The Brattle Group

Integrating Dynamic Pricing with Inclining Block Rates

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Intelligent rate design promotes more efficient electricity consumption

Dynamic pricing

- Revolutionizing today's electricity rates
- Pricing pilots are being conducted around the country
- Costs of enabling technologies are rapidly falling
- States are adopting policies to promote the new rates

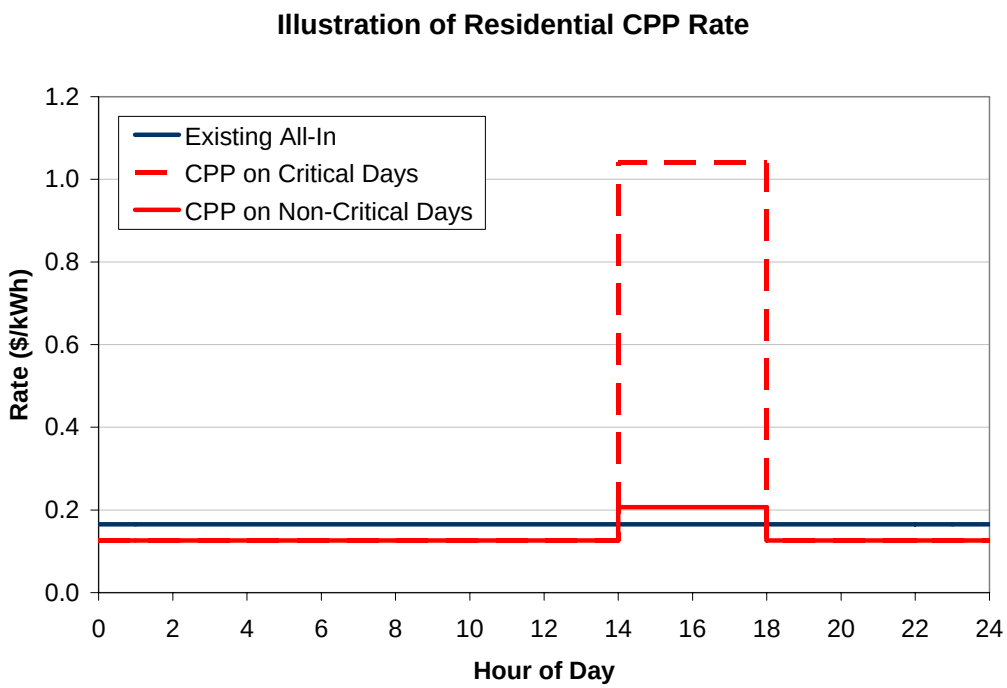
Inclining block rates

- Do not require new technology
- Focus on conservation
- Complement dynamic rates

