



**COMMUNITY CLIMATE**  
COLLABORATIVE

# Energy Efficiency Through a Climate Lens

Virginia Environmental Excellence Program  
Valley Region Workshop  
October 24th, 2023



# Agenda

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**Introducing C3**

**Energy Efficiency: It Still Rocks!**

**C3's Climate Approach**

**EE Case Studies**

**Q&A**

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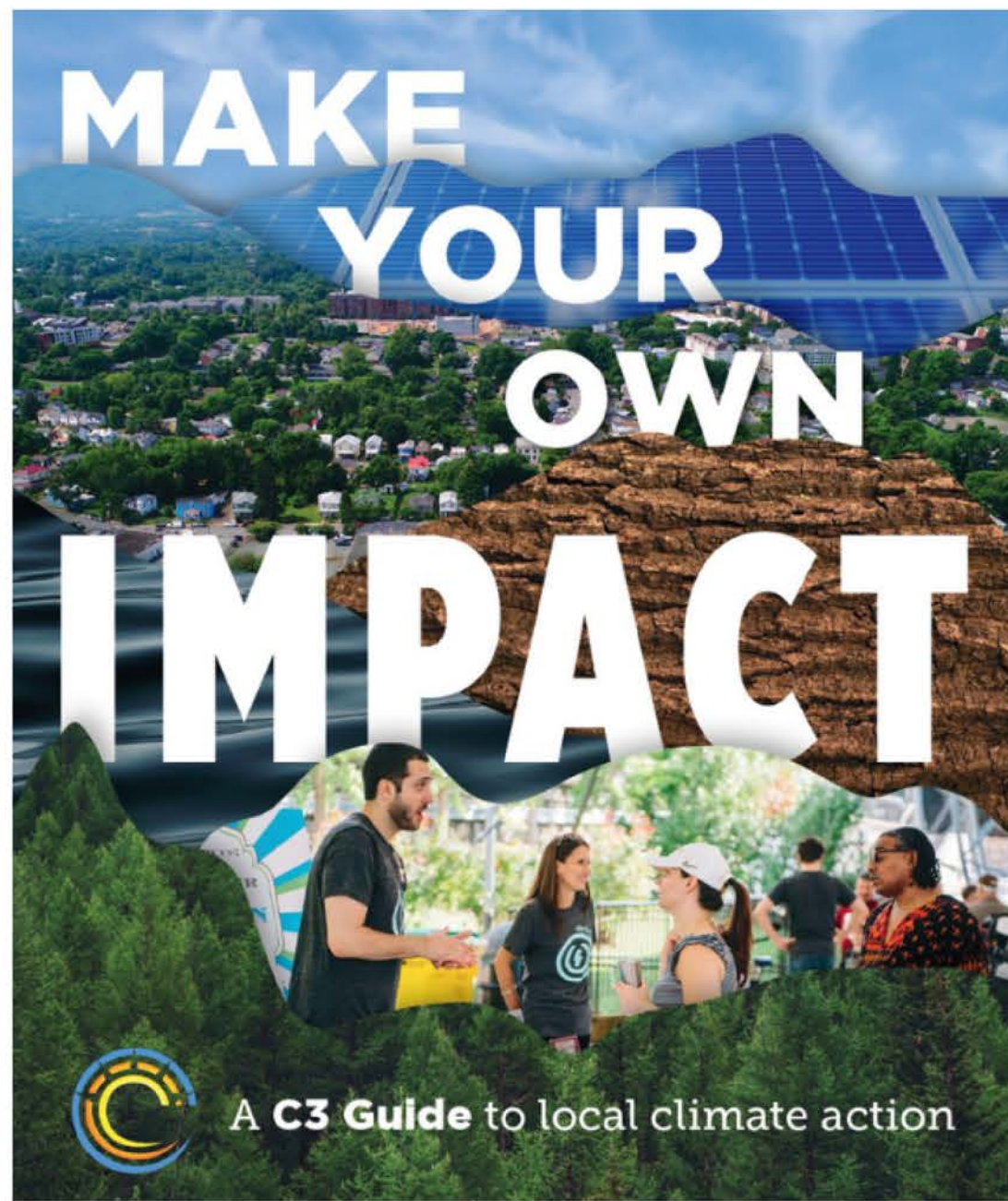
# C3's Mission

Our mission is to **bring communities together to lead on climate.**

At C3 we strive to help everyone see their part in the climate solution.









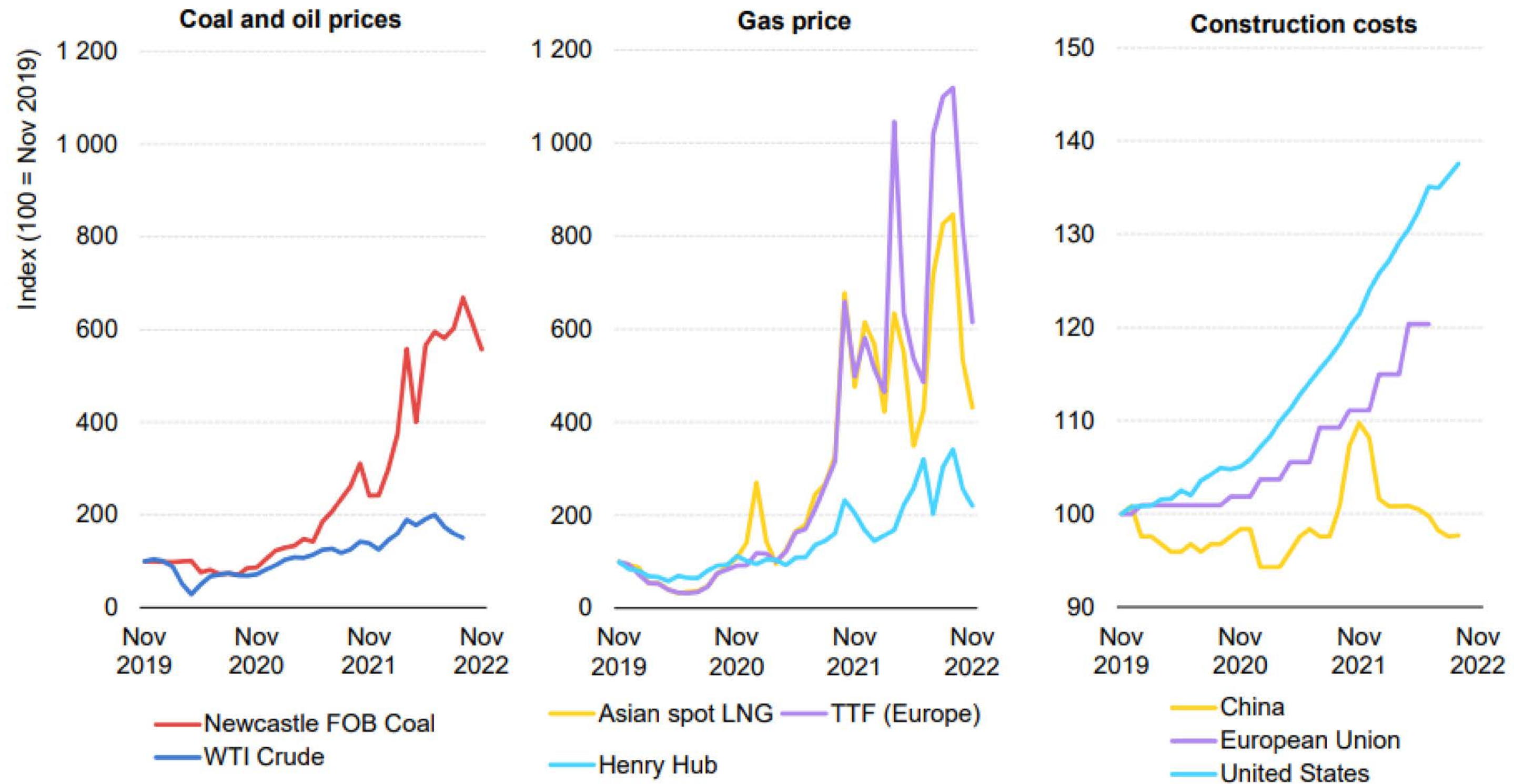
# **Energy Efficiency: It's Important!**





