

Building Performance Standards Policy Update

Brian Tholl

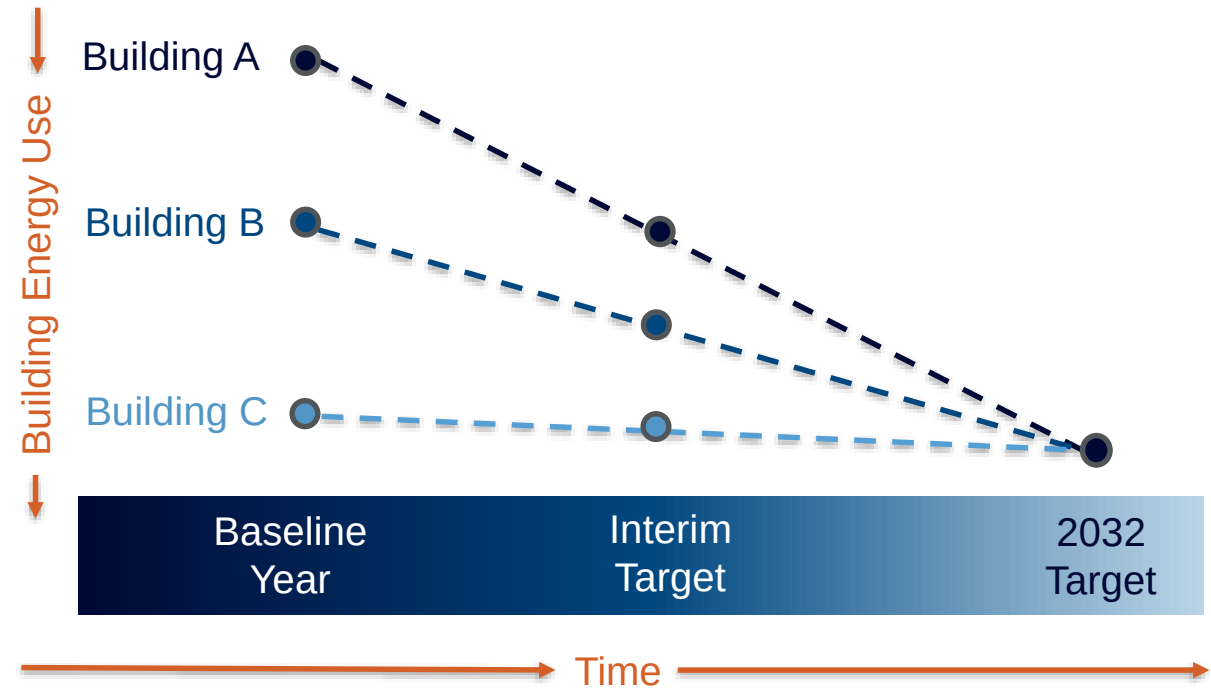
Energy Services Director





- Do Councilmembers have feedback on the Building Performance Standards (BPS) policy levers identified?
- Do Councilmembers support advancing a BPS regulatory framework for adoption?

- BPS require buildings to meet energy performance targets by specific deadlines.
- BPS focus on flexibility, providing options and off-ramps.
- Efficient buildings are already meeting performance targets.



