Jan. 14, 2025

Proposed Building Performance Standards (BPS) Policy Framework

Brian Tholl

Energy Services Manager

Katherine Bailey

Energy Services Program Manager

BPS Introduction

Purpose of work session #3 on BPS:

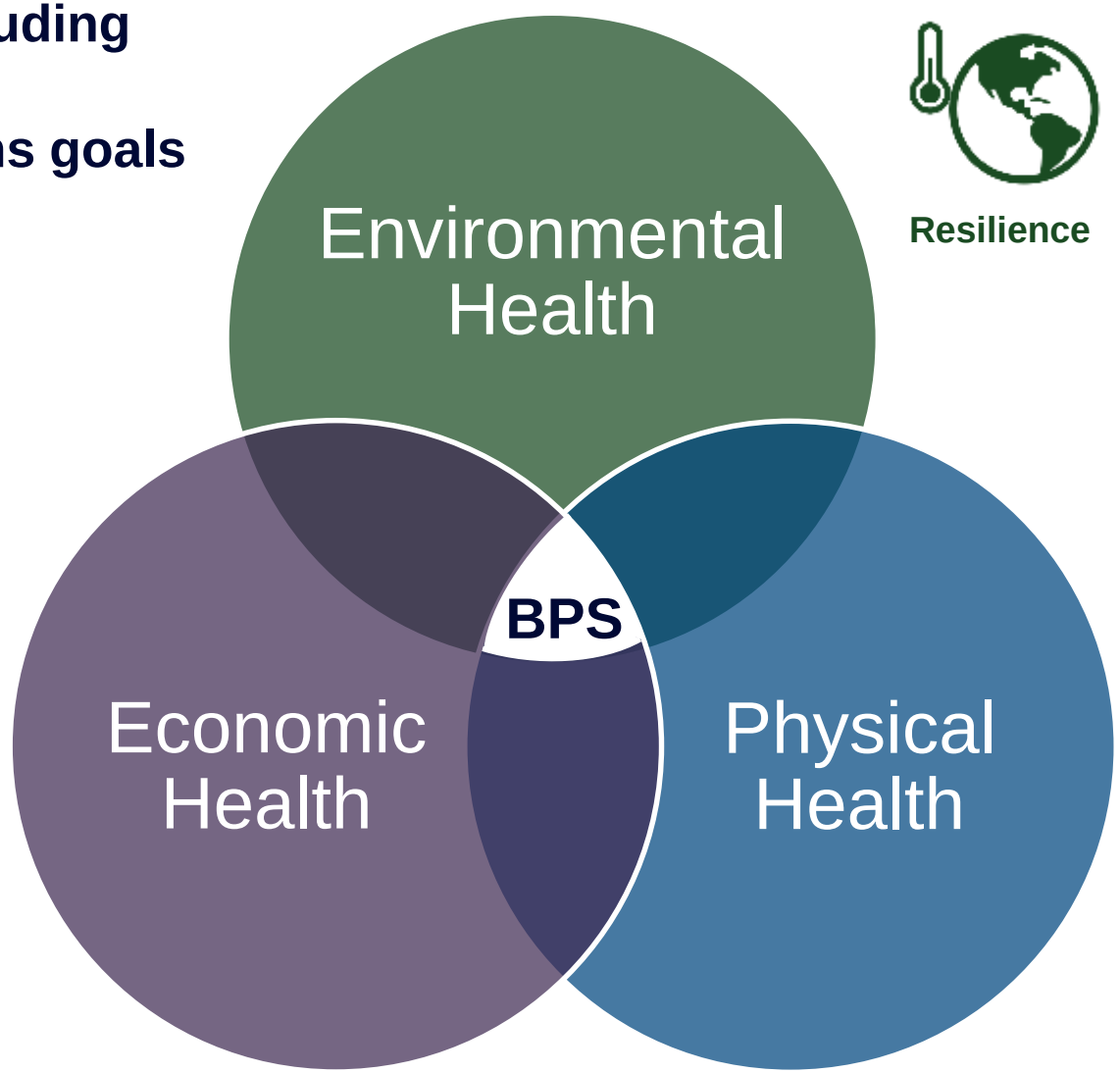
- Share learning from ongoing community engagement and BPS implementation in other jurisdictions
- Highlight potential tensions between this policy framework and other Council Priorities, e.g., housing, economic health
- Discuss trade-offs and possible paths forward

Council Questions

- Does Council have feedback on a local BPS framework as a regulatory method of advancing the community to 2030 and 2050 goals?
- Does Council have feedback on adjusting proposed timelines, maximum reduction caps, or covered buildings?
- What other considerations should staff incorporate into the proposed BPS framework?

