



BOARD OF DIRECTORS
SPECIAL / RETREAT
MEETING

January 29, 2025

**MEETING LOCATION(S) FOR IN-PERSON ATTENDANCE BY
BOARD MEMBERS AND MEMBERS OF THE PUBLIC**

Cal State University Maritime Academy
200 Maritime Academy Drive
The Market Place, 2nd Floor, Compass Room
Vallejo, CA 94590

THE FOLLOWING STREAMING OPTIONS WILL ALSO BE PROVIDED

These streaming options are provided for convenience only. In the event that streaming connections malfunction for any reason, the Board of Directors reserves the right to conduct the meeting without remote webcast and/or Zoom access.

The public may observe this meeting through the webcast by clicking the link available on the air district's agenda webpage at www.baaqmd.gov/bodagendas.

Members of the public may participate remotely via Zoom at <https://bayareametro.zoom.us/j/85438732992>, or may join Zoom by phone by dialing (669) 900-6833 or (408) 638-0968. The Webinar ID for this meeting is: 854 3873 2992

Public Comment on Agenda Items: The public may comment on each item on the agenda as the item is taken up. Members of the public who wish to speak on a matter on the agenda will have two minutes each to address the Board on that agenda item, unless a different time limit is established by the Chair. No speaker who has already spoken on an item will be entitled to speak to that item again.

The Board welcomes comments, including criticism, about the policies, procedures, programs, or services of the District, or of the acts or omissions of the Board. Speakers shall not use threatening, profane, or abusive language which disrupts, disturbs, or otherwise impedes the orderly conduct of a Board meeting. The District is committed to maintaining a workplace free of unlawful harassment and is mindful that District staff regularly attend Board meetings. Discriminatory statements or conduct that would potentially violate the Fair Employment and Housing Act – i.e., statements or conduct that is hostile, intimidating, oppressive, or abusive – is *per se* disruptive to a meeting and will not be tolerated.

**BOARD OF DIRECTORS
SPECIAL / RETREAT MEETING AGENDA**

WEDNESDAY, JANUARY 29, 2025

10:00 AM

Chairperson, Davina Hurt

1. Call to Order - Roll Call

The Board Chair shall call the meeting to order and the Clerk of the Boards shall take roll of the Board members.

2. Welcome and Opening Remarks

I. MORNING SESSION

3. Indigenous Land Acknowledgment

The Board Chair will acknowledge the unceded ancestral homeland of the Patwin people, the original inhabitants of the land on which this Board Retreat is being held.

4. Community Welcome

LaDonna Williams, Programs Director of All Positives Possible, will welcome the Board of Directors to Vallejo.

5. Financing Climate Innovations

A. Overview of Climate Tech Finance

The Board of Directors will learn more about the Air District's Climate Tech Finance Program, including a foundational overview of the program, the economic benefits of loan guarantees, global and regional trends in climate finance, challenges and opportunities in the sector, and successful case studies. This item will be presented by Tamara Kohne, Supervisor, and Areana Flores, Senior Staff Specialist, in the Technology Implementation Office.

- B. Panel Discussion 1 – Driving Climate Innovation: The Role of Capital and Government Action in a Sustainable Transition

This panel will explore how climate tech is driving the transition to a sustainable economy, highlighting investment trends, opportunities, and challenges in the sector. Panelists will discuss the role of public and private financing, innovative funding mechanisms like loan guarantees, and the strategies needed to scale impactful technologies. Insights will include perspectives from financiers, policymakers, venture capitalists, local government, and startup founders making a tangible impact.

- C. Board Question & Answer Session

- D. Public Comment

BREAK

II. AFTERNOON SESSION

- 6. Shaping A Just Transition

- A. Introduction to A Just Transition

The Board of Directors will be provided with a brief introduction to A Just Transition. This item will be presented by Arsenio Mataka, Deputy Executive Officer of Equity and Community Programs.

- B. Panel Discussion 2 – Ensuring an Equitable Just Transition for Frontline Communities and Workers

The panel will explore what it means to achieve A Just Transition from a fossil fuel dependent society to a clean, renewable energy future. This panel will focus on lessons learned, critical partnerships needed, and the challenges and opportunities that lie ahead.

- C. Board Question & Answer Session

- D. Public Comment

BREAK

7. Community Investments

A. Community Investments Office

The Board of Directors will learn more about the Air District's plan to implement the Community Benefits Penalty Funds Policy through the launch of the new Community Investments Office. This item will be presented by Arsenio Mataka, Deputy Executive Officer of Equity and Community Programs.

B. Panel Discussion 3 – Investing in Community Wellness and Prosperity

This panel will explore funding programs from the philanthropic, non-profit, and government sectors targeting underserved communities. The panelists will share best practices and lessons learned in funding and implementing effective initiatives to promote equity and healthy communities.

C. Board Question & Answer Session

D. Public Comment

III. OTHER BUSINESS

8. Closing Remarks and Other Business

9. Public Comment on Non-Agenda Matters

Pursuant to Government Code Section 54954.3, members of the public who wish to speak on matters not on the agenda will be given an opportunity to address the Board of Directors. Members of the public will have two minutes each to address the Board, unless a different time limit is established by the Chair. The Board welcomes comments, including criticism, about the policies, procedures, programs, or services of the District, or of the acts or omissions of the Board. Speakers shall not use threatening, profane, or abusive language which disrupts, disturbs, or otherwise impedes the orderly conduct of a Board meeting. The District is committed to maintaining a workplace free of unlawful harassment and is mindful that District staff regularly attend Board meetings. Discriminatory statements or conduct that would potentially violate the Fair Employment and Housing Act – i.e., statements or conduct that is hostile, intimidating, oppressive, or abusive – is per se disruptive to a meeting and will not be tolerated.

10. Board Member Comments

Any member of the Board, or its staff, on his or her own initiative or in response to questions posed by the public, may: ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2)

11. Report of the Executive Officer/APCO

12. Chairperson's Report

13. Time and Place of Next Meeting

Wednesday, February 5, 2025, at 10:00 a.m. at 375 Beale Street, San Francisco, CA 94105. The meeting will be in-person for the Board of Directors members and members of the public will be able to either join in-person or via webcast.

14. Adjournment

The Board meeting shall be adjourned by the Board Chair.

CONTACT:

MANAGER, EXECUTIVE OPERATIONS
375 BEALE STREET, SAN FRANCISCO, CA 94105
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FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov

- Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the Air District's offices at 375 Beale Street, Suite 600, San Francisco, CA 94105, at the time such writing is made available to all, or a majority of all, members of that body.

Accessibility and Non-Discrimination Policy

The Bay Area Air Quality Management District (Air District) does not discriminate on the basis of race, national origin, ethnic group identification, ancestry, religion, age, sex, sexual orientation, gender identity, gender expression, color, genetic information, medical condition, or mental or physical disability, or any other attribute or belief protected by law.

It is the Air District's policy to provide fair and equal access to the benefits of a program or activity administered by Air District. The Air District will not tolerate discrimination against any person(s) seeking to participate in, or receive the benefits of, any program or activity offered or conducted by the Air District. Members of the public who believe they or others were unlawfully denied full and equal access to an Air District program or activity may file a discrimination complaint under this policy. This non-discrimination policy also applies to other people or entities affiliated with Air District, including contractors or grantees that the Air District utilizes to provide benefits and services to members of the public.

Auxiliary aids and services including, for example, qualified interpreters and/or listening devices, to individuals who are deaf or hard of hearing, and to other individuals as necessary to ensure effective communication or an equal opportunity to participate fully in the benefits, activities, programs, and services will be provided by the Air District in a timely manner and in such a way as to protect the privacy and independence of the individual. Please contact the Non-Discrimination Coordinator identified below at least three days in advance of a meeting so that arrangements can be made accordingly.

If you believe discrimination has occurred with respect to an Air District program or activity, you may contact the Non-Discrimination Coordinator identified below or visit our website at www.baaqmd.gov/accessibility to learn how and where to file a complaint of discrimination.

