Renovating Regulation for Building Electrification

USDN/BEI Building Electrification and Gas Transition Learning Groups

Jessica Shipley
jshipley@raponline.org

David Farnsworth
dfarnsworth@raponline.org
About RAP

The Regulatory Assistance Project (RAP)® is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at raponline.org
Today’s Major Points

- Regulation needs to be updated to support building electrification goals
- Updates are needed across a wide range of policies and programs
- Cities can influence decision-makers including PUCs
Roles of Regulators

- Extensions of legislatures, executing powers granted in statutes
  - Some states have expanded regulator roles and duties to include achieving state climate goals (e.g. WA, NY)
- Regulate in “the public interest”
  - Regulators have differing interpretations of this
- Pricing: the essential regulatory act ("just and reasonable rates")
Roles of Utilities

- Provide service to anyone who requests it
- Adhere to strict safety standards
- Adhere to reliability standards
- Provide adequate service
- Be responsive to customer needs
The Opportunity

• Our “traditional” system of regulation has served us well for the past century…
• But new policy priorities and technologies are driving a need for change
• Regulation needs renovation
The Opportunity

- Efficient, cleaner end-use technologies
- Flexible load-side resources can reduce emissions and cost
- Electrified buildings can provide benefits, savings and help achieve policy goals
The Challenge

- Regulatory frameworks need to evolve to enable an electrified transition
- Barriers exist in both regulation and policy:
  - Make equity a top priority
  - Re-think energy efficiency policy and delivery
  - Limit gas utility expansions
  - Realize customer and grid value from flexible building loads
Equitable Building Electrification

- Persistent barriers exist throughout energy regulatory structures
- Regulators lack knowledge and insight about low income or disadvantaged communities
- PUC processes aren’t accessible to non-experts
- “…and equity”
- All energy consumers – the public – must have access to the benefits of building electrification.
Equitable Building Electrification – Renovation Opportunities

• Develop better information on how well existing programs are working, including their effects on the public
• Improve opportunities for meaningful engagement
• Intentionally design more effective building electrification programs
• Reassess and improve programs regularly
Energy Efficiency Policy and Programs

• Traditional Energy Efficiency Resource Standards (EERS) set a framework that hinders fuel-switching (e.g. electrification)
• Many state EE policies prohibit using program funds for fuel-switching
• Programs don’t comprehensively consider weatherization with electrification
• Current cost-benefit frameworks may not be appropriate
Energy Efficiency Policy and Programs – Renovation Opportunities

• Replace existing policy targets with a fuel-neutral goal
• Remove fuel-switching barriers in policies and programs and reform incentive structures
• Evaluate comprehensive building improvement options
• Reconsider cost-benefit frameworks
Gas Utility Network Extensions

- Current approaches produce misaligned costs and benefits leading to an unfair barrier to electrification.
- The “economic” portion of line extensions are “socialized” and paid for by all ratepayers.
- Regulators often do not closely scrutinize gas utility calculations justifying line extensions.
Gas Utility Network Extensions – Renovation Opportunities

- Update the calculation of “economic” line extensions
- Consider shifting risks from ratepayers to new gas customers
- Consider adding a social cost of net lifetime GHG emissions to the calculation of new gas customers’ costs
Load Flexibility and Grid-Interactive Efficient Buildings

- Benefits include overall energy savings, the integration of renewable energy, reduced system costs and improved customer economics and productivity.
- Barriers prevent electrified buildings from providing - and being compensated for - load flexibility.
Load Flexibility and Grid-Interactive Efficient Buildings

- Need better articulation of the value of flexible, grid-interactive buildings
- Traditional regulation does not give utilities an incentive to pursue load flexibility
- Legacy utility rate designs dull consumer awareness and potential cost benefits of flexibility
- Utility planning fails to recognize flexible buildings as a resource
Load Flexibility and Grid-Interactive Efficient Buildings – Renovation Opportunities

- Use pilots to illuminate the various value streams of flexible load
- Address throughput incentive and capital bias
- Structure utility rates to communicate the system value of flexibility
- Incorporate the value of flexible buildings as a resource in long-term planning
How Cities Can Weigh In

• Cities have the potential to be effective advocates before PUCs
• Cities are situated to formulate policy preferences that serve all communities and interests
• Options for engagement include:
  • Work with NGOs that typically intervene in regulatory matters
  • Work with a coalition of cities
  • Hire consultants to intervene on your behalf
  • Write written comments in relevant proceedings
  • Others?
Concluding Thoughts

- It’s time to recognize what buildings can do.
- Multiple benefits are achievable from adoption of new, clean, and more efficient technologies in buildings.
- Regulatory barriers need to be addressed to ensure benefits are realized by everyone.
- Cities can be a force for change and an important voice in removing barriers and seizing opportunities.
For More Information

- **Beneficial Electrification: Ensuring Electrification in the Public Interest** 2018
  - [Webinar](#) 2018
- **Beneficial Electrification of Space Heating**, 2018
- **Beneficial Electrification of Water Heating**, 2019
- **Smart Rate Design for a Smart Future**, 2015
  - [Webinar](#) 2015
- **Fuel-Switching: We Just Did This in 1990, So Why Are We Doing It Again?** 2018
- With the shift toward electrification, decoupling remains key for driving decarbonization, 2020
- Forthcoming from RAP: **Renovating Policy and Regulation for Effective Building Electrification**
- From RMI: [https://rmi.org/insight/regulatory-solutions-for-building-decarbonization/](https://rmi.org/insight/regulatory-solutions-for-building-decarbonization/)
Thank you