2025 ENERGY EFFICIENCY FORUM

Plenary Panel

Using Data to Drive Energy Efficiency Campaigns

Building Policy Support through Narrative Design

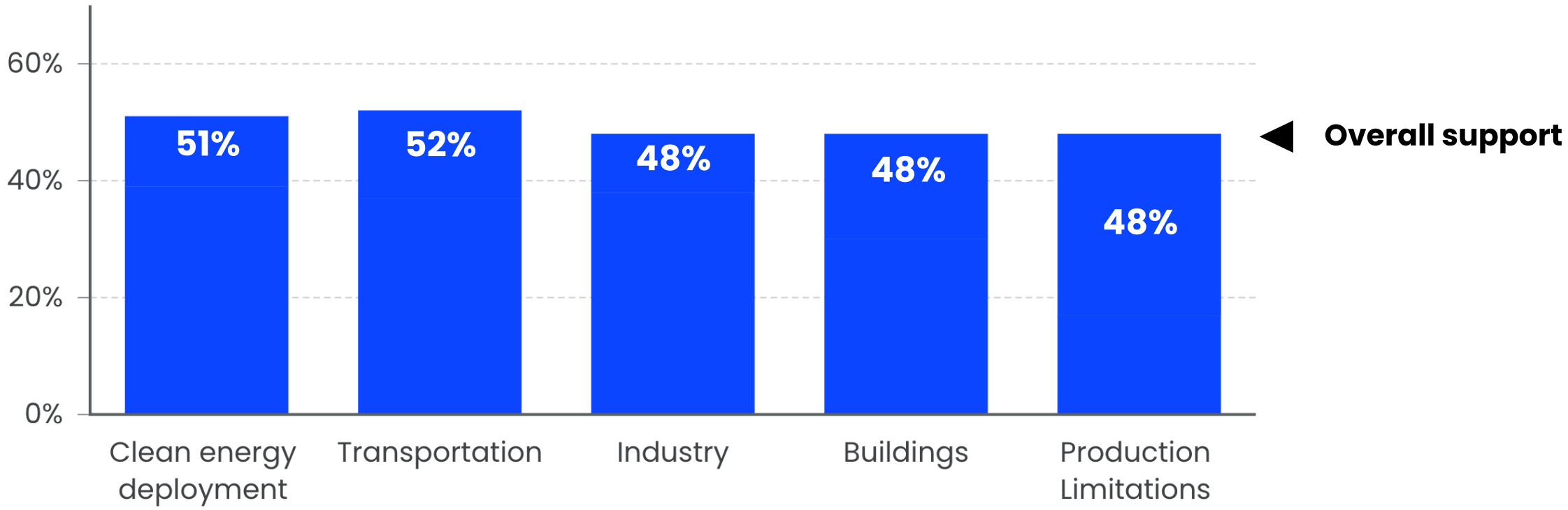
October 2025

(OUR ROLE)

The marketing engine that accelerates the transition

Successful policies depend on effective narratives

Support for key policies



Source: Potential Energy Testing Lab

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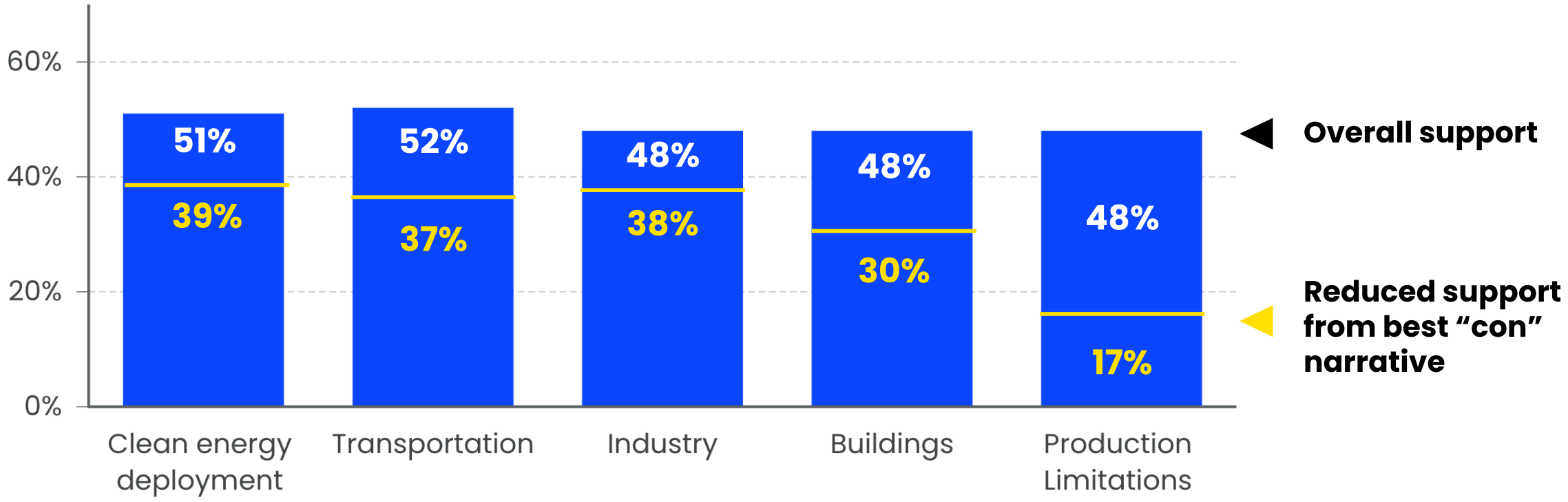