Questions regarding this Policy should be directed to the Air District's Acting Non-Discrimination Coordinator, Diana Ruiz, at (415) 749-8840 or by email at druiz@baaqmd.gov.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

375 BEALE STREET, SAN FRANCISCO, CA 94105

FOR QUESTIONS PLEASE CALL (415) 749-4941

EXECUTIVE OFFICE:

MONTHLY CALENDAR OF AIR DISTRICT MEETINGS

JANUARY 2025

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Community Advisory Council Meeting - CANCELLED	Thursday	16	6:00 p.m.	1 st Floor, Yerba Buena Room
Board of Directors Retreat	Wednesday	29	10:00 a.m.	Cal State University Maritime Academy 200 Maritime Academy Drive The Market Place, 2nd Floor, Compass Room Vallejo, CA 94590

FEBRUARY 2025

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Meeting	Wednesday	5	10:00 a.m.	1 st Floor Board Room
Board of Directors Stationary Source Committee	Wednesday	19	10:00 a.m.	1 st Floor Board Room
Board of Directors Community Equity, Health & Justice Committee	Wednesday	19	1:00 p.m.	1 st Floor Board Room
Board of Directors Policy, Grants and Technology Committee	Wednesday	26	10:00 a.m.	1 st Floor, Yerba Buena Room
Board of Directors Finance and Administration Committee	Wednesday	26	1:00 p.m.	1 st Floor, Yerba Buena Room

MARCH 2025

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Meeting	Wednesday	5	10:00 a.m.	1 st Floor Board Room
Board of Directors Stationary Source Committee	Wednesday	12	10:00 a.m.	1 st Floor, Yerba Buena Room

MARCH 2025

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Community Equity, Health & Justice Committee	Wednesday	12	1:00 p.m.	1 st Floor, Yerba Buena Room
Board of Directors Policy, Grants and Technology Committee	Wednesday	19	10:00 a.m.	1 st Floor Board Room
Board of Directors Finance and Administration Committee	Wednesday	19	1:00 p.m.	1 st Floor Board Room
Board of Directors Community Advisory Council Meeting	Thursday	20	6:00 p.m.	California State University East Bay Oakland Professional & Conference Center Trans Pacific Center 1000 Broadway, Suite 109 Oakland, CA 94607

HL 1/23/25 – 3:55 p.m.

G/Board/Executive Office/Moncal

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Davina Hurt and Members
of the Board of Directors

From: Philip M. Fine
Executive Officer/APCO

Date: January 29, 2025

Re: Overview of Climate Tech Finance

RECOMMENDED ACTION

None; no action requested at this time.

BACKGROUND

The Air District established the Climate Tech Finance (CTF) program in 2018 to scale up technologies that reduce greenhouse gas (GHG) emissions. This program is based on a loan incentive structure with a mission to reduce GHGs by offsetting risk for lenders and increasing access to capital for entrepreneurs. This innovative collaboration between the Air District and the California Infrastructure and Economic Development Bank (IBank) is designed to leverage the scientific and air quality knowledge of the Air District with the financial expertise of IBank to accelerate the deployment of cutting-edge climate technologies in California.

On August 1, 2018, the Air District Board of Directors authorized the Executive Officer/APCO to enter into an agreement with IBank to support the loan program. The partnership with IBank provided up to \$2.5 million and 80% loan guarantees for climate-related loans, and the Air District provided up to an additional 10% guarantee making a total of 90% loan guarantee. On March 3, 2021, the Board of Directors approved an extension of the agreement to continue support of CTF loan guarantees.

The American Rescue Plan Act of 2021 allocated \$10 billion to the State Small Business Credit Initiative (SSBCI), of which California received \$895 million—roughly five times larger than the previous SSBCI program in 2010. IBank is a primary beneficiary of these funds and needs to quickly facilitate a large volume of loans through its loan guarantee program. To help enable greater loan activity, IBank increased the loan guarantee maximum from \$2.5 million to \$5 million per loan. With the new federal funding, the Air District's financial contribution was no longer needed to grow the program.

The new SSBCI funds represented a significant opportunity to expand the CTF partnership by scaling up the program statewide. Staff had engaged in discussions with IBank to develop a potential fee-sharing arrangement to help offset a portion of the Air District’s administrative costs for conducting impact evaluations for loan guarantees outside the Bay Area. On July 20, 2022, the Board of Directors authorized the Interim Executive Officer/APCO to negotiate and execute agreements with IBank to allow the Air District to receive administrative funds for evaluating loan guarantees under the CTF program with an expanded statewide scope. Pursuant to the agreement with IBank, starting September 15, 2022, the Air District is allocated a segment of the loan guarantee fee, specifically 0.5% of the total 3%, to offset administrative costs from each CTF loan closed. The fee is only applicable to first-time loans for which the Air District staff conducted the technology evaluation.

DISCUSSION

The CTF program provides financial and technical support to small businesses, entrepreneurs, and lenders to encourage the commercialization of climate technologies. The program’s overall goal is to accelerate the adoption of climate technologies and practices by helping entrepreneurs secure working capital loans from banks across California and beyond. The program encourages banks to lend to climate entrepreneurs by offering a loan guarantee of up to 80% of the loan principal for a maximum of \$5 million. Figure 1 provides an overview of the CTF Loan Guarantee process.

Figure 1: CTF Loan Guarantee Process



Air District staff working in Climate Tech Finance are skilled in assessing the technical aspects of proposed climate technologies. Staff reviews project applications to ensure that they align with the potential to reduce GHG emissions effectively and have positive social equity impacts. Upon technical approval, the Air District provides projects with a letter of enrollment that recognizes their potential environmental and social benefits. This process is critical for early-stage businesses to gain credibility and for lenders to assess their viability.

The technology review assesses a technology's maturity, maintenance requirements, and associated risks, along with its current and expected implementations. The GHG analysis provides a preliminary estimate of the potential for reducing GHGs, derived from existing and anticipated deployments, without conducting a full life-cycle assessment or in-depth carbon accounting.

The social benefit analysis considers a project's potential for fostering social equity and benefits to disadvantaged communities. Utilizing state and federal tools like the California Communities Environmental Health Screening Tool (CalEnviroScreen), the Federal Community Reinvestment Act (CRA), California Climate Investments Priority Populations, and the Federal Climate and Environmental Justice Tool (CEJST), staff assesses a company's operations and the product's impacts on communities that are most burdened by pollution and economic challenges. By working to highlight and promote these areas, we are encouraging startups to deploy clean air and climate technologies in them. Additionally, this may incentivize lenders to provide capital to these regions, helping to increase their CRA scores while driving economic development in underserved communities.

Staff work closely with Finance Leads, consultants with an extensive experience in lending and financial markets, who support critical functions of the program. They assess the financial soundness and risk profiles of projects applying for loan guarantees. They look at factors like creditworthiness, business plans, and the potential for commercial success, and facilitate the introduction and negotiation between companies and banks.

The team within IBank manages the loan guarantee program, setting the terms for guarantees, approving new lenders and filling applications. They work to mitigate financial risks while making capital accessible for climate tech entrepreneurs.

To date, the CTF program has successfully supported twenty-one loans totaling \$42.5 million. These loans have been distributed among companies operating in various sectors, including clean energy, e mobility, and circular economy. The CTF program is not limited to one sector but is open to a variety of industries, thereby multiplying its impact on greenhouse gas reductions and climate change mitigation efforts. The projected impact of the supported companies is substantial, with an expected reduction of almost 6.5 million metric tons of CO₂-equivalent emissions by 2030 (or 1.3 million MTCO_{2e} per year). To put that into perspective, it's like taking 1.5

million gasoline cars off the road for an entire year. The CTF program is expected to receive \$64,500 in fees from conducting the technology evaluations for the loan guarantees.

