendations to the Governor's Council.

Background

The Infrastructure Subcommittee consisted of the following members representing the following groups and agencies:

- Minnesota Corn Growers: Amanda Bilek
- Ethanol Industry: Mick Miller (alternate: Gary Anderson)
- Biodiesel Industry: Scott Hedderich (alternate: Mike Youngerberg)
- Minnesota Service Station & Convenience Store Association (MSSA): Lance Klatt
- Minnesota Petroleum Marketers Association (MPMA): Tim Gross
- Minnesota Department of Agriculture: Deputy Commissioner Andrea Vaubel (alternate: Commissioner Thom Petersen)
- Minnesota Department of Commerce: Greg Vanderplaats (alternate: Jon Kelly)
- Minnesota Pollution Control Agency: Assistant Commissioner Kirk Koudelka (alternate: Nate Blasing)

The Subcommittee met five times between Tuesday, August 11 and Thursday, October 15.

At its August 11th meeting, the Subcommittee heard an overview of interest-based problem-solving concepts (a.k.a., interest-based, integrative, merit-based, or principled negotiation—see <https://en.wikipedia.org/wiki/Negotiation>), and members articulated their interests in the outcomes of the Subcommittee process. We (MDA staff) followed up the meeting by grouping the interests by common purposes and generating a document that was in the packet of a subsequent meeting (see Attachment A).

Between the August meeting and the subsequent meetings in September, the MPCA (Nate Blasing, Tank Compliance and Assistance Program) prepared cost estimates for bringing infrastructure up to compatibility with E15 (such equipment is generally compatible with up to E25. See Attachment B). High-level conclusions of the cost estimates were that:

- Fifteen percent (15%) of service-station sites were estimated to be compatible with E15, leaving 85% of sites needing replacement of underground storage tanks, piping, dispensers, and other miscellaneous equipment.
- Costs of bringing those sites up to compatibility standards were estimated to range from approximately \$771 million to \$784 million.

After the cost estimates were prepared, a technical panel of service station equipment installers and other experts (Bret Swan, Minnesota Petroleum Service; Ed Puchtel, Zahl Petroleum Maintenance Co.; Kurt Rademacher, Pump & Meter Services, Inc.; Kristi Moriarty, National Renewable Energy Laboratory; Greg Gust, Minnesota Biofuels Association; Jon Hunter, American Lung Association in Minnesota; Chris Bliley and Mike O'Brien, Growth Energy) was convened on September 8th and 11th to give feedback on the estimates. The panel discussed variables and uncertainties that could significantly affect the cost estimates, but overall accepted the estimates as the best available for the time being.

Subsequently, the MPCA prepared cost estimates for moving from E15/E25 to E85 (see Attachment C).

The infrastructure Subcommittee went over the cost estimates at its meeting on Thursday, September 24th and heard about a concept for the work product of the Subcommittee, which we referred to as the "Roadmap Concept," as follows:

Roadmap Concept

- A timeline of milestones for higher biofuel blends: E15, E20, E25, E30, etc.; B30, B40, B50, etc.; and
- A plan for reaching those milestones.

Additionally, the Subcommittee discussed an outline of what it would need to know and reach agreement on by the end of its process.

At its September 28th meeting, the Subcommittee went over a "working outline" of what it would need to know and reach agreement on, and provided feedback on the outline, which was subsequently amended (see Attachment D) and included in October meeting packets.

An abbreviated meeting was held on October 13th due to the inability of one of the Subcommittee members to attend the subsequent scheduled meeting on October 15th. The attendees reviewed previous meetings' discussion and further discussed those items. It appeared to us that consensus could be reached on a funding proposal.

At its final meeting on October 15th, the Subcommittee went over items of potential consensus--a funding package and minimum compatibility standards for new infrastructure—and an item that did not appear to have consensus; namely timelines for implementation of content standards.

Consensus Method

Several definitions and descriptions of consensus were overviewed (see Attachment E), and were collectively used as a working definition. At several points in discussion of the recommendations, the degree of consensus was gauged using a "fist to five" polling method as follows (Source: Ramsey County | <https://www.ramseycounty.us/sites/default/files/Assistance%20and%20Support/Fist%20to%20Five%20Consensus%20Building.pdf>):

- Fist (0): A no vote – a way to block consensus. I need to talk more on the proposal and require changes for it to pass.
- 1 Finger (1): I still need to discuss certain issues and suggest changes that should be made.
- 2 Fingers (2): I am more comfortable with the proposal but would like to discuss some minor issues.
- 3 Fingers (3): I'm not in total agreement but feel comfortable to let this decision or a proposal pass without further discussion.
- 4 Fingers (4): I think it's a good idea/decision and will work for it.
- 5 Fingers (5): It's a great idea and I will be one of the leaders in implementing it.