BPS drive gradual efficiency improvements in existing buildings

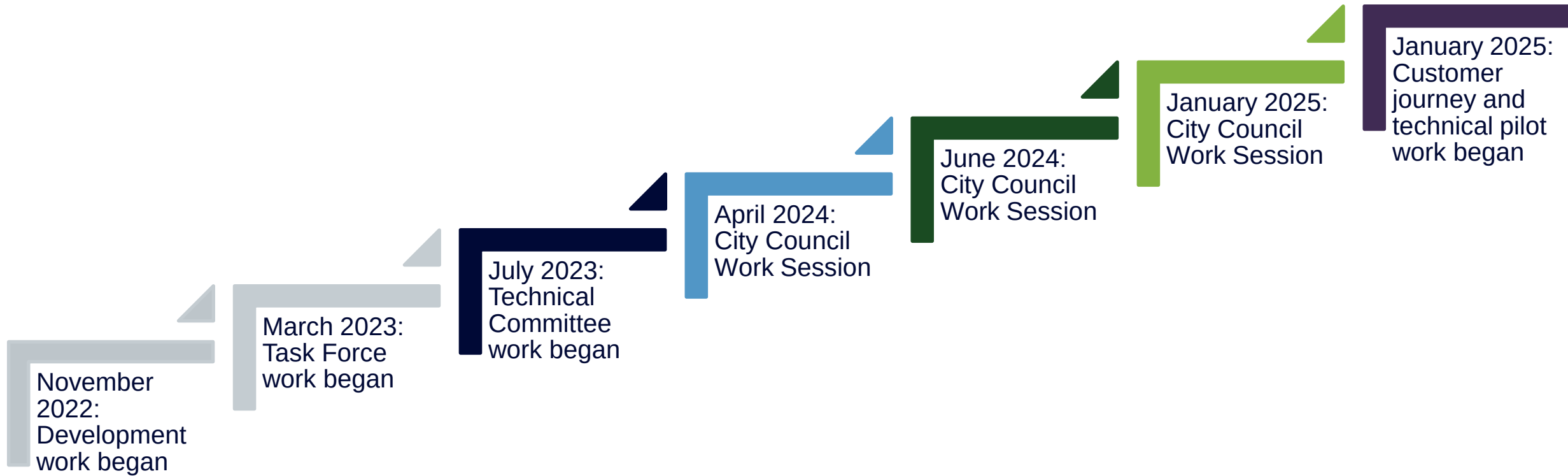
BPS Overview: Covered Buildings in Fort Collins



Building Size	Building Count	Building Count	Timeline	Reduction Target	Reduction Target	Upgrade Cost (Per Square Foot)
	Number of total buildings	Buildings that need to act	Compliance requirement timeline	Individual building reduction maximum	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
Excludes buildings without 2023 reported data*

Where We've Been



Staff have taken an intentional approach to policy development for three years



Goals

- Test and/or validate staff assumptions used in policy development
- Test and/or validate process steps and resources required to implement a successful policy
- Identify tensions and opportunities associated with economic impact and provide information regarding implementation feasibility

Methods

- Conduct journey map activity
 - Identify process, pain points and associated mitigation strategies for implementation
 - Interview sample of covered building owner representatives to confirm
- Conduct technical assessment for six local buildings exceeding targets and of various vintage

Staff have worked with building owners on a set of activities to provide additional policy insights

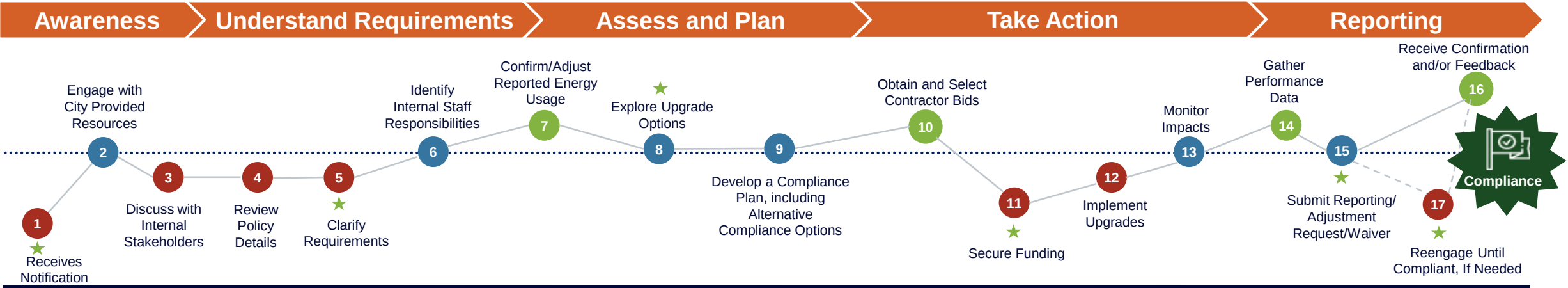
The journey map incorporates feedback from building owner representatives to support successful implementation



Generates a shared understanding of the BPS journey



Identifies potential points of friction and mitigation strategies early for implementation



BPS journey map provides insights into regulatory process for staff and community