CTF projects that meet the program criteria and have been pre-qualified by the Air District but are awaiting lender approval have a value of approximately \$60 million. They are currently in various stages of discussions with lenders.

To ensure the Air District's program reaches the widest audience and educates potential stakeholders, the the Air District hosted three webinars post our statewide expansion. Titled "Sustainable Finance for a Sustainable Future", "Pitching to Climate Tech Lenders", and "Leveraging Government-Backed Guarantees for Financial Success," these sessions were met with enthusiasm, drawing over 200 attendees at each webinar. These webinars not only serve promotional purposes but are a beacon of knowledge about our program. The program has sponsored Verge for the past 3 years and the team attended and represented the Air District's CTF program in October.

In 2025 staff will continue to implement Strategy 1.7.3 of the Air District's Strategic Plan, which commits to "assess and improve the Climate Tech Finance program." In addition to the annual program performance review and work planning, staff will conduct a more thorough program assessment. The team will develop a follow-up impact report for the period of 2021-2024 by June 2026 that will highlight the program's areas for improvement, performance and impacts to date. The document will look for opportunities for alignment with the Strategic Plan, and identify existing challenges, including lenders', partners, and participants' perception of the CTF program. Upon the completion of the impact report, additional program improvement actions will be identified.

Following the staff presentation overview of the Climate Tech Finance Program will be a panel discussion called, *Driving Climate Innovation: The Role of Capital and Government Action in a Sustainable Transition*. The panel will provide additional context on the program and climate tech financing from different perspectives. The panelists include:

Derrick Tang, Deputy Director of Venture Capital/ IBank:

Appointed by Governor Gavin Newsom, Derrick leads California's first public venture fund, driving investments in underrepresented entrepreneurs, underserved communities, and climate justice solutions. He founded and led the Climate Tech Finance team here at the Air District, launched the state's first loan guarantee program for climate entrepreneurs, and integrated racial and social equity into strategic planning and operations. Derrick also spearheaded CalSEED, a \$33M grant initiative supporting early-stage climate innovators, redefining how equity and access shape California's climate future.

George McDaniel, Chief Climate Tech Finance/ Nor-Cal Financial Development Corporation:

George McDaniel is a highly experienced lender and investor. He has been CEO of a commercial bank, CEO of an investment banking firm and the founder of a private equity firm focused on buyouts. He is also the co-founder of a nonprofit focused on affordable housing development and capital access for underserved communities and populations and has served on numerous community and private corporation boards of directors. He also has been an independent consultant focused on turnarounds, real estate development and specialized financings. He has been involved in environmental and climate related financings for many years. Currently, he is the lead finance principal in a Climate Tech Finance partnership involving the financing of the acceleration of critically needed climate technologies which significantly reduce CO2 emissions on a statewide basis. He is also a US Army Veteran of Vietnam and is a disabled veteran.

Elias Van Sickle, Cofounder, Switch Maritime:

Van Sickle and cofounder Pace Ralli are developing zero-emission vessels to decarbonize the maritime industry, which accounts for 3% of global greenhouse gas emissions. Its first ship is a hydrogen fuel cell-powered, electric passenger ferry called the Sea Change. The 75-passenger boat began carrying passengers in San Francisco Bay this summer in a six-month trial, leased to ferry operator Blue & Gold Fleet. SWITCH Maritime aims to develop larger, faster vessels that it will lease to vessel operators on long-term contracts. The company raised \$10 million in its series A round.

Lauren Faber, Operating Partner/Lowercarbon Capital:

Lauren leads strategic partnerships at Lowercarbon Capital where she helps find and grow technologies that help cities, businesses, and the world at large cut carbon emissions and make a real dent in the climate emergency.

Prior to Lowercarbon, Lauren served as the Chief Sustainability Officer for the City of Los Angeles where she developed and oversaw the green transition of the second largest city in the country, including the country's largest municipal electric and water utility, as well as the busiest Port and Airport. Over her eight years in the L.A. Mayor's Office, Lauren ushered in a series of climate-leading actions to pursue a zero emissions Port, require that all new construction be all-electric, eliminate single-use packaging, pursue 100% recycled water and 100% clean energy, and end urban oil drilling. She also oversaw the national network of mayors committed to climate action known as Climate Mayors and LA's Chairship of the international mayoral climate action organization C40.

Lauren is also an adjunct professor at the USC Sol Price School for Public Policy and serves as an advisor to the UN Secretary General's High Level Expert Group on the Net Zero Emissions Commitments of Non State Entities (HLEG).

Lauren has spent her career working on environmental issues, from serving as West Coast Political Director for the Environmental Defense Fund to being appointed Assistant Secretary for Climate Change at the California EPA, to addressing climate change and energy as Senior Policy Advisor at the British Embassy. Lauren serves on the Boards of California Environmental Voters, WRI Ross Center for Cities, National Renewable Energy Laboratory Advanced Research on Integrated Energy Systems, and USC Center for Sustainability Solutions. She holds a Bachelor's degree in Earth Systems and Economics from Stanford University, and Master's degree in Climate and Society from Columbia University.

Lauren was awarded Columbia University's Dean's Award for Distinguished Achievement in 2023, which recognizes profound impact on academia and the world at large. She has been recognized as 40 under 40 Public Utilities Fortnightly 2021, 2019 LA Power Woman by Bisnow, and 2018 Climate Leader to Watch by E&E News.

Emily Abraham, Director – Legislative and Community Affairs/San Francisco Chamber of Commerce – YesSF Initiative:

Emily Abraham is the Director of Legislative and Community Affairs for the San Francisco Chamber of Commerce, where she spearheads the urban sustainability initiative, Yes SF. Her focus is on creating pathways for the green urban transformation of San Francisco, supporting innovative startups, and fostering new partnerships. She has spent her career in trade associations and local government and has a passion for building cross-industry collaboration to best serve San Francisco's diverse communities.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Tamara Kohne & Areana Flores
Reviewed by: Anthony Fournier

ATTACHMENT(S):

1. Climate Tech Finance Presentation



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 5.A.

Overview of Climate Tech Finance Program

**Board of Directors Special / Retreat Meeting
January 29, 2025**

**Tamara Kohne
Supervisor
Technology Implementation Office
tkohne@baaqmd.gov**

**Areana Flores
Senior Staff Specialist
Technology Implementation Office
aflores@baaqmd.gov**

Outline

- What is Climate Tech?
- Driving Forces behind Climate Tech
- Program Overview
- Program Impact
- Case Studies
- Marketing
- Opportunities



Source: LeoWolfert from Getty Images

Climate Tech Finance Program

The Air District established the Climate Tech Finance (CTF) program in 2018 to scale up technologies that reduce greenhouse gas (GHG) emissions. This program is based on a loan incentive structure with a mission to reduce GHGs by offsetting risk for lenders and increasing access to capital for entrepreneurs



What is Climate Tech?

Avoids Carbon-Based Fuels

- Use renewable energy
- Switch to electricity
- Switch to hydrogen fuels

Reduces Greenhouse Gases

- Improves energy efficiency
- Convert methane to CO₂
- Reuses waste

Sequesters Carbon

- Direct air carbon capture
- Biomass to Biochar
- Use exhaust to make concrete

Examples of Climate Tech

Energy

- Renewable Energy
 - Energy Storage
- Energy Efficiency/Management
 - Microgrids/Grid Management
 - Fossil Fuel Replacement

Mobility

- Zero-Emission Vehicles
- Zero-Emission Transportation Infrastructure

Food & Agriculture

- Plant-Based Foods
- Biomass Utilization
 - Bio-Sequestration
- Soil Monitoring & Optimization
- Livestock Dietary Design

Industry

- Decarbonized Materials
- Carbon Capture
- Supply chain decarbonization

Circular Economy

- Waste-to-Energy
- Recycled Packaging
- Waste Segregation
- Waste Utilization

Built Environment

- Heat pumps
- Energy efficient HVAC Systems
- Energy efficient appliances

Ineligible

- Reliance on fossil fuels
- Reliance on fossil fuel infrastructure



Driving Forces Behind Climate Tech



Crisis-Driven Cultural Shifts

Increase in extreme weather events
2023 – Estimated \$92.9 billion in damages in United States
492 lives lost



Talent Migration in 2023

8 - 27 % growth in clean energy jobs, electrification and renewables, future mobility, and general climate tech roles.



