● Esther Cull-Kahn - CRLS Student, Sunrise Cambridge
  ○ Climate Crisis: Urgency & Green New Deal
● Rev. Vernon K. Walker - Communities Responding to Extreme Weather (CREW)
  ○ Climate Crisis: Disparate Impacts
● Santos Carrasquillo - Port resident, Cambridge Community Growers
  ○ Economic Inequality and Opportunity
● Dennis Carlone - City Councillor
  ○ Why we need this zoning petition
● Quinton Zondervan - City Councillor
  ○ Zoning petition details
WE MUST ACT NOW!

The longer the crisis goes unaddressed, the more people are put at risk of food insecurity and starvation.
The Green New Deal

More jobs, better jobs, and higher-paying jobs for all.

THE GREEN NEW DEAL IS OUR ONLY HOPE.
Climate Crisis Disparate Impacts: Heat

RESILIENCE
Heat island as felt in 2018 is not evenly distributed

Source: CCVA and CUFMP 2018 canopy analysis.
Climate Crisis Disparate Impacts: Flooding
Economic Inequality in the Port
Create More Economic Opportunity
Why we need this zoning petition
Zoning details:
  - Article 22 amendments
  - Why commercial buildings
  - Emissions accounting
  - Use of mitigation funds
  - Zoning context and compliance
In Article 22 Sustainable Design and Development (Green Buildings Zoning Ordinance), add a **Section 22.24.4 Emissions Accounting**

- Applies to new commercial buildings only
- Requires a calculation of total expected emissions
- Requires a payment plan to offset the total emissions
- Specifies how the funds are to be used
Why Commercial Buildings?

From CDD Sustainability Dashboard 1.0
Why Commercial Buildings?

From CDD Sustainability Dashboard 2.0
Global CO₂ Emissions by Sector

- Industry: 30%
- Transportation: 22%
- Building Materials and Construction: 11%
- Building Operations: 28%
- Other: 9%


Zoning Details: Emissions Accounting
• Total Emissions = Embedded Emissions + Lifetime Emissions

• Sample Calculation of Lifetime Emission costs for average energy efficiency 100,000 square foot lab building based on 2016 BEUDO EUI: $3 million
Hypothetical Emissions Breakdown for Average Lab Building

- **Projected Emissions**
- **Embodied Emissions**
Interconnect with Building Energy Use Disclosure Ordinance

- Actual Emissions (BEUDO)
- Projected Emissions (GND)
- Embodied Emissions (GND)

Emissions (tons of CO2e)

- 2010
- 2020
- 2030
- 2040
- 2050
- 2060

- 0
- 5,000,000
- 10,000,000
- 15,000,000
1. Energy efficiency upgrades to Cambridge’s existing building stock

2. Payment into Cambridge’s Revolving Fund

3. Creation of new solar PV systems in Cambridge

4. Creation of community solar PV installations that benefit Cambridge residents by making discounted solar generated electricity available to them.

5. Payment for direct supply contracts of 100% renewable electricity from sources within the FERC ISO New England assigned to another building(s) in the City of Cambridge, including via participation in Cambridge’s Community Choice Electricity (CCE) program.
No less than 25% of the mitigation funds shall be spent on green jobs development programs, including education and training, to help build capacity for energy efficiency and renewable energy projects in Cambridge. Any such program must be free of cost to participants, and successful completion of the program must lead to a certification in a specific skill such as, for example: Solar Installer, Weatherization Installer and Technician, Building Energy Analyst, Urban Forestry or Urban Agriculture. Specific criteria and certifications will be set by CDD via regulation.
• Imposes a requirement (emissions accounting) during the design phase (Special Permit)

• Requires impact assessment, analogous to linkage fee

• Requires mitigation in the public interest, analogous to inclusionary

• Requires certain community benefits based on climate impacts, similar to other community benefits

• Post-occupancy enforcement happens all the time, e.g. public access to private open spaces or other amenities