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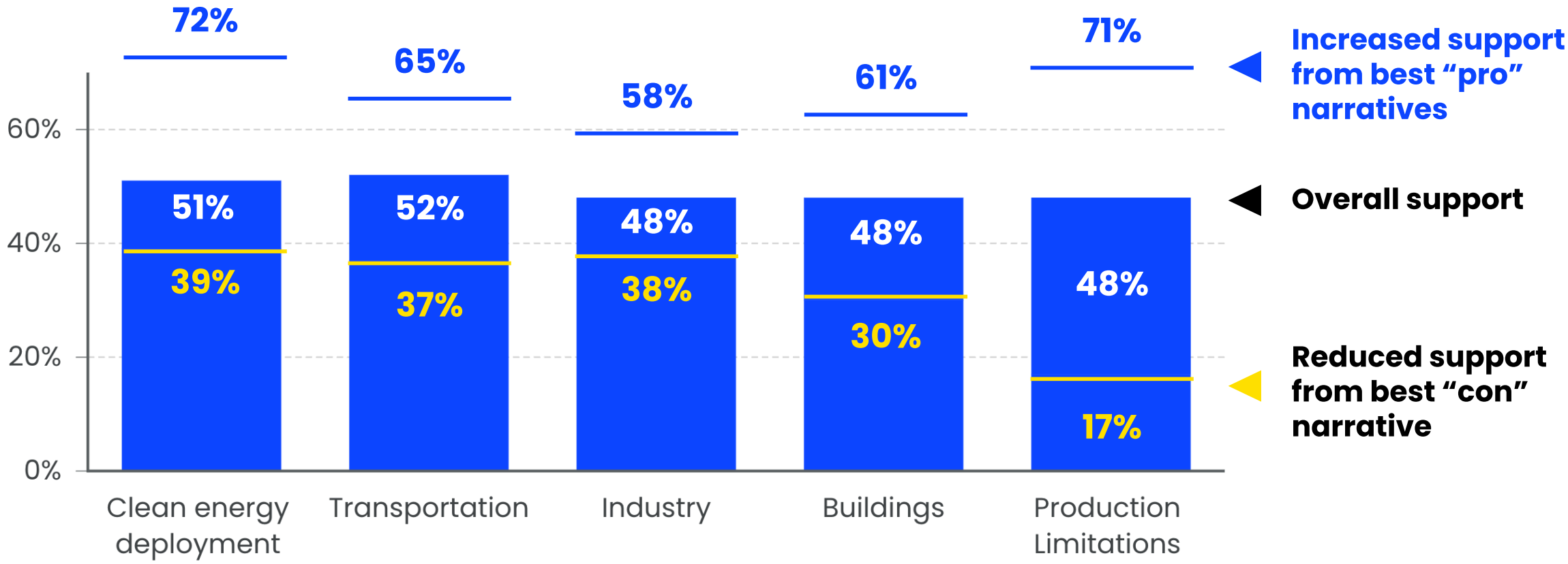
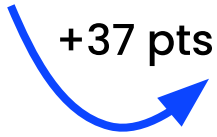


Source: Potential Energy Testing Lab

Our approach: Find and spread the narratives that create wins

Support clean energy permits



Trust farmers with their land

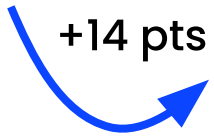
▶ Clean energy permitting reform in Michigan

Keep it in the ground

No drilling near daycare

▶ Curb fossil fuel drilling in California

Michigan's clean energy standard



Powered by Michigan

▶ Statewide clean energy target

Clean targets for industry

It takes labor

▶ Industrial decarbonization in Pennsylvania

Source: Potential Energy Testing Lab U.S. RCT data; Potential Energy Ad Testing Library; Potential Energy in-market performance analysis

Our toolkit: We are a narrative change firm

Persuasion marketing across channels

3 billion impressions across channels; extreme weather triggered ad buying machine

Lifting up new trusted spokespeople in culture

Insert in culture: Kelly Clarkson, GMA, People Magazine, Late Night Shows, Parents Magazine, Scary Mommy, CNN, Weather Channel

Media stories of momentum

>100 million citizens reached, >1,000 TV and radio interviews, >3000 stories: New Yorker, Washington Post, New York Times, LA Times

Partner organizations

Broad range of >100 local and national organizations

Leader consulting

Advisory relationships with business, state, and local leaders to advise on winning narratives

Brand partnerships

2 billion donated impressions through: Ad Council, Comcast, Facebook, Pinterest

Putting it into practice: our research process

1. **Identify an opportunity**

2. **Qualitative research:** Understand where the audience IS today

3. **Develop narratives to try to move them**

4. **Quantitative research:** Randomized control trial (RCT) to gauge mov't

5. **Campaign development for winning narrative**

6. **Measurement:** Pre and post-campaign surveying

What it looked like in Virginia

1

Identify an opportunity

- ✓ Economic pressures
- ✓ Rising energy demand
- ✓ A coming leadership shift to enable change

2

Qualitative research: Understand people's real problems

- ✗ Energy bills are painful
- ✗ Data center growth is alarming
- ✗ Utility companies are seen as villains

3

Develop narratives

Tell many different stories to test which ones ring true

What it looked like in Virginia

4

Quantitative research: Randomized control trial (RCT)

What we learned:

MORE energy that is 1. local and 2. unlimited feels affordable

5

Develop the campaign

6

Measurement: Pre and post-campaign surveying

We are here

Post survey will show real-world effect of ads

One radical idea: our approach to narrative design

Design policies specifically for the stories they tell.
Instead of trying to sell a top down policy that solely advances an objective.

How it works: our research-first approach

1. **What is a problem that people have?**
2. **How is your policy a solution for that problem?**
3. **What story does that policy let you tell–and what's the way to tell it?**