Policy Environment

Inflation Reduction Act (IRA) - \$500B towards clean energy infrastructure, manufacturing, transportation, and energy projects.
SEC's climate risk disclosure rulings mandates public companies to disclose economic impacts associated with climate-related risks.



Availability of Capital

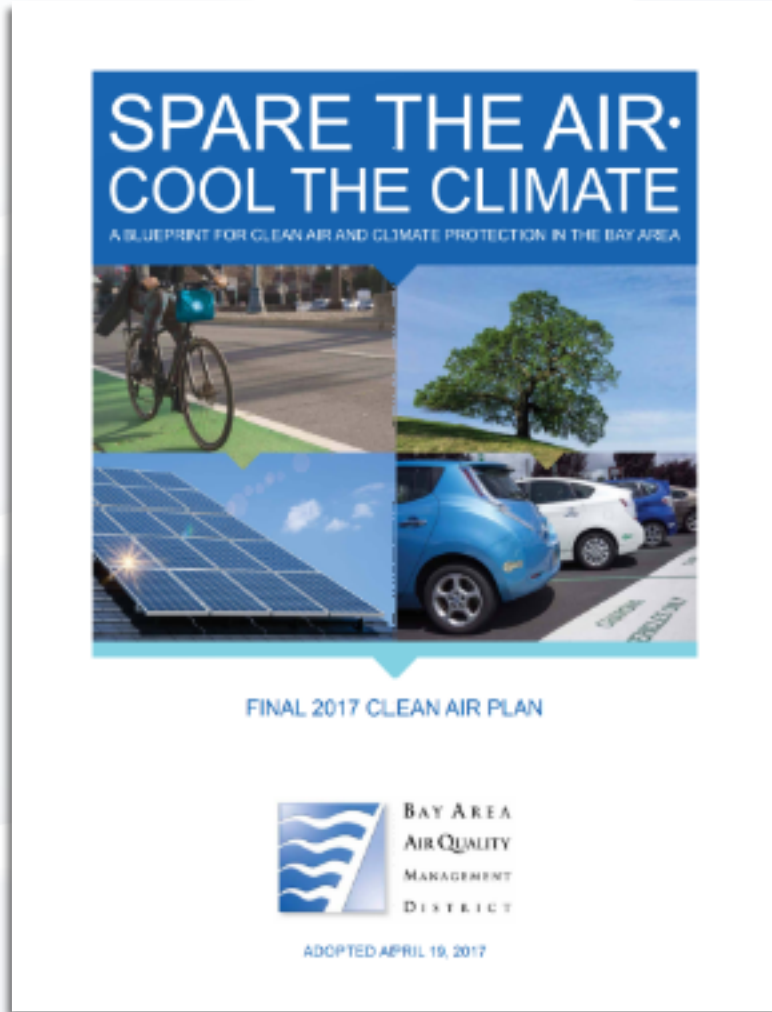
Since 2021, influx of \$217B in private funds for climate
Growing trend for non-dilutive options for late-stage companies



Rise of AI

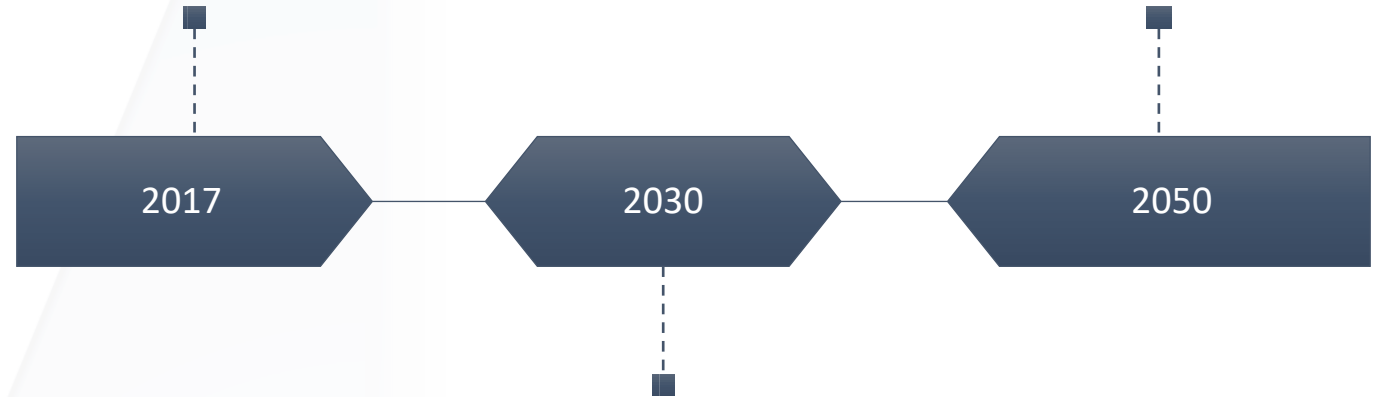
Increase in innovation activity to accelerate the deployment of renewables on the grid to keep up with demand.
Gathering critical data for climate research, discovering critical metals for electric vehicle batteries, etc.

Driving Forces Behind Climate Tech



Bay Area Air Quality
Management District's
2017 Clean Air Plan

Reduce Bay Area GHG
emissions 80 percent
below 1990 levels by 2050



Reduce Bay Area
GHG emissions 40
percent below 1990
levels by 2030

Driving Forces Behind Climate Tech

- In 2018, the Air District assessed opportunities to reduce Greenhouse Gas Emissions at Stationary Sources in the Bay Area
- The top recommended measures focus on early stage and less well-known commercial opportunities for greenhouse gas reductions
- Out of **188** technologies reviewed, **33** highlighted in report with recommended action

Source: Bay Area Air Quality Management District. *Climate Technology Review: An Assessment of Opportunities to Reduce Greenhouse Gas Emissions at Stationary Sources in the Bay Area, 2018*