Because the Subcommittee was meeting virtually, all members except one expressed fist-to-five ratings numerically through the video chat, with one member expressing ratings verbally over the phone.

After the fist-to-five polling, members who expressed low numbers were asked to explain their discomfort with the recommendation text, and changes were made until all members expressed higher ratings (loosely, ratings of “three fingers” and above).

Recommendations

Consensus of the members of the Subcommittee present on October 15th (i.e., all members but Lance Klatt) was achieved for the following two recommendations (note: we conducted editing of the recommendation for clarity and sent the language to Subcommittee members on Friday, October 16th for a quick review—the edited language is what is shown below):

Develop a state funding package with a dedicated funding source, modeled after the Petrofund (possibly named the Infrastructure Fund), with the following features:

- Funded by a fee on petroleum products. Any cost to consumers would be offset by broad benefits, since increased blends result in reduced carbon emissions, better air quality, health benefits, and the likelihood of lower fuel prices. The fee could be levied on:
 - High carbon (high petroleum) fuels; or
 - All motor fuels
- The fee and financial assistance program would be administered by a board in conjunction with state agencies (MPCA and Commerce). The board could take into account ability to pay, such as greater assistance to independents/small chains.
- Funds generated could be used to leverage federal funds and funds from private sources through public/private partnership with biofuel interests and other vested parties.
- Grants should be augmented by a low-interest loan or loan guarantee program.

Adopt a minimum compatibility standard for new infrastructure:

- By a date certain, all new fuel storage and delivery systems should, at a minimum, be compatible with ethanol blends up to E25.
- The law should provide that, when there is a new mid-level blend certification for ethanol or biodiesel, the minimum compatibility standards will be revisited.

For the third and last recommendation, no voting or fist-to-five polling was done, but the recommendation was adjusted to address concerns of those who expressed discomfort with recommendation language. Ultimately,

consensus was not achieved, but it was our perception that a majority supported the recommendation at the end of the meeting as worded, which was as follows (again, the language that appears was edited):

Adopt minimum content standards for gasoline, implemented along a timeline, modeled after the Biodiesel Content Mandate statute (Minn. Stat. 239.77), with the following characteristics:

- Content standards should be set aggressively in order to drive the market to increase the availability of equipment and installation services.
- Standards should be phased in geographically to ensure the implementation timeline is realistic, given funding limitations and constraints in the availability of equipment and installation services.
- Perhaps extra time should be provided for independents/small chains to meet the content standards.
- The policy should include mechanisms similar in structure to the Biodiesel Content Mandate statute, with criteria for implementation of the content standard designed to protect small/independent chains from harm, including criteria regarding:
 - The availability of financial assistance targeted to independents/small chains that would be experiencing a competitive disadvantage; and
 - The timely availability of equipment and installation services.

Attachment A to Report of Infrastructure Subc.

Ensure infrastructure plan is workable and equitable for retailers

- (LK) Give retailers a timetable
- (TG) Provide direction to retailers for when they are updating infrastructure
- (KK) Ensure that each station knows what is expected of them and when, so that they can comply
- (KK) Signal to station owners, agencies, and all parties on what they need to do
- (GV) Ensure that, whatever timelines are set, the change is equitable, and we don't drive retailers out of the market or advantage some over others
- (SH) Prevent the historic challenges faced to biodiesel in terms of getting to the marketplace (i.e. ensure enough equipment at the terminals)
- (KK) Ensure timeframe is reasonable; be constructively impatient and realistically urgent
- (TG) Create an environment that allows all service station members the ability to sell higher blends through funding and fair timelines
- (TP) Learn from biodiesel
- (GA) Consider natural cycle of infrastructure replacement
- (KK) Consider that each station is at its own place in terms of compatibility

Fund in a way that is sustainable, fair, pragmatic, and benefits the public

- (AB) Think creatively about investments and financing, explore all options
- (LK) Need a funding mechanism to help retailers
- (TG) Stakeholders that benefit from increased biofuels should have a role in funding mechanisms
- (KK) Include all interests in a long-term plan to ensure it is sustainable and future proof
- (KK) Consider the amount of state dollars that are going to help with sales
- (TP) Focus on bigger picture and what we can do economically for our State
- (GV) Those needing upgrades needs funds immediately
- (KK) Ensure good coverage across the State
- (TP) Be realistic

