



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 5.A.

Overview of Climate Tech Finance Program

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

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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

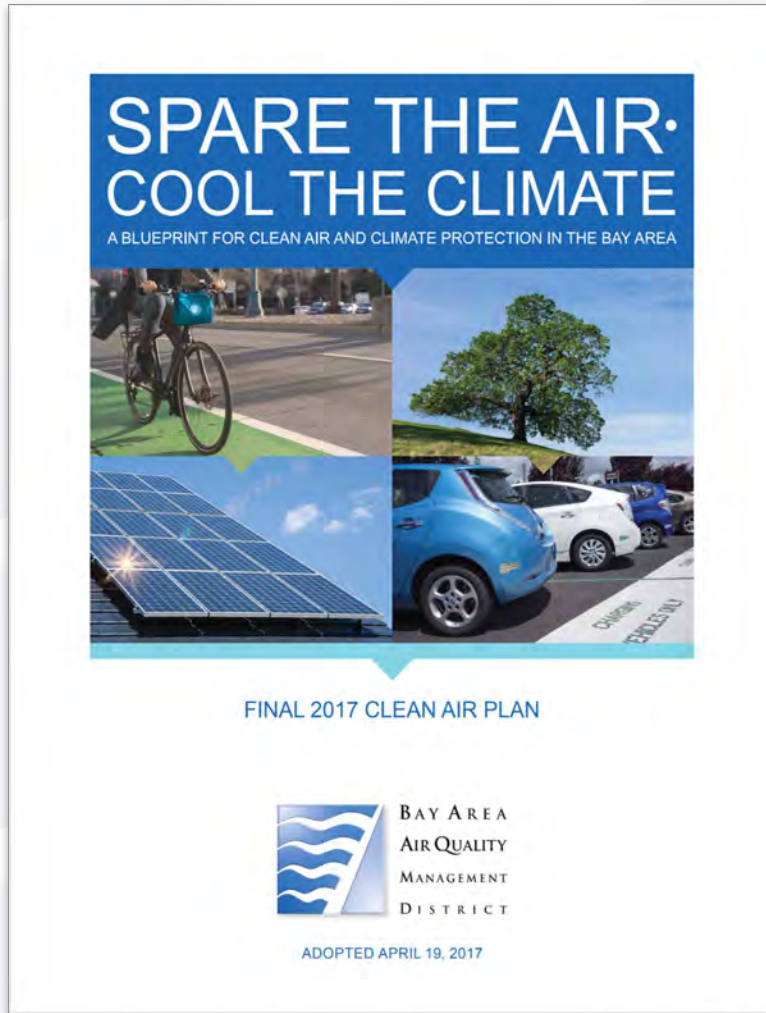
Since 2021, influx of \$217B in private funds for climate
Growing trend for non-dilutive options for late-stage companies



Rise of AI

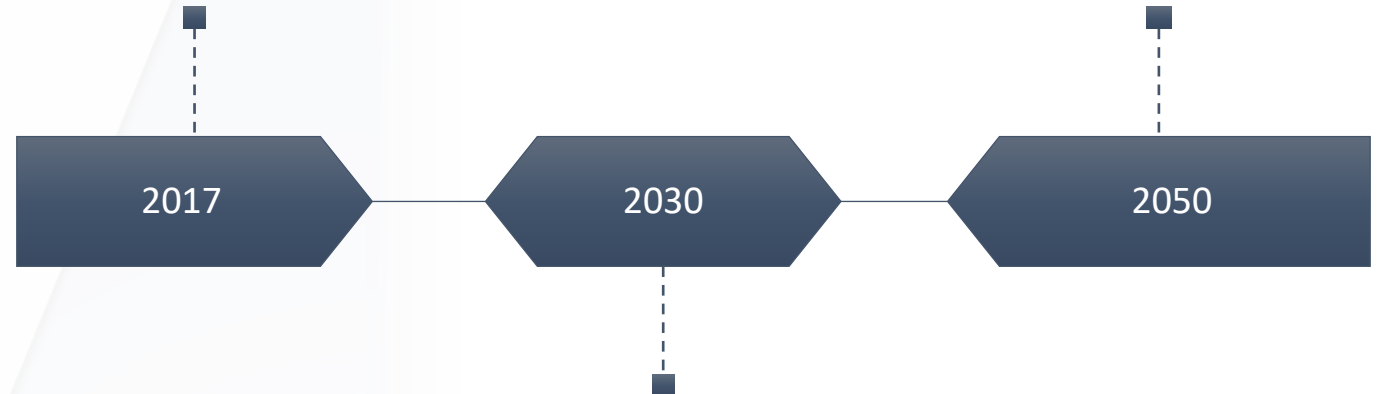
Increase in innovation activity to accelerate the deployment of renewables on the grid to keep up with demand.
Gathering critical data for climate research, discovering critical metals for electric vehicle batteries, etc.