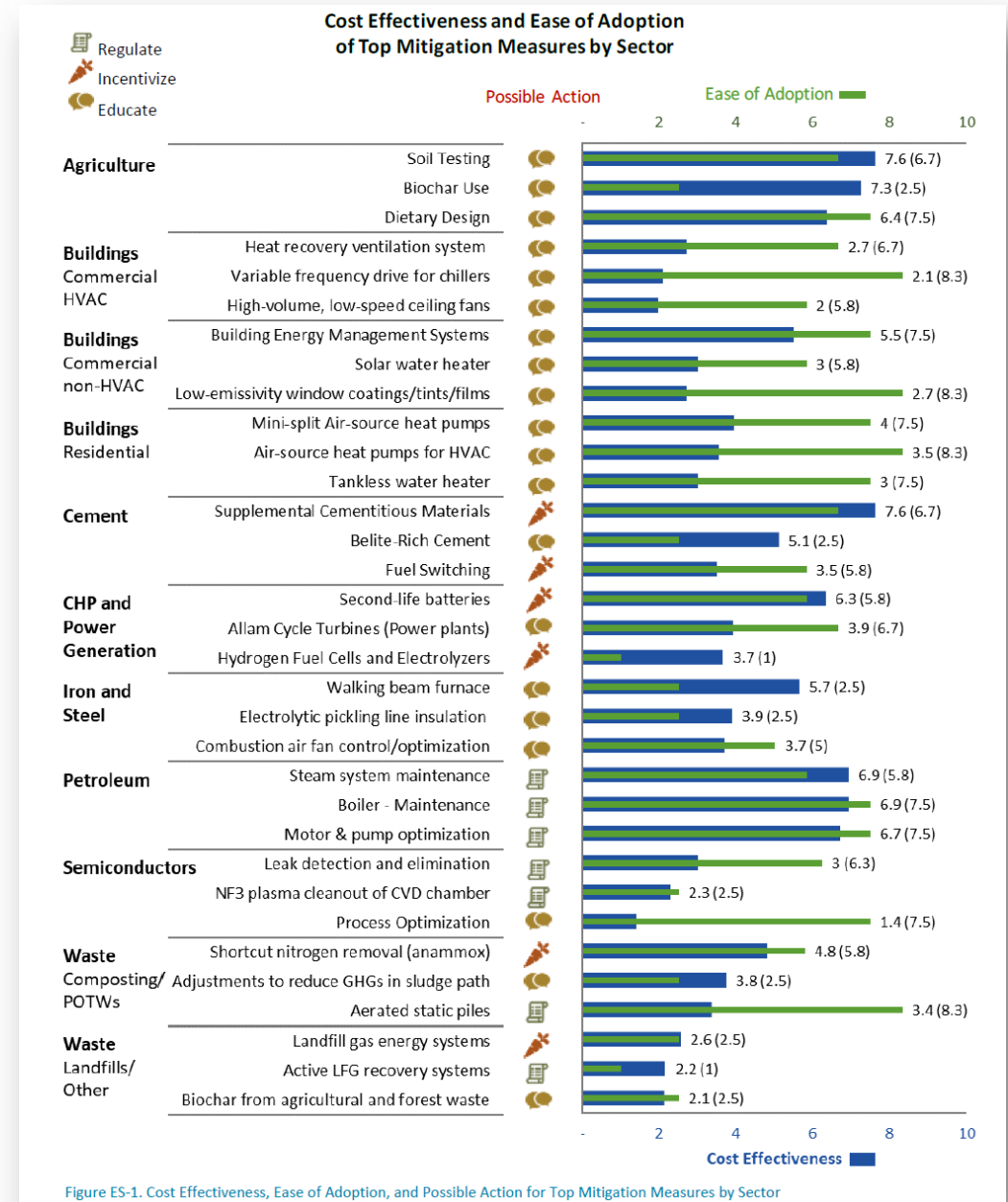
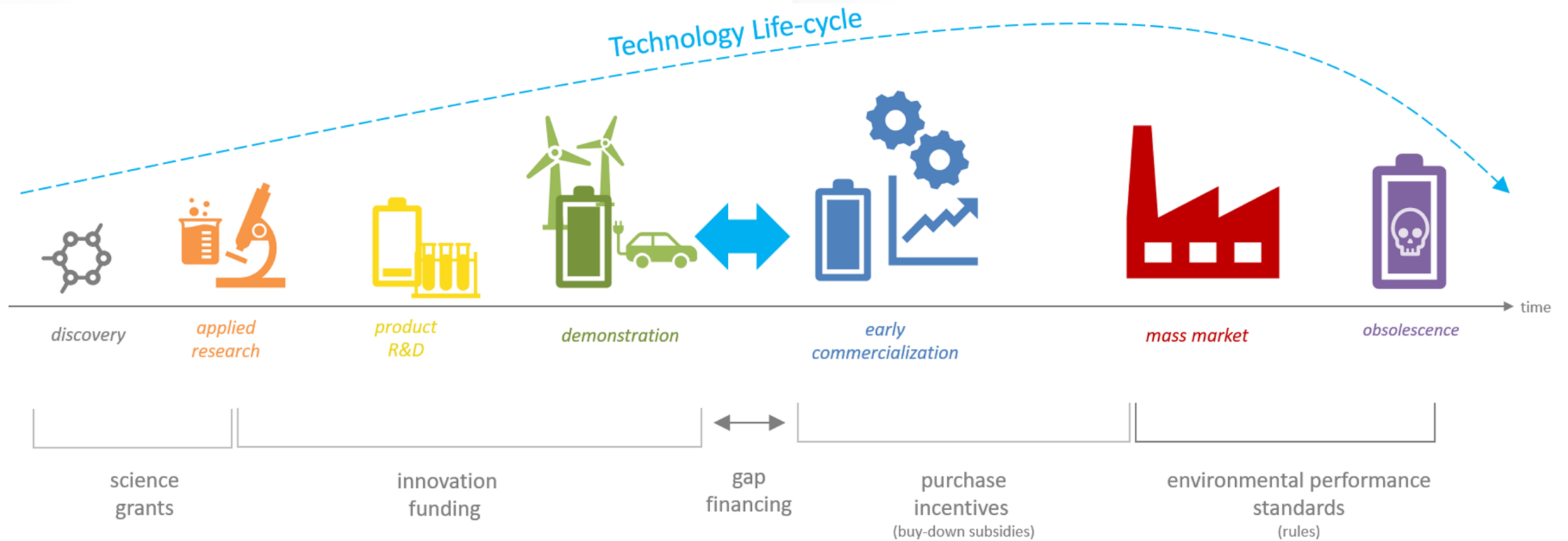


Figure ES-1. Cost Effectiveness, Ease of Adoption, and Possible Action for Top Mitigation Measures by Sector

Program Overview

The Challenge



Entrepreneurs developing promising technologies struggle to find inexpensive capital in the form of debt financing to move their projects from demonstration phase to early commercialization.

Program Overview

The Solution



Loan Guarantee



- Guarantees up to 80% of the loan
- Maximum guarantee amount: \$5 million
- Guarantee term: Up to 7 years
- Interest rate and qualifications determined by lender

The Criteria

- 1 Be a small business (<750 employees)
- 2 Have a climate impact
- 3 Be ready to commercialize in California



- Partnership between IBank and Air District est. 2018
- Program named “Climate Tech Finance”
- Piloted in the Bay Area and expanded Statewide Fall 2022
- Air District conducts evaluation of the technology, its GHG reductions, and societal benefits
- **Fee-sharing** agreement with Ibank
 - **0.5%** of loan guarantee amount

Program Overview

Loan Guarantee Platform

Location

Technology

Loan Guarantee

- 1 Applicant needs to have relationship with California



- 2 Technology needs to be past the demonstration phase.

Air District reviews technology.



Proof of demonstration project required!

- 3 Local Financial Development Corporation packages loan guarantees and registers it with State.



Tech Evaluation



Loan Guarantee

80% Loan Guarantee up to \$5 M

Financing

- 4 Climate Tech Finance connects funding applicants to interested and capable lenders.



Program Overview

Air District Partnership



+



California Infrastructure and Economic Development Bank

Commercial Lender

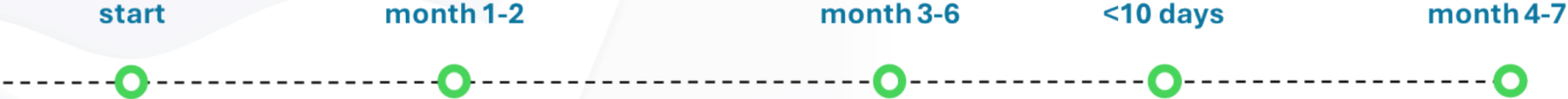


Entrepreneur



Guarantee
up to 80% or \$5M
up to 7 years

Loan
up to \$20M
rates vary



start

month 1-2

month 3-6

<10 days

month 4-7

entrepreneur meets with Air District

Air District assess technology as climate tech

+

Finance Leads air with banking connections and discussions

lender approves loan

lender receives loan guarantee

IBank logo: <https://www.ibank.ca.gov/>

Program Overview

Climate Tech Evaluation

This is Air District's certified report of the proposed climate technology, its greenhouse gas reduction impacts, and its impacts on social equity. It is used as part of lender underwriting process and key in de-risking the loan.