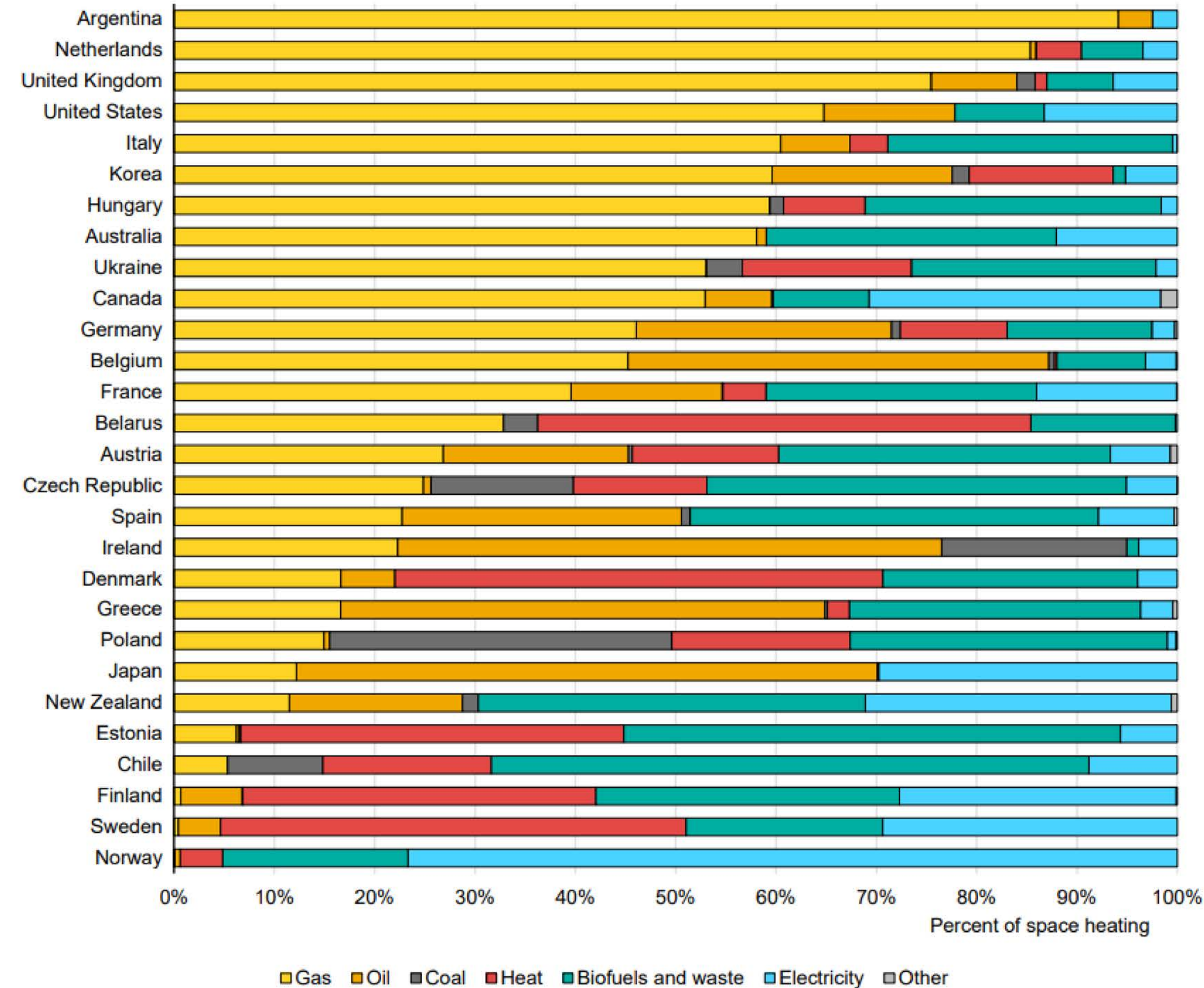
# For Costs...

Key energy price and construction cost indices, November 2019-2022





Proportion of residential heating energy consumption by fuel source in selected countries, 2020



For Energy  
Security...

Source: IEA, Energy Efficiency 2022



— GHG EMISSIONS

— CARBON REMOVAL PROJECTS

• NET GHG EMISSIONS

GT-CO<sub>2</sub>E PER YEAR

60

45

30

15

0

EMERGENCY BRAKES

- SLOW ECOSYSTEM DEGRADATION
- CUT METHANE LEAKS, BLACK CARBON
- CUT NITROUS OXIDE, F-GASES
- **BOOST ENERGY EFFICIENCY**
- CUT FOOD WASTE, SHIFT DIETS

And (you guessed it)...

for Climate!

Source: Project Drawdown Roadmap

1970

1980

1990

2000

2010

2020

2030

2040

2050



# **Energy Efficiency: It's Popular!**



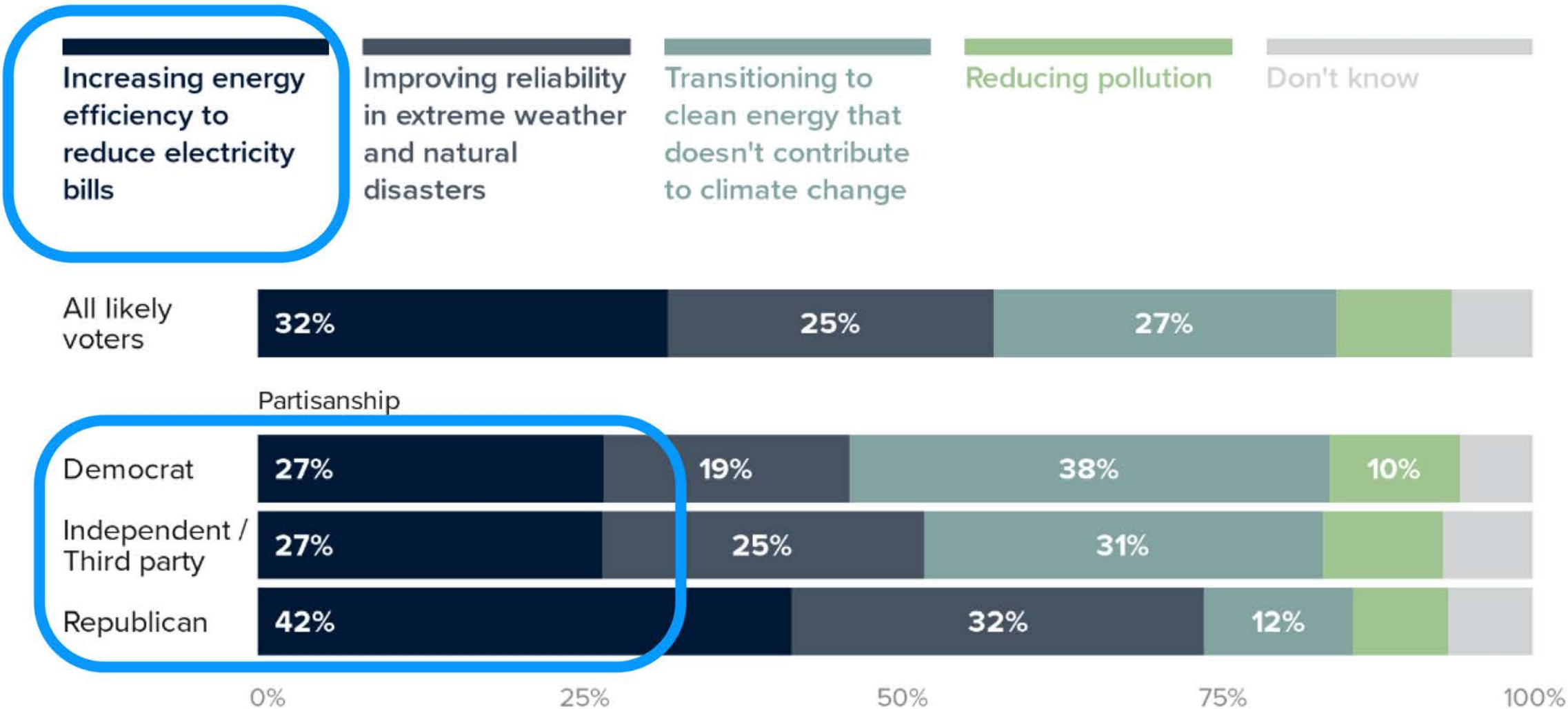




NATIONAL ASSOCIATION OF  
Manufacturers

- **94%** support using energy efficient products. Seven in ten (70%) “strongly” support it. **Only 5% opposes using energy efficient products.** The support is broad and intense among all demographic and political groups.
- **90%** believe it’s important to include energy efficiency as part of our country’s energy solutions. This overwhelming sentiment is evident among Republicans (86%), Democrats (99%) and Independents (88%). The majority (56%) says it’s “very” important. **Only 9% say it’s not important.**

Which do you think is **most important** for utility companies to prioritize:





# **Energy Efficiency: It's... Kinda Boring**





## Energy Efficiency Is the Most Boring Single Thing That You Can Actually Do Right

3min Snip



Play full episode

# Energy is boring, how can we make it cool?



Joe Pater

Director, Office of Energy Innovation at Public Service Commission of Wisconsin

4 articles



November 8, 2017



Architecture 2030

@Arch2030

'Boring' Energy Efficiency Is Biggest CO2-Cutting Tool, @iea says  
[buswk.co/1j04bFU](https://buswk.co/1j04bFU) via @BW more info here: [slidesha.re/1j049xG](https://slidesha.re/1j049xG)



### Why energy efficiency is not boring

However, there was no detail on the big infrastructure challenges that the UK must tackle to get to zero carbon. There have been growing cross-party calls, for example, for a large national retrofit strategy to insulate the UK's draughty homes. This is a key area where government lacks a plan – but it has been suggested that a £9bn manifesto commitment is being blocked by Dominic Cummings, the prime minister's chief adviser, who considers insulation “boring”.