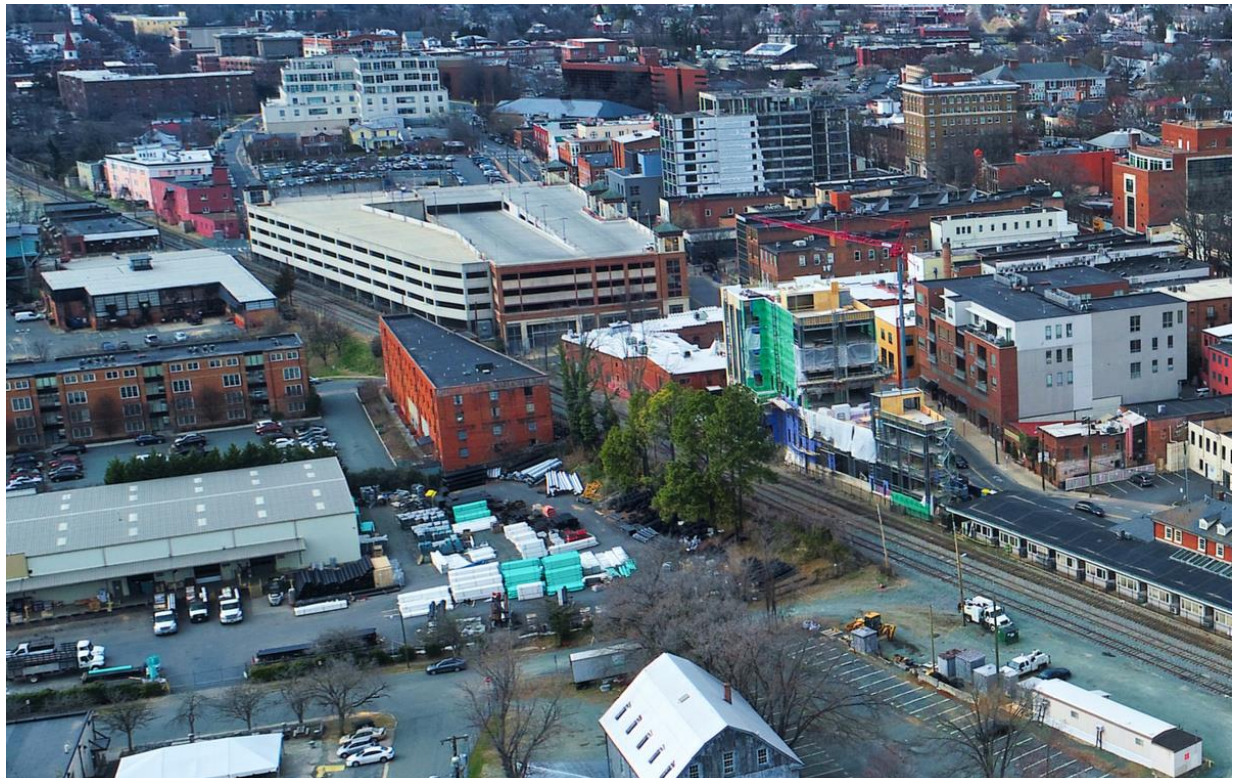
Thank you

COMMUNITY CLIMATE
COLLABORATIVE

Scaling Commercial Energy Efficiency in RVA

October 16th, 2025

C3's purpose is to make equitable, carbon-neutral communities a reality.



CLEAP project overview

- 2024 Communities LEAP grant from National Renewable Energy Lab (NREL)
- Overall goal: **scale energy efficiency in commercial buildings**
  - Characterize / classify the Richmond commercial building sector
  - Develop building “archetypes”
    - Sectors (food service, office, retail, etc.)
    - Characteristics (age, size, etc.)
    - Needs (e.g., replacement for old boiler, solar, heat pump conversion)

Mining local data: Methodology

- Data sources (City of Richmond focused)
  - Building permit data since 1991
  - Assessor parcel + improvement data
  - Business licenses

Mining local data: Methodology

Steps

- Obtaining data: Some available online, some not
- Characterizing building permit work
- Merging data
  - Property = land + improvements
    - Many buildings include subunits with own permits
  - Match permit work to property
  - Business licenses to property + permit work

Mining local data: ID aging HVAC

- Why HVAC?
- Unplanned replacements are:
  - Usually like-for-like
  - Often oversized (and overpriced)
  - May not be suited for operation
- With planning: optimization

Mining local data: Example

??? W Broad St Richmond, VA 23220	Mechanical (C)	Tenant up fit for restaurant. New HVAC system to include a series of ducted mini splits, a dedicated out door air system, and a powered exhaust system. Existing ventilation to remain.	Tenant Fitup	12/20/2018	W000010505

- Step 1: Keyword search for terms of interest
  - “mini split”, “minisplit”, “mini-split”; “HVAC”, “outdoor air”, “out door air”, etc.
- Step 2: If keyword appears, extract date of work
  - IF(ISNUMBER(SEARCH("boiler", $G1774)), (YEAR($I1774)), "")
- Step 3: Link permit history to main property address
- Step 4: Map, develop target lists, analysis, etc.

