Electrification Roadmap
Brainstorm: Building Owners and Property Management

City of Alameda
March 30, 2022
Agenda

• Introduce building electrification and the city’s roadmap concept
• Explore challenges and concerns owners and property managers have towards energy efficiency and building electrification
• Explore what policy levers or opportunities can we use to reduce barrier to energy efficiency and building electrification
Welcome & Introduction

- Name
- How long have you been a landlord or property manager? What type of property is it?
- What motivated you to come today?
- What gas appliances do you have in your units?
Alameda Climate Action and Resiliency Plan (CARP)

- Reduce emissions by 50% below 2005 levels by 2030
- Achieve net zero emissions as soon as possible
- Climate adaptation
  - flooding, sea level and groundwater rise, drought, extreme heat, hazardous air quality, and earthquakes/liquefaction.
Alameda Equity Goals

- **2019 Climate Action and Resiliency Plan**
  - Be equitable, inclusive and community-driven
  - Address disproportionate impacts that climate change may have on vulnerable, socioeconomically disadvantaged populations

- **2019 Climate Emergency Declaration**
  - Just transition with actions rooted in equity, self-determination, culture, tradition, deep democracy and the right to clean, healthy and adequate air, water, land, food, education and shelter
Alameda’s Emissions

- Transportation: 70%
- Building Energy: 27%
- Other: 3%

100% CLEAN ENERGY
Electrification Pathway

Decarbonize Electric Grid

Energy Efficiency

Electrify Buildings
Other Steps for a Safe, Green, Healthy Home

- **Solar and/or batteries**: Great opportunity to plan for electrification and increase resiliency.
- **Seismic retrofit**: Protect your investments and reduce damage to your home or business during an earthquake.
- **Electric vehicle and charging**: Reduce pollution from transportation & lifetime cost of driving.
- **Mold, asbestos, and lead paint removal**: Promote health and safety in the home.
Energy Efficiency and Weatherization

- Wall, Attic, and Raise Floor Insulation
- Air Sealing and Weather-Stripping
- Window Replacement
- Upgrade to LED bulbs
- Duct Sealing, New Ducts, and Duct Insulation
- Water Heater Blanket
- Hot Water Pipe Insulation
Electrification Technology

Heat pump water heaters

Heat pump heating/cooling

Electric dryer

Induction Stove
Low Cost and Interim Electrification Options
## Multifamily Rebates and Incentives

<table>
<thead>
<tr>
<th></th>
<th>HPWH</th>
<th>Space Heating/Cooling</th>
<th>Induction Stove</th>
<th>Electric Panel Upgrade</th>
<th>Electric Dryer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda Municipal Power</td>
<td>$1,500-$4,000</td>
<td>Coming 2022</td>
<td>Coming 2022</td>
<td>$2,500</td>
<td>$100</td>
</tr>
<tr>
<td>TECH Clean California</td>
<td>$700 - $2,100</td>
<td>$2,000</td>
<td>-</td>
<td>$1400</td>
<td>-</td>
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- Learn more and find a contractor at [www.switchison.org/](http://www.switchison.org/)
- Visit [https://www.bayren.org/how-get-started/multifamily](https://www.bayren.org/how-get-started/multifamily) for multifamily energy and water efficiency upgrades

- Can combine with AMP

**HPWH**
- Heat Pump Water Heater

**Space Heating/Cooling**
- Stove

**Induction Stove**
- Stove

**Electric Panel Upgrade**
- Stove

**Electric Dryer**
- Stove
Benefits of Electrifying

- Health
- Safety
- Climate
Accomplishment & Plans

2019
Limit natural gas infrastructure in new residential projects on city-owned land

2020
Require all new development citywide to be all electric

2021
“Electrifying Existing Residential Buildings in Alameda” report

2022
Existing Building Electrification Roadmap + Policies
Equitable Electrification Roadmap

**What:** A policy roadmap centered in equity that outlines stakeholders, phases and approaches to electrify all existing buildings in Alameda.

**Why:** To ensure that the electrification process is equitable and beneficial to the community, especially frontline communities.

**How:** Workshop series to co-create solutions and integrate community knowledge and feedback into the roadmap.

**Next Steps:** We will bring a draft roadmap back to the community during the Draft Roadmap + Ordinance Review Workshop.
Building Stock in Alameda

- **Gas Consumption**: 40% Commercial, 60% Residential
- **Building Stock**: 25% Single Family Home, 75% Multifamily
- **Residential Units**: 75% Single Family Home, 25% Multifamily
- **Home Ownership**: 20% Renter, 80% Owner
# Building Vintage

<table>
<thead>
<tr>
<th>Year Built</th>
<th>Single Family Homes</th>
<th>Multifamily</th>
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<tbody>
<tr>
<td>Unknown</td>
<td>483</td>
<td>571</td>
</tr>
<tr>
<td>Pre-1978</td>
<td>10,421</td>
<td>1,782</td>
</tr>
<tr>
<td>1978-1991</td>
<td>2,654</td>
<td>20</td>
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<tr>
<td>1992-2010</td>
<td>1,426</td>
<td>8</td>
</tr>
<tr>
<td>2011-</td>
<td>104</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15,088</strong></td>
<td><strong>2,382</strong></td>
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</table>
Four Elements of Electrification Roadmap

- Alameda Municipal Power
- Policymaking
- Financing
- Education & Outreach
Primary Policy Levers

- Renovation/ Remodel
- Point of Sale
- Replacement at Burnout
- Deadline to Electrify
Roadmap Development 2022 Timeline

March-April:
Electrification 101 + Roadmap Brainstorm Workshops

May-June:
Draft Roadmap at Public Utility Board & Planning Board

June:
Draft Ordinance Public Meetings

July:
Roadmap at City Council

September:
Draft Ordinance at Planning Board

November:
Ordinance at City Council
Interactive Session

- Jamboard:
  - Tinyurl.com/RoadmapJamboard

- Five Questions:
  1. Feedback on Roadmap Principals
  2. What excites you about electrification?
  3. What are your challenges and needs around building electrification?
  4. What are some things that can be done to make building electrification more equitable?
  5. Who is not here today that needs to be part of this process? How can we involve them?
Workshop Series

- **Electrification 101**
  - April 6 @ Main Library + Zoom
- **Roadmap Brainstorm**
  - March 28: For Renter
  - March 30: For Property Owners & Management
  - April 4: For Single Family Home Owners
- **Draft Roadmap + Ordinance**
  - April 27: Draft Roadmap + Ordinance Review
  - May 4: Draft Roadmap + Ordinance Review @ Main Library
  - April 3-15: Interactive brainstorming poster board @ Library
Thank you and Next Steps

• Visit www.alamedaca.gov/BuildingElectrification
• Take our survey!
• Attend more workshops and give your input to the roadmap
Roadmap Principles

- Everyone, especially low to moderate income households, should be able to affordably switch to modern electric equipment (do good, not harm)
- Electrification policy should also support housing and anti-displacement policy
- The electrification process should be as simple and seamless and possible
- Our timelines should be fast but be realistic about challenges and other priorities