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*

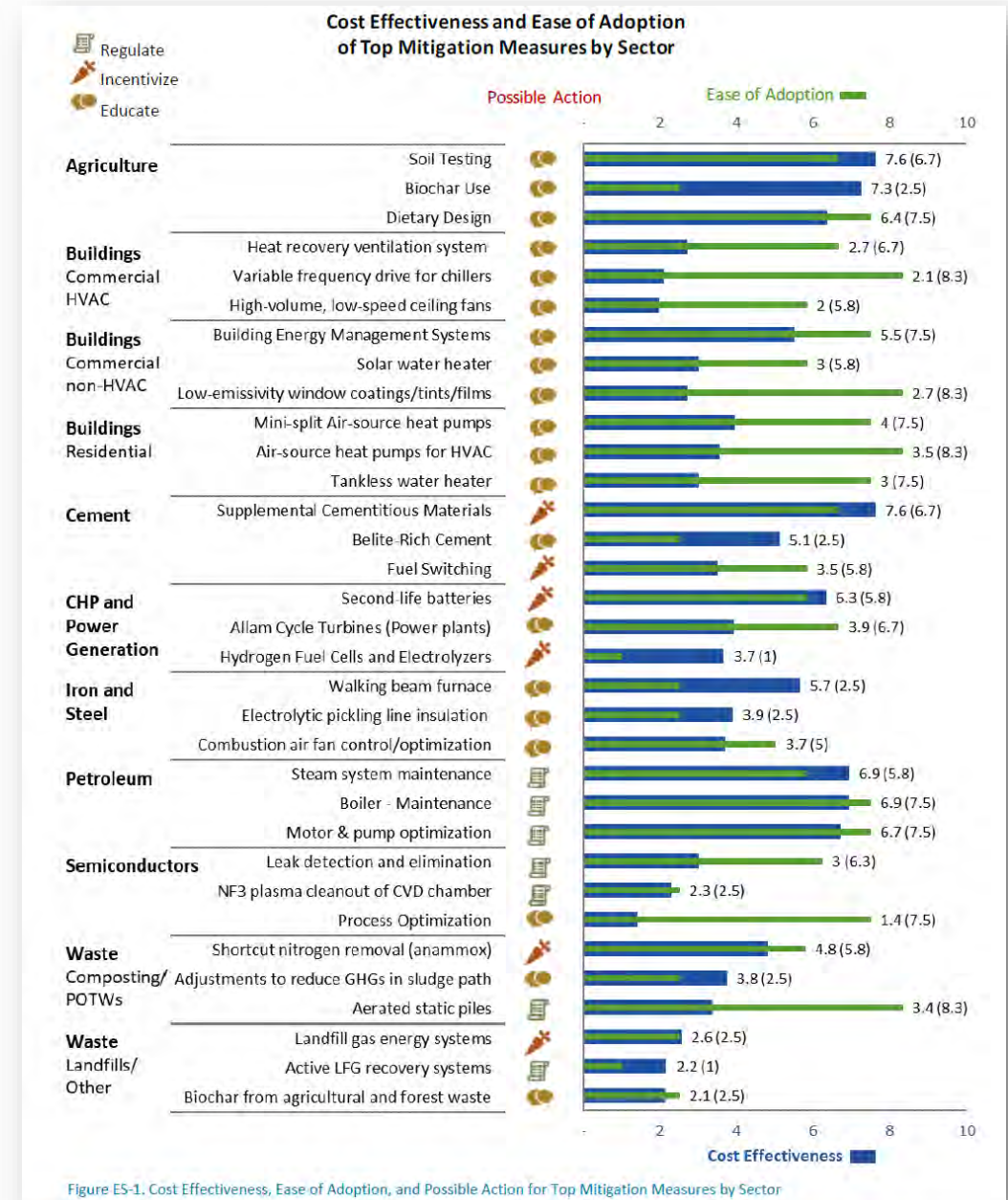
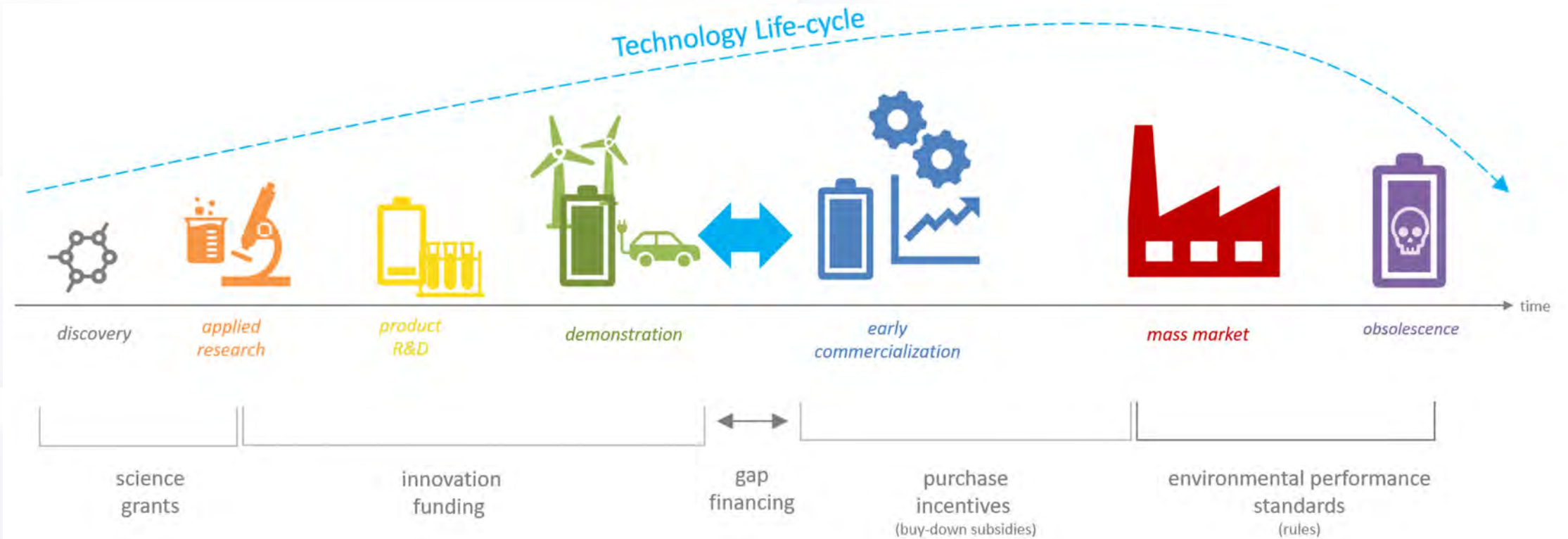