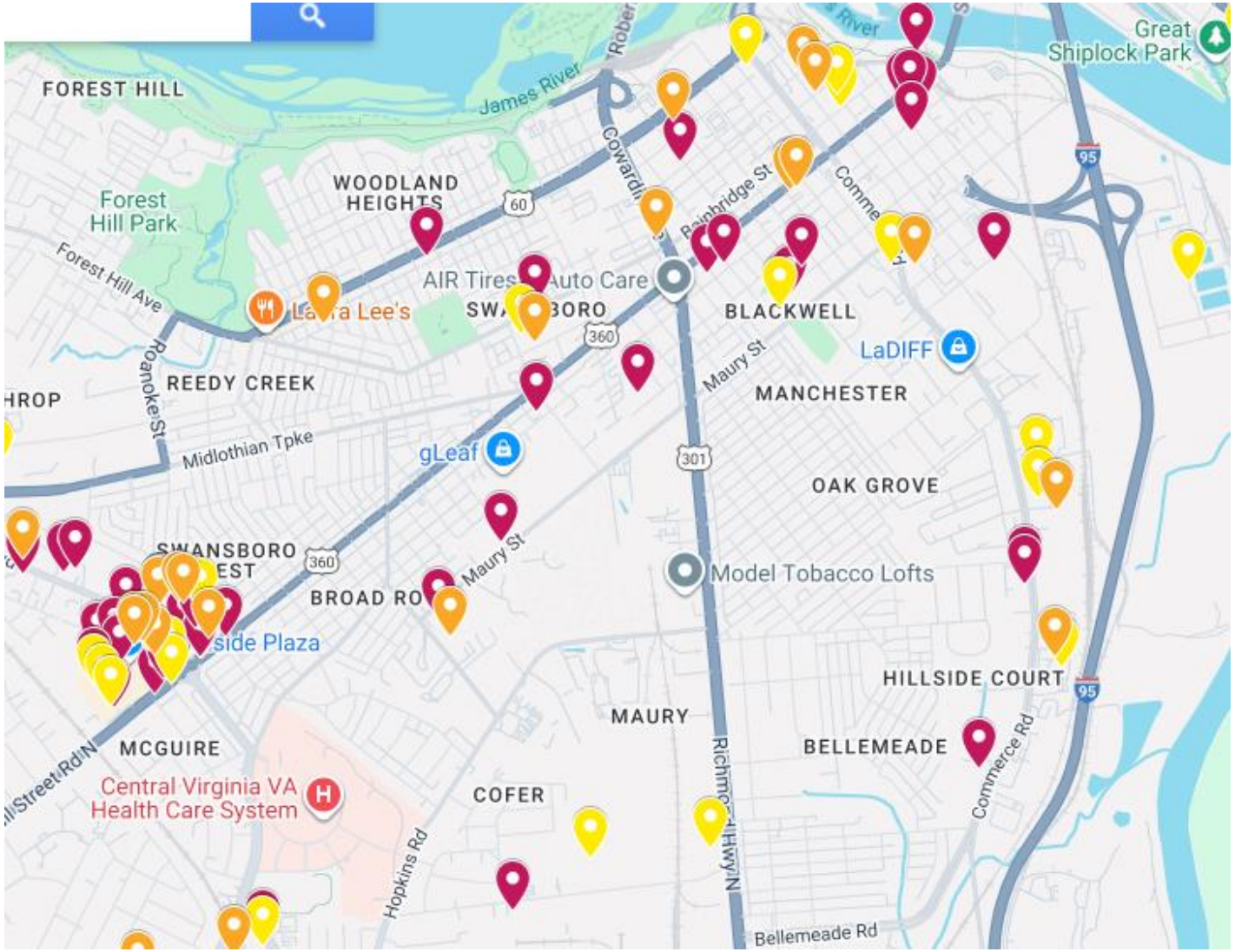
Caveats on data

- Data does not reflect work that does not require a permit (e.g., compressor equipment)
- Data does not reflect projects that didn’t get a permit (even if required)
- Categories are based on keyword searches
  - May miss misspellings, alternate terminology
  - May capture terms that did not actually involve any work on the equipment of interest (e.g. repaired heat pump ductwork)
  - May reflect partial replacements (e.g., reroofed front porch; replaced HVAC in unit #220)
- Use and ownership of buildings change