# Let's Shake it Up!



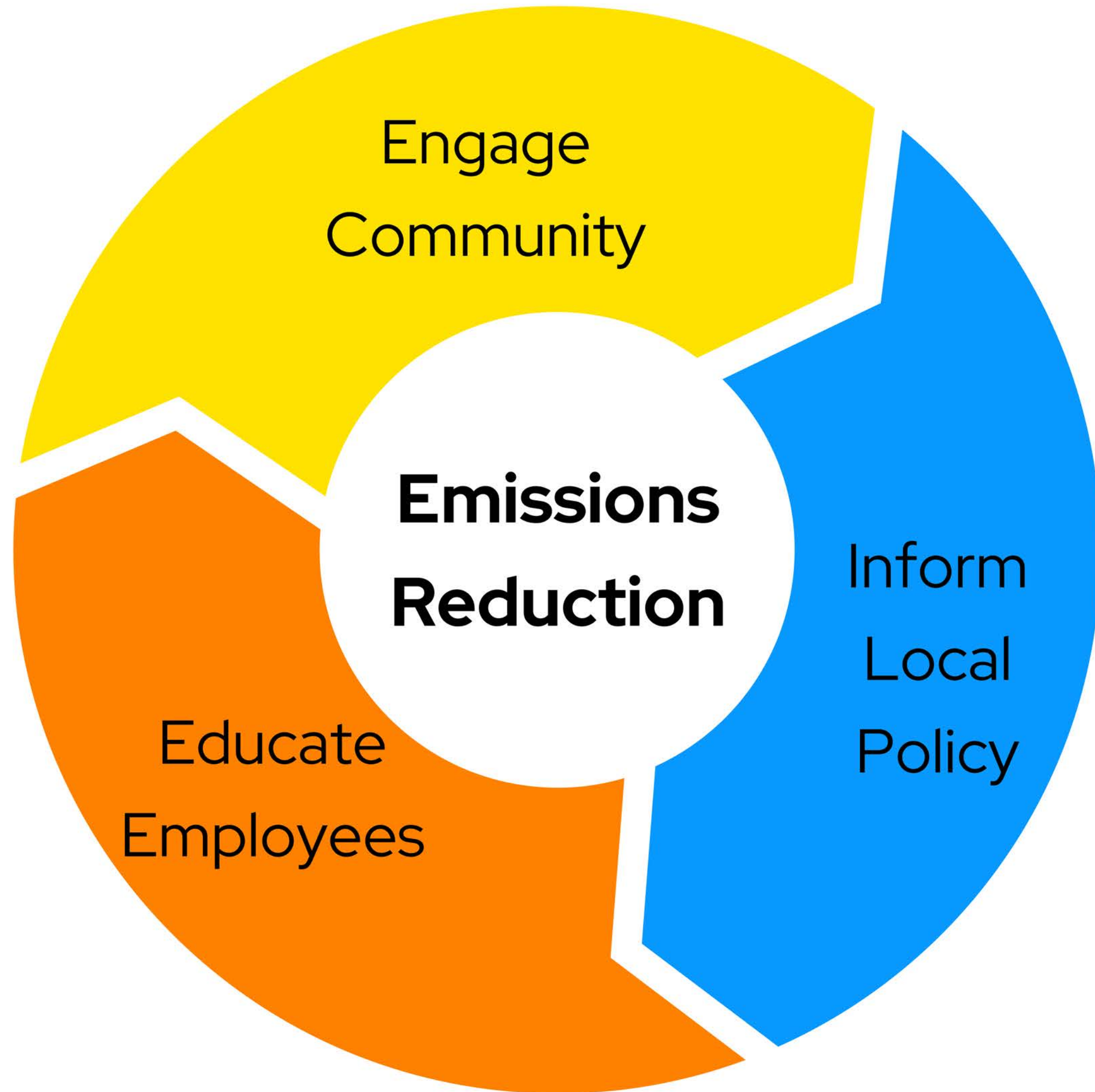
## Our Approach

1. **Activate Local Businesses**
2. Lean into a **climate message**
  - a. Operating cost savings? or...
  - b. Reducing carbon footprints!
3. Tie actions to community impact
4. And yes, we have all the numbers
  - a. Supporting data and metrics (e.g. ROI, payback, etc...)
  - b. In-house analysis and services





Reducing our Climate Impact







# GREEN BUSINESS ALLIANCE

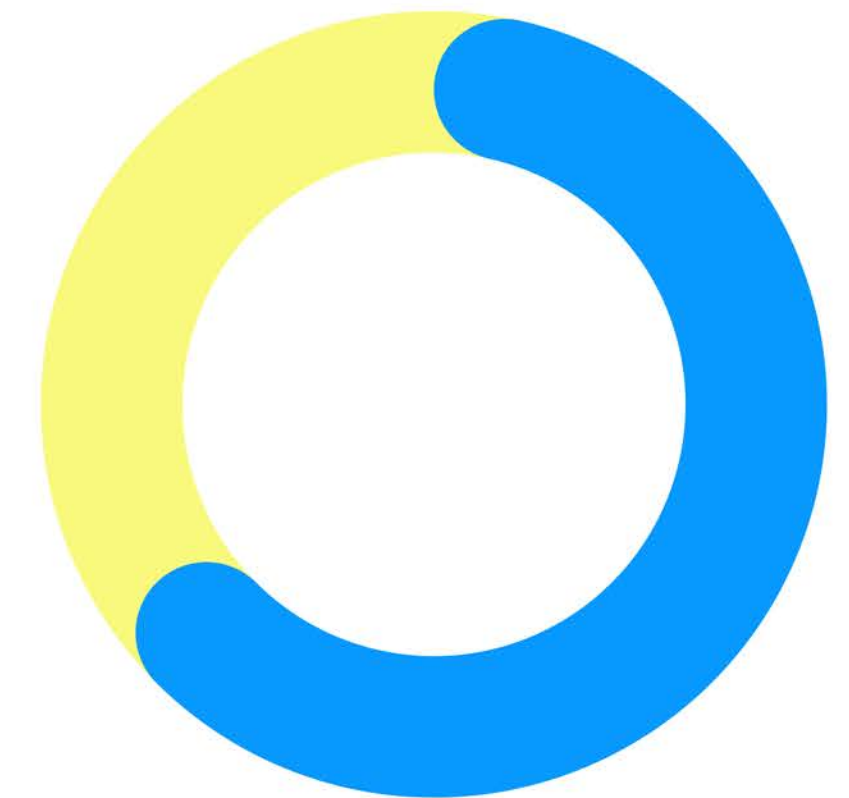
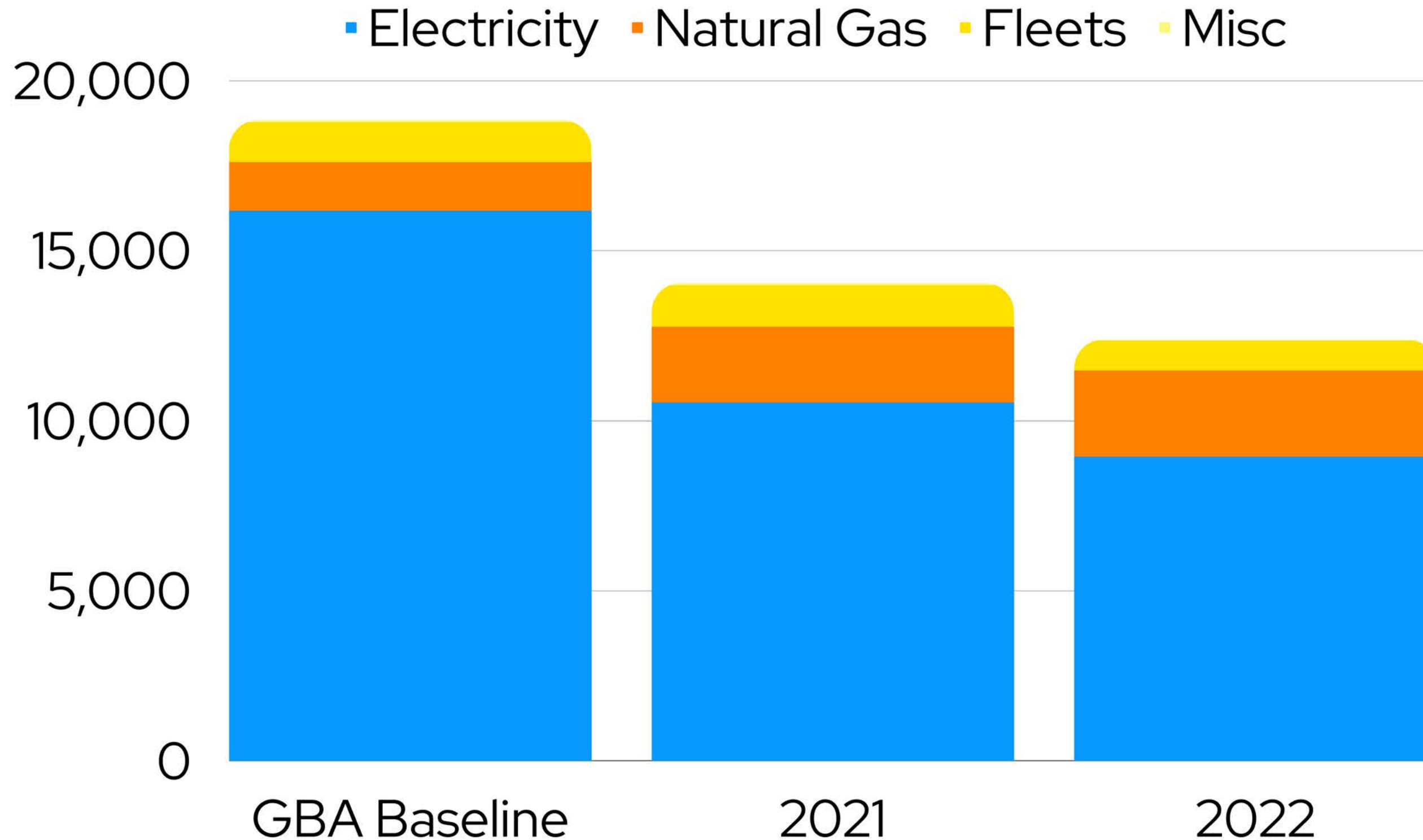








