LoCI Controls, Inc. (Angeline Green)

Please see attached PDF.

July 30, 2025

Adam Saul, Environmental Planner
Department of Ecology
(Comment Submitted Electronically)
RE: Notice of Opportunity to File Comment on Proposed Update to Clean Fuel Standard Program Rules (173-424 WAC)

Dear Mr. Saul,

LoCI Controls, Inc. ("LoCI") writes to provide comments related to Department of Ecology's ("DOE") Clean Fuel Standard ("CFS") Program's proposed rule change. LoCI is an established and respected real-time data and control company using patented technology to reduce emissions from landfills and increase methane capture.

Specifically, this comment focuses on the following:

- **Including landfills generating incremental methane capture from voluntarily deploying advanced gas capture technologies in avoided methane crediting**
- **Incremental biomethane baseline calculation should be predicated on actual production rather than increasing capacity**
- **Defining "regular review" of CI scores**

LoCI appreciates the opportunity to provide this comment and would welcome any questions or follow-up regarding the points discussed herein.

Include Landfills with Advanced Gas Capture Technologies in Avoided Methane Crediting

The proposed rule limits avoided methane crediting to two feedstocks: 1) biomethane from dairy cattle or swine manure digestion or 2) organic matter voluntarily diverted from decomposition in a landfill, with the intention being to provide the highest level of credits to projects creating *new environmental methane reduction benefits* for Washington, and in turn reducing landfill methane emissions.

While LoCI supports reducing landfill methane emissions, LoCI disagrees with DOE's limitation on feedstocks and recommends the inclusion of landfills voluntarily deploying advanced gas capture technologies to achieve incremental methane capture to be eligible for avoided methane crediting for the following reasons:

1. **Aligns with DOE's Intent to Create New Environmental Methane Reduction Benefits**
   The inclusion of landfill gas specifically captured using advanced gas capture technologies as a feedstock incentivizes landfills to adopt advanced control technology and in turn, significantly increases landfill emission reductions. If qualifying Washington landfills were to adopt such

LoCI Controls
14 Kendrick Road, Suite 2
Wareham, MA 02571

sales@locicontrols.com | locicontrols.com | Patent Information: locicontrols.com/patents

technologies and simply increase methane capture by 15%, Washington has the potential to reduce its overall statewide landfill emissions profile by over 30%.[1]

2. **Mitigate Future Fugitive Emissions Not Addressable Through Organic Diversion Alone**
   Organic waste diversion is inherently forward-looking, targeting materials not yet landfilled. However, until organic diversion programs can be widely adopted, organics already landfilled continue to release methane emissions. Proactive management of such fugitive emissions through advanced gas capture technologies can significantly reduce methane emissions in the near-term in addition to waste diversion.[2]

3. **Avoid a Policy Dichotomy Between Diversion and Capture**
   The benefits of landfill methane capture and organic diversion are not mutually exclusive, rather complimentary.[3] Prioritizing only organic diversion constrains the CFS's ability to fully address methane emissions from the waste sector. A dual-path approach would ensure that both future emissions via diversion and current fugitive emissions via landfill gas capture are mitigated, therefore maximizing greenhouse gas reductions.

4. **Provide Additional Climate Benefits Beyond Regulatory Requirements**
   Incentivizing incremental methane capture through crediting will spur further deployment of advanced gas capture technologies. As advanced gas capture systems are not currently mandatory by regulations, recognition of incremental methane capture provides an additional climate benefit and incentivizes landfills to further reduce fugitive emissions. Providing the highest quality CFS credits for the verified reduction of fugitive methane emissions will encourage continuous improvement in landfill management practices.

5. **High Impact, Low-Cost Solution During the Crediting Period**
   Unlike other advanced fuel technologies that require new infrastructure and long deployment timelines, landfill biomethane capture using advanced gas capture systems has one of the lowest costs per metric ton (MT) of CO2e at $8-9 per MT[4] as compared to diverting organics to composting facilities which starts at $48 per MT CO2e[5]. If recognized for avoided methane crediting, landfills would be incentivized and capable of deploying advanced gas capture technologies within months, therefore maximizing environmental and financial benefits during the two 7.5 year crediting periods.