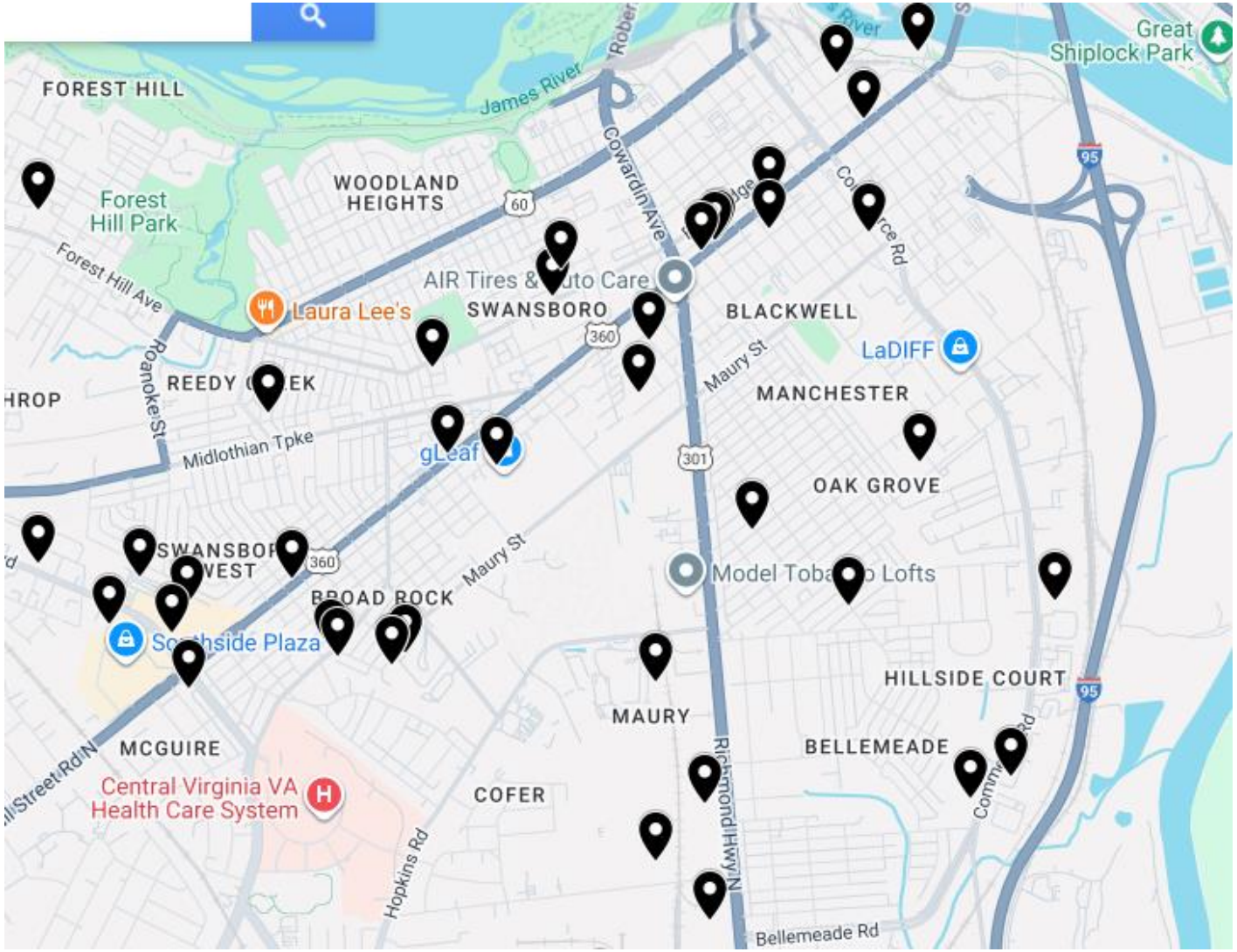
Results

HVAC age based on building permit data

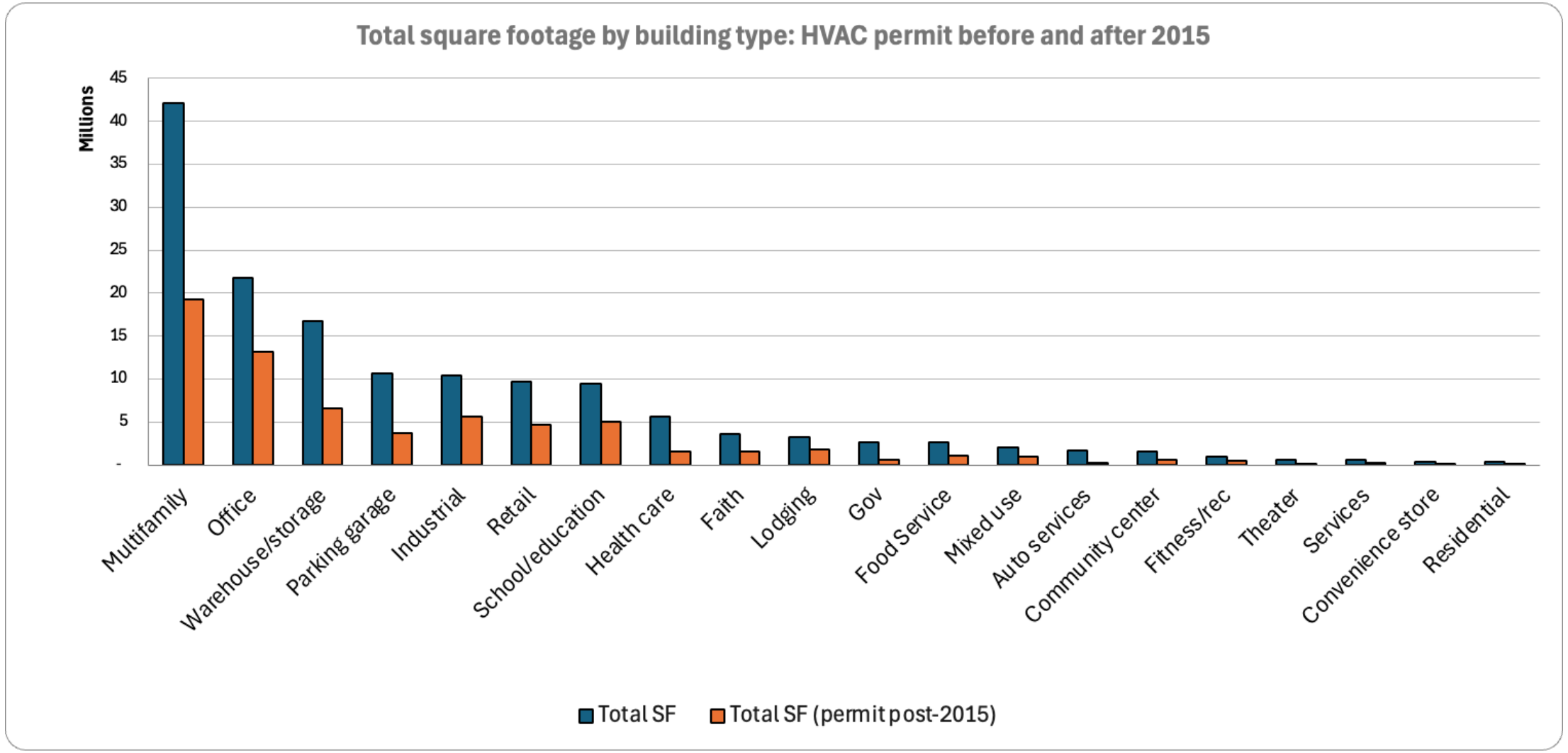
- >20 yrs old (398)
- 10-15 yrs old (216)
- 16-20 yrs old (128)



Solar-ready roofs (< 5 yrs old)



Aggregated insights



Next steps / challenges

- Does better data make any difference?
- How to engage businesses/organizations based on data?
  - Rapid iteration
  - Experimentation
  - Warm introductions
- How to integrate with capital project process (if any)?