Key Takeaways

- Cost of compliance variability (\$0.15/square foot - \$13.20/square foot)
 - Weighted average of upfront investment of \$4.64/square foot
- Compliance pathways are technically achievable
- Upgrades vary from behavioral to full HVAC system upgrades
- Individual building owner awareness, understanding requirements, and assessment and planning steps will likely take a minimum of 12 months



Pilot Building Economic Summary

Property	Building size (square feet)	Building EUI: kBTU/square foot	BPS target* for property kBTU/square foot	Estimated cost for compliance <i>before rebates**</i>	Simple payback with <i>local</i> rebates	Cost for compliance per square foot**
Municipal building	5,500	110	36	\$1,560	0.4 yrs	\$0.28
Mixed use museum / restaurant	17,875	269	103	\$236,000	20.6 yrs	\$13.20
Office (1)	31,669	102	56	\$4,500	6.8 yrs	\$0.15
Office (2)	44,142	110	63	\$240,000	19.4 yrs	\$5.43
Multi-family	104,826	68	43	\$490,300	19.1 yrs	\$4.68
Restaurant	7,066	437	185	\$3,100	1.2 yrs	\$0.43

*All pilot buildings, due to existing energy use intensity (EUI), would be required to achieve the maximum reduction cap of 15% or 25% to achieve compliance

**Cost for compliance in some cases includes replacing equipment that is past the end of its useful life

Assess and Plan

- Chose best pathway
 - 15% reduction required; 25% reduction projected based on work completed
 - Pathways include upgrades underway at time of assessment (lighting, now complete)

Take Action

- In-house staff installed lighting, reprogrammed thermostats
- Contractor work to install additional programmable thermostats
- Total cost of \$3,360 (\$1,560 needed to meet BPS target)
- No timeline or target adjustments likely at this time due to simplicity and cost of upgrades.

Compliance

- Monitor and maintain efficiency level

Assess and Plan

- Chose best pathway
 - Pathways include upgrading two large pieces of equipment at end of useful life

Take Action

- Option 1: Implement upgrades – total cost \$236,000
- Option 2: Apply for target or timeline adjustment ('off-ramp')
 - Reduced target:
 - Quantified savings possible throughout facility, not likely a target adjustment would be granted.
 - Extended timeline:
 - Likely would be granted to spread work over several years to reduce annual upgrade expenditure, and to align with end of useful life replacement
- Option 3: Non-compliance and be subject to municipal citation