Figure ES-1. Cost Effectiveness, Ease of Adoption, and Possible Action for Top Mitigation Measures by Sector

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.



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



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



Commercial Lender



Entrepreneur



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

Loan
up to \$20M
rates vary



start
entrepreneur meets with Air District

month 1-2
Air District assess technology as climate tech
+
Finance Leads air with banking connections and discussions

month 3-6
lender approves loan

<10 days
lender receives loan guarantee

month 4-7

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

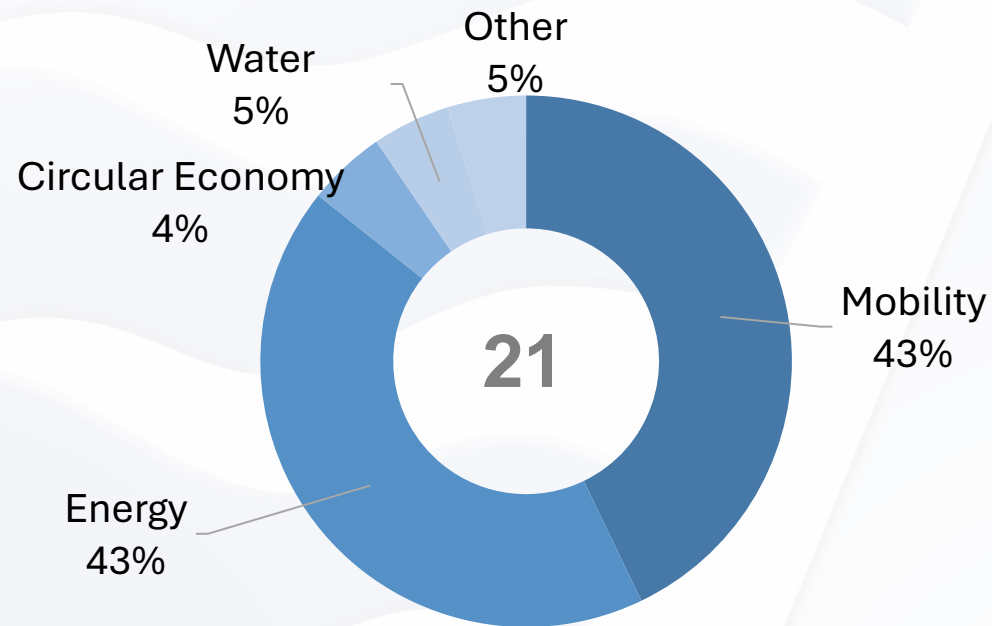
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Social Benefit Analysis