BPS Benefits

Regulatory actions, including BPS, are necessary for achieving OCF emissions goals



Resilience

Emissions impact

Natural Gas impact

Energy burden through use and rate pressure

Occupancy & tenant retention

Economic growth, resale value, competitiveness

Health

Safety

Comfort

Case Studies

Small, Local Grocery

- Lighting, controls, refrigeration, case upgrades
- $58,000 investment
- $28,000 rebates
- $16,000 annual est. avoided utility costs
- Reduced electric use by 53%
- Meeting BPS grocery target

Municipal Office

- Modified HVAC maintenance practices & commissioning
- No capital investment; avoided potential, expensive HVAC upgrade
- Reduced electric use by 11.5%
- Meeting BPS office target

Local Congregation

- Upgrades planned to meet sustainability vision of members
  - Photovoltaic installation
  - Efficiency upgrades and high efficiency expansion project
- Staff note improved comfort and work environment
- Community members now enjoy the sanctuary in all seasons

Who's Impacted

Building owners

Local, not meeting target **<550**

Building occupants

People living in multi-family buildings **~17,000 bedrooms**

People working in office buildings **~11,500 workers** on main shift

Buildings are community assets

Council Considerations from Feedback

Community Concerns

- Inequitable economic impacts across different building types
- Accuracy of projected impact on all properties
- Buildings owners don't have sufficient resources to comply

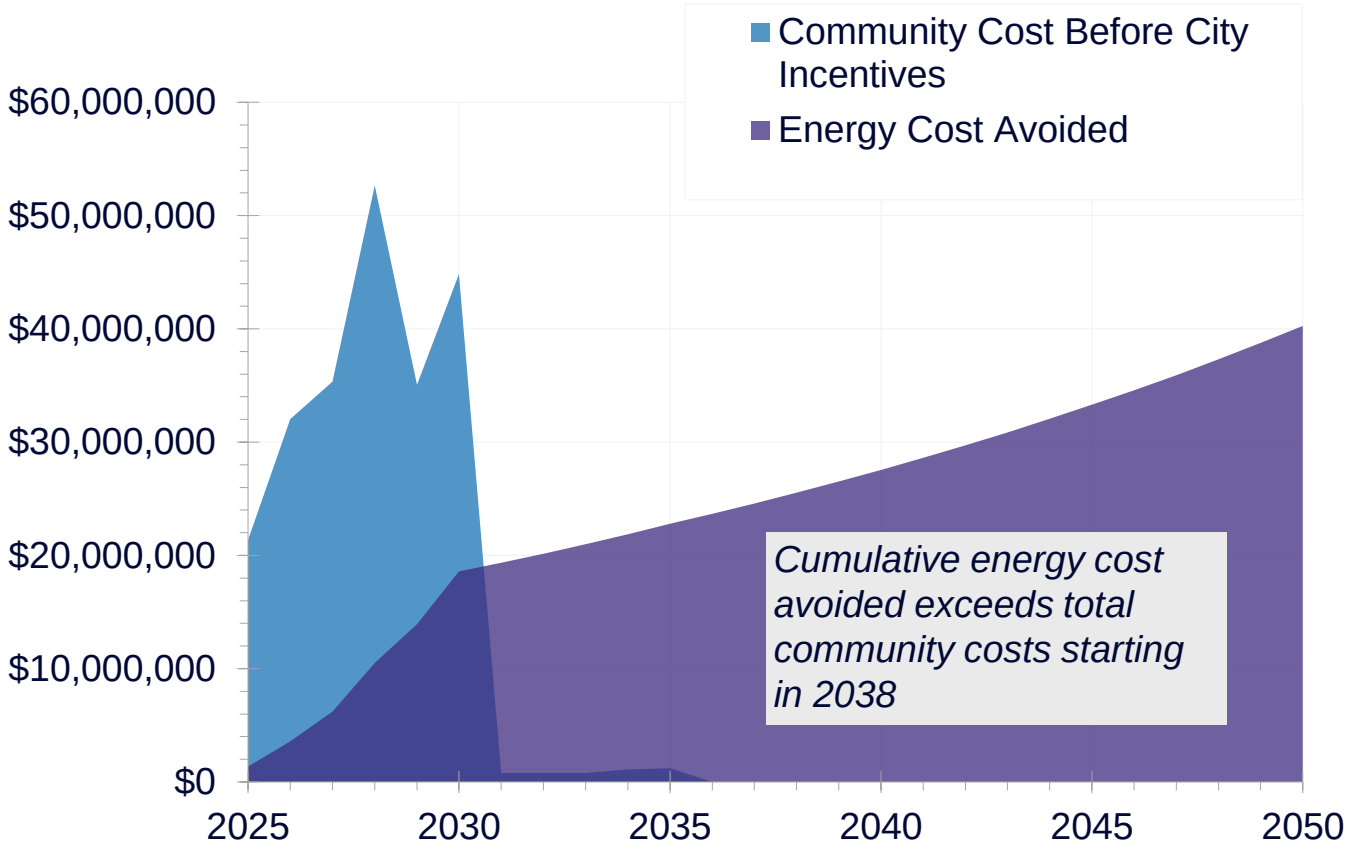
Recommended Implementation Levers	Possible Policy Levers