# GBA Progress - First Cohort



**Team Goal Progress**  
34% reduction achieved  
towards 45% goal



# ENERGY EFFICIENCY GRANTS





# CLIMATE SERVICES



## CLIMATE SERVICES CASE STUDY Piedmont CASA

### AT A GLANCE

#### CHALLENGES

- Historic 19th century building
- Busy serving mission
- Limited insight into savings potential

#### BENEFITS

- Energy and emissions savings
- Improved comfort
- Cut Costs
- Groundwork for future improvements



"I was shocked by the outcome of the assessment by how much we could save as a nonprofit financially by doing simple things like turning off the gas lights at the front of the building. We couldn't have done this without the support of C3!"

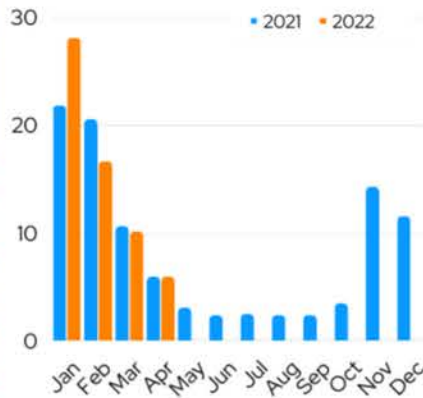
KATE DUVALL, PRESIDENT  
PIEDMONT CASA

[www.theclimatecollaborative.org](http://www.theclimatecollaborative.org)



### OUR IMPACT BY THE NUMBERS:

#### GAS USAGE (MCF)



24%  
Energy Savings



2,100  
kg CO2 emissions ↓



40%  
Gas Savings



18%  
Carbon Footprint ↓

### NEXT STEPS

Piedmont CASA is exploring the addition of smart thermostats this year. They will also be evaluating rooftop solar for the future, especially in light of the Solar Investment Tax Credit that non-profits can now receive. It's a great time for tax-exempt organizations to go solar!

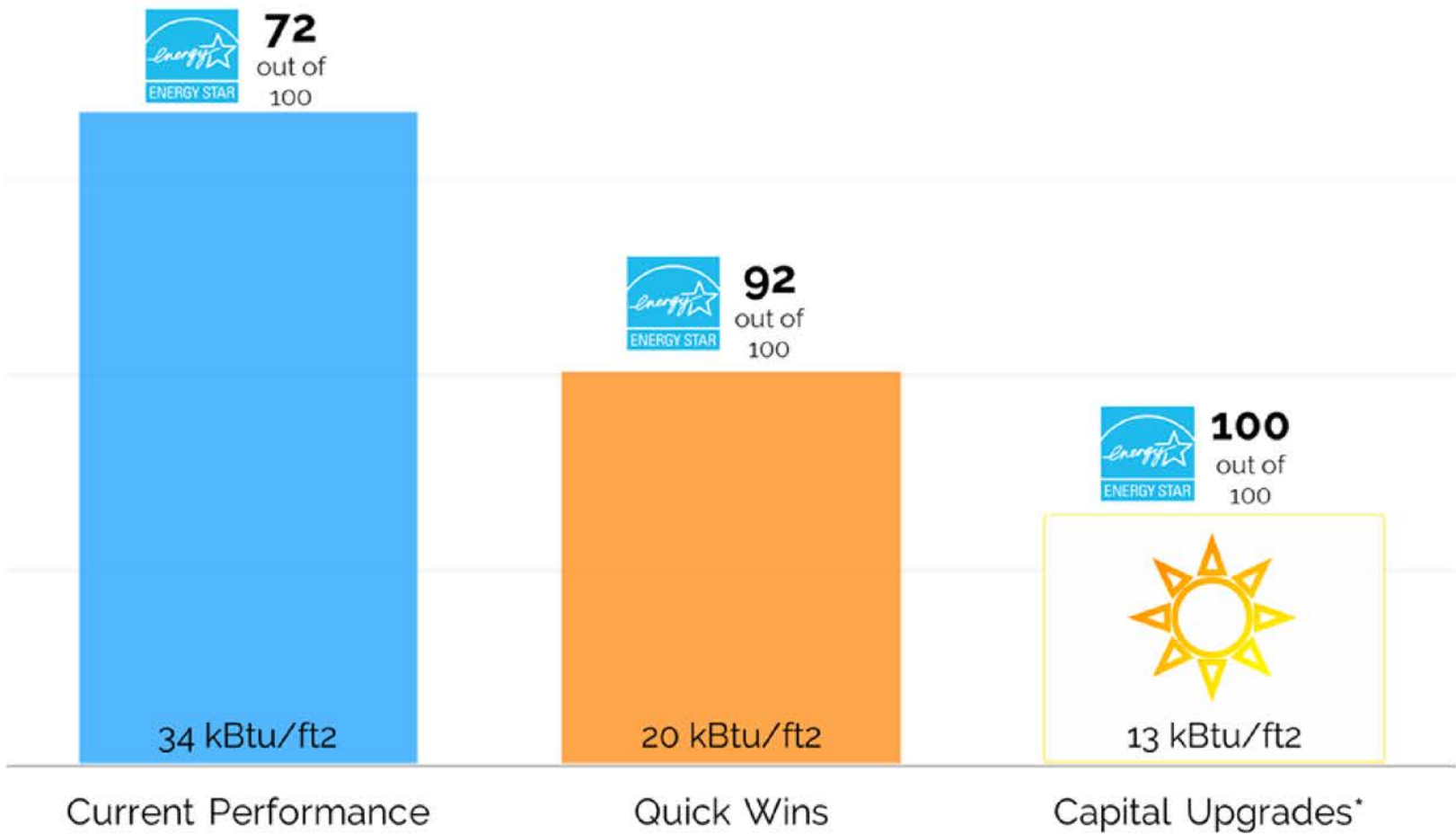
### CALL US! WE WANT TO HELP

If you run a business that might benefit from our climate services, including energy and emissions assessments, contact C3's Corporate Sustainability campaign at [corp@theclimatecollaborative.org](mailto:corp@theclimatecollaborative.org).

