



Acadia Center

Advancing the Clean Energy Future



UtilityVision

**Making the Energy System Work for Consumers and
the Environment**

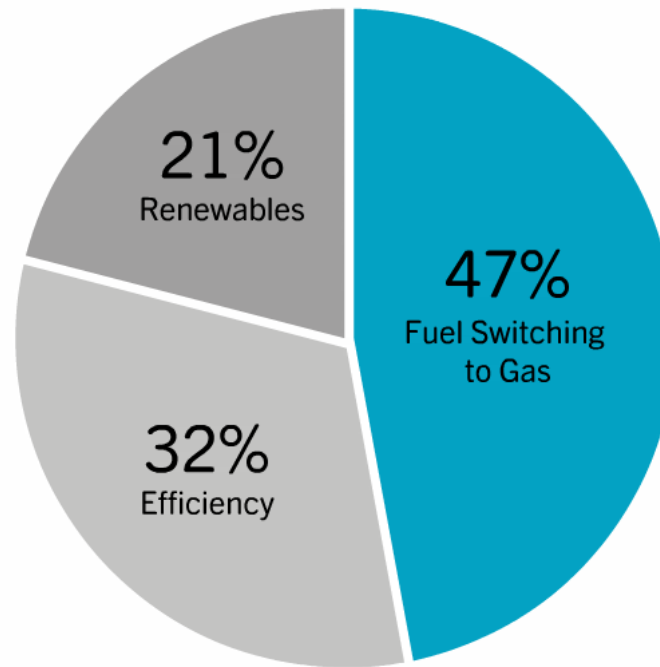


NECPUC Annual Symposium

June 9, 2015

ClimateVision2020

2010 GHG Reductions Attributable to Fuel Switching, Efficiency and Renewables



Key Trends from ClimateVision2020

1. Power generation emissions down 44%.
2. Transportation sector accounts for 47% of the region's total emissions.
3. Oil-heated buildings are hard-to-reach for efficiency programs.