Contact Us

Intake form

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Email Address

@C3Climate

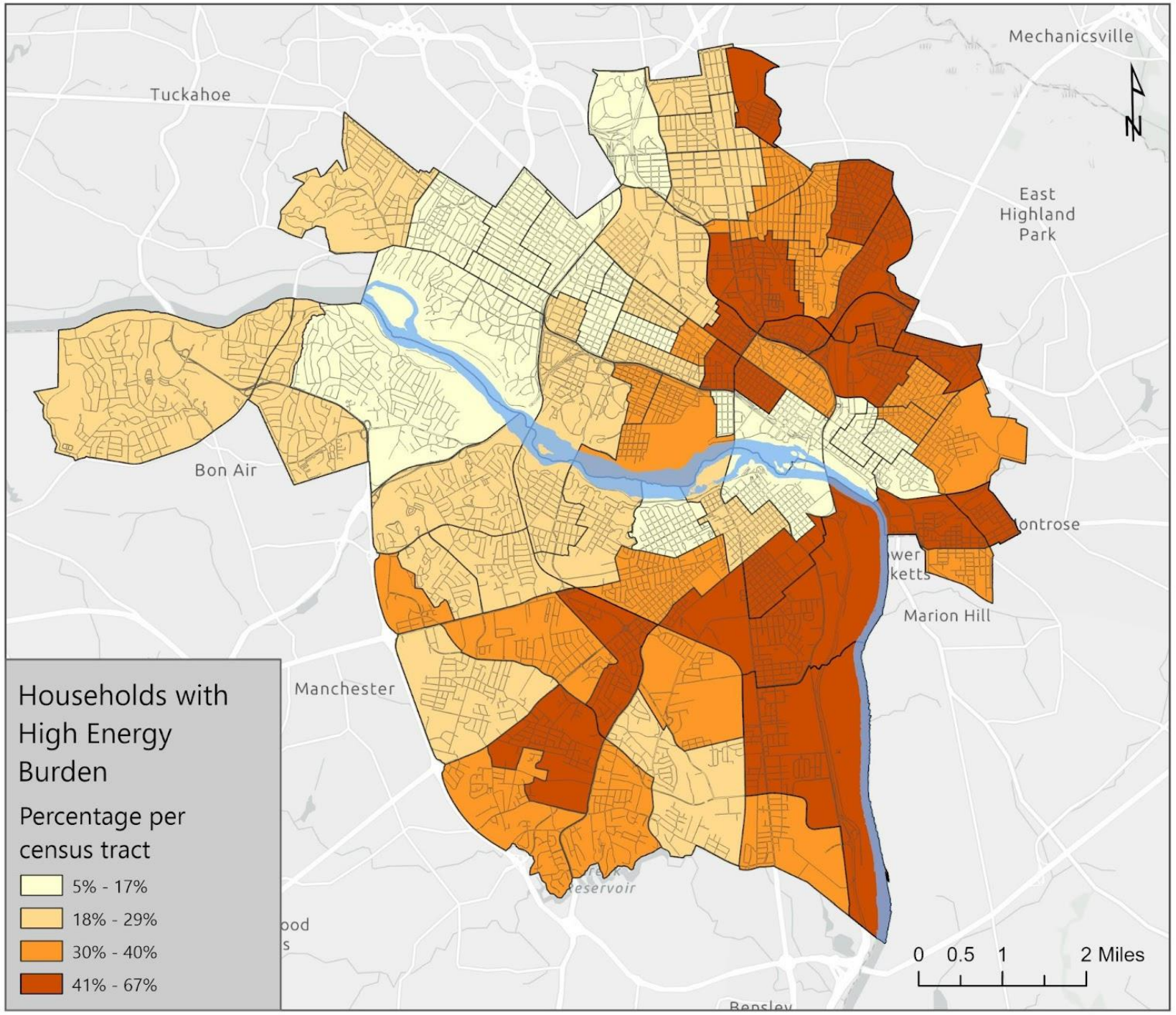
Social Media

www.theclimatecollaborative.org

Website

Intersection with other work

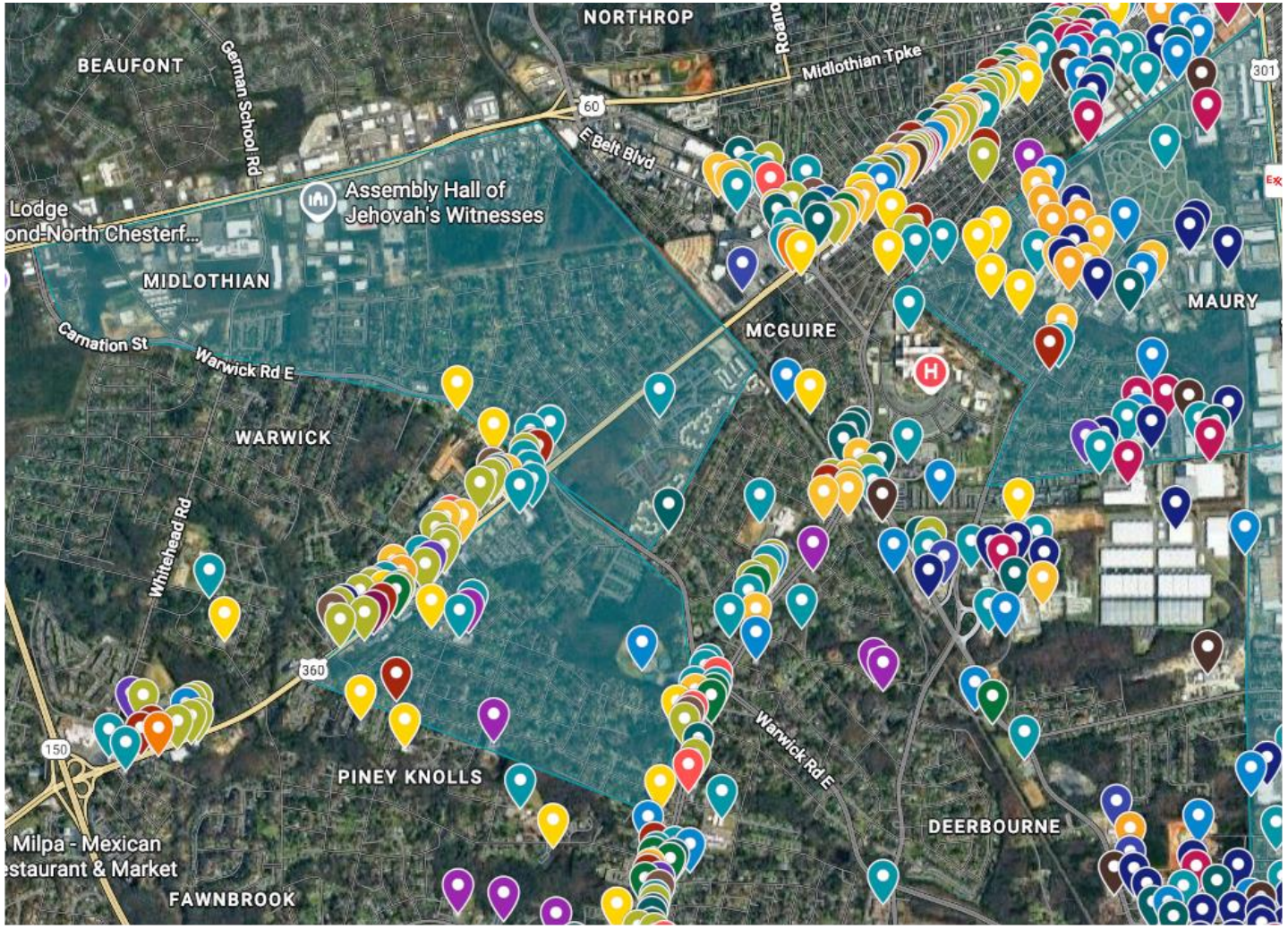
Energy Burden is an Equity Issue



Business addresses within energy-burdened areas

- [x] southside addresses CLEAP db.xlsx
  - General Retail
  - Storage Warehouse
  - General Office
  - 0