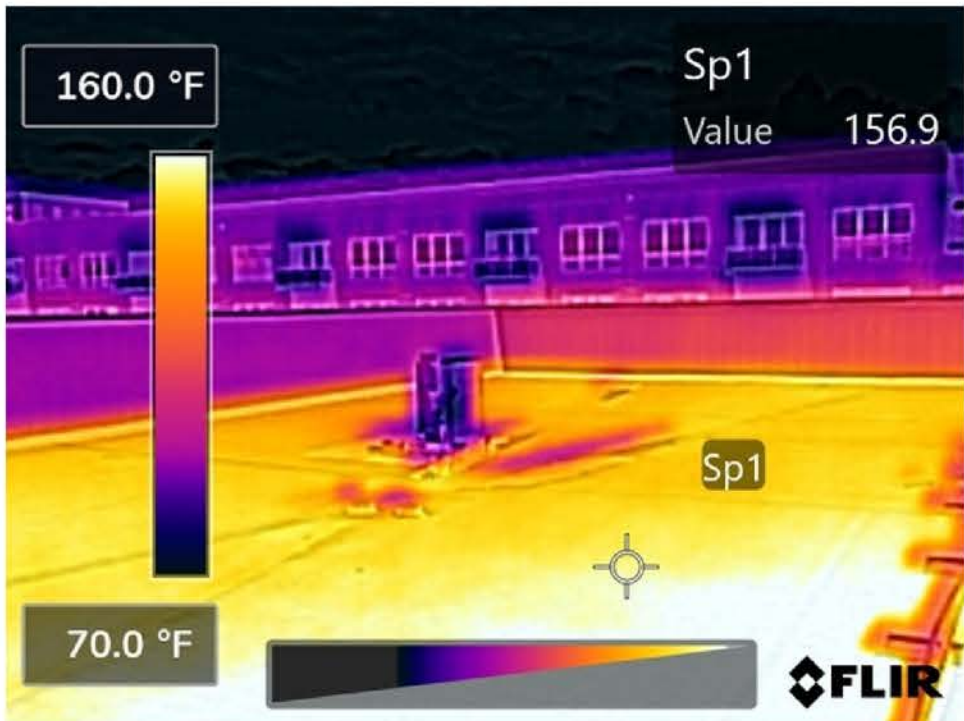
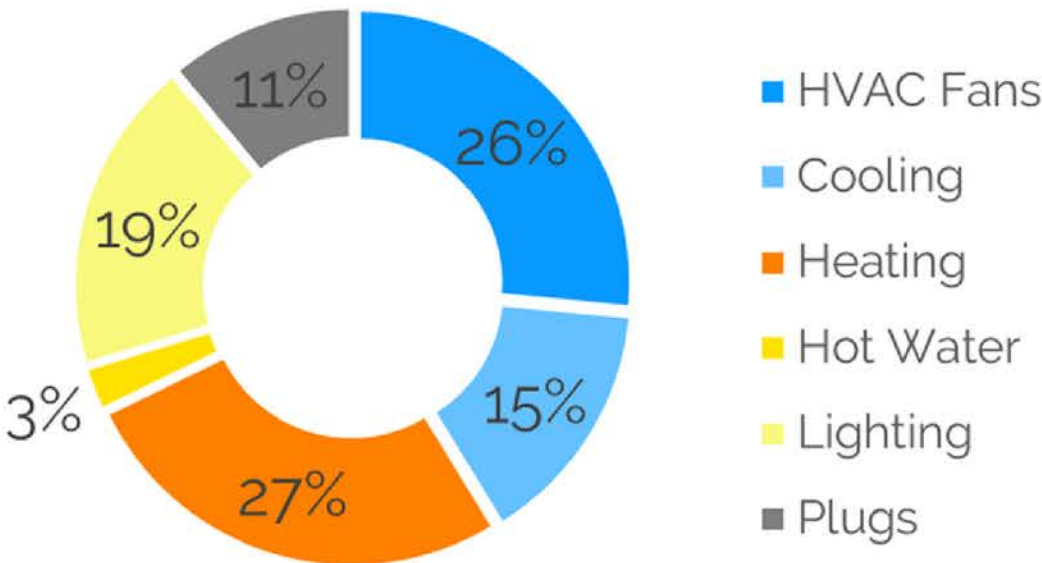


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## Energy Intensity (kBtu/ft²) and Energy Star Score



\*Solar PV contributes 13 kBtu/ft² for potential net-zero performance.





# Helping Non-Profits



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## CLIMATE SERVICES CASE STUDY Piedmont CASA

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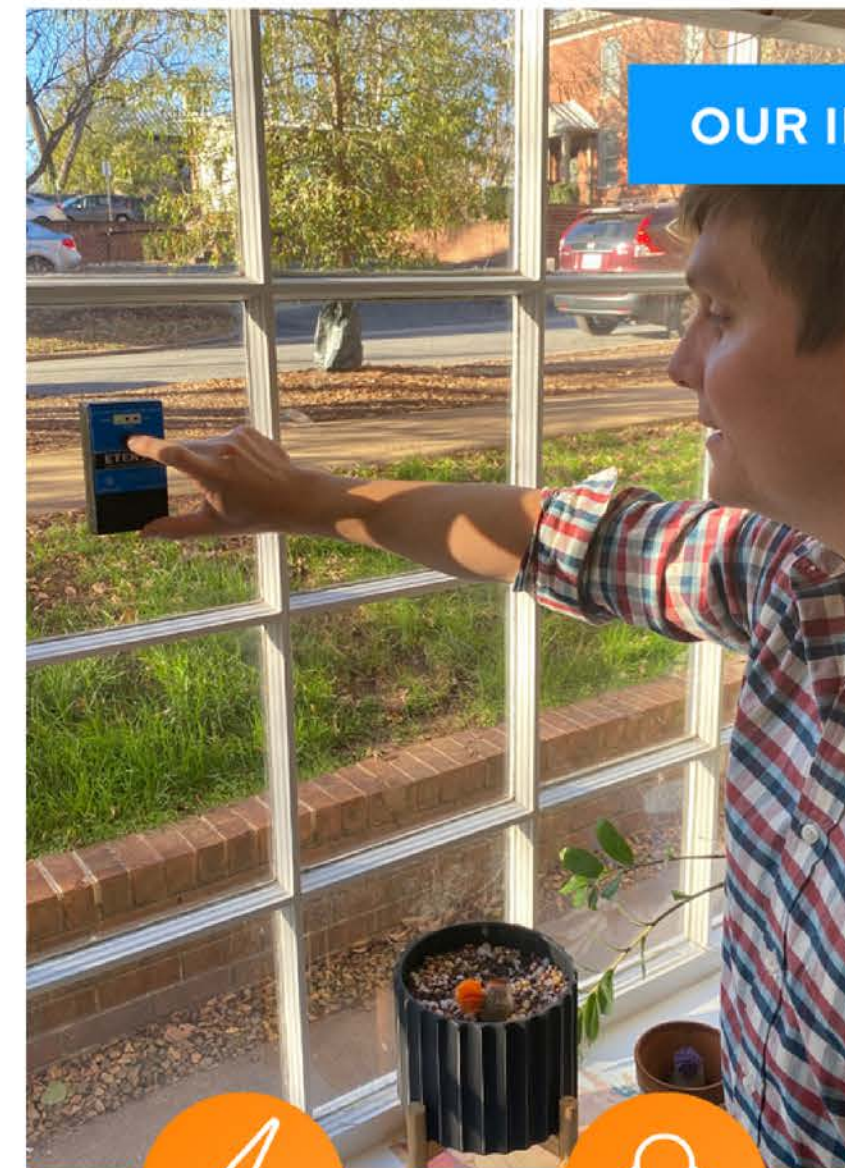
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Community Conversation - C3 02-10-2023