EnergyVision



Electrify Buildings
and Transportation



Modernize the Grid



Clean Electric Supply

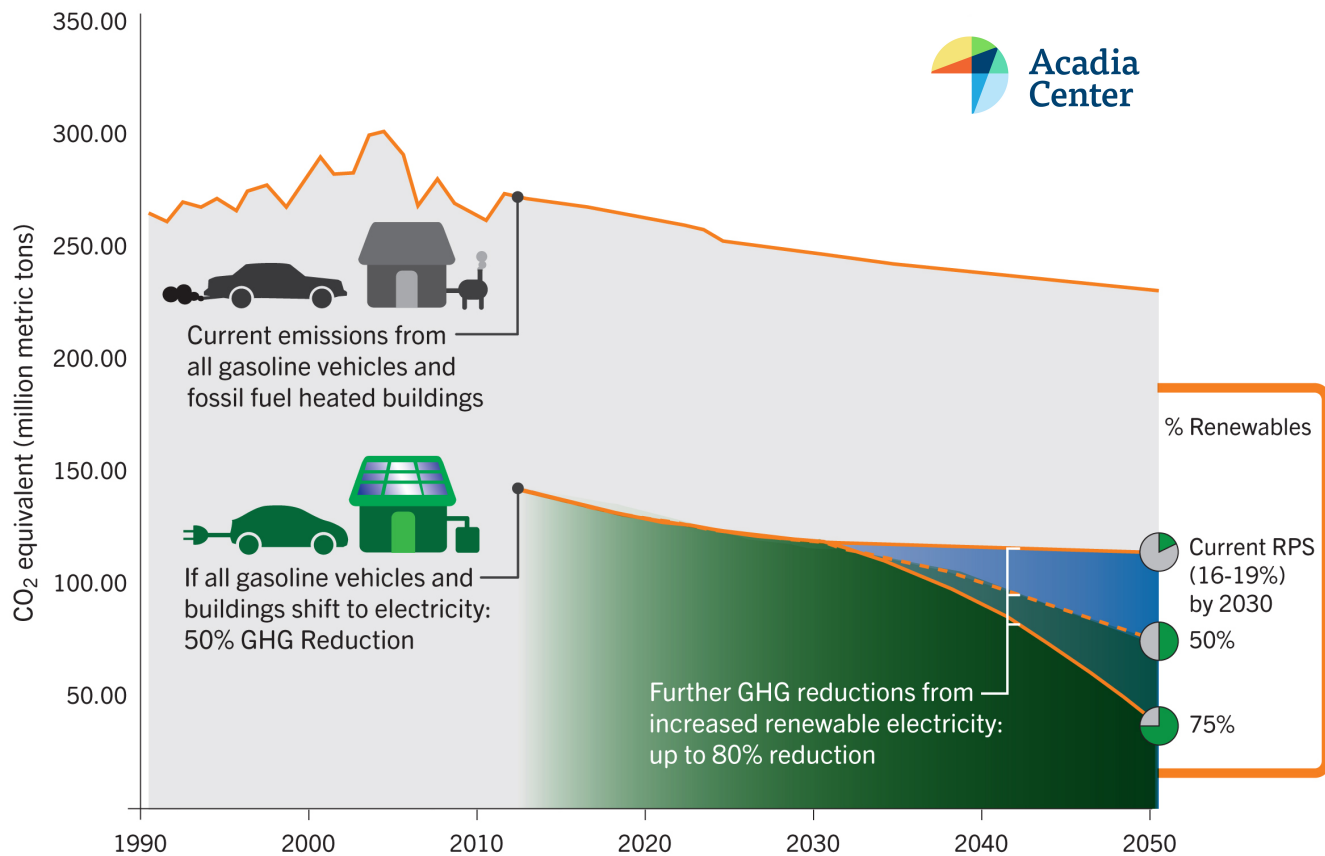


Maximize
Energy Efficiency

Low Carbon Power + New Electric Technologies = Pathway to Deep GHG Reductions

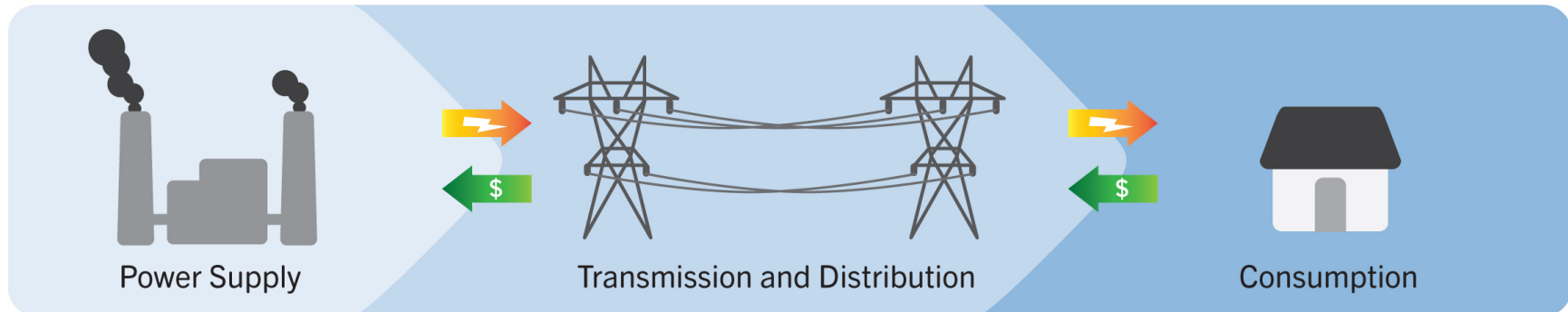
Pathway to Deep GHG Reductions

Full Electrification Illustration



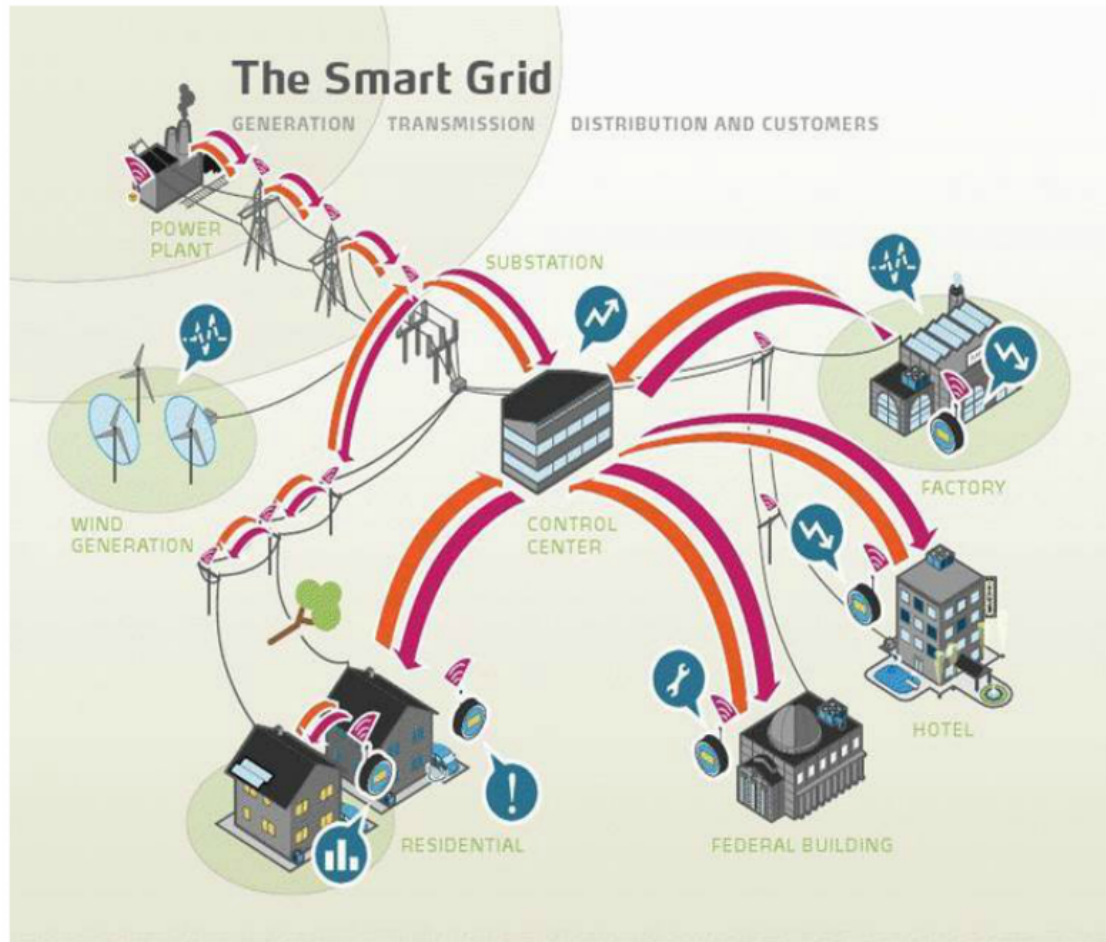
Existing Power System:

Premised on one-way power flow from large fossil-fueled generators to customers



Not designed for high levels of distributed generation, large-scale renewable integration, or high consumer adoption of new energy technologies and strategies.