• Adjustments
• Specialized resources for market segments
• Increased support
• Educational support
• Technical support
• Financial Navigator
	• Modify timeline
	  • Extend community deadlines
	  • Lead with municipal
	• Modify target requirement
	  • Adjust cap
	• Modify covered buildings
	  • Exclude small buildings or certain property types

Policy Lever Trade-offs

Policy Lever	Potential Change	Upfront Economic Impact	Environmental Impact	Administrative Impact
Timeline	Extend compliance 3-5 years	**Minimal**	**Half-percent of OCF goal per year**	**Moderate**
Target Requirement	Reduce maximum reduction cap by 5%	**High**	**High**	**Minimal**
Covered Buildings	Exclude buildings 5,000-10,000 ft^2	**Minimal**	**Minimal**	**Moderate**
	Exclude multi-family buildings	**High**	**High**	**Moderate**

Economic Impact: Costs and Savings



Estimated Building Owner Costs

- $226 million costs exclude rebates, business as usual assumptions
  - $4-5 / square foot

Estimated Savings

- By 2050, covered building owners would avoid $630 million in energy costs
- By 2050, BPS economic benefit is $2.80 in energy cost avoided for every $1 spent

Average building upgrade simple payback is eight years

Learnings and Opportunities

Other Jurisdictions

- Critical elements:
  - Support (**educational**, technical, financial)
  - Role of alternate pathways, rules
  - Timeline consideration

Municipal Buildings

- City buildings are ahead on energy performance and meeting targets
  - 55% of covered municipal buildings are meeting proposed targets
  - $5.3 million estimated investment for remaining building improvements

Opportunities

- U.S. Department of Energy grant for community technical and financial BPS assistance
  - $4.5 million over six years
  - Distribution expected to begin July 2025

Council Questions

- Does council have feedback on a local BPS framework as a regulatory method of advancing the community to 2030 and 2050 goals?
- Does council have feedback on adjusting proposed timelines, maximum reduction caps, or covered buildings?
- What other considerations should staff incorporate into the proposed BPS framework?