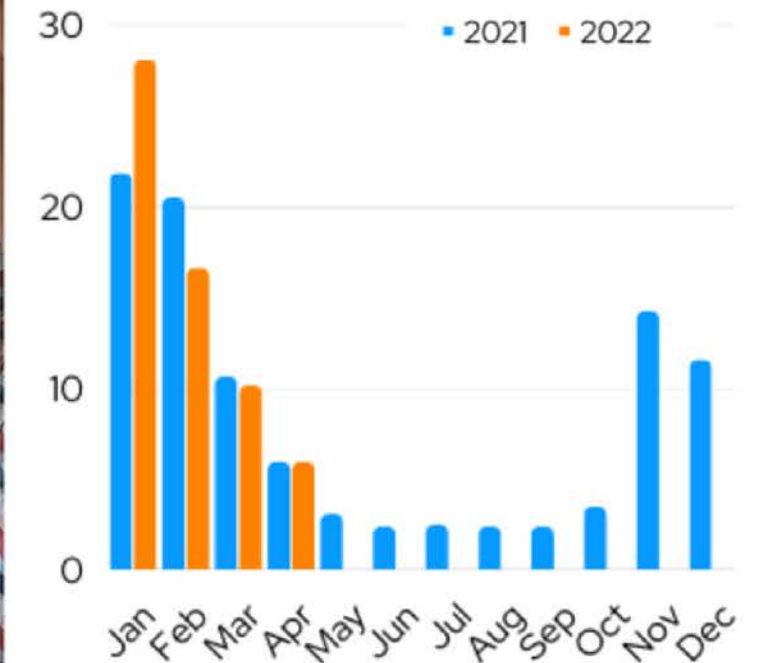
CASA Pres. & CEO Kate Duvall

NBC 29 / Feb 10



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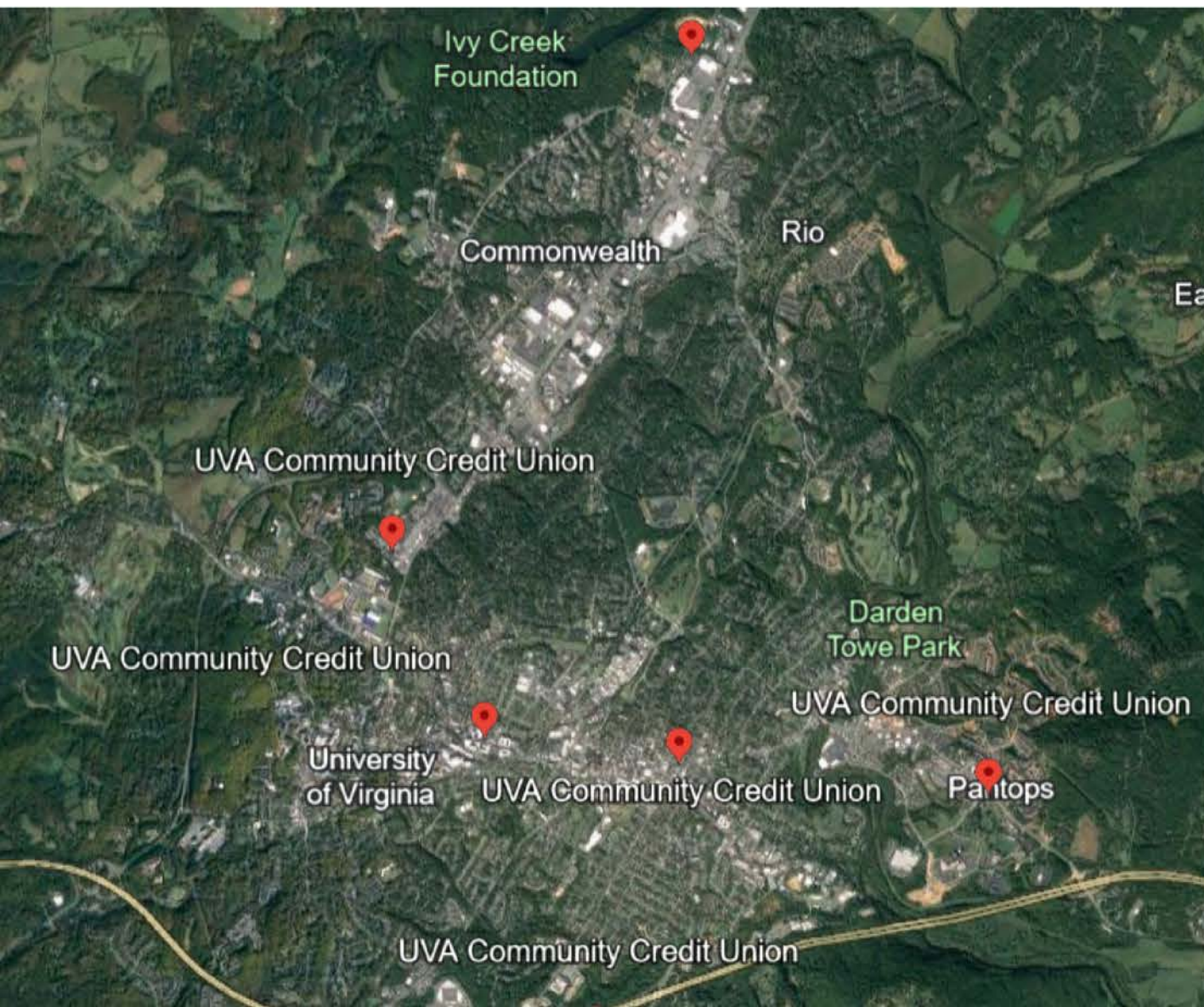
40%  
Gas Savings



18%  
Carbon Footprint ↓



# Case Study: Something Old



## Part of the Community





# Case Study: Something Old

## State of Affairs

- Aging facilities – sub-median Energy Star scores
- Planning for consolidation but “stuck” for near-term

## What to Do?

- Boring stuff!
  - Re-commission
  - Re-program
  - Fix band-aids
- Measure, manage, and communicate

