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The Clock is Ticking: How Denver Uses Data to Focus Our Efforts

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Denver's emissions are down 36% since 2015, but nearly all of that came from a cleaner electric grid. City staff and their consultant showed how a public GHG dashboard, a forecast model and a few leading indicators tell a city which levers matter and whether its programs are working.

KEY TAKEAWAYS

1. **Split your inventory to see what's really moving.** About 40% of Denver's emissions (electricity) get cleaner on their own. Heat and transportation need active decarbonization and owner investment.
2. **A few levers do most of the work.** Three levers deliver about 90% of cumulative reductions through 2050: greening the grid, electrifying building heat, and electrifying light-duty vehicles.
3. **Fewer driving miles alone won't cut emissions.** Even a 10% per-person cut in driving leaves total miles flat at 4.6 billion by 2050 as Denver grows. Tailpipes must be electrified too.
4. **Track leading indicators, not just lagging GHG.** Clean heat permit share, all-electric new construction, EV registrations and gas customer counts show progress years before inventories do.
5. **Model equipment turnover to set realistic goals.** Furnaces and cars last 15 to 20 years. Denver's 65% by 2035 target looks out of reach, but exceeding 75% by 2040 is achievable.

WHAT LOCAL OFFICIALS CAN DO

- ☐ **Build a single source of truth for GHG data.** A standard data structure in SharePoint and basic Microsoft tools feeds both the dashboard and the model.
- ☐ **Add check boxes to permit forms** so you can count heat pumps and other clean systems without scraping contractor notes.
- ☐ **Streamline heat pump permits.** Denver now issues quick permits for multifamily heat pumps without stamped engineering drawings.
- ☐ **Electrify when equipment fails,** and make the clean replacement easy for owners and contractors.
- ☐ **Target blocks where gas mains are due for replacement.** Denver is asking regulators to turn avoided gas costs into customer incentives.
- ☐ **Lead by example and absorb the cost premium.** Denver's first all-geothermal rec center came in below estimate once federal tax credits were captured.
- ☐ **Put a few leading indicators on the mayor's dashboard,** such as heat pump share of permits and all-electric new construction, with near-term targets.

BY THE NUMBERS

36%
Drop in Denver GHG emissions since 2015

$50M/yr
Climate funding from a voter-approved 0.25% sales tax

~90%
Cumulative 2050 reductions from three levers (slide: 92%)

3x
Growth in clean heating permit share in three years

51%
New construction permits all-electric (Q3 2026)

226,000
Denver gas customers, still growing about 1,000 a year

WATCH OUT FOR

- ! Electrifying without efficiency can create winter peaks that require a much bigger grid, at a cost the community may push back on.
- ! Disconnecting large users from a shared gas or steam system can leave remaining customers paying for stranded infrastructure.

RESOURCES

Denver Climate Action (CASR)
denvergov.org/climate

Denver GHG Emissions Dashboard
Search "Denver GHG Emissions Dashboard"

Lotus Engineering and Sustainability
lotussustainability.com

ACEEE City Clean Energy Scorecard
aceee.org/city-clean-energy-scorecard

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