1

Technology Review

2

GHG Review

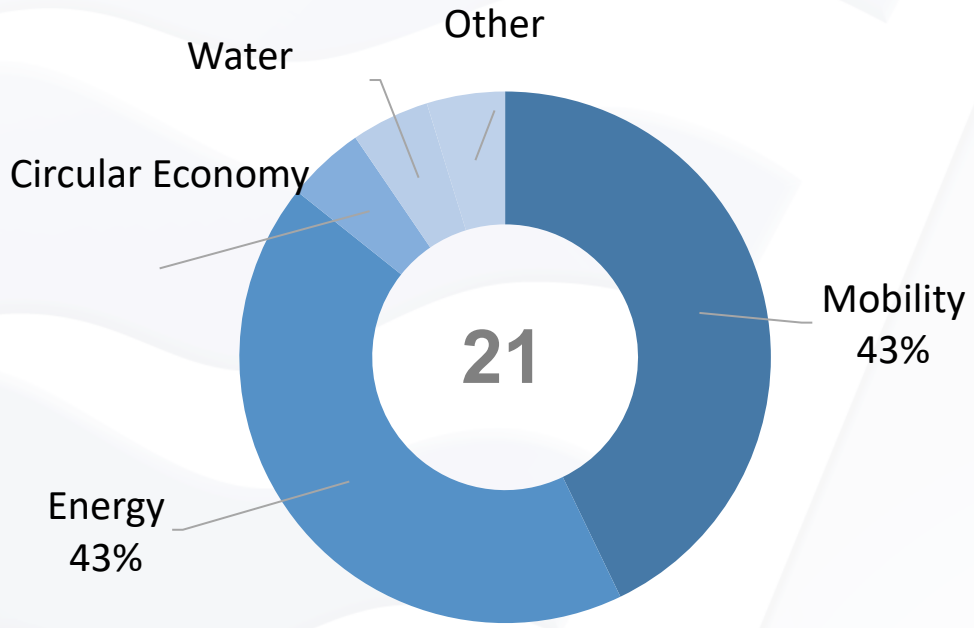
3

Social Benefit Analysis

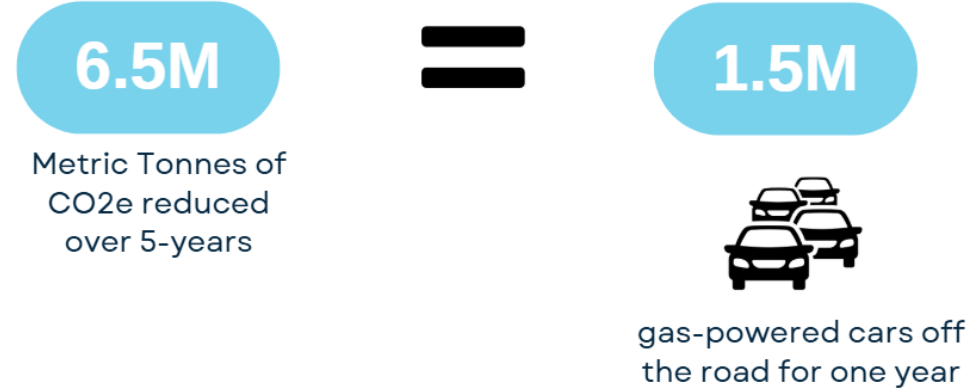
Program Impact



Technology Sectors



GHG Reductions

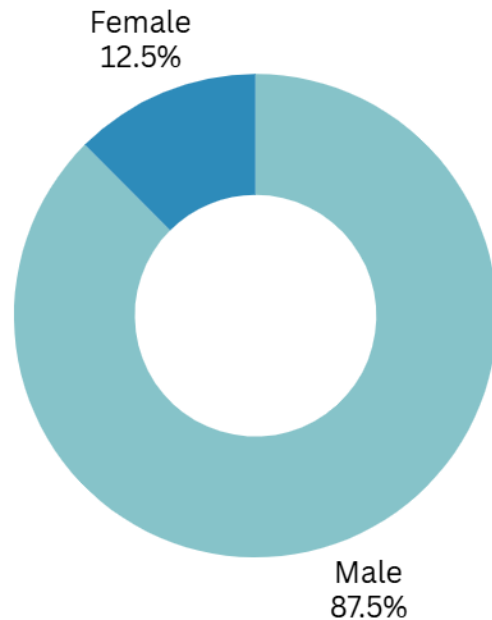


Program Impact

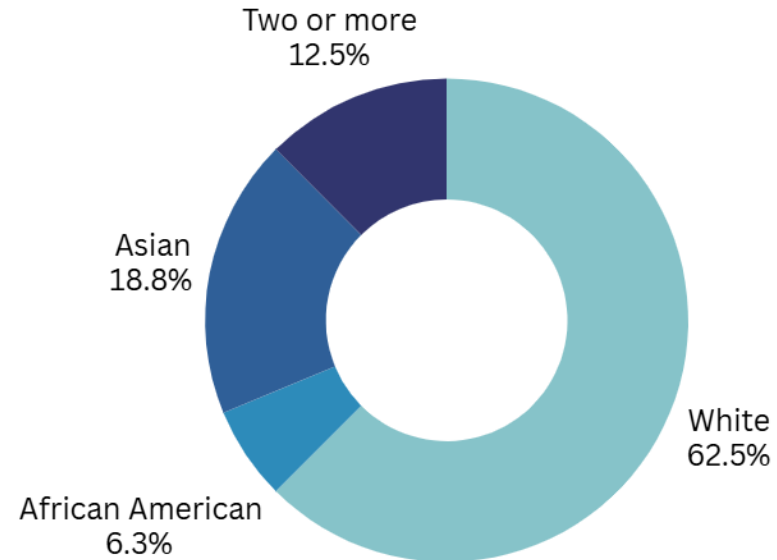
Diversity at CTF

We conduct a voluntary survey to track portfolio demographics. Our program priorities include outreach and technical assistance for underrepresented entrepreneurs to ensure that our growing portfolio is increasingly diverse and inclusive.

Gender: Company CEO*



Race: Company CEO*



*Based on 16 companies reporting

Program Impact

5-YEAR REVIEW



\$42.5M

Loans Supported
(21)



\$64.5 K

BAAQMD Fees



~\$60 M

Pre-Qualified
(16)



337

Prospects



6

Lenders Onboarding

Case Studies

SWITCH Maritime

First fleet of zero-carbon maritime ships powered 100% by battery and hydrogen in North America.

SWITCH
MARITIME



Loan Amount

\$5M

5-Year GHG Impact

30K

MTCO₂e

Jobs Created

63

Case Studies

Gridscape Solutions

Leading smart energy solutions company that specializes in developing and deploying cost-effective small to mid-size renewable energy microgrids

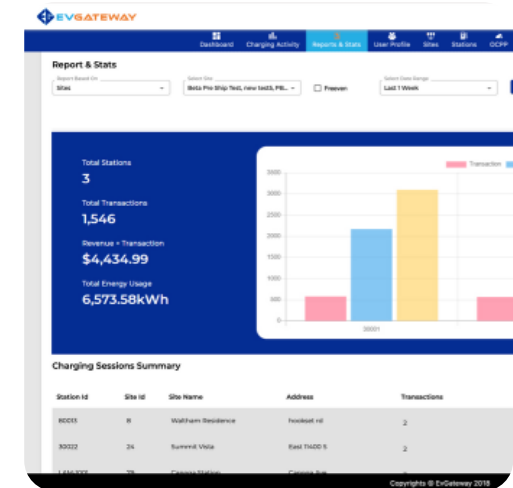


Loan Amount	5-Year GHG Impact	Jobs Created
Funded	11K MTCO2e	8

Case Studies

EV Gateway

EvGateway has developed a software portfolio, which enables operators of electric vehicle chargers to manage and operate their chargers. The software also allows consumers to locate and reserve available chargers, see amenities available at the chargers, view charging rates and pay for their vehicle charging.