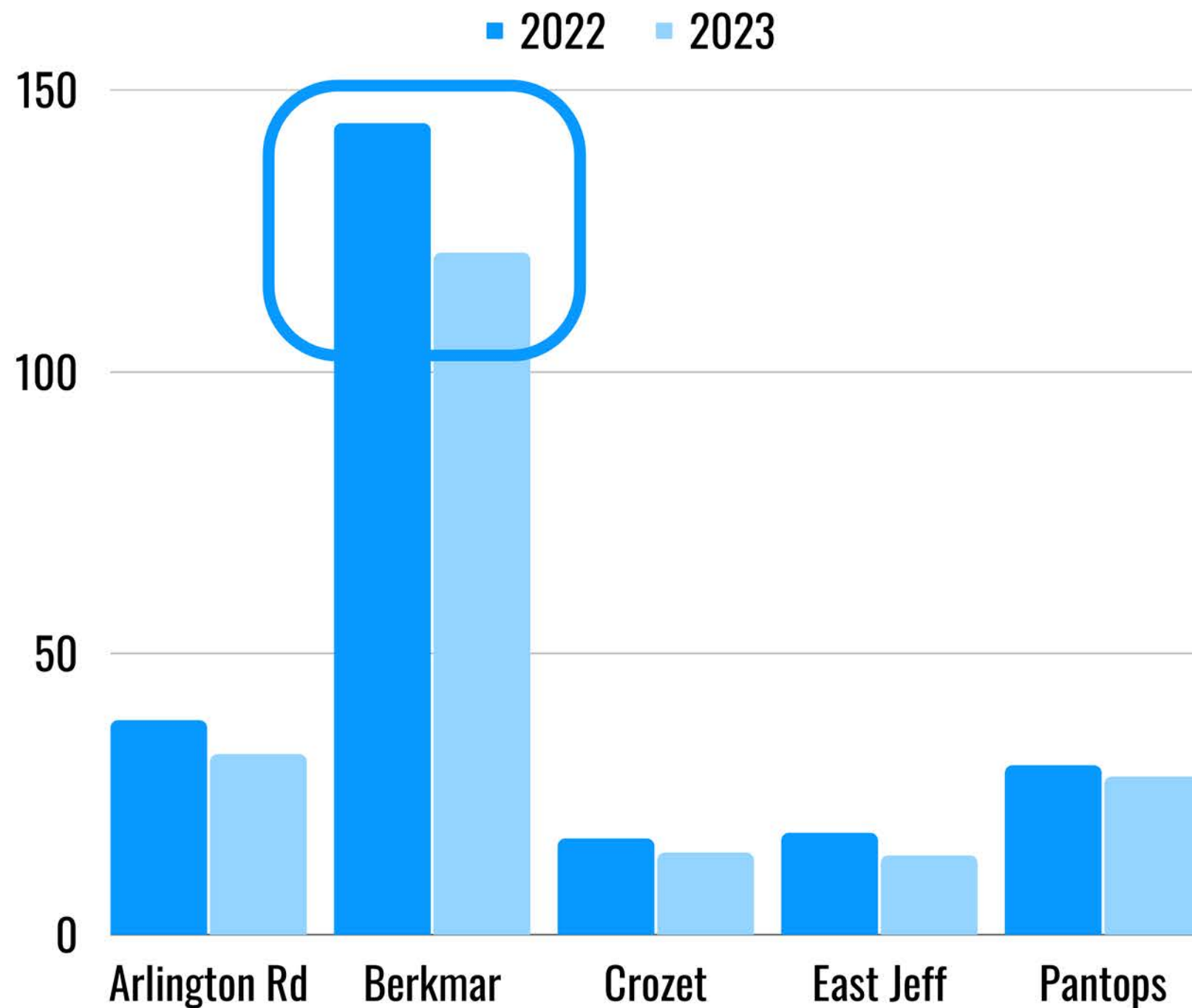


Alan French | [UVA Community Credit Union](#)  
Property Manager

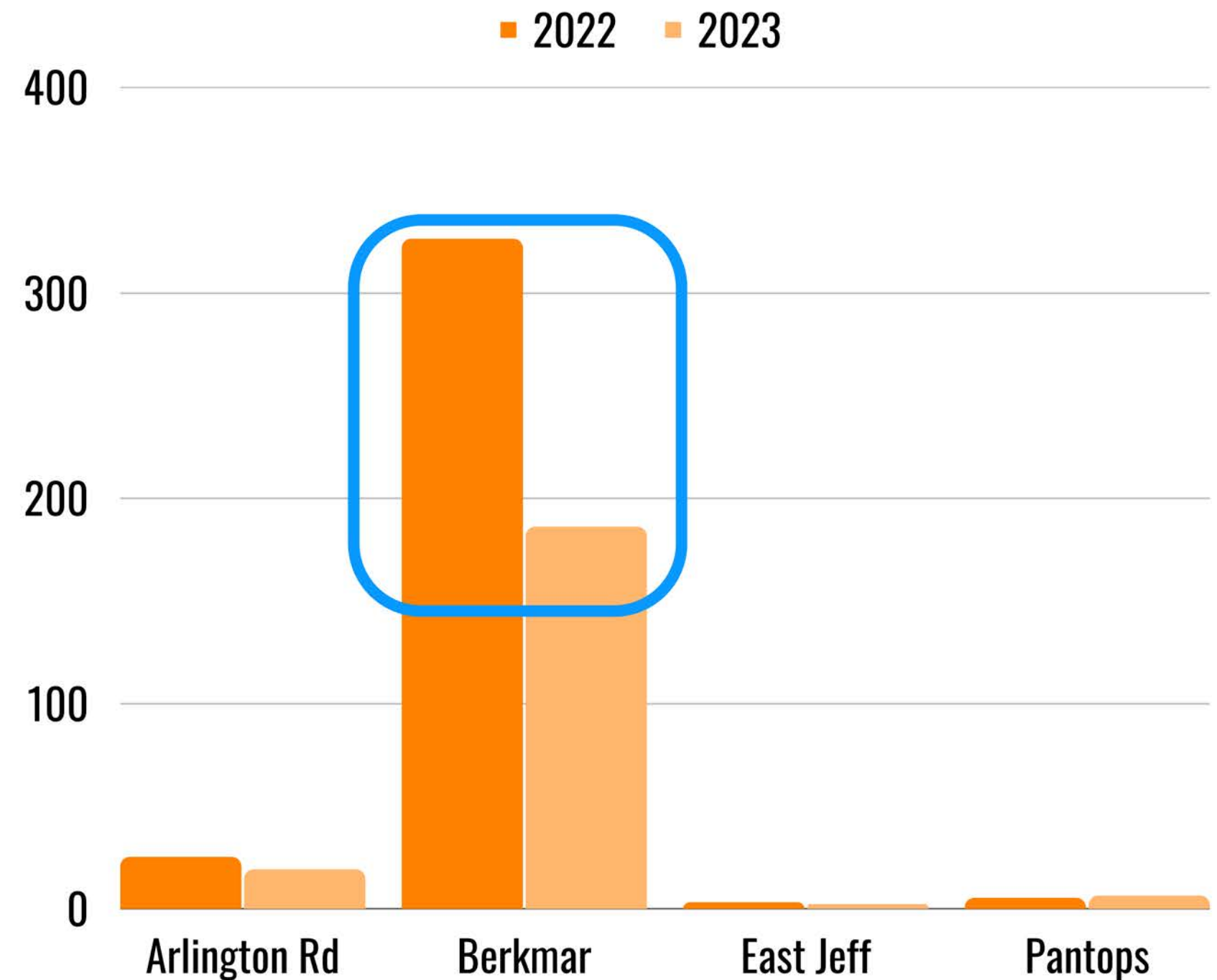


# Case Study: Something Old

## Electric Usage (MWh)

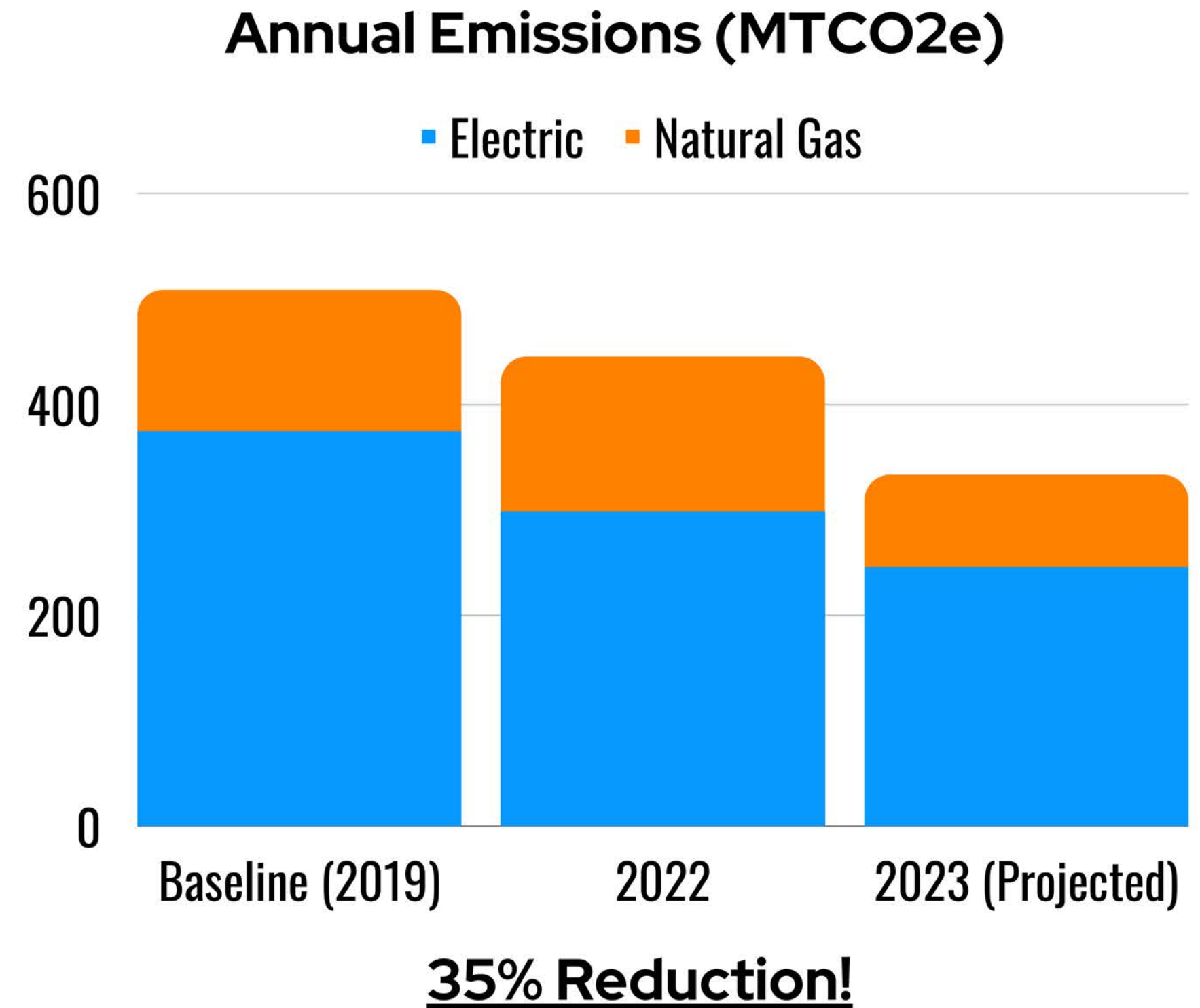


## Gas Usage (kcf)





# Case Study: Something Old





# Case Study: Something New



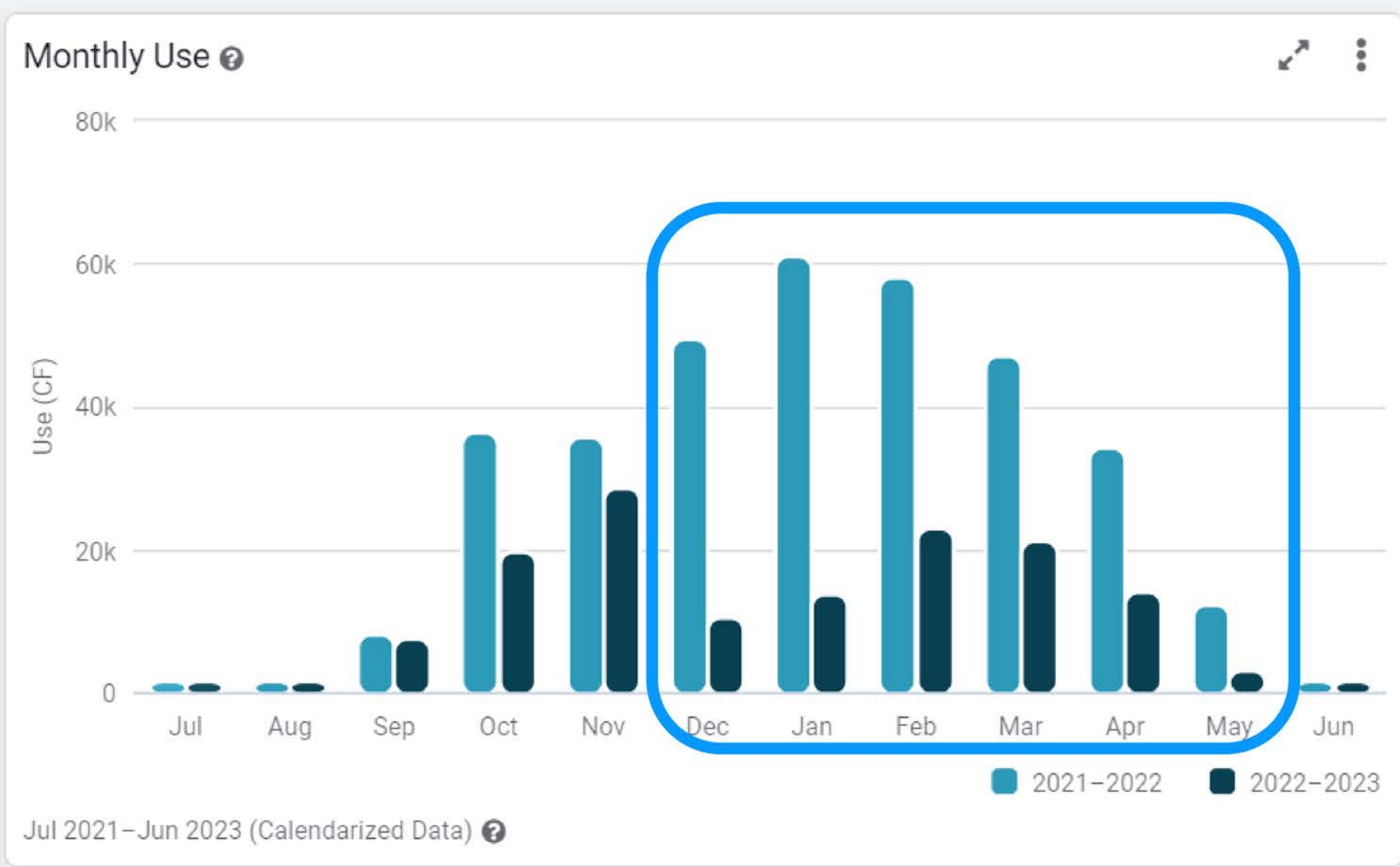


# Case Study: Something New



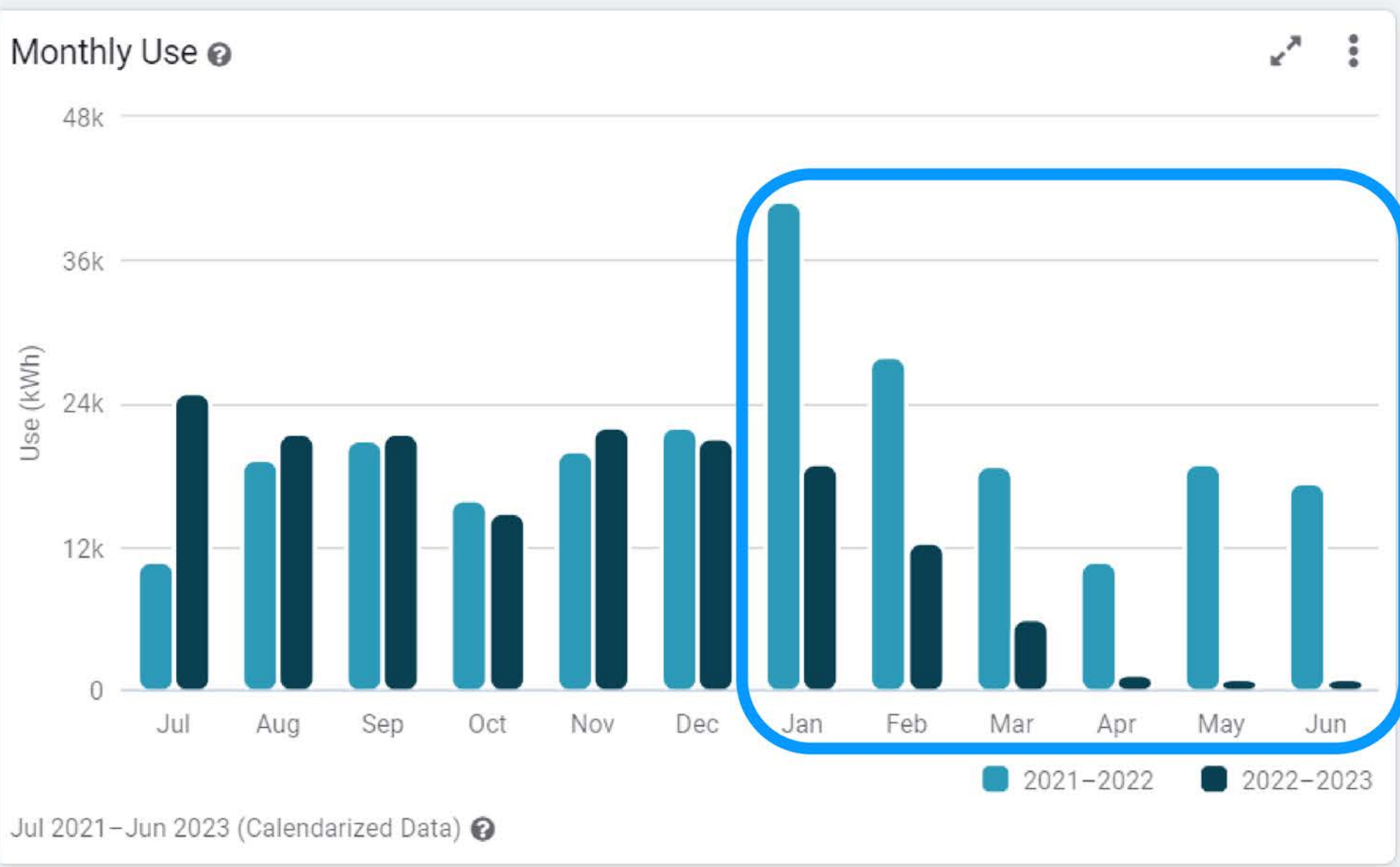


# Case Study: Something New



## Gas Usage

- 2021-2022
