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VIA ELECTRONIC SUBMISSION

<https://tceq.commentinput.com/>

**Texas Commission on Environmental Quality**

Gwen Rico, MC 205

Office of Legal Services

TCEQ

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**RE: Public Comments on TCEQ's Implementation of House Bill 4413, 89th Texas Legislature, 2025 (Rule Project Number 2025-O26-328-WS)**

Air Alliance Houston and its partners submit the following public comment regarding the Texas Commission on Environmental Quality (TCEQ)'s implementation plan for House Bill 4413.<sup>1</sup> HB 4413 requires TCEQ to adopt rules to identify third party mass balance attribution certifications for the purpose of "identify[ing] a renewable chemical." It also adds definitions for "renewable biomass" and "renewable chemical" related to "recycled products." While we encourage steps for improved waste reduction and transparency surrounding the waste recycling process in Texas, we are of the belief that the adoption of the specific third party mass balance systems proposed by this rule-making would result in less public transparency, less effective recycling, and more wasteful emissions that will harm communities here in Texas.

**Ideal Mass Balance Attribution Method**

While HB 4413 requires TCEQ to "identify third party mass balance attribution certifications for the purpose of identifying a renewable chemical," it does not specify which third party mass balance attribution method should be used. Therefore, we would strongly encourage TCEQ to adopt the **"Rolling Average Percentage Allocation"**

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<sup>1</sup> [https://www.tceq.texas.gov/downloads/rules/current/25026328\\_pro.pdf](https://www.tceq.texas.gov/downloads/rules/current/25026328_pro.pdf)

**method.** This mass balance attribution method tracks physical recycled content, is designed to allow for feedstock fluctuations, and is generally considered accurate.<sup>2</sup>

The above method is considered by multiple experts in the field to be the most transparent, accurate, and fair to consumers. While we can endorse this, there are multiple other mass balance attribution methods that could also be adopted, and we would like to strongly oppose the adoption of any of the below methods.

### **Non-Recommended Mass Balance Attribution Methods**

To understand why specific mass balance attribution methods are not ideal, we can look to a similar situation that took place recently in the state of Colorado. In August of 2025, the Colorado Department of Public Health and Environment (CDPHE) made a ruling on the effectiveness of different methods for measuring Post Consumer Content. After an extensive public comment period, they concluded that the only mass balance method compliant with their state law is “proportional allocation, fuel-exempt.”<sup>3</sup> This act, also known as HB22-1355, requires extensive vetting of statewide recycling programs. via a third party board of experts.

Multiple mass balance attribution methods did not make the cut when scrutinized through this lens, including “free allocation,” “free allocation, fuel-exempt,” “polymer only,” and “proportional allocation” that is not fuel-exempt.<sup>4</sup> In short, CDPHE’s decision that these programs were not compliant with state law stemmed from the fact that proportional allocation is the **only mass balance method that follows the certified “recycled” material all the way through the value chain.** Other mass balance chain of custody methods do not do this and therefore cannot guarantee that plastic waste is being turned into fuel. Despite being **unable to track the plastic product through the chain of custody**, these methods would still result in the end product being counted as a “recycled” product.

Additionally, CDPHE stated within their letter that **“It is not appropriate to use the mass balance credit method with free allocation - fuel exclusion when calculating Post-Consumer Recycled Content” (PCR) as it “does not verify the actual PCR content contained within a material.”** Given this evaluation, conducted with advice from both environmental groups and recycling experts, it would be a mistake to adopt similar methods in Texas. In a time where many Texas residents already struggle with an overburdened waste management system, adopting a mass balance method that is not capable of accurately measuring post consumer recycled content would create

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<sup>2</sup> <https://www.nrdc.org/bio/renee-sharp/plastics-industrys-latest-deception-mass-balance>

<sup>3</sup> <https://cdphe.colorado.gov/hm/epr-program>

<sup>4</sup> <https://leg.colorado.gov/bills/hb22-1355>

distrust amongst residents who want to believe that their recycled content is what it says on its packaging and marketing. Credit-based mass balance attribution systems can result in the designation of products as “recycled” that are not. The Texas system should not allow any chemicals, plastics, products, or chemical substances produced from fossil-fuel based virgin plastic or plastic waste to be counted as a “renewable chemical” since they simply aren’t renewable.

Furthermore, the CDPHE’s letter also found that the mass balance credit attribution method with fuel exclusion “creates a competitive advantage for chemical recycling in comparison to mechanical recycling.” Texas currently has a strong ecosystem of players in the mechanical recycling industry, which is a consistently proven, effective recycling technology. It would be deeply unfair to provide a competitive advantage for methods that cannot stand on their own, rather than supporting systems that already exist and work effectively. Not only does this run the risk of shifting recycling to a method that produces less verifiable post consumer content, but we believe that “chemical recycling” should not be incentivised through TCEQ rule-making as described below.