Loan Amount

\$6M

5-Year GHG Impact

35K

MTCO₂e

Jobs Created

9

Case Studies

King Solarman

King Solarman is a provider of smart solar mobile generators. Their modular solutions replace harmful, loud, and aging diesel generators used for mobile light towers and surveillance/monitoring stations.



Loan Amount

\$5.9M

5-Year GHG Impact

3.5K

MTCO₂e

Jobs Created

9

Case Studies

Sparkz

Next-generation battery manufacturer in the United States developing lithium-ion, cobalt-free battery cells, modules, and packs.



Loan Amount

\$5M

5-Year GHG Impact

720K

MTCO₂e

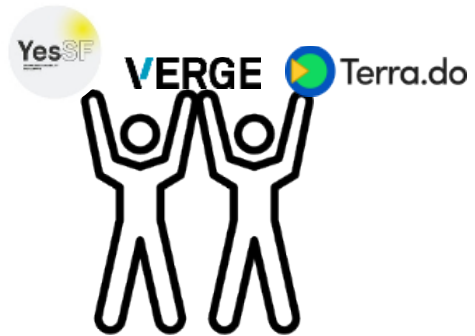
Jobs Created

26

MARKETING



Events



Sponsorships



Media



Ribbon Cuttings

Opportunities

Strategies for Development

We believe Climate Tech Finance is poised for continued growth. We are seeing increasing inbound interest from borrowers and lenders, as well as year-over-year growth in private capital investments into climate. With state's setting climate agendas, and unprecedented levels of funding to support them, Climate Tech Finance is well positioned to support climate startup-ups and help them scale quickly.

Needs Assessment

Conduct a re-evaluation of the program to ensure alignment with the objectives and priorities outlined in the Air District Strategic Plan, while identifying and addressing potential gaps.

Social Equity

Look for additional opportunities to further support participants and technology deployments in EJ Communities.

Outreach

Share information and resources on our website and during events on emerging climate technologies and solutions that apply to CTF to foster partnerships with startups, communities, and local governments to co-develop solutions tailored to specific climate challenges.

THANK YOU



Panel Discussion

Driving Climate Innovation: The Role of Capital and Government Action in a Sustainable Transition

- **Derrick Tang**, Deputy Director of Venture Capital/ IBank
- **George McDaniel**, Chief Climate Tech Finance/ Nor-Cal Financial Development Corporation
- **Elias Van Sickle**, Cofounder, Switch Maritime
- **Lauren Faber**, Operating Partner/Lowercarbon Capital
- **Emily Abraham**, Director – Legislative and Community Affairs/San Francisco Chamber of Commerce – YesSF Initiative

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Davina Hurt and Members
of the Board of Directors

From: Philip M. Fine
Executive Officer/APCO

Date: January 29, 2025

Re: Introduction to A Just Transition

RECOMMENDED ACTION

None; the Board of Directors will discuss the item, and no action is requested at this time.

BACKGROUND

The Air District is hosting a panel discussion to foster meaningful dialogue and explore what it means to achieve a Just Transition from a fossil fuel dependent society to a clean, renewable energy future. The panel features Mijin Cha, Assistant Professor of Environmental Studies Department at University of California, Santa Cruz; Marisol Cantú, Educator and Co-Lead of the Path to Clean Air (PTCA) Community Steering Committee (CSC) and third-generation Richmond resident; Christine Cordero, Co-Executive Director, Asian Pacific Environmental Network (APEN); Tim Carmichael, President and CEO, California Council for Environmental and Economic Balance (CEEB); and Nick Plurkowski, President, United Steelworkers Local 5. The discussion aims to bring speakers with different perspectives and engage in a collaborative exchange.

DISCUSSION

Panelists include:

Mijin Cha, Assistant Professor of Environmental Studies, UC Santa Cruz:

Mijin is an assistant professor in the Environmental Studies Department at the University of California, Santa Cruz (UCSC), an affiliate faculty in the legal studies department, and a member of the Faculty Advisory Board at the UCSC Center for Labor and Community. She is the author of *A Just Transition for All: Workers and Communities for a Carbon-Free Future*, published by MIT Press in December of 2024.

Marisol Cantú, Educator and Co-Lead of the Path to Clean Air (PTCA) Community Steering Committee (CSC):

Marisol is a third-generation Richmond resident on Ohlone Land and a professor at Contra Costa College, where she teaches English as a Second Language (ESL). Beyond the classroom, she is an active community member and organizer in Richmond, currently serving as a Co-Lead of the PTCA CSC. Her advocacy work primarily intertwines racial, social, and environmental justice, building people-powered campaigns, strengthening community and academic partnerships, and advocating for policies that bring systemic change.

Christine Cordero, Co-Executive Director, Asian Pacific Environmental Network (APEN):

Raised by a Filipino immigrant family in the working class town of Pittsburg, CA, Christine acts from the deep belief that we are stronger together and can go farther together than we ever could alone. She is Co-Director of Asian Pacific Environmental Network, organizing with immigrants and refugees for a healthy environment and thriving economy for all communities. For over 20 years, Christine strategized, organized, and built coalitions across environmental health and justice, workers rights, and economic and racial justice issues. Previously, she was Executive Director at the Center for Story-based Strategy, training 2,000+ people and working with 200+ groups to reinvigorate narrative strategies for social justice. She is an alumnus of Rockwood Institute's Leading from the Inside Out Yearlong Fellowship, one of the nation's leading executive leadership programs for experienced social change trailblazers. She is one of three recipients of Stanford University Centers for Equity, Community, and Leadership's 2023 Changemaker Award. Christine is an ordained priest of the Chozen-ji line of Rinzai Zen, and trains in Oakland, California and Kalihi Valley, Hawaii.

Nick Plurkowski, President, United Steelworkers Local 5:

Nick serves as the President of United Steelworkers Local 5, representing workers at three of the five Bay Area refineries: Tesoro Martinez Refinery, Shell Martinez Refinery, and the Chevron Richmond Refinery.

Tim Carmichael, President and CEO, California Council for Environmental and Economic Balance (CEEBC):

Tim Carmichael joined the California Council for Environmental and Economic Balance as President and CEO in 2022. CEEBC is a non-profit, non-partisan coalition of business, labor, and public leaders, which advances balanced policies for a healthy environment and a strong economy. Tim has over 25 years of leadership in both the non-profit and private sectors. Prior to joining the CEEBC team, Tim served as State Agency Relations Manager for Sempra Utilities, engaging California

regulatory agencies on public policy related to environmental protection, clean energy, advanced transportation, and alternative fuels. Previously Tim led the California Natural Gas Vehicle Coalition. Tim began his public policy career at the Coalition for Clean Air, serving as President from 1998 to 2007, where he helped negotiate key emissions reduction and climate change policy, including the legislation that paved the way for California to regulate greenhouse gas emissions from passenger vehicles.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Diana Ruiz
Reviewed by: Arsenio Mataka

ATTACHMENT(S):

1. Introduction to A Just Transition Presentation



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 6.A.

Ensuring an Equitable Just Transition for Frontline Communities and Workers

**Board of Directors Special / Retreat Meeting
January 29, 2025**

**Arsenio Mataka
Deputy Executive Officer of Equity and
Community Programs
amataka@baaqmd.gov**



Just Transition and the Path to Clean Air

- In 2024, the Richmond-North Richmond-San Pablo Path to Clean Air (PTCA) Plan was approved by the Board
- Community concerns within PTCA Plan span a range of environmental and health issues
- One of four goals of the PTCA Plan emphasizes a “Just Transition,” particularly around fuel refining strategies
- Actions are focused on building a foundational understanding between the Community Steering Committee (CSC) members and Air District on how Just Transition would apply to a Zero Emission Future and managed phase down of fossil fuels.
- In 2025 the CSC and Air District staff will work towards setting up a Just Transition Ad Hoc

Panelists

- Mijin Cha, Assistant Professor of Environmental Studies Department at UC Santa Cruz
- Marisol Cantú, Educator and Co-Lead of the Path to Clean Air Community Steering Committee and third-generation Richmond resident
- Christine Cordero, Co-Executive Director, Asian Pacific Environmental Network (APEN)
- Nick Plurkowski, President, United Steelworkers Local 5
- Tim Carmichael, President and CEO, California Council for Environmental and Economic Balance (CEEBA)

PANEL DISCUSSION

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Davina Hurt and Members
of the Board of Directors

From: Philip M. Fine
Executive Officer/APCO

Date: January 29, 2025

Re: Community Investments Office

RECOMMENDED ACTION

None; no action requested at this time.