Questions on BPS:

Katherine Bailey

Program Manager, Energy Services

Kbailey@fcgov.com

970-221-6818

ourcity.fcgov.com/BPS

Additional Context

Katherine Bailey

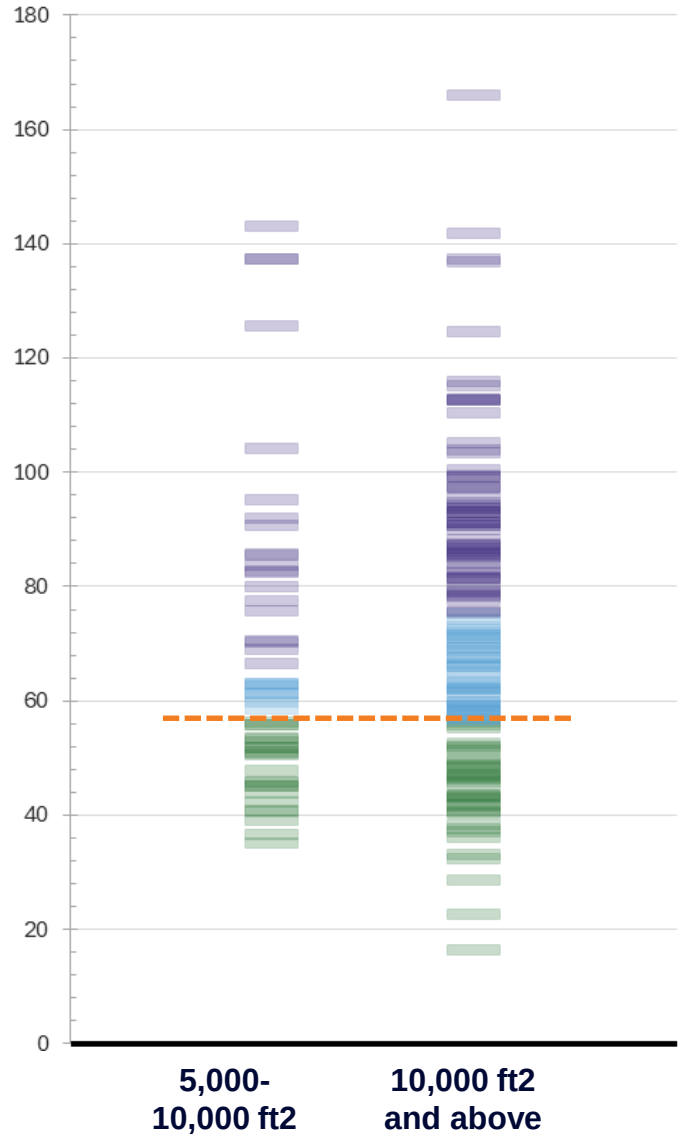
Program Manager, Energy Services

BPS Policy Framework

- BPS sets efficiency targets accounting for current usage (actual building use represented in graph)
  - More efficient buildings already meet targets (green dashes)
- Buildings not meeting targets make behavioral or efficiency changes
  - "Caps" are percentage limits on the per building maximum energy reduction required (purple dashes indicate buildings eligible for cap)
- Customized solutions are available for special circumstances

Through implementation, the City is committed to communicating required actions, while providing the right resources and support to building owners

Covered Office – Energy Use Intensity by Building (kbtu/ft²)



BPS Overview: Covered Buildings in Fort Collins

Building Size	Building Count	Building Count	Reduction Target	Reduction Target	Reduction Target	Upgrade Cost (Per Square Foot)
	Number of total buildings	Buildings that need to act	Compliance requirement timeline	Individual reduction cap	Average reduction to target	
5,000-10,000 square feet	310	200 (65%)	2035	15%	9%	$4.10 to $4.60
10,000+ square feet	780	520 (66%)	2030	25%	13%	$4.70 to $5.10
State covered 50,000+ square feet	80	60 (77%)	2030	29%	17%	$4.40 to $4.70

Based on 2023 reported benchmarking data; some buildings are campuses which include multiple structures

Municipal Buildings

- About 55% of City-owned buildings already comply with proposed BPS efficiency targets
- For City-owned buildings that do not comply with proposed efficiency targets, staff forecast about $5.3 million of additional capital funds would be needed to reach 2030 and 2035 efficiency targets
- A third-party consultant is providing support; reviewing upcoming projects and aligning them with local, state and federal funding sources, including both tax credits and other up front funding resources, to complement Budgeting for Outcomes offers