### **Continued Enabling for Chemical Recycling**

To be able to claim that they are a viable recycling option and that resulting products contain “recycled” content, chemical recycling processes rely on mass balance credit schemes.<sup>5</sup> Out of the multitude of systems used throughout the recycling industry, including systems using careful weight-based analysis, the only system under which chemical recycling is considered recycling at all is the one considered largely unreliable by experts.<sup>6</sup> **Chemical recycling is not “recycling.” It does not recover or recycle plastics.**<sup>7</sup> It releases significant amounts of CO<sub>2</sub>,<sup>8</sup> can spread carcinogens throughout communities,<sup>9</sup> and any materials produced via this method are contaminated by the additives and impurities in plastics, including “forever chemicals<sup>10</sup>” which cannot be destroyed<sup>11</sup> during the chemical recycling process.<sup>12</sup> Moreover, reports<sup>13</sup> from within the

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<sup>5</sup> <https://www.nrdc.org/bio/renee-sharp/plastics-industrys-latest-deception-mass-balance>

<sup>6</sup> <https://cedelft.eu/publications/impacts-of-allocation-rules-on-chemical-recycling/>

<sup>7</sup> <https://library.edf.org/AssetLink/h347a0y48v284ru72daof4134ksfjle2.pdf>

<sup>8</sup> [https://www.no-burn.org/wp-content/uploads/2021/11/All-Talk-and-No-Recycling\\_July-28-1.pdf](https://www.no-burn.org/wp-content/uploads/2021/11/All-Talk-and-No-Recycling_July-28-1.pdf)

<sup>9</sup> <https://www.nrdc.org/resources/recycling-lies-chemical-recycling-plastic-just-greenwashing-incineration>

<sup>10</sup> <https://www.regulations.gov/docket/EPA-HQ-OPPT-2023-0245>

<sup>11</sup>

<https://www.epa.gov/system/files/documents/2024-04/2024-interim-guidance-on-pfas-destruction-and-disposal.pdf>

<sup>12</sup> <https://ipen.org/news/new-greenpeace-report-calls-out-toxic-hazards-recycled-plastic>

<sup>13</sup>

<https://www.plasticsnews.com/news/chemical-recycling-faces-setbacks-resin-demand-slows-and-costs-rise/>

industry<sup>14</sup> show rising process failures and even bankruptcies due to the inability to apply this process as a recycling method at-scale<sup>15</sup>. Many so-called chemical “recycling” systems may produce material from the plastic waste that, if it can be sufficiently decontaminated, is one input for producing fuel. Generally, the material produced from chemical recycling is too contaminated to be used as fuel. And it is not a process to produce recycled products.<sup>16</sup> **Adopting inaccurate mass balance credit schemes under HB 4413 would continue a cycle of aiding programs that make false claims while adding air pollution to communities.** In California Attorney General Rob Bonta’s recent lawsuit against ExxonMobil, he accused the corporation of promoting plastic recycling methods that they knew were not viable for solving the ongoing plastic waste crisis. Notably, some of the methods proposed are criticized within the lawsuit: **“Mass balance and free credit allocation have been widely criticized, including by some members of the plastics industry, precisely because it is deceptive to the public”**.<sup>17</sup>

Additionally, we would encourage any methods allowing for the allocation of claimed percentage of recycled content into fuel being counted towards the total percentage of recycled plastic content to be dismissed outright. The so-called “fuel” or pyrolysis oil is highly toxic and is often not a 1-to-1 substitute for virgin products. **In all cases, it is used as a blend-in or drop-in fuel mixed with conventional fossil fuel and therefore should not be considered “renewable fuel.”**<sup>18</sup>

Furthermore, adopting a non-recommended mass balance method would provide a competitive advantage to certain recycling methods and businesses (some of which are struggling to make good on public claims<sup>19</sup>) instead of focusing on methods that provide actual recycled results.

## Conclusion

Texans deserve a robust recycling program that actually works. Adopting a system of mass balance that implies recycled content amounts when that is largely not accurate is

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<sup>14</sup>

<https://www.plasticsnews.com/news/trueman-us-business-climate-remains-complex-opportunities-ahead-2026/#>

<sup>15</sup>

<https://environmentamerica.org/texas/center/articles/year-in-review-the-collapse-of-the-chemical-recycling-illusion/>

<sup>16</sup> <https://www.ncel.net/articles/chemical-recycling-backend-fix-or-toxic-technology/>

<sup>17</sup>

[https://oag.ca.gov/system/files/attachments/press-docs/Complaint\\_People%20v.%20Exxon%20Mobil%20et%20al.pdf](https://oag.ca.gov/system/files/attachments/press-docs/Complaint_People%20v.%20Exxon%20Mobil%20et%20al.pdf)

<sup>18</sup> <https://pmc.ncbi.nlm.nih.gov/articles/PMC10488463/>

<sup>19</sup> <https://www.reuters.com/investigates/special-report/environment-plastic-oil-recycling/>

not fair to the people who strive every day to make our planet a better place. Therefore, we encourage TCEQ to adopt only the “Rolling Average Percentage Allocation” method to comply with HB 4413.

We thank you for the opportunity to provide these comments.

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