

Financing Diesel BUG Alternatives

an introduction to Climate Tech Finance @ BAAQMD



August 19, 2020

CLIMATE TECH FINANCE

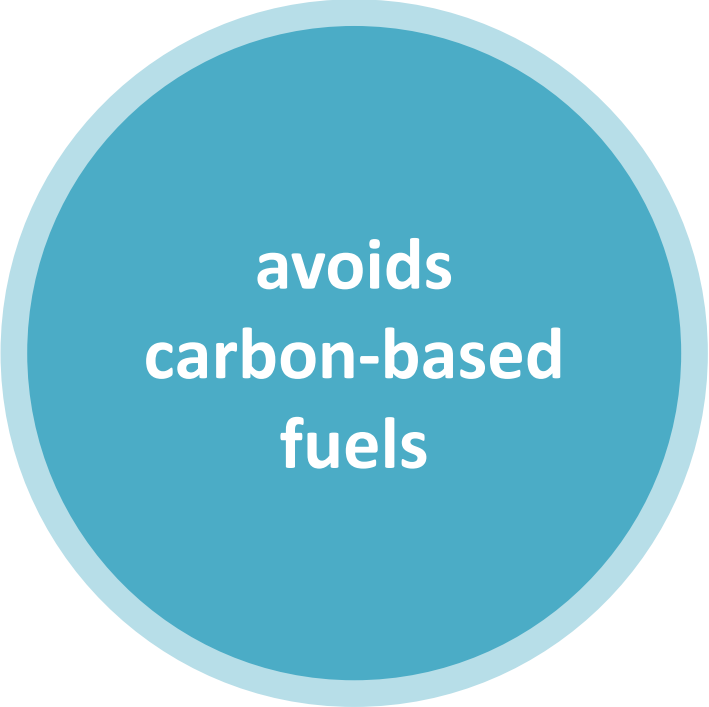
GOAL Accelerate commercialization and adoption of technologies that reduce greenhouse gas emissions

APPROACH Increase access to capital for **entrepreneurs** bringing climate technology to market and for **public agents** installing it

HYPOTHESIS Cash flow management will accelerate tech innovation

What is “climate tech?”

tech that....



**avoids
carbon-based
fuels**



**reduces
greenhouse
emissions**



**sequesters
carbon**

tech that....

**avoids
carbon-based
fuels**

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

**reduces
greenhouse
emissions**

- Improve energy efficiency
- Convert methane to CO₂
- Use low-GWP refrigerant

**sequesters
carbon**

- Apply compost to soil
- Use exhaust to make concrete



Residential Battery Systems

with integrated demand-response



Hydrogen Fuel Cells

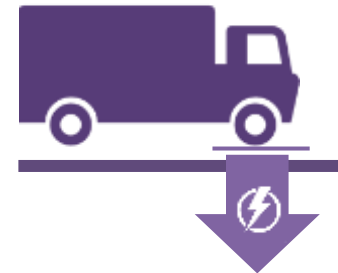
on an Oakland-San Francisco e-Ferry

example
alternatives
to
diesel BUGs



Solar Microgrids

in municipal infrastructure



In-Road Energy Recovery

at toll gates

How does CTF financing work?

CLIMATE TECH



CLIMATE TECH FINANCE



private sector

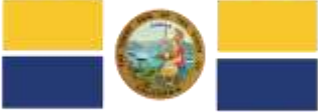
Commercializing New Tech

- *working capital loans for biz growth*
- *startups servicing first dozen customers*
- *quarantee lasts up to 7 years*

90%
guarantee
up to \$2.5M

CTF Partnership

Nor-Cal FDC



Northern California Small Business
Financial Development Corporation



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

 **IBank**

Small Business
Finance Center

CTF Partnership



Nor-Cal FDC
Northern California Small Business
Financial Development Corporation

+

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commercial lender



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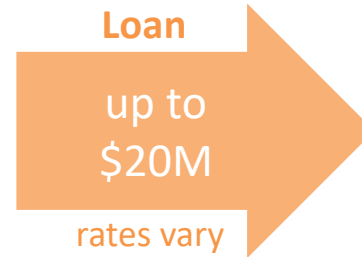