Plan for biofuels/higher blends of the future

- (AB) Prepare for higher blends in the future
- (GA) Consider what state of biofuels will be in 5-10 years
- (GA) Set targets for current and future infrastructure needs
- (LK) Determine if we want to plan for staying at E15, or plan for moving to more advanced ethanol products
- (LK) Evaluate sites currently E15-compatible to ensure compatibility for additional blends
- (KK) Interested in long term goal as much as possible
- (TP) Focus on E15 with an eye to the future

Increase use of biofuels to meet Petroleum Replacement Goals and realize benefits

- (AB) Grow use of ethanol and biofuels
- (AB) Build out infrastructure to meet petroleum replacement goals
- (GV) State and economy will benefit from higher levels of ethanol blending
- (KK) Recognize the human health, climate change, and air quality benefits for moving to E15

Replace old and possibly harmful infrastructure

(AB) Replace aged infrastructure as well as noncompliant infrastructure

(KK) Consider groundwater and drinking water protection when looking at tanks compatible for biofuels

(GA) Consider what infrastructure will be obsolete

Ensure that E15/higher blends are sold after infrastructure investment

(GA) Incentivize purchase of E15 so infrastructure is not wasted

(LK) Ensure that retailers are committed to selling E15 or E30

ESTIMATES FOR E15 UPGRADES

Approximate number of federally regulated UST facilities – 3,900

Approximate number of Federally Regulated UST Tanks – 13,000

Approximate number of Federally Regulated UST sites that store gasoline (excludes sites that only store diesel) – **3500**

Approximate number of Federally Regulated UST Tanks that store gasoline – 7,140

Estimate that 15% of the sites will be compatible with E15 as they were installed or upgraded within the last 5 years.

Estimate that 85% or greater of current facilities would currently not be able to demonstrate compatibility for E-15 (Entire tank system including dispensers).

Estimate **30%** of current **tanks** in use currently would not be compatible for E-15. (Early generation fiberglass and old bare steel tanks). This would require replacement of tanks, piping and dispensers. Most sites have all tanks in same tank basin so all tanks would most likely need replacement.

Costs below also include costs of removal of old tanks

30% of 3,500 sites = 1,050 sites needing total replacement.

Average of 3 tanks per sites X \$160,000 per tank = \$480,000 for each site

Total statewide costs \$480,000 X 1,050 = \$504,000,000

Estimate that **35%** of sites do not have **piping** compatible with E15. (Steel pipe and early generation flex piping.) In this estimate tanks are compatible and do not require replacement. Replacement of tank tops and piping up to the dispensers. Since all piping is typically in same trench, all piping would most likely be replaced.

35% of 3,500 sites = 1,225 sites needing new tank tops and piping to dispensers.

Average of 3 pipe runs per site x 50,000 per pipe = \$150,000 per site

Total statewide costs \$150,000 x 1,225 = \$183,750,000

Estimate that **20%** of sites would need some sort of upgrading of **equipment** other than tanks, piping or dispensers. Examples of this would be submersible pumps, probes, drop tubes, spill buckets, dispenser hanging hardware etc. This could range from \$1,000 to \$10,000 per tank storing E15

20% of 3500 sites = 700 sites needing some other upgrades

Average of 2 tanks per site at \$1,000 to \$10,000 per site = \$2,000 to \$20,000 per site

Total statewide costs \$2,000 to \$20,000 per site x 700 sites = \$1,400,000 to \$14,000,000

DISPENSER COSTS-

25,000 gasoline dispensers statewide (average of 7 gasoline dispensers per site)

Existing infrastructure=

70% Gilbarco dispensers= 17,500

20% Wayne dispensers = 5,000

10% other dispensers = 2,500

50% of Gilbarco not compatible with E15 = 8,750

50% of Wayne not compatible with E15 = 2,500

50% of other not compatible with E15 = 1,250

Guesstimate- 75% of 8,750 Gilbarco dispensers can retro fit @ \$3,000 = \$19,687,500

Guesstimate -75% of 2,500 Wayne dispensers can retro fit @ \$3,000 = \$5,625,000

Dispenser **retro fit** cost = **\$25,312,500**

(did not include "other brand dispensers in cost)

25% of 8750 Gilbarco need new dispenser @ \$20,000 = \$35,000,000

25% of 850 Wayne need new dispenser @ \$20,000 = \$12,500,000

New dispenser cost = \$47,500,000

*These are only retail dispenser numbers, non-retail dispenser numbers not included.