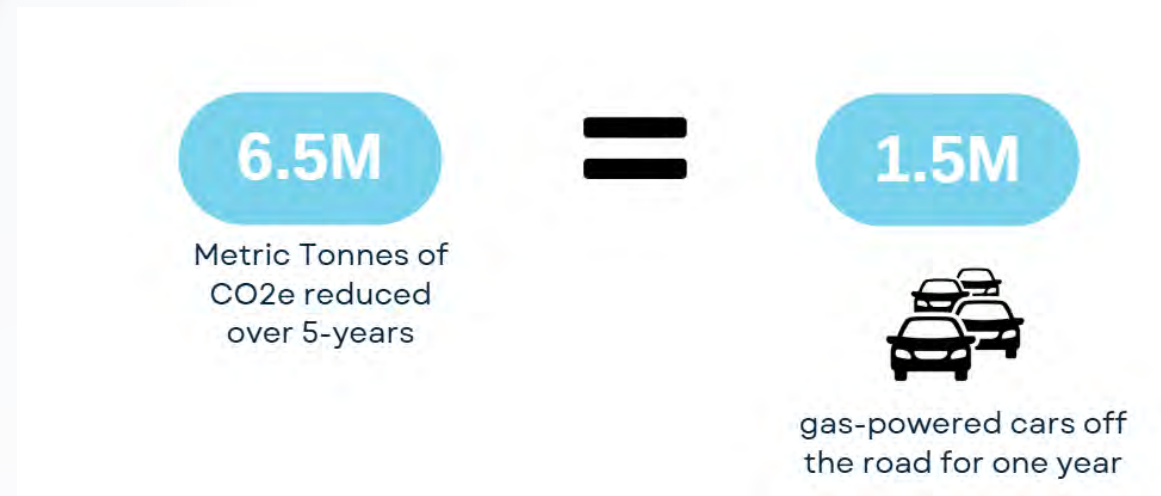
Program Impact



Technology Sectors



GHG Reductions

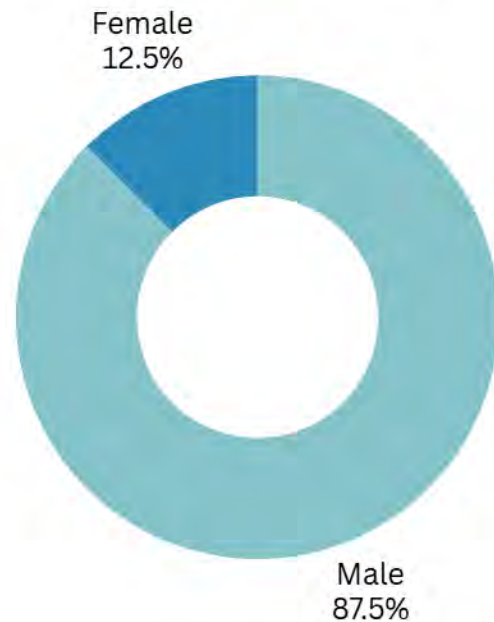


Program Impact

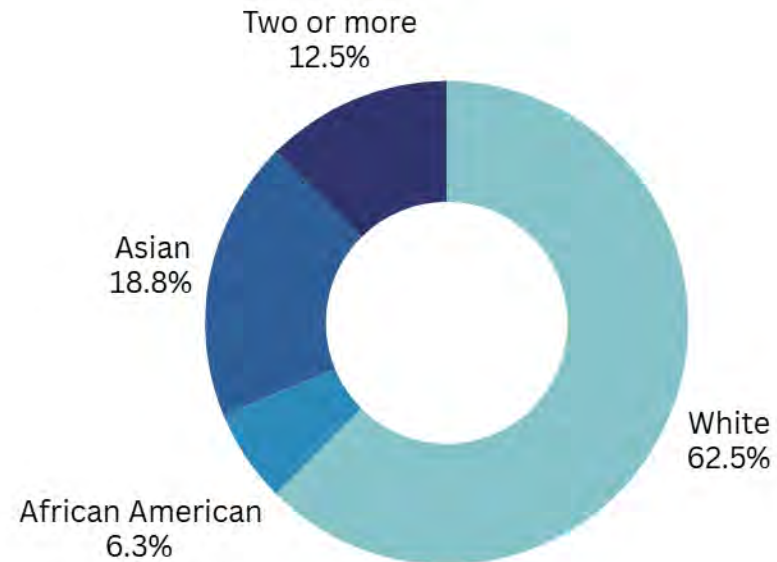
Diversity at CTF

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

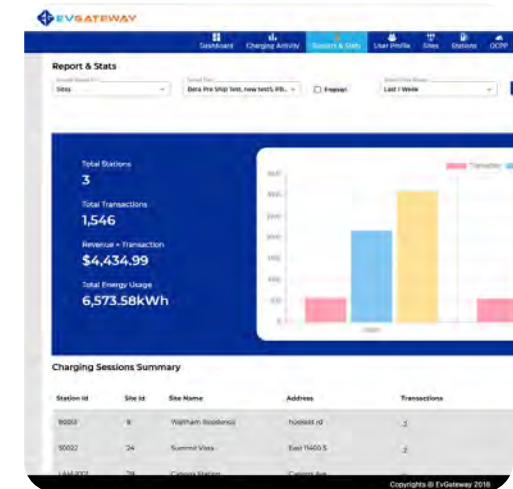


Loan Amount	5-Year GHG Impact	Jobs Created
Funded	11K MTCO2e	8

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-Year GHG Impact	Jobs Created
\$5.9M	3.5K MTCO2e	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

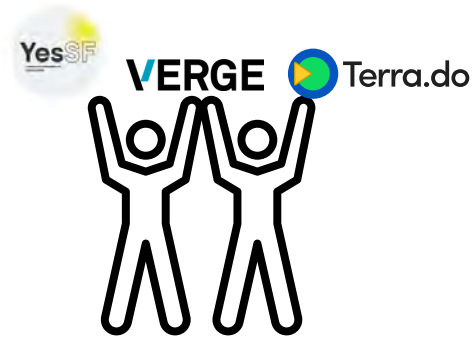
Jobs Created

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 O'Connor**, Partner/Lowercarbon Capital
- **Emily Abraham**, Director – Legislative and Community Affairs/San Francisco Chamber of Commerce – YesSF Initiative



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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
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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
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AGENDA: 7.A.

Community Investments

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

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