---

[1] Pursuant to the EPA Greenhouse Gas Reporting Program (GHGRP), Washington's largest landfills must report gas collection operating performance annually. Of the 13 landfills in Washington with a GCCS and required to report under the GHGRP, a total 112,000 MT of methane was captured in 2023. If such eligible landfills were to install an automated collection system and achieve increased methane capture by 15%, in line with LoCI's System's average performance, Washington could yield an incremental emissions reduction of 16,800 MT of methane, or over 424,000 MT CO2e.

[2] Advanced gas capture systems could be implemented in just a few months – much faster than massively scaling up food diversion. See PDF at pg. 23, https://energy-vision.org/pdf/EnergyVision-LeadingWithLandfills.pdf

[3] Energy Vision calculated that once food waste is no longer landfilled, implementing an advanced gas capture system would still cut 4.11% of total U.S. methane in 2023. See PDF at pg. 23, https://energy-vision.org/pdf/EnergyVision-LeadingWithLandfills.pdf

[4] https://energy-vision.org/pdf/EnergyVision-LeadingWithLandfills.pdf

[5] https://swana.org/news/swana-news-archive/article/2024/10/24/SWANA-releases-new-ARF-report

METHANE CAPTURE & EMISSION REDUCTION

Baseline Incremental Biomethane Calculation to be Based on Actual Production

Under WAC 173-424-610(16)(d)(i), the proposed rule states baseline incremental biomethane production from biomethane expansion projects will be establish by the "baseline biomethane production capacity." LoCI recommends DOE change the baseline calculation to use *actual production* values rather than *production capacity* for the following reasons:

1. **Aligns with Other State Programs**
   Both the California Low Carbon Fuel Standard (LCFS) and Oregon Clean Fuel Program (CFP) use actual fuel production or delivery data to establish baseline values so that credits are tied to real delivered and verified volumes. Adopting actual production values allows for regulatory consistency and supports performance-based crediting.

2. **Calculation Aligns with Actual Emission Reductions**
   Using the actual production values to calculate the baseline represents avoided methane emissions that occurred whereas using capacity production values limits the baseline calculation to a potential outcome. This incentivizes performance and supports the core principles of the CFS to represent real, verifiable reductions.

3. **Avoid Over-Crediting and Market Distortion**
   Calculating the baseline using capacity has the potential to overstate the environmental contribution, unless such capacity production value is utilized. Further, it may favor underperforming or idle facilities as the baseline would be inflated without requiring actual output. Such cases lead to credit inflation, reduction in credit prices, and undermines the integrity of the CFS.

Defining the CI Score Review Timeline

Under WAC 173-424-600(2), the proposed rule states that DOE will conduct *regular review* of CI scores. However, there is no further definition or clarification on the cadence of such review. LoCI recommends DOE define "regular review" for the following reasons:

1. **Undefined Review Creates Regulatory Uncertainty**
   As currently written, the proposed rule does not establish a clear definition, frequency, or process for conducting reviews. The lack of specificity introduces significant regulatory uncertainty and undermines the integrity, transparency, and environmental objectives of the CFS. Clarity around CI Review would ensure a predictable, transparent process and allow for stakeholders to maintain compliance with the CFS.

LoCI Controls
14 Kendrick Road, Suite 2
Wareham, MA 02571

sales@locicontrols.com | locicontrols.com | Patent Information: locicontrols.com/patents

2. **Align with Other State Programs that Establish Regular Review Frameworks**
   The LCFS reviews CI Scores annually, providing visibility to stakeholders and ensuring accountability and consistency across the program. By adopting a defined review process like the LCFS, the CFS would continue to meet its goal aligning with other leading clean fuel programs.

Conclusion

LoCI commends DOE's commitment to stakeholder engagement throughout the rulemaking process and LoCI is available to provide additional information regarding the considerations identified in this comment. We look forward to working with the DOE and continuing to support Washington's goals to reduce methane and greenhouse gas emissions.

Respectfully,

Peter Quigley
CEO and Chairman

LoCI Controls
14 Kendrick Road, Suite 2
Wareham, MA 02571

sales@locicontrols.com | locicontrols.com | Patent Information: locicontrols.com/patents