Fort Collins Community Engagement

	Hours	People Engaged	Audiences
Community Engagement 2023-2024	~175	~700	Technical, Industry, Business, Environmental, Boards, Owner representatives, tenants, and more

+ additional engagement with other jurisdictions and federal partners

Learnings:

- Multi-family tenants are significantly impacted by holistic costs (including utility costs) and face challenges advocating for improved living conditions.
  - BPS compliance costs lead to direct payback to rate payers in the form of reduced utility costs.
- Significant resources are essential for policy success, particularly education.
  - Awareness and knowledge are key barriers to efficiency.
- Split incentive is ongoing concern.
  - Tenant – owner education is essential.

Community Contributors

Task Force	Technical Committee	Equity Engagement	BPS Experts	Community Voices
Industry Experts	Building Science Experts	Community-Based Organizations	Other Jurisdictions	Business Groups
	Experienced Consultant	Climate Equity Committee	Non-profit and Federal Groups	Environmental Groups
		Scoped Work		Boards and Commissions

Community contributors shaped BPS policy recommendations

Housing Affordability

Multi-family Buildings

R2 occupancy, 3+ stories above grade

- 148 covered multi-family campuses (out of 4,136 local multi-family campuses)
  - Average covered campus size: 80,000 square feet
  - 102 campuses are not meeting targets
- Average cost: $4-5 per square foot, <8 yr simple payback
- 17% of total opportunity and costs
- 30% of total covered square footage
- Subsidized affordable housing included in proposed policy
  - Housing Catalyst projects follow Enterprise Green Communities criteria (national green building guidelines specifically for affordable housing)

Policy Lever Trade-offs

Policy Lever	Potential Change	Economic Impact	Environmental Impact	Administrative Impact
Timeline	Extend compliance 3-5 years	**Minimal** – inflation / NPV	**Half-percent per year** progress to OCF emission goal	**Moderate** – upgrades over time
Maximum reduction cap	Reduce cap by 5%	**High** – 20% of costs	**High** – 20% reduced emissions reduction	**Minimal** – similar administrative resources
Covered buildings	Exclude buildings 5,000-10,000sf	**Minimal** – 5% of costs	**Minimal** – 5% reduced emissions reduction	**Moderate** – reduce # of covered buildings
	Exclude multi-family buildings	**High** – 17% of costs	**High** – 17% reduced emissions reduction	**Moderate** – reduce # of covered buildings

Compounding Levers

Estimated impact on GHG savings and costs with overlapping scenarios:

- Excluding multi-family AND cap reduction;
- Excluding small buildings AND cap reduction;
- Excluding both multi-family AND small buildings AND cap reduction

Excluding multi-family buildings AND lowering maximum reduction cap by 5%	Excluding small buildings AND lowering maximum reduction cap by 5%	Excluding multi-family AND small buildings AND lowering maximum reduction cap by 5%
35% impact on GHG and costs	24% impact on GHG and costs	39% impact on GHG and costs

Economics of the ‘Low Hanging Fruit’

Efficiency is cheaper than electric rates

- Administrative & Utility:
  - BPS administrative costs are significantly less than wholesale energy costs per MWh
  - Efficiency is cheaper than new energy generation
  - Efficiency minimizes need for distribution upgrades
- Community:
  - BPS community costs are less than 2024 electric rates per MWh