ETHANOL

Started working with facilities in 2012 on compatibility

Currently 435 tank systems storing E-85

Currently 218 tank systems storing E-15

TANK REMOVAL COSTS (LARGEST RISK BUT LOWER FREQUENCY)-

Pull tanks that were installed prior to 1980 (gas and diesel) = 500

Estimate that average facility has 2.5 tanks (500/2.5) = 200

Removal cost \$15,000/facility = 200 x \$15,000 = **\$3,000,000**

Pull tanks that were installed prior to 1990 (gas and diesel) = 1000

Estimate that average facility has 2.5 tanks (1000/2.5) = 400

Removal cost \$15,000/facility = 400 x \$15,000 = **\$6,000,000**

Realistically 10 yrs

Franklin Fuel thinks they could keep up

Tank system installation bids for higher Ethanol Blends

The following bids consist of costs to install 3- 10,000 gallon tanks, 100 ft of piping, and 6 dispensers that would be E-15/25 compatible which is deemed as an average sized tank facility.

1. Contractor A = \$591,100
2. Contractor B = \$575,960
3. Contractor C = \$603,708
4. Contractor D = 2- 14,000 gallon tanks and piping = \$448,063

Average cost for 3 tank systems = **\$590,223**

The following is additional costs that would be needed in order to make the tank system compatible with E-30/85 which the upgrade costs are mainly related to dispensers and hanging hardware.

- A. Contractor A- \$60,000
- B. Contractor B - \$66,000
- C. Contractor C - \$72,210
- D. Contractor D - \$57,000

Average cost to upgrade dispensers/hanging hardware for E-30/85 = **\$63,803**

Attachment D to Report of Infrastructure Subcommittee

I. Assuming no change in infrastructure regulations:

A. Infrastructure needs and estimated costs for each of the higher blends

- Question about feasibility of replacing individual tanks on multi-tank site, vs. need to replace all simultaneously
- Possibility of retailers putting E15 into E85/compatible tanks, and related question about availability of blended E15
- State fire code also a factor in compatibility (UL listing)
- Gilbarco upgrade kit for E25 and how that factors in
-

B. Realistic timeframes for infrastructure to be ready

- Question: how to address short-term (E15 to E25?) vs. long-term (above E25?)
- How to “chip away at the mountain”
- *Public infrastructure component*

a) Timeline for ethanol

- *Identify 15% of currently compatible tanks (not already storing and dispensing E15)*
 - o *About 304 selling E15 currently, about 10% selling E15*
- *All E15 equip is compatible up to E25*
 - o *To make jump above E25, piping, hanging hardware, etc. is required to be updated*
-

b) Timeline for biodiesel

- Equipment above B20 is compatible up to B100
- We should find out when equipment will become obsolete/needs to be replaced anyway
 - o Keeping retailers’ endgame in mind

C. What costs can be borne by various segments of the service station industry

- Question about where to find retailer fuel volume data as way to assess scale (in order to determine segments of the service station industry and their ability to pay
- - need to balance competitive advantage and infrastructure update burden
- If age is not determination for replacement, could material be? Risk of failure?
- A. Risk might already be covered by noncompatibility, maybe financial ability or geographic location could be determination or phasing in/targeting
- Crafting criteria based on need

- Given concern with greater MN sites, competitive disadvantages are less in metro area. Phase in might look different in metro areas.
- Availability of contractors in metro area might allow projects to be completed quicker

D. Which industry segments need financial assistance

-

E. Sources of funding for financial assistance

- Question of per-unit tax (e.g., per unit of high-carbon fuel) to fund infrastructure
- Question of federal funding program and leveraging that, such as done with BIP
- Idea of low-interest loan program
- Low interest government loan, focus on affordability and compatibility rather than cost
- Rural finance authority as an option for low interest financing, farm credit lenders,
- Combination of grants and loans
- Ethanol interest groups could also play a role (as they did in BIP) to provide nonpublic financing
- TIF financing
-