17 MORE



Smarter Demand, Stronger Communities: Energy Efficiency for Affordability & Reliability

Sapna Dowla, Associate Vice President, Alliance to Save Energy

10/2025

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The Critical Importance of Energy Efficiency

What this means for our customers and teams

1 Emission Reductions

Energy efficiency is a powerful tool in reducing greenhouse gas emissions.

40% of the emission reductions required by the Paris Agreement can be achieved by energy efficiency alone. “Net zero by 2050 hinges on a global push toward energy efficiency.” (IEA)

Carbon emissions would have been **78% higher in 2021,** but for energy efficiency investments made since 1980. (Energy Efficiency Impact Report)

2 Energy Reliability, Security, and Independence

Energy efficiency is the single **largest measure to avoid** demand in the Net Zero Emissions by 2050 Scenario.(IEA)

Energy efficiency **reduces the amount of electricity on the grid at one time,** minimizing grid stress, thus preventing power disruptions. (DOE)

Because energy efficiency reduces overall demand, energy efficiency can **reduce reliance on energy imports,** thus playing a critical role in long-term and short-term energy security. (IEA)

3 Jobs and the Economy

Energy efficiency is the largest employer in the clean energy economy, representing **2.3 million jobs** in 2023, based on the 2024 U.S. Energy Employment Report (USEER).

The median wage of an energy efficiency worker is $24.44, **28% higher than the national median** of $19.14. (E4TheFuture)

The efficiency sector also has more than **80% of efficiency employers** contributing to healthcare, and more than 78% contribute to retirement *accounts. (E4TheFuture)*

4 Access and Affordability

Energy efficiency is a key driver in reducing or eliminating energy burden.

Low-income households have energy burdens that are **three times higher** than for non-low-income households. Approximately 44% of all U.S. households are considered low-income. (DOE)

Simple energy efficiency solutions similar to weatherization programs are estimated to **reduce energy burden of the average low-income household by 25%.** These solutions include the building envelope and building systems, including insulation, windows, heating and cooling equipment, and lighting.

Energy efficiency investments since 1980 have resulted in significant **bill savings, equaling approximately $800 billion annually,** through 2020. (Energy Efficiency Impact Report)

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Alliance to Save Energy: Four Decades of Bipartisan Leadership

1 Our Mission

The Alliance to Save Energy is dedicated to improving energy productivity by:

- Leading bipartisan initiatives that drive technological innovation and energy efficiency across all sectors of the economy, through policy advocacy, education, communications, and research.
- Convening and engaging in diverse public-private partnerships, collaborative efforts, and strategic alliances to optimize resources and expand our sphere of influence

2 Our Vision

We envision a nation that uses energy more productively to achieve economic growth, a cleaner environment and greater energy security, affordability, and reliability.

3 Impact Areas

Our work spans across key sectors including buildings, transportation, industry, consumers, and utilities.

Through policy advocacy, research initiatives, and program implementation, we drive tangible changes that reduce energy consumption, cut emissions, and foster economic growth.

Fuel-Neutral Efficiency Solutions

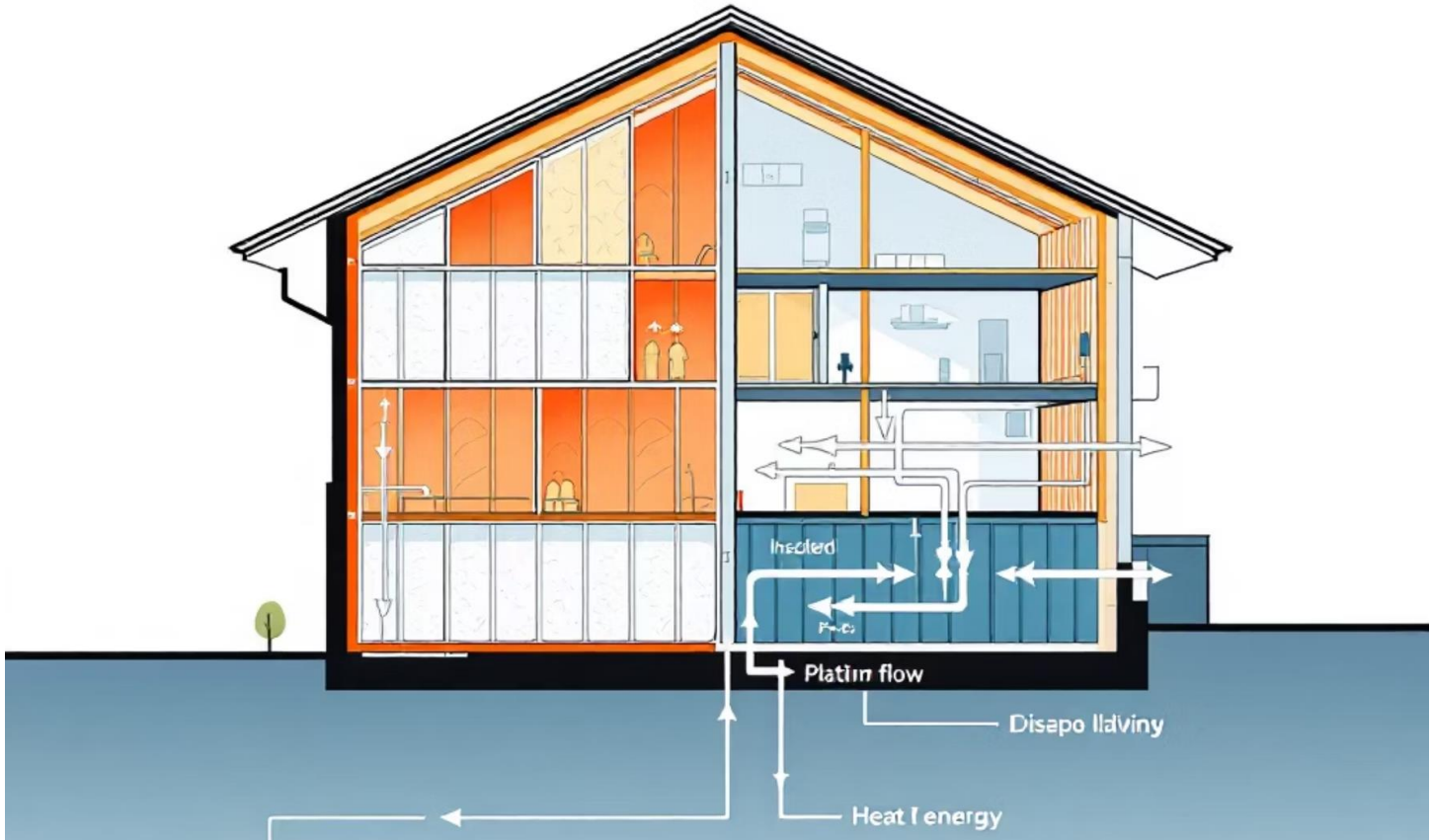
Energy efficiency transcends fuel sources, delivering benefits across the entire energy system. Our fuel-neutral approach recognizes that American families and businesses use multiple energy sources, and efficiency improvements in any fuel reduce overall costs and environmental impacts.

