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Renovating Regulation for Building Electrification

USDN/BEI Building Electrification and Gas Transition Learning Groups

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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



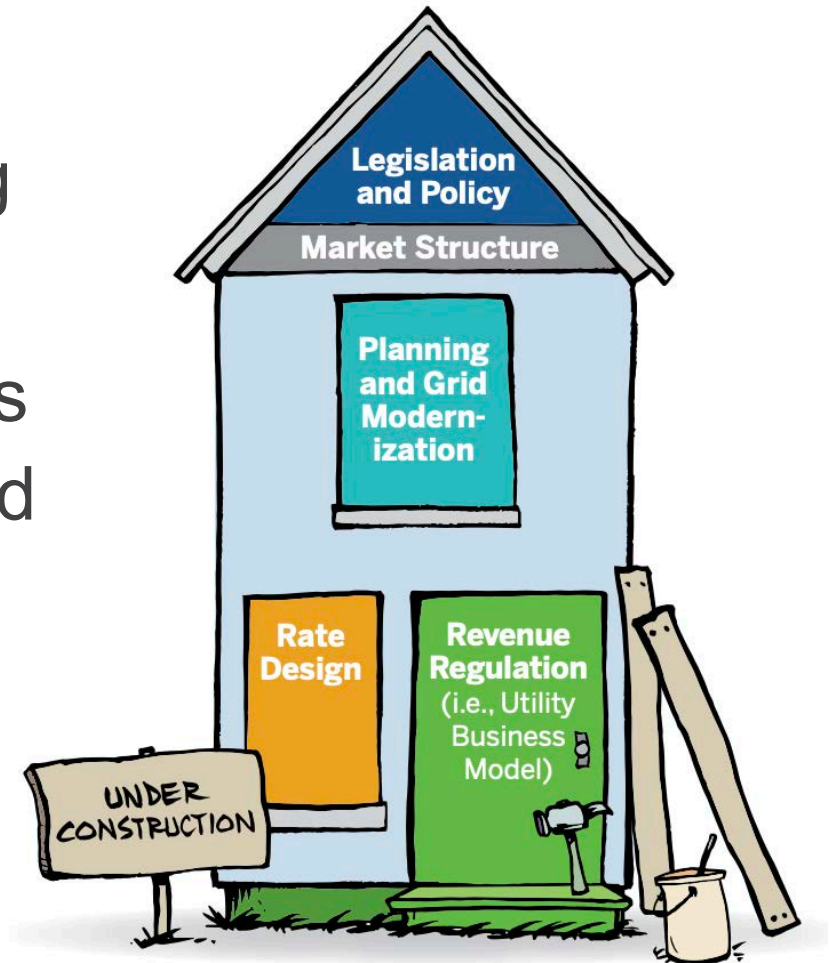
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Today's Major Points

- 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

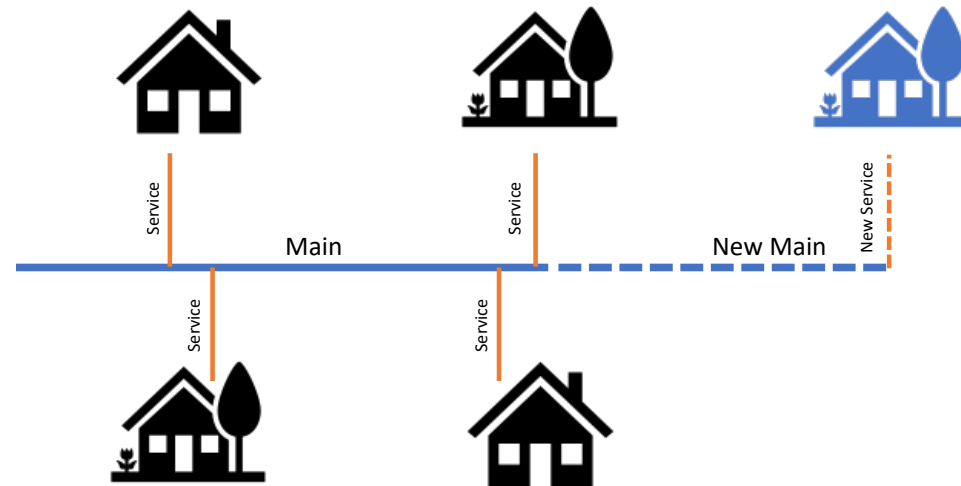
- Traditional Energy Efficiency Resource Standards (EERS) set a framework that hinders fuel-switching (e.g. electrification)
- Many state EE policies prohibit using program funds for fuel-switching
- Programs don't comprehensively consider weatherization with electrification
- Current cost-benefit frameworks 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

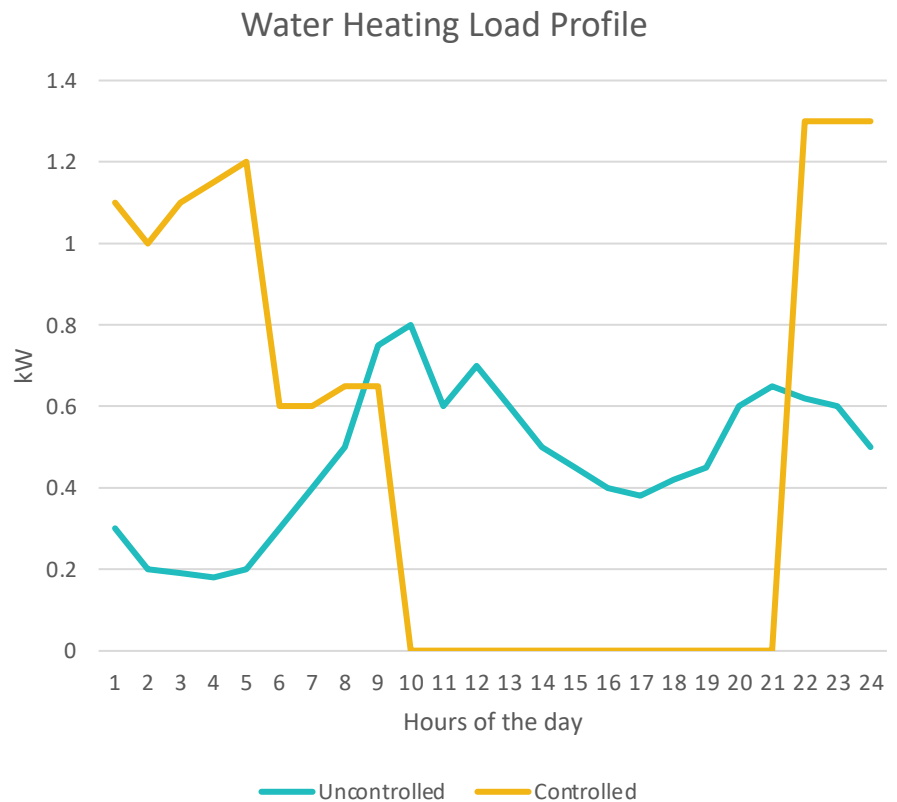


Gas Utility Network Extensions – Renovation Opportunities

- 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/>
- From Acadia Center: <https://acadiacenter.org/wp-content/uploads/2020/03/Acadia-Center-Clean-Heating-Pathways.pdf>

Thank you