II. Achievable and prudent changes to infrastructure regulations

- Implication of possible EPA regulatory changes regarding infrastructure compatibility for E15
- Discussion about CA's approach to compatibility and legacy equipment
- When we evaluate for compatibility, opportunity for State to do benchmarking. To speed implementation of higher blends, streamlining certification of equipment. Example: database of equipment deemed compatible (not lowering standards).
 - A. Public version of UL listing
 - B. data trail to review regarding demonstrating compatibility statement from manufacturer
 - C. There is already a similar process done by the State. List is constantly moving and growing due to many variables
 - D. We must communicate broadly across the State about what is available
 - E. There is a segment of equipment that we don't know whether it is compatible
 - Regulatory-wise need to deem as not compatible
 - F. Most facilities know whether they are compatible or not
- Requirement that any new equipment has to be compatible up to E25
 - A. Should be replaced with highest UL certification instead of up to E25
 - B. group must decide on this technical language
 - C. E15 is the less expensive opportunity for retailers
 - We need to give retailers a timeline so they can make business decision
- Marketplace for vehicles is changing, need to set mile posts

III. How to structure biofuel content requirements (i.e. ethanol & biodiesel mandates) policy to move to higher blends while equitably treating and preventing undue harm to the service station sector, and in particular, smaller operators.

- Relationship between timelines for infrastructure readiness for higher blends (“chipping away at the mountain” and mandates
- Possibility of giving smaller retailers more time to comply with content mandates
- Related question of creating a situation of competitive disadvantage (those able to offer higher blends and those not able to)
- *Metro phasing in plan*
 - A. *Has been used in the past, there is a precedent*
 - B. *E10 required in metro area before statewide*
- *As opposed to looking at geography, phase in based on volume at retail location*
 - A. *First part: determine effective date for statewide application, give smaller volume retailers longer to phase it in (4-5 years?) 500,000 gallons or less*
- *When MN mandated E10, how did MPCA determine infrastructure was safe?*
 - A. *Vast majority was compliant? (needs to be fact checked)*
- *That question ^ and response can be paired with Amanda’s comment regarding timeline*
- *What are reasonable timelines to set those benchmarks?*
 - A. *MPCA estimates (from discussions with main manufacturer and contractors): 10 year timeframe*
 - *Geographical phasing could shorten timeframe by 1-2 years*
 - *More concentrated efforts, more installations than normal in one year*
 - a) *Rather than random jobs all over state*
 - *Conversation to have with contractors***
 -
 - B. *Would a timeframe motivate the industry to act or to sit back and wait?*
 - *Number of facilities are shrinking, people having to make tough decisions. These decisions will take care of some of those numbers*
 - *If we develop an affordable plan, might make retailers act sooner and change their opinions. We only have 3 Gilbarco installers in MN, installer availability is an issue/limitation. May take 8-10 years for installations to be complete and to get equipment. If retailers see longevity and affordability, may start sooner than later*
 - a) *Incentive for sooner attempt at upgrades, would push business decisions*
 - C. *Folks getting ready to retire, prospective buyers that don’t know about upcoming upgrade requirements puts them in a tough situation*
 - *Putting benchmarks in writing is valuable so that everyone is aware of the expectation*
 - D. *New tank regulations may push retailers to close shop*
- *We need to give firm guidance to help retailers move with state and market. 8-10 of guidance is not too long because sending the right signal will make progress happen*

- *Earlier benchmark (4-5 years) for those that could come into compliance sooner, coupled with financial assistance, could speed timeline along. Policy is meant to send signal to marketplace to respond to. To accelerate timeline, need to send long-term signal to marketplace. Phase-in approach with earlier benchmarks to accelerate the timeline.*
- *If there is the right incentive, will give biofuels more bang for buck – this is right time to do it (if done the right way).*
- *2004-2006 fed ethanol tax credit, incentivize retailers as well. Make it so they cannot say no. More marketing and affordability, more green lights from retailers*
- *MN infra avg age 24-25, how does this compare to national averages?*
 - A. *MN is a tad bit older, 1-2 year timeframe. Reason is EPA upgrade requirement 1988. Retailers are at different levels of infrastructure age.*
 - B. *How did federal govt handle this?*
 - C. *EPA released reg in 1988, gave 10 years to be upgraded by 1998. If that did not happen, there were fines. In terms of incentives: programs, grants, motivation*
- *Weights and Measures needs to upgrade lab equip to test for ethanol blends above 12%*
- *Contractors cannot find enough help to match an increase in demand for installation. Must be certified in MN to do these installations.*
-

Definitions of consensus

“Consensus decision making is a creative and dynamic way of reaching agreement between all members of a group. Instead of simply voting for an item and having the majority of the group getting their way, a group using consensus is committed to finding solutions that everyone actively supports, or at least can live with. This ensures that all opinions, ideas and concerns are taken into account. Through listening closely to each other, the group aims to come up with proposals that work for everyone.”