Loan
up to
\$20M
rates vary

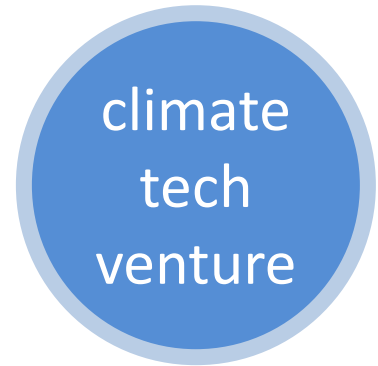
CTF Partnership



commercial lender



entrepreneur



climate
tech
venture

CTF Partnership



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commercial lender



Loan
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entrepreneur



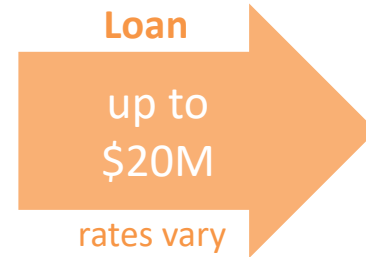
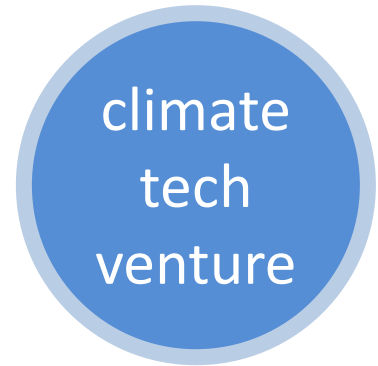
CTF Partnership



commercial lender



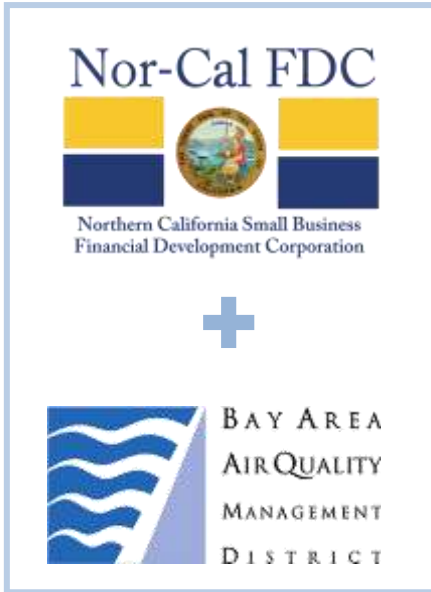
entrepreneur



entrepreneur
meets with
CTF team



CTF Partnership



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entrepreneur
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CTF team

CTF does
technology
assessment



CTF Partnership



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commercial lender



entrepreneur



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IBank agrees
to issue loan
guarantee



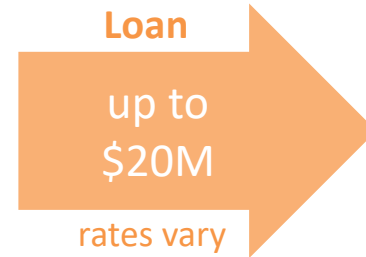
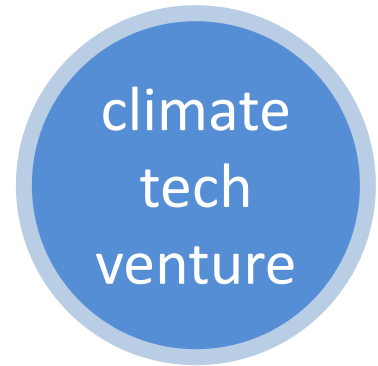
CTF Partnership



commercial lender



entrepreneur



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CTF does
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IBank agrees
to issue loan
guarantee

