

June 24, 2025

Liane M. Randolph,

Chair California Air Resources Board

1001 I Street Sacramento, CA 95814

Subject: Detailed Response to Animal Legal Defense Fund Comments on Tier 2 Pathway Application No. B0759

Dear Chair Randolph,

We greatly appreciate the opportunity to comprehensively respond to the comments submitted concerning Aemetis Advanced Fuels Keyes, Inc.'s Tier 2 Pathway Application B0759. In the spirit of transparency and collaboration, we respectfully submit the following detailed responses to the concerns raised.

#### 1. Lifecycle Emissions and System Boundaries

Aemetis rigorously complies with the lifecycle analysis (LCA) parameters established by the California Air Resources Board (CARB) under the CA-GREET3.0 model. Specifically, CARB guidelines stipulate clear system boundaries that categorize emissions appropriately to their respective sources. Emissions associated with livestock feed production, animal management, and enteric fermentation are systematically allocated to dairy production rather than renewable natural gas (RNG) production, in strict adherence to regulatory standards. These boundaries are consistent with national and international lifecycle accounting practices, including ISO-14040-series standards.

Further, Aemetis's detailed emission accounting for digestate management follows CARB's explicit guidelines. Digestate from anaerobic digesters is effectively managed and monitored, ensuring compliance with rigorous environmental protocols. Storage, application, and potential downstream emissions from digestate handling are consistently quantified and regulated under existing California environmental laws and oversight by state and local agencies.

# 2. Additionality and Funding Sources

Concerns regarding additionality and potential double counting of emissions reductions have been thoroughly examined. CARB's LCFS program explicitly validates and rewards verifiable, quantifiable reductions in carbon intensity at the operational level. Funding and support through complementary programs such as the Dairy Digester Research and Development Program (DDRDP) and participation in the federal Renewable Fuel Standard (RFS) are distinct from the LCFS emissions reduction credits. DDRDP specifically provides upfront capital support, which covers construction and infrastructure but does not generate ongoing emissions credits.

This clear separation ensures there is no overlap or duplication of incentives. LCFS credits specifically compensate operators based on verified reductions in lifecycle emissions that would not be economically viable without these incentives. The financial viability of these digesters, critical to the success of statewide methane reduction goals, relies significantly on integrated funding and incentive structures without violating the principles of additionality.

### 3. Farm Size and Environmental Impact

It is crucial to clarify that the LCFS program evaluates and certifies fuel pathways based on their carbon intensity, irrespective of operational size or farming methodology. The anaerobic digestion process utilized by Aemetis is specifically chosen due to its substantial benefits in mitigating greenhouse gas (GHG) emissions. Beyond GHG reductions, this technology delivers additional environmental benefits, including significantly reduced emissions of volatile organic compounds (VOCs), ammonia, and odors. These reductions meaningfully contribute to improved air quality, directly benefiting local communities.

With respect to the commenter's characterization of the farms involved in this project as "factory farms," we respectfully clarify that this description does not accurately reflect the nature of the operations. The dairies participating in the Aemetis biogas cluster are family-owned and operated farms, many of which have been in operation for multiple generations. While the combined number of cows across these facilities may appear substantial, they are distributed across several independently managed farms, not a single concentrated facility.

These farms comply with all applicable environmental and operational regulations, including the California Environmental Quality Act (CEQA), Sustainable Groundwater Management Act (SGMA), and Waste Discharge Requirements (WDRs). They also participate in proactive sustainability initiatives such as nutrient management

planning and groundwater protection under local Groundwater Sustainability Plans (GSPs).

Importantly, Aemetis's biogas projects do not influence how these farms manage their livestock or change animal housing conditions. Our involvement is strictly limited to the collection of manure for the purpose of anaerobic digestion. The dairies continue to operate as they have historically. Aemetis provides a means for environmental improvement through waste reuse—capturing methane that would otherwise be released from traditional lagoon storage. This process transforms a waste stream into a renewable energy resource without altering livestock practices or animal welfare.

The term "factory farm," which carries a pejorative implication, is inconsistent with the facts and does not reflect the environmental improvements and responsible stewardship demonstrated by these facilities.

# 4. Transparency in Lifecycle Analysis

Aemetis remains firmly committed to transparency and accountability in our emissions reporting and lifecycle analyses. All essential data required for stakeholders' meaningful evaluation are fully disclosed, aligning with CARB's transparency guidelines. Specific redactions are limited strictly to commercially sensitive information as permitted by regulatory frameworks. Importantly, these redactions do not compromise stakeholders' ability to evaluate the pathway's environmental integrity, as key assumptions, emissions factors, and methodologies are openly provided and independently reviewed by CARB staff and verified by third-party verifiers.

#### 5. Environmental Justice and Community Impact

Aemetis recognizes the critical importance of environmental justice, especially concerning communities historically impacted by environmental burdens. Anaerobic digestion technology significantly decreases emissions of methane, ammonia, and VOCs compared to traditional manure management techniques, such as open lagoon systems. This directly translates into tangible improvements in local air quality and community health outcomes.

Moreover, Aemetis proactively adheres to rigorous local, state, and federal regulations designed explicitly to safeguard water quality, air quality, and overall environmental integrity. Regular environmental impact assessments and community engagement processes mandated by CEQA and other local frameworks further

ensure comprehensive monitoring, reporting, and mitigation of potential impacts, affirming Aemetis's ongoing commitment to environmental justice.

## 6. Groundwater Impacts

Water resource sustainability remains a core priority for Aemetis. Contrary to stakeholder concerns, RNG production via anaerobic digestion does not necessitate increased groundwater usage. Instead, this approach improves water management practices through enhanced operational efficiency, reduced evaporation losses, and optimized reuse. All dairies involved in the RNG production pathway strictly comply with Groundwater Sustainability Plans (GSPs) under SGMA and adhere meticulously to state and regional water quality regulations.

#### 7. Contribution to SB 1383 Methane Reduction Goals

Aemetis's anaerobic digestion operations directly align with and actively support California's ambitious SB 1383 methane reduction targets. SB 1383 mandates significant reductions in short-lived climate pollutants, specifically targeting dairy methane emissions. By providing measurable, verifiable, and substantial methane emission reductions, Aemetis substantially contributes toward California's overarching climate goals. Our projects are an integral part of California's methane mitigation strategy, delivering demonstrable progress towards state-defined environmental objectives.

In conclusion, Aemetis Advanced Fuels Keyes, Inc. remains dedicated to meeting and exceeding all applicable regulatory standards and expectations of environmental stewardship. Our comprehensive approach to lifecycle emissions, community impacts, transparency, and water management reinforces our commitment to sustainable practices and environmental responsibility.

Respectfully submitted,

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