Utility-Centric Vision



Changing how we think about the energy system: Putting consumers in the center





Reforms Needed in 3 Key Areas

- Coordinated utility planning for the future.
- Consumer protection and fair pricing for all.
- Updated roles for regulators, utilities, and stakeholders.

Empowering the Modern Energy Consumer



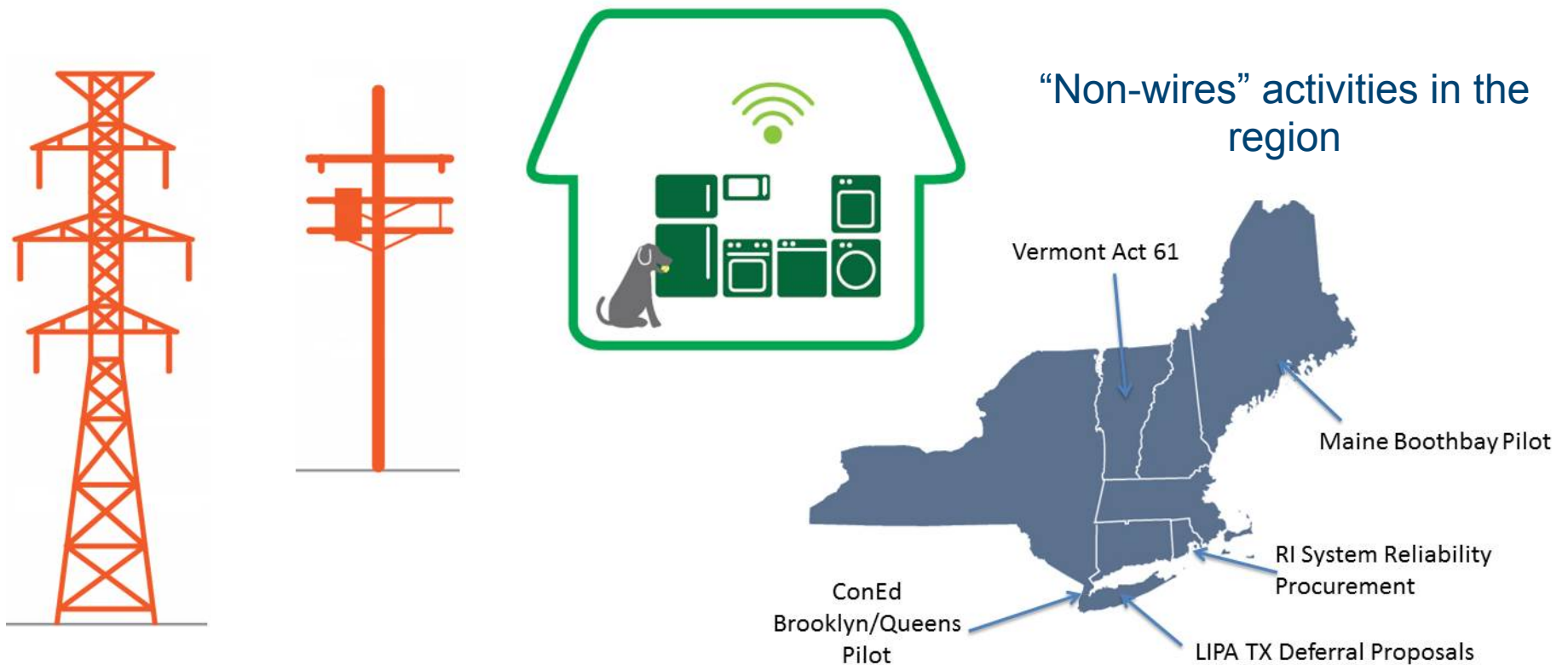
- Consumer control
- New opportunities
- Embrace innovation
- Remove barriers to new technologies
- Protect consumers
- Fair rates