lender
receives loan
guarantee



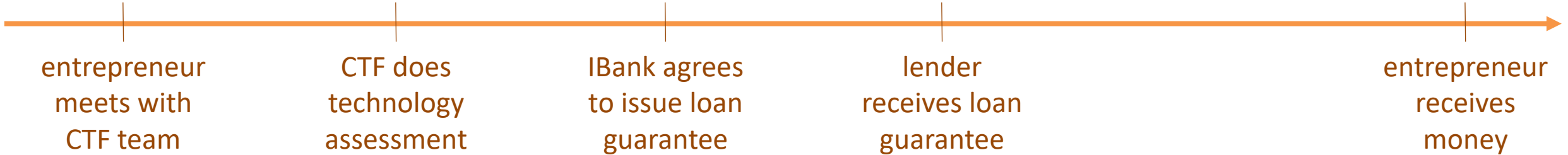
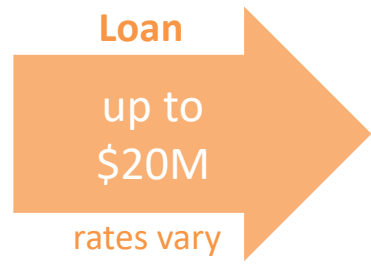
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commercial lender



entrepreneur



CLIMATE TECH FINANCE

public sector



loans from
\$0.5M-\$30M
up to
30 yrs

Installing Climate Tech

- *infrastructure loans*
- *up to 25% or \$1M at 0% interest*

CTF Partnership



California Infrastructure and
Economic Development Bank



CTF Partnership

IBank
California Infrastructure and
Economic Development Bank

+

**BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT**

Application
up to
\$30M
up to 30 yrs

CTF Partnership

The logo features the IBank logo (California Infrastructure and Economic Development Bank) at the top, followed by a plus sign, and the Bay Area Air Quality Management District logo at the bottom. The entire logo is contained within a white rectangular box with a blue border, which is part of a larger blue arrow pointing to the right.

Application
up to
\$30M
up to 30 yrs

ISRF Program @ IBank



CTF Partnership

IBank
California Infrastructure and
Economic Development Bank

+

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

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ISRF Program @ IBank



Loan
blended
interest rate
rates vary

CTF Partnership

IBank
California Infrastructure and
Economic Development Bank

+

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ISRF Program @ IBank



Loan
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municipality



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IBank
California Infrastructure and
Economic Development Bank

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DISTRICT**

ISRF Program @ IBank



municipality



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ISRF Program @ IBank



municipality



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public agency
meets with
CTF team



CTF Partnership



ISRF Program @ IBank



municipality



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public agency
meets with
CTF team

CTF does
technology
assessment



CTF Partnership



ISRF Program @ IBank



municipality



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CTF team

CTF does
technology
assessment

public
organization
files
application

climate
tech
project

CTF Partnership



ISRF Program @ IBank



municipality



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IBank reviews
application and
makes lending
decision

CTF Partnership



ISRF Program @ IBank



municipality



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IBank reviews
application and
makes lending
decision

municipality
receives
money

CLIMATE TECH



Commercializing New Tech

- *working capital loans for biz growth*
- *startups servicing first dozen customers*

Installing Climate Tech

- *infrastructure loans up to \$30M*
- *financing up to 30 years*

Our goal is to make this easy.

Have an idea? How can we help?
Please reach out to discuss your project.