Source: Seeds for Change | <https://www.seedsforchange.org.uk/consensus>

1

Definitions of consensus 2

“Consensus is a cooperative process in which all group members develop and agree to support a decision in the best interest of the whole. In consensus, the input of every participant is carefully considered and there is a good faith effort to address all legitimate concerns. (Dressler, 2006)....

“Consensus is the outcome of a consensus-building process. After listening to all perspectives, participants develop a proposal that honors the wisdom of the group. When people think and talk together, they can find a solution or proposal to move forward as a group.

“A consensus decision does not mean that everyone agrees on all the details or that some have changed their ideas or perspectives. Ideally, a consensus decision reflects mutual understanding, agreement to support a decision and commitment to take action steps for the benefit of the group.”

Source: U of M Extension | <https://extension.umn.edu/leadership-development/benefits-consensus-decision-making>

2

Fist to Five

Fist: A no vote - a way to block consensus. I need to talk more on the proposal and require changes for it to pass.

1 Finger: I still need to discuss certain issues and suggest changes that should be made.

2 Fingers: I am more comfortable with the proposal but would like to discuss some minor issues.

3 Fingers: I'm not in total agreement but feel comfortable to let this decision or a proposal pass without further discussion.

4 Fingers: I think it's a good idea/decision and will work for it.

5 Fingers: It's a great idea and I will be one of the leaders in implementing it.

Source: Ramsey County |

<https://www.ramseycounty.us/sites/default/files/Assistance%20and%20Support/Fist%20to%20Five%20Consensus%20Building.pdf>

October 15, 2020

Administrator Andrew Wheeler
Environmental Protection Agency
Office of the Administrator, Mail Code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Wheeler,

The Minnesota Pollution Control Agency, Minnesota Department of Agriculture and Minnesota Department of Commerce are formally requesting Environmental Protection Agency (EPA) provide clarification relating to underground storage tank system compatibility and labeling requirements for ethanol blends greater than E-10, specifically E-15.

This point of clarification is being requested due to a EPA press release that was issued on September 14, 2020 titled "[EPA takes action to protect Integrity of the renewable fuel standard program, support American Farmers](#)" and a tweet that President Trump issued on September 12, 2020 which stated that "[The Ethanol Industry will be allowed to use the 10% pumps for the 15% blend.](#)"

Since the news release was issued our agencies have received numerous inquiries about what actions Minnesota is taking regarding underground storage tank system compatibility and labeling requirements for E-15, but no further guidance from EPA on what these changes could mean for retailers across the state or our agencies.

Currently Minnesota Statute 239.792 Subdivision 3 requires retailers to comply with the automotive fuel rating posting requirements, record keeping requirements and label specification in the Code of Federal Regulation, title 16, section 306.10 to 306.12.

In section 306.10 retailers are required to post the automotive fuel rating of all fuels, except that a mixture of gasoline and ethanol containing more than 10% but not more than 15%(E-15) can be labeled in accordance with 40 CFR 80.1501, the EPA requirements for labeling E-15.

It is the State of Minnesota's understanding if the changes to labeling requirements for E-15 that were suggested in the news release are made to the current requirements found in 40 CFR 80.1501, those changes will take effect in Minnesota without any need for statutory changes. However, without more guidance from the EPA on how the suggested labeling changes will be made, we cannot be sure how this will affect Minnesota retailers and their customers.

Tank compatibility requirements are contained in 40 CFR Part 280 which require underground storage tank systems to be compatible with the product stored and that systems must prove compatibility 30 days prior to introducing ethanol blends greater than E-10. E-15 being introduced to an underground storage tank would

require the parts of the system be documented as compatible before placing E-15 into the system. It is the State of Minnesota's understanding that a change to federal regulations would be required if the September announcements propose a different outcome.

We are requesting written guidance from EPA on whether the September statements referenced above change this understanding of the regulations. If they do, how and when will EPA be updating these federal regulations to implement any changes? The information is important for our agencies as we carry out federal requirements and to answer questions we have received from interested parties.

Sincerely,



Grace Arnold
Commissioner (Temporary)
Minnesota Department of Commerce



Laura Bishop
Commissioner
Minnesota Pollution Control Agency



Thom Petersen
Commissioner
Minnesota Department of Agriculture

CC: EPA Region 5 Administrator Kurt Thiede

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