- 2022-2023

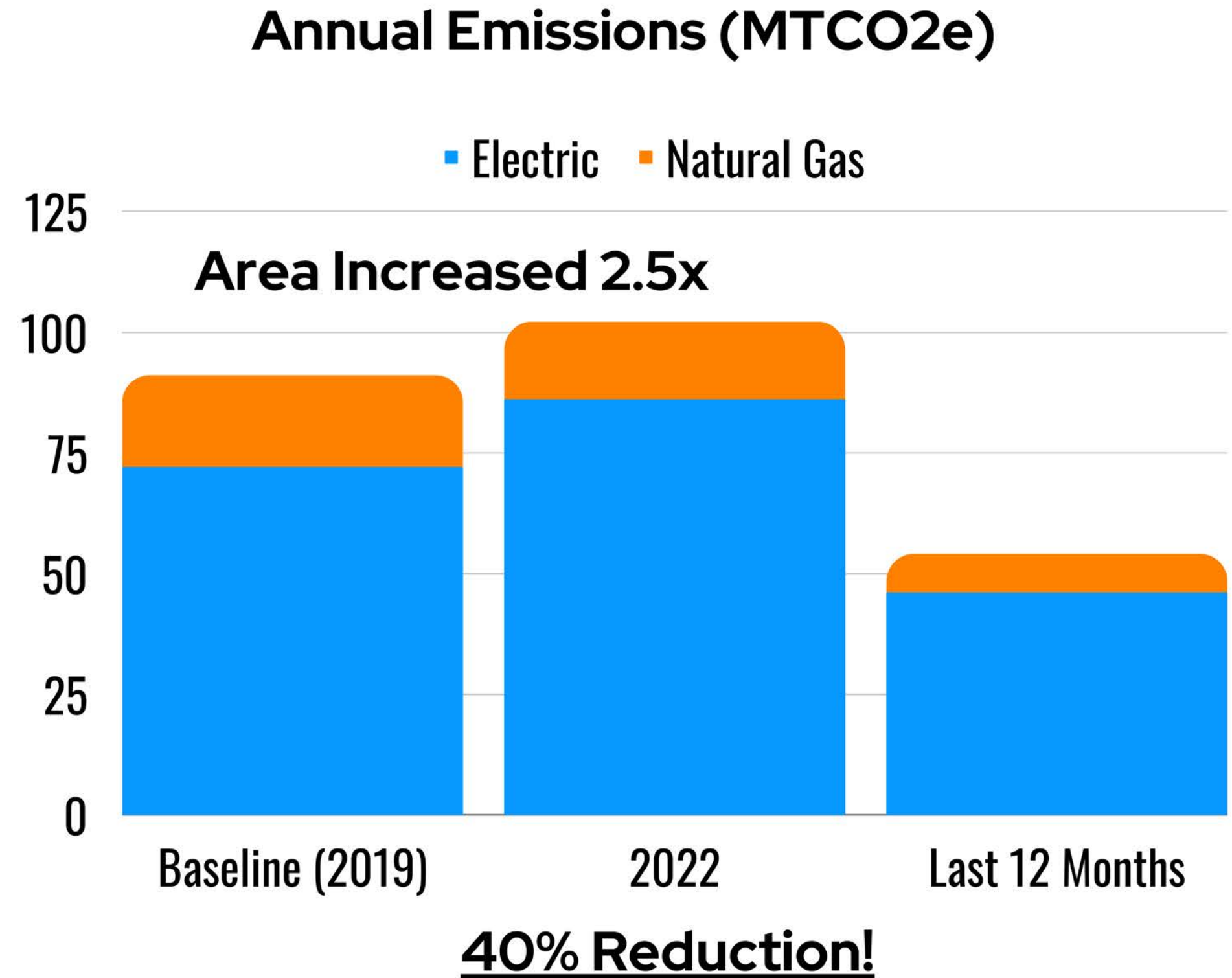


## Electric Usage

- 2021-2022
- 2022-2023



# Case Study: Something New





# What's Next for C3?

- Multi-City Expansion – Richmond
- Engage more businesses and non-profits
  - New program(s) with quicker spin-up
  - Grow our network to boost education and policy involvement
- Starter kits
  - More off-the-shelf resources, incentive navigation tools
- Focus groups
  - Shared challenges in small teams (**EV Fleets**, Solar Financing)