Chad White, PhD

Program Lead, Climate Tech Finance

☎ 415.749.8619 | ✉ cwhite@baaqmd.gov

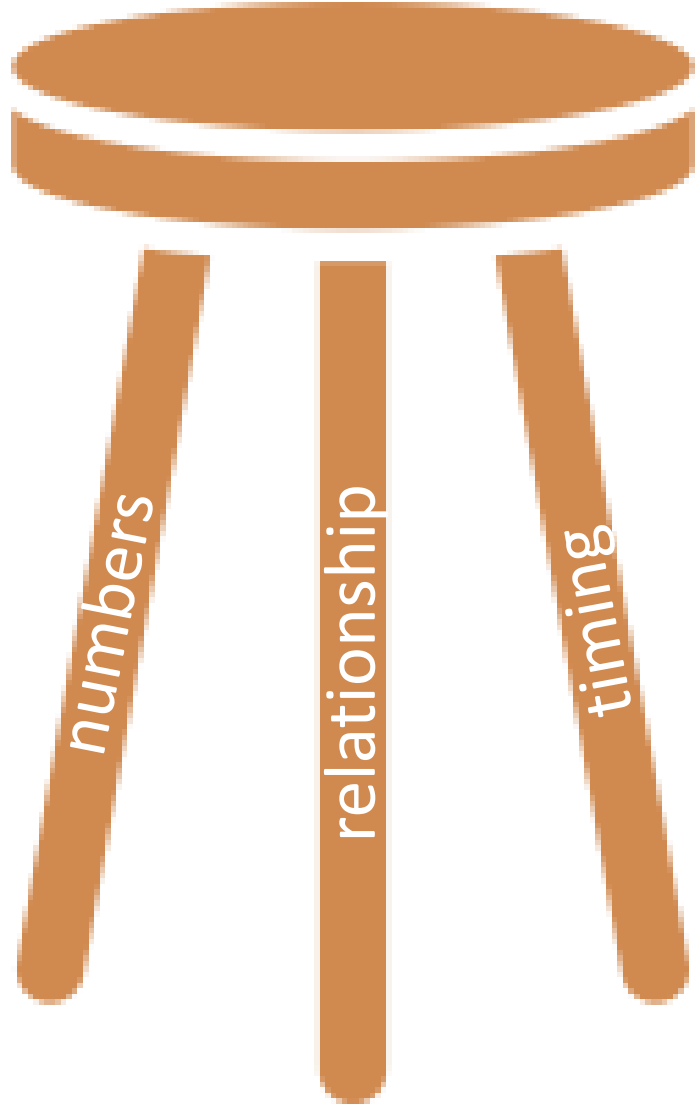
Tamara Kohne

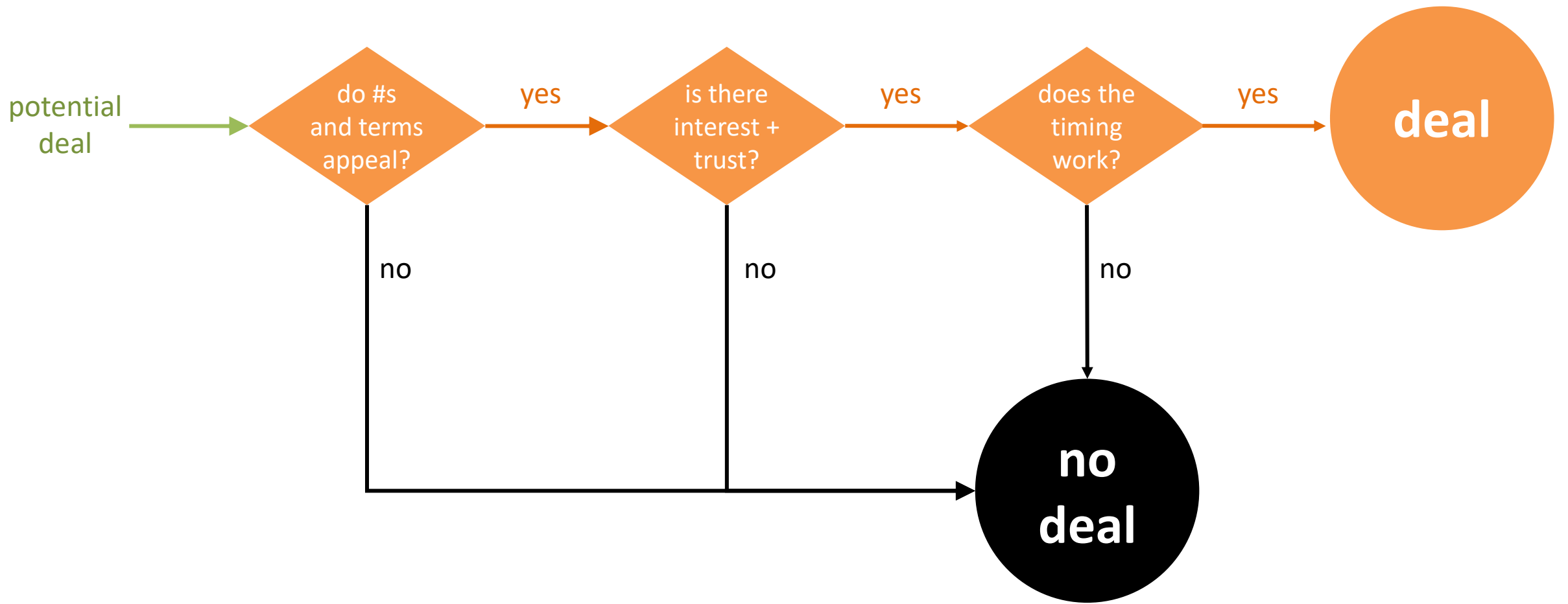