Natural Gas Efficiency Technologies

Combined Heat & Power (CHP): 80%+ efficiency in industrial applications
Advanced Condensing Boilers: 95%+ efficiency for space and water heating
Gas Heat Pumps: Revolutionary technology delivering 140%+ efficiency
Smart Gas Infrastructure: Advanced metering and leak detection systems

Electric System Efficiency

Smart Lighting Systems: LED technology with occupancy sensors
Variable Speed HVAC: Heat pumps with advanced controls
Building Automation: Integrated energy management systems
:hnologies: Demand flexibility and peak shaving



Universal Solutions

Building Envelope Improvements reduce energy demand regardless of fuel source. Enhanced insulation, high-performance windows, and air sealing create lasting benefits that compound over decades. These "fuel-neutral" investments often deliver the highest returns.

Hybrid Systems provide fuel flexibility, allowing buildings to optimize between electricity and gas based on real-time pricing and grid conditions. This approach enhances both affordability and resilience.

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Policy & Regulatory Framework

What to watch & What to do with customers now

Affordability

Reducing energy burdens for families and businesses

Reliability

Ensuring grid stability and energy security

Choice

Preserving consumer options and fuel flexibility

State public utility commissions consistently identify affordability, reliability, and consumer choice as their top priorities. Energy efficiency addresses all three simultaneously, making it an essential tool for regulators navigating complex energy transitions.

Key Policy Considerations:

- Resource Planning
- Rate Design
- Performance Metrics
- Technology Neutrality

Supply-Side Resources

Traditional Approach: Build more power plants to meet peak demand. High capital costs, long lead times, and rate impacts.

- New generation capacity: $1,500-$4,000/kW
- Transmission infrastructure: billions in investments
- Ratepayer cost recovery through base rates

Demand-Side Management

Efficiency-First Approach: Reduce peak demand through efficiency and flexible loads. Lower costs, faster deployment, multiple benefits.

- Efficiency programs: $200-$800/kW saved
- Demand response: $50-$300/kW of capacity
- Participant bill savings offset program costs

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Alliance Federal Policy Engagement

Congressional Engagement

Government

Implement ambitious policies for energy efficiency and demand-side management, such as energy codes and appliance standards, and prioritize measures that drive equitable outcomes.

Industry

Promote adoption of energy-efficient technologies and practices, improve energy management systems, and invest in research, development, and deployment to drive innovation.

Utilities

Leverage demand-side resources, modernize grids, and integrate distributed energy resources (DERs) to support grid reliability, flexibility, and decarbonization.

Highlighting Energy Efficiency Projects

Industry Leadership:

Showcasing how ASE members are leading the way in energy efficiency innovation and implementation.

Equity and Impact:

Emphasizing projects that prioritize equity and deliver tangible benefits to underserved communities.

Cross-Sector Collaboration:

Highlighting projects that demonstrate successful collaboration across different sectors, such as buildings, industry, and transportation.

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Future Priorities: Bipartisan Advocacy

1

Identify Common Ground

We'll focus on finding areas of agreement across party lines, such as job creation, energy independence, and cost savings for consumers. These shared interests will continue to form the foundation of our bipartisan approach.

2

Build Coalition

ASE will work to build a diverse coalition of supporters, including industry leaders, environmental groups, and policymakers from both parties. This united front will strengthen our advocacy efforts.

3

Develop Policy Proposals

We'll craft policy proposals that address bipartisan priorities, focusing on practical solutions that can gain support from both sides of the aisle.

4

Engage Lawmakers

Through targeted outreach and education, we'll engage lawmakers to champion energy efficiency initiatives, providing them with the data and talking points needed to build support among their colleagues.

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Thank You!

Questions & Discussion

Get Involved

Join our mailing list for updates on energy efficiency policies and initiatives. Explore partnership opportunities or consider becoming a member of ASE to support our mission.

Contact Information

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LinkedIn: Alliance to Save Energy

Sapna Gheewala Dowla

Associate Vice President for Policy and Research.

Sapna, spearheads our research efforts and policy development, ensuring ASE remains at the energy efficiency innovation.

Resources

Visit our website for white papers, case studies, and toolkits on energy efficiency.

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