BACKGROUND

The Air District collects penalties from facilities that violate Air District regulations. In May 2024, the Board of Directors approved the Community Benefits Penalty Funds policy to direct resources back to the communities where violations occurred and communities most impacted by air pollution. This Community Benefits Penalty Funds policy and related settlement funds have generated over \$124 million for local and regional projects. In December 2024, the Board approved staff positions for a new Community Investments Office to develop and manage tailored programs for funding streams generated by penalties and related funds.

DISCUSSION

Establishing the Air District's new Community Investments Office is a key initiative in implementing the Community Benefits Penalty Funds Policy and establishing other funds that benefit communities impacted by air pollution. This initiative is closely aligned with the Air District's *2024-2029 Strategic Plan*, Strategy 2.8 Community-Directed Funds: We will manage funds to benefit communities in partnership with those communities, including the money that the Air District collects in penalties from air pollution violations that affect communities.

The Community Investments Office is responsible for delivering programs to provide funding for projects that impacted communities identify as addressing their air pollution and related health needs. The strategic plan commitments for the Community Investments Office include:

- Launch the Community Investments Office and hire and train six staff members
- Establish a team to administer grantmaking programs
- Develop and implement a Community Engagement Plan
- Develop proposal for pilot(s) in consultation with impacted communities and region
- Develop a Communications Plan, utilizing the *Air District's Plan for Language Services to Limited English Proficient Populations*
- Initiate a Local Community Benefits Program and a Regional Community Benefits Program

The Community Investments Office will develop a structured framework for fund distribution and ongoing opportunities for community input. This initiative not only reflects the Air District's commitment to equity and environmental justice but also empowers communities to directly influence how resources are utilized to address ongoing air pollution challenges.

The Community Investments Office presentation will transition to a panel discussion featuring representatives from the philanthropic, non-profit, and government sectors with experience delivering programs to benefit underserved communities. The panelists will share best practices and lessons learned in funding and implementing effective initiatives to promote equity and healthy communities. The background on each panelist is included below:

Chynell Freeman, Resilient Community Associate Planner, Transformative Climate Communities (TCC):

Chynell Freeman currently works as a Resilient Community Associate Planner with the Strategic Growth Council, where she supports programming that funds community-led development and infrastructure projects that achieve major environmental, health, and economic benefits in California's most disadvantaged communities. Before her State service, Chynell worked with the Feminist Research Institute at University of California (U.C.) Davis, conducting equity-centered, community-engaged research. She supported multiple projects focusing on powershifting activities to address barriers to equity in city planning and expand access to resources for marginalized communities. Additionally, Chynell has a background in racial justice, affordable housing, and environmental justice. She is passionate about working with communities to amplify and uplift voices that have historically been left out of the decision-making process. Chynell is a first-generation college graduate, Gilman Scholar, and 2025 Young Climate Leader of Color.

Juan Reynoso, Program Officer, The California Wellness Foundation:

Juan Reynoso is a Program Officer at The California Wellness Foundation for the Community Well-being and Leading for Power and Change portfolios. Each year, the Wellness Foundation awards more than \$40 million dollars to advance health and wellness in communities statewide. The Wellness Foundation grants support direct services, public policy, leadership, and capacity building. Previously, Reynoso was a senior planner and researcher for the consulting firm Raimi + Associates where he specialized in supporting cities, counties, and other public agencies in California with planning for and operationalizing health equity and environmental justice. He brings a diverse range of experiences in healthy communities planning and policy across the public, private, and non-profit sectors, including The California Endowment, Ascent Environmental, the California Assembly in Sacramento, and The Greenlining Institute. Reynoso received a Master of Public Health and Master in Urban Planning from Harvard University, and a B.A. in Human Biology with honors from Stanford University.

Doria Robinson, Executive Director of Urban Tilth:

Doria Robinson is a third-generation resident of Richmond, California and the Executive Director of Urban Tilth since 2007, a community-based organization rooted in Richmond dedicated to cultivating a more sustainable, healthy, and just food system. Urban Tilth hires and trains residents to cultivate agriculture in west Contra Costa County to help build a more sustainable, healthy, and just food system. She is the co-founder of the Richmond Food Policy Council, former co-chair of the U.S. Food Sovereignty Alliance Western Region and member of the Climate Justice Alliance, Food Sovereignty Working Group. Doria Robinson currently serves on the Richmond City Council representing District 3.

Daniel Saver, Deputy Executive Director, Housing & Energy, Metropolitan Transportation Commission (MTC):

Daniel Saver is Deputy Executive Director for Housing and Energy for the Metropolitan Transportation Commission and Association of Bay Area Governments (ABAG). Daniel helped launch the Bay Area Housing Finance Authority (BAHFA) and the award-winning Regional Housing Technical Assistance Program – which has supported all 109 Bay Area jurisdictions as they develop and implement their Housing Elements. With these initiatives MTC and ABAG have distributed millions in funding and established BAHFA as a new institution to support the production and preservation of affordable housing and to protect residents from displacement. Prior to joining MTC, Daniel was a housing attorney at Community Legal Services in East Palo Alto where, among other work, he helped to secure a community benefits agreement with a major technology company. Daniel holds a J.D. from Harvard Law School and a B.A. from U.C. Berkeley.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Miriam Torres
Reviewed by: Arsenio Mataka

ATTACHMENT(S):

1. Community Investments Office Presentation



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 7.A.

Community Investments

**Board of Directors Special / Retreat Meeting
January 29, 2025**

**Arsenio Mataka
Deputy Executive Officer of Equity and
Community Programs**

amataka@baaqmd.gov

Background

- The Air District collects penalties from facilities that violate our regulations
- In May 2024, the Board of Directors approved the Community Benefits Penalty Funds policy to direct resources back to the communities where violations occurred and communities most impacted by air pollution
- This Community Benefits Penalty Funds policy and related settlement funds have generated over \$124 million for local and regional projects
- In December 2024, the Board approved 3 FTE staff positions and 3 LTCEs for a new Community Investments Office to develop and manage tailored programs for funding streams generated by penalties and related funds

Alignment with 2024-2029 Strategic Plan



- **Strategy 2.8 Community-Directed Funds:** We will manage funds to benefit communities in partnership with those communities, including the money that the Air District collects in penalties from air pollution violations that affect communities



- **Strategy 4.11 Align Resources:** We will be intentional about ensuring the Air District's resources and annual budgets are well aligned with organization and community priorities, as identified in the 2024-2029 Strategic Plan

Community Investments Office

- Key initiative to implement the Community Benefits Penalty Funds Policy and other funds, which create local and regional funding streams for impacted communities
- Increases equitable access to resources and programs
- Improve air quality and public health in areas that have been disproportionately impacted by air pollution
- Community Investments Office staff will facilitate the investment of penalty funds back to the impacted communities to support local projects and ensure investments are aligned with community needs by engaging local leaders, community-based organizations, businesses, and community members

Community Investments Office Actions (January – May 2025)

Actions	Jan	Feb	Mar	Apr	May
Launch the Community Investments Office					
Recruit, hire and train 6 staff members					
Develop Community Engagement Plan to identify funding priorities					
Implement Engagement Plan (e.g., webinars, in-person events)					
Develop proposal for first pilot community or communities					
Develop a Communications Plan					
Progress Report to the Air District's Community Advisory Council and Board of Directors					

PANEL DISCUSSION