Project Lead, Climate Tech Finance

☎ 415.749.4635 | ✉ tkohne@baaqmd.gov

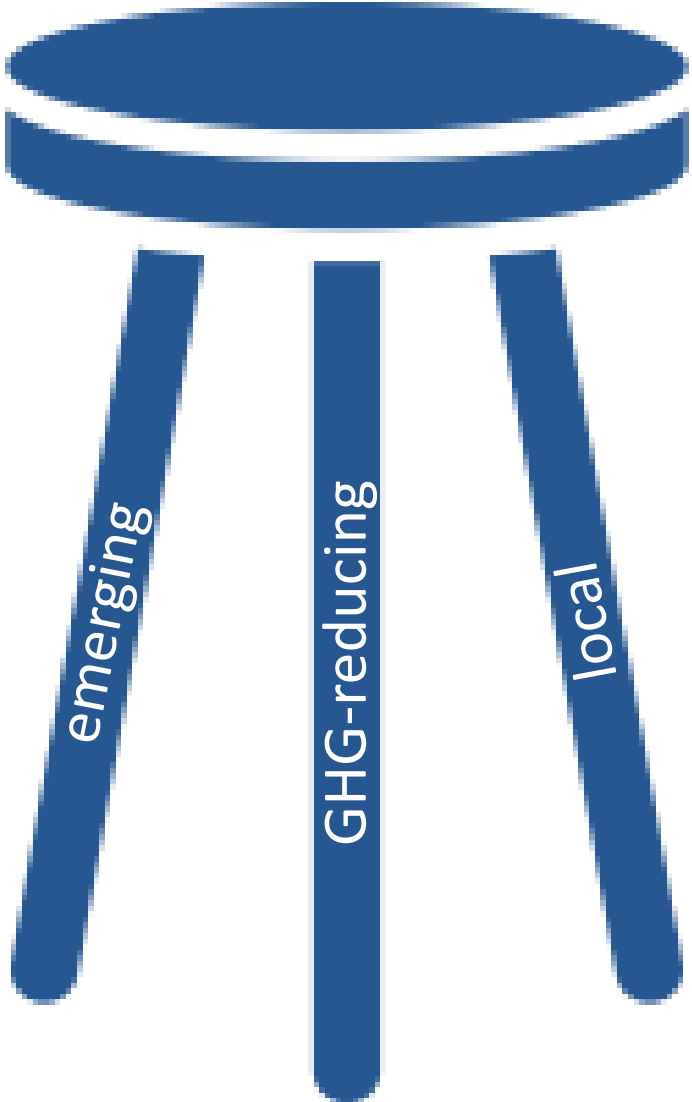
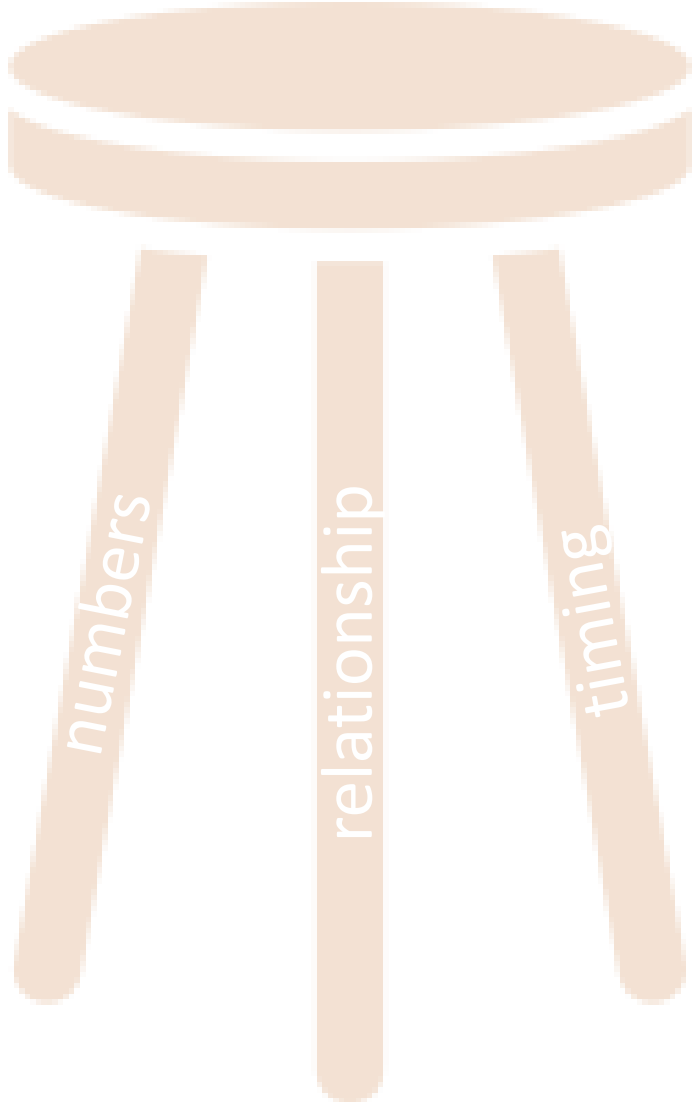
What does Climate Tech Finance
look like as a decision process?

