Who Will Pay for Legacy Utility Costs?

Source: NPR

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Who will pay for legacy utility costs?

- Regulated utilities are different from other businesses in three key ways:
- They have very large fixed costs (e.g. pipelines);
- They typically have monopoly franchies as a result;
- They are regulated by state level commissions (or by cities or coops).
- This complicates the energy transition.

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- Regulated utilities recover fixed costs by spreading fees out over time across their customer base.
- If the customer base shrinks, how do they recover these costs?
- Natural gas pipelines don't go away!
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Building electrification

- "A linchpin solution for decarbonization" (NASEM 2021)
- Multiple recent reports call for *majority* of new homes to be all-electric in just ten years
- Specific policy proposals:
  - Bans on new natural gas hook-ups
  - Electric-preferred local building codes
  - Electric-preferred national standards on appliances
  - Funding through programs like the Weatherization Assistance Program

"Carbon-Neutral Pathways for the United States," Williams et al. (2021)

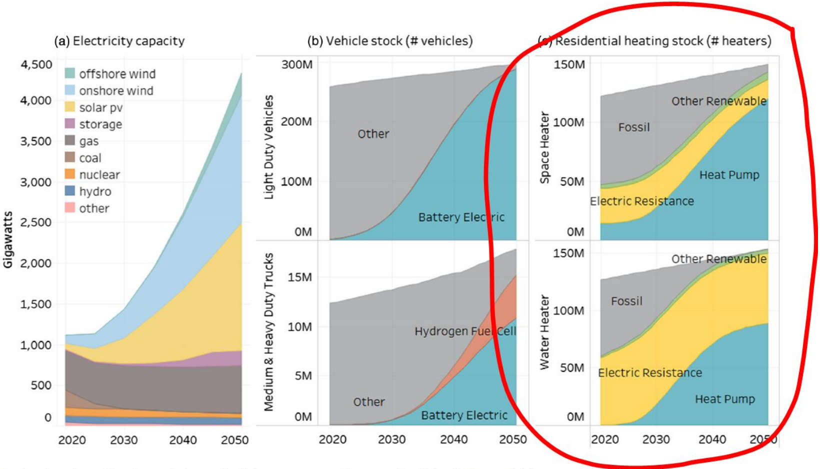

Figure 4. Infrastructure transition in central case for (a) power generating capacity, (b) vehicles, and (c) space and water heating.

Research design

- We use data from the Department of Energy and the Department of Transportation,
- Covering 1997 to 2019,
- To investigate how utility finances + consumer prices evolve when utilities lose customers.

Findings

- When a utility loses customers,
- Its pipeline network does not shrink (more on this in a minute).
- Prices rise as legacy costs are passed on to remaining customers.

Specifically

- A utility adding one customer receives \$328 more per year.
- A utility losing one customer receives \$152 less per year.
- Consistent with: about half of the per-customer costs have disappeared,
- And about half of costs have stayed, and been passed on to other customers.

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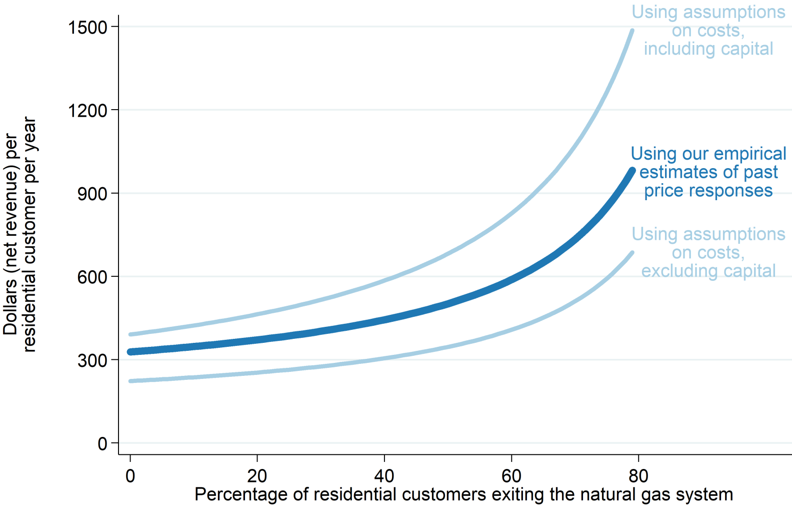
Prices rise non-linearly with customer defection



In the paper

- Detailed statistical analysis.
- Robustness checks.
- Additional data: utility expenditures on administrative costs; operations and maintenance; returns for investors; etc.
- Open access: `https://www.journals.uchicago.edu/doi/10.1086/719793`

Summarizing from the expenditures data

- There are true costs that stick around (e.g. maintenance),
- True costs that disappear (gas costs, meter reading),
- And costs that, going forward, will be political/legal decisions (e.g. returns for shareholders).

Policy questions and implications

- Proposed solutions (targeted electrification; subsidizing low-income electrification) only partially alleviate the problem.
- Legal questions: whether shareholder returns can be disallowed.
- What to do in the interim with leaky pipes and methane impacts?
- Implications for partial versus full electrification.
- Parallel issues in electricity policy.

Thank you!