Efficiency supports *strategic* electrification

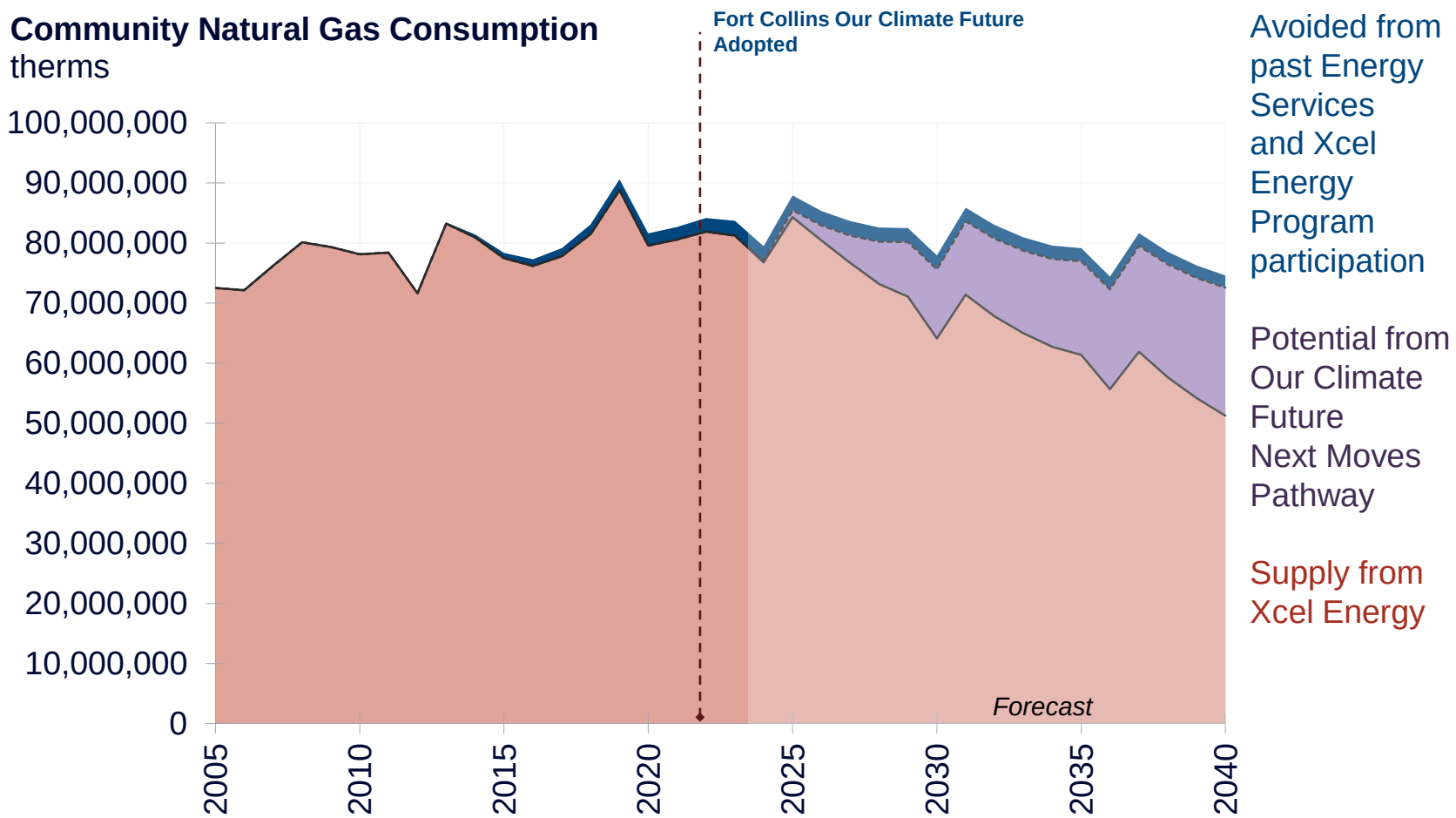
- Reduces costs community-wide

Environmental Impact – Natural Gas

BPS is a significant portion of projected natural gas savings

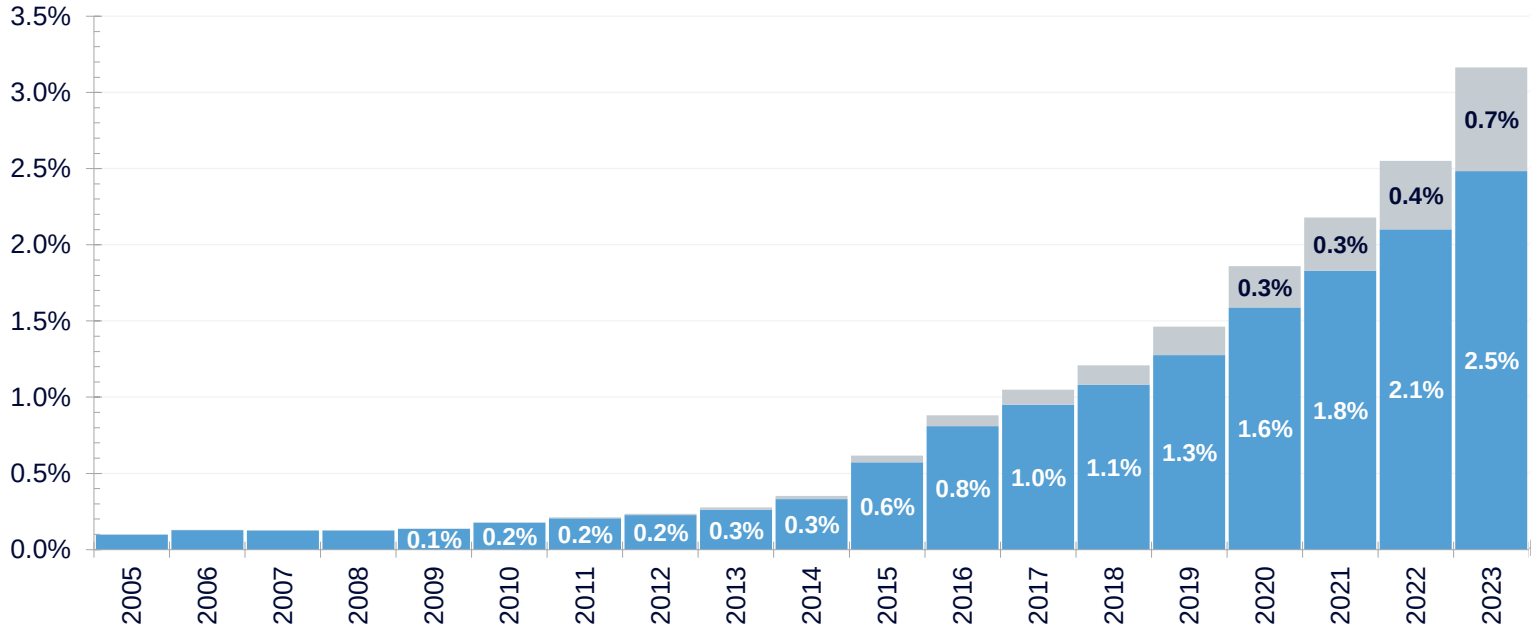
- More natural gas savings projected from BPS (3 million therms) than electrification (2.5 million therms) by 2030
  - Remaining potential savings are from proposed regulatory residential pathways
- BPS enables future electrification through efficiency

Do Nothing More Forecast with Past Impacts AND Forecasted Moves Pathway



Renewables and Efficiency

- Efficiency reduces energy use
- Reduced energy use increases impact of existing and new solar
- Efficiency balances impact of electrification



Local Renewables as a Percent of Resource Mix (generation % of operational consumption) with efficiency impact

Local Policy Comparison: Lessons from Denver

Denver BPS targets Developed to support local bill requiring 30% total energy savings from BPS	**Fort Collins BPS targets** Developed with a focus on achievability
Proposed Denver requirement updates and considerations	Included in Fort Collins proposal?
Building target adjustments	☑
Maximum Reduction Cap (42%)	☑ (15% and 25%)
Waivers for occupancy and financial distress	☑

Municipal Codes and Administrative Rules

- Denver proposes updates to Administrative Rules
- Municipal Code should allow for (and encourage) rule updates throughout implementation as warranted; either explicitly (e.g., “every five years there will be a review and change as appropriate”) or implicitly (through flexible code language)
- Updates to rules don’t have to impact implementation (e.g., alterations to waivers and adjustments only affect owners not in compliance at target deadline)

THANK YOU!

For More Information, Visit

ourcity.fcgov.com/bps

City of Fort Collins