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*Comment Received From: Mark Cyffka  
Submitted On: 12/20/2022  
Docket Number: 22-ERDD-02*

**AirMyne Comments \_ Climate Innovation Program**

*Additional submitted attachment is included below.*



RE: Climate Innovation Program (Docket: 22-ERDD-02)

Dear Mr. Ng,

Thank you for the opportunity to comment on the Commission's Climate Innovation Program. AirMyne Inc. is a company headquartered in Berkeley, CA building a Direct Air Capture (DAC) process suited to removing carbon dioxide from air at bulk industrial scale in pursuit of achieving public-sector & private-sector climate goals.

*1) What criteria should the CEC use to evaluate eligible technologies?*

In enacting AB1279, the California Climate Crisis Act, the State has committed to achieving net zero greenhouse gas emissions by 2045. At AirMyne we believe that the CEC should evaluate potential technologies by how necessary & impactful they would be as part of the portfolio strategy needed by the State to meet this aggressive goal.

*2) What is your top-priority technology topic where you believe the most funding and emphasis should be placed because it could have the most significant impact (and why)?*

AirMyne shares the perspective of diverse experts in the energy & climate sectors, who increasingly agree that carbon removal technologies will be necessary to mitigate emissions from both difficult-to-abate sectors and emissions reduction efforts that are being deployed too slowly to achieve the goals of AB1279. This is further demonstrated in legislative intent because AB1279 made its enactment contingent on the co-implementation of SB905, which accelerates the capture, utilization, and/or sequestration of carbon dioxide from industrial point sources as well as air, reflects the practical reality that carbon removal will be required to achieve the State's 2045 goals.

We therefore recommend that funding & emphasis be placed in the development of pilot-scale demonstration facilities for carbon removal, specifically engineered carbon removal utilizing mechanical, chemical, and industrial processes, as well as the enabling technologies for such facilities, including but not limited to low-carbon heat, low-carbon power generation, safe geological sequestration, and the measurement & verification of carbon removal performance. Finally, we recommend

funding & emphasis in technologies which utilize the captured carbon dioxide which has been captured by new carbon removal processes, including but not limited to low-carbon concrete (cement and/or aggregate) as recommended by SB596.

While there are many climate investments worthy of focus, this is an essential area that lacks the same private sector and federal investments as areas like transportation electrification, where programs are already supporting the development.

3) *What important gaps are not being addressed by other funding programs?*

We see a gap in funding and emphasis which could enable demonstration or pilot facilities for technologies which have already:

- a) sourced validation & support from private markets
- b) achieved Technical Readiness Level 3 or above
- c) corporate entities in CA with full-time dedicated technical staff & proprietary IP

These pilot facilities enable companies to accelerate their work to deliver early technical commitments to their first commercial customers, while developing process data needed to further deploy their technologies at progressively larger scales and lower costs. However due to the high capital requirement, these projects tend to find it harder to get support. However, a variety of funding sources (NSF, DOE, & others) already fund research and development at the technology readiness level (TRL) of 3 and below, meaning technologies which are, in practical terms, in academic research facilities & many decades from commercial deployment. Between the bench-level, academic proof-of-concept and the widespread commercial adoption, there is a need for funding to go through commercialization steps, validation at scale, and logistical implementation regarding storage- all of which are needed for carbon capture to help meet California's goals.

4) *What other suggestions would you like the CEC to consider in the development of this program?*

As we interpret the proposal, the 120% repayment requirement effectively creates an "Mergers & Acquisition (M&A) penalty" to be paid by the buyer of a grantee. This penalty may significantly and materially affect the ability of early-stage technology companies to seek & find buyers who are also willing to pay this penalty. There are many reasons companies undergo M&A; indeed, often an acquisition may be the only viable path for a struggling early stage technology company to keep the

technology alive & employees employed. It strikes us that burdening companies in this situation with additional penalties would seem to go against the stated goals of the Climate Innovation Program. Finally, this 20% rate above the award amount is significantly more costly than private loan rates, which may deter companies from using the resources for financial prudence and therefore delaying technological advancement.

To maximize the number of applicants, and thereby the quality and breadth of awardees, we suggest removing the repayment provision entirely. If a repayment provision is required, we would suggest the “triggering” event be more clearly defined & in such a way to give awardees & their stakeholders a clear path to reasonably accommodate the repayment without undue burden; for instance, we would request dropping the requirement for repayment upon a 50% change in cap table, and in the case of an IPO, suggest that repayment be defined as a fixed % of net IPO proceeds with total repayment limited to the value of the award.

We at AirMyne appreciate the Commission’s commitment towards encouraging responsible climate innovation in California. We would also like to offer the Commission’s staff access to our team for feedback in the areas where we have domain expertise such as Direct Air Capture and also in areas where we may offer other unique insights derived from our experience advancing climate technologies as a small business in California.

Thank you.

Mark Cyffka  
Co-founder & Chief Operating Officer  
AirMyne, Inc.