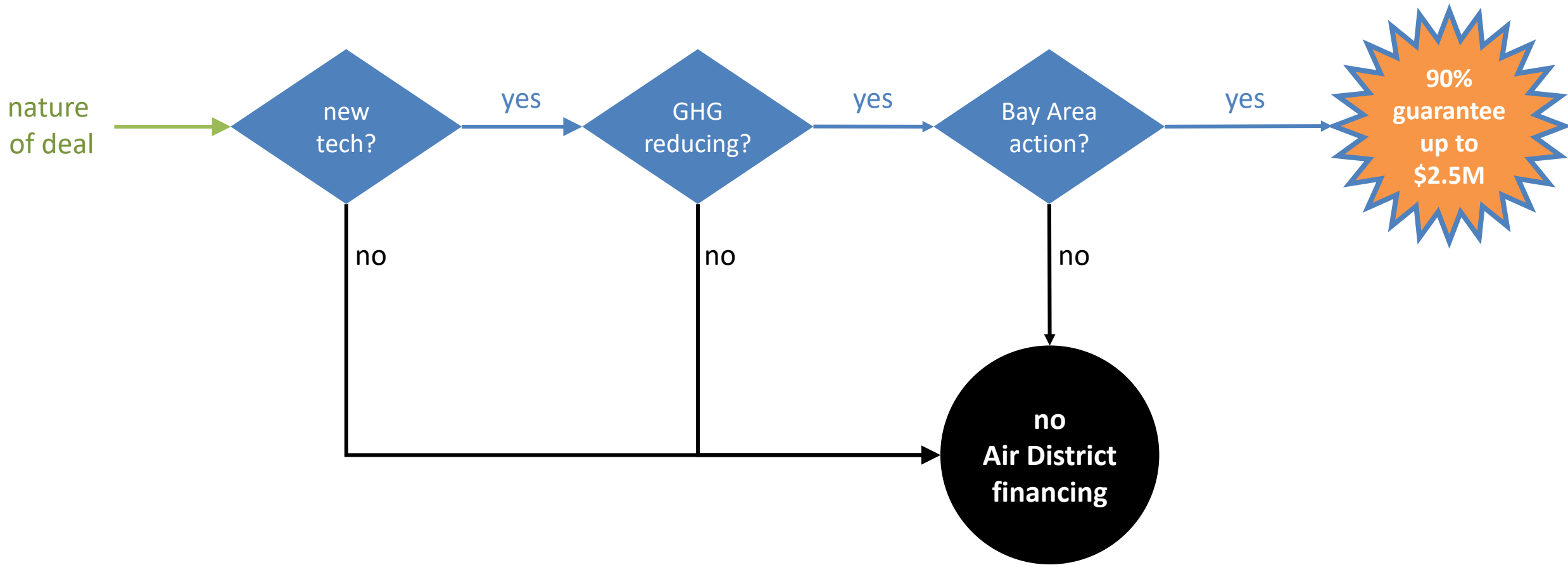
dealmaking

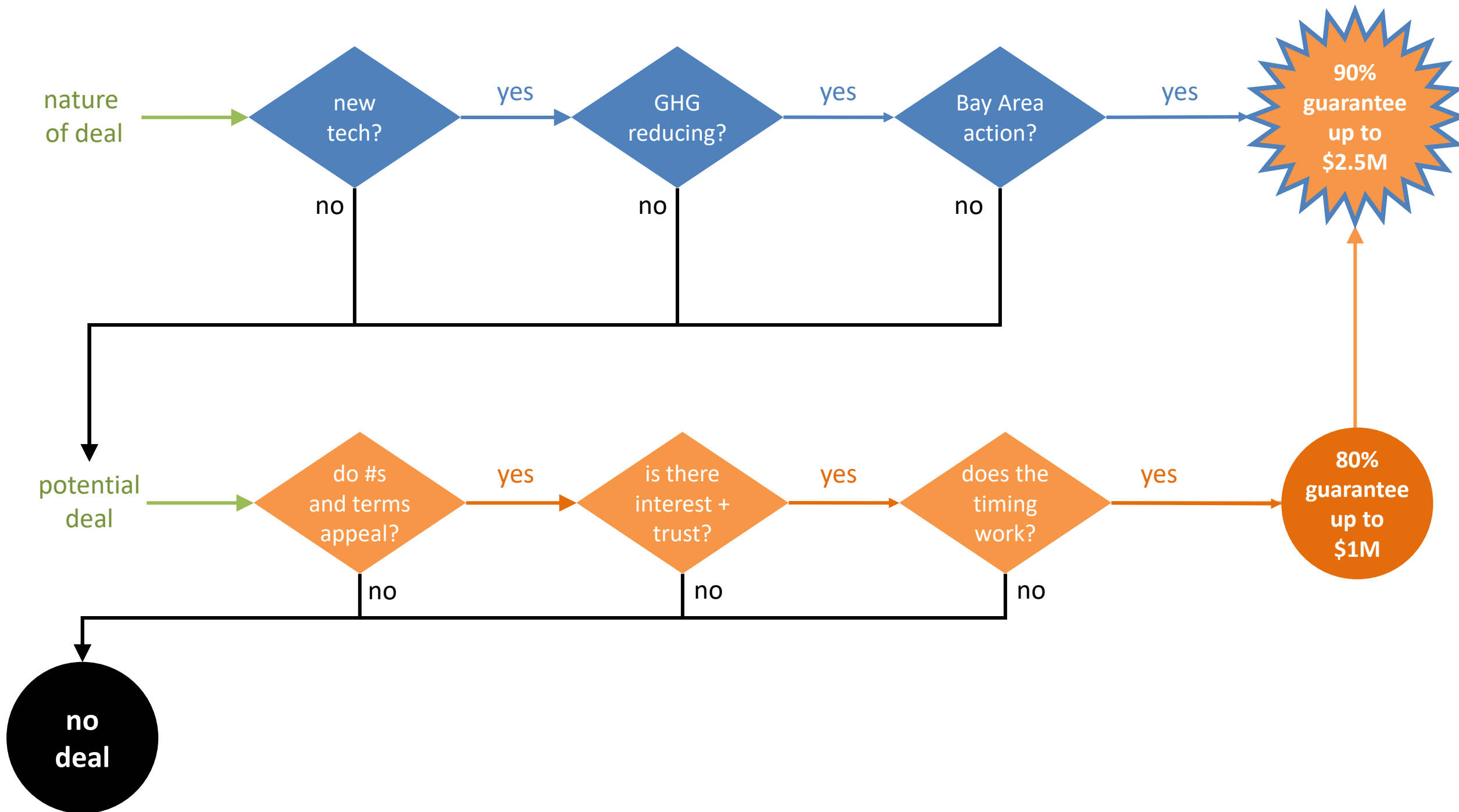




climate tech acceleration









Technology Assessment (1-2 mos)



send enrollment authorization to IBank



Credit Enhancement (3-6 mos)



(3-6 mos)