Compliance

- Monitor and maintain efficiency level



Incentive Versus Regulatory Approach



Building Performance Standards Policy

Develop policy framework for improving performance of built environment

OCF Driven

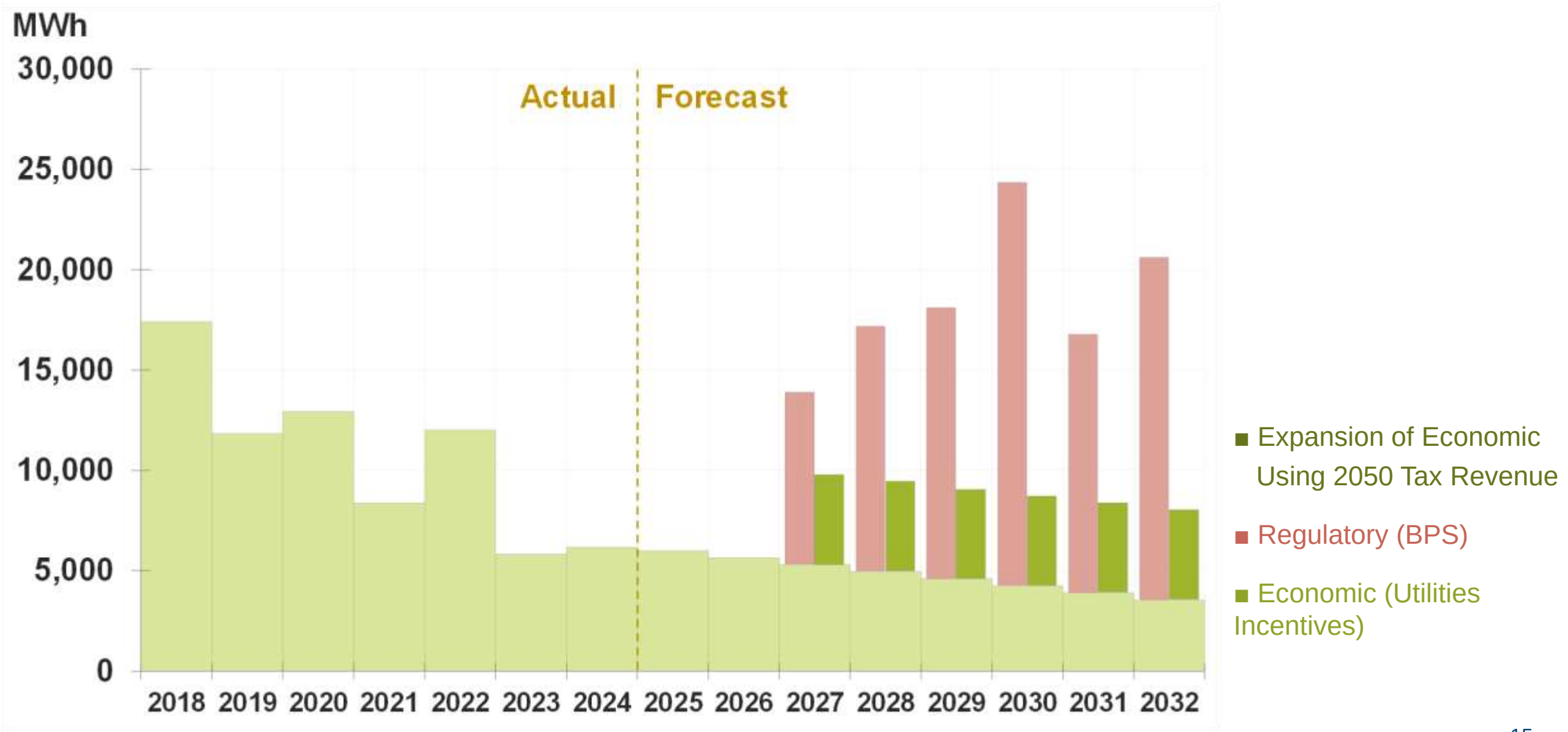
- Building emissions reduction
- Optimize energy use for pursuing 100% renewable electricity



Incentive Versus Regulatory Considerations

	Incentives	Regulatory
Mechanism	Encourages voluntary upgrades through financial or technical support (e.g., rebates, tax credits, grants)	Mandates performance improvements via energy standards with compliance timelines and penalties
Predictability of Outcomes	Outcomes depend on participation rates; emission reduction uncertain	Provides certainty and measurable progress toward climate goals
Administration	Requires increased, ongoing funding , easy to pivot and adjust	Requires strong enforcement, consistent implementation, ongoing tech/admin support
Market impacts	Stimulates innovation, pilot projects, and workforce growth	Drives widespread adoption of proven technologies and practices

Electric Reduction Trends and Forecast





Policy Framework Discussion

Policy Lever Trade-offs

Policy Lever	Potential Change	Economic/Mitigation Impact	Trade-off
1. Timeline	Extend compliance 3-5+ years	Minimal – Shifts outcomes	+ Allows additional planning, flexibility during economic uncertainty - Missing interim policy goals
2. Maximum Reduction Cap	Reduce cap by 5%	High – average 20% of costs for individual buildings	+ Reduced individual building investment - Reduced long-term benefits
3. Covered Buildings	Exclude buildings 5,000-10,000sf (310 buildings)	Minimal – 5% reduced policy impacts, costs	+ Reduced operating expense pressure - Does not improve energy use or building conditions for small business
	Exclude multi-family buildings (148 multi-family campuses)	High – 17% reduced policy impacts, costs	+ Reduces upward housing affordability pressure - Owners not required to reduce rate pressure/improve living conditions for tenants
	Exclude New Construction (2024 IECC)	Minimal – inflation / NPV	- Dependence on compliance with 2024 IECC

Option 1: Proposed BPS policy approach
2032 timeline

Option 2: Modified BPS policy approach

1. Timeline: 2035 or later
2. Reduce cap by 5%
3. Remove small buildings
+/- new construction

Option 3: Complement utility incentives with
2050 tax incentives

Option 4: Business as usual



- Do councilmembers have feedback on policy levers identified?
- Do councilmembers support advancing to first reading with a BPS regulatory framework?



Thank you!

Brian Tholl
Energy Services Director