Strategic Planning for a Consumer-Focused Power Grid

Grid planning must merge the traditional world of “poles and wires” with available new technologies and modern strategies.



Planning Merges “Poles & Wires” and Distributed Energy Resources

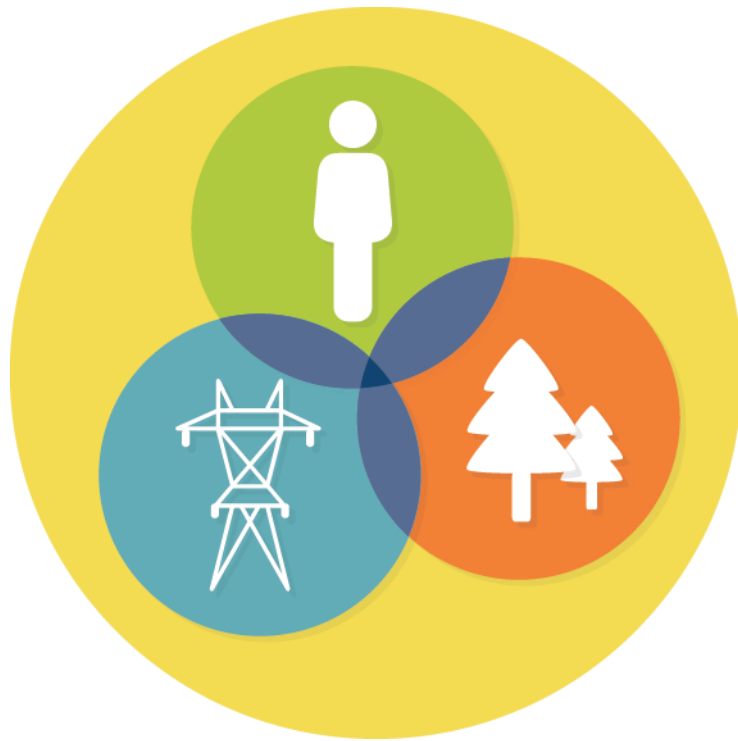


Consumer Voices Critical to Energy System Planning



Regulators have strong role in advancing public policy goals and maintaining consumer protections. Stakeholder engagement can close information gap between utility and regulators.

Aligning Utility Incentives with Consumer and Environmental Goals



Regulation needs to change to provide utilities with the financial incentives that will achieve consumer & environmental policy goals.

How Consumers Pay for the Power They Use



Flat rates do not reflect underlying cost or value structures. Electric rates should allow us to make smart economic & energy decisions to save money and energy.

How Consumers Get Paid for the Power They Produce



Customers should pay the right value for staying connected to the grid and get paid the right value for the services they provide.

Near-Term Steps for States and Regulators

- Ensure **consistency between state goals and regional grid policies** to avoid paying for infrastructure investments that don't make sense in a distributed energy world.
- **Avoid reliance on fixed charges and minimum bills.** Adjust net metering compensation to fully reflect benefits and costs, including impacts on the grid.
- Require integrated distribution planning that gives **comparable consideration to customer-side energy resources** to defer infrastructure upgrades and optimize grid efficiency.



Conclusion: Why We Need UtilityVision

1. Technology changes are causing the energy system to become increasingly decentralized.
2. Consumers deserve to reap the benefits of technology improvements and an efficient, clean and reliable energy system.
3. How do we get there?
 1. Utility incentives and grid planning need to evolve to keep up with new technologies and states' consumer and environmental goals.
 2. Level the playing field for customer-side resources to ensure that the best options for the environment and consumers are selected.
 3. Maintain the best of what we have – energy efficiency investments, moving to clean power, reliability – while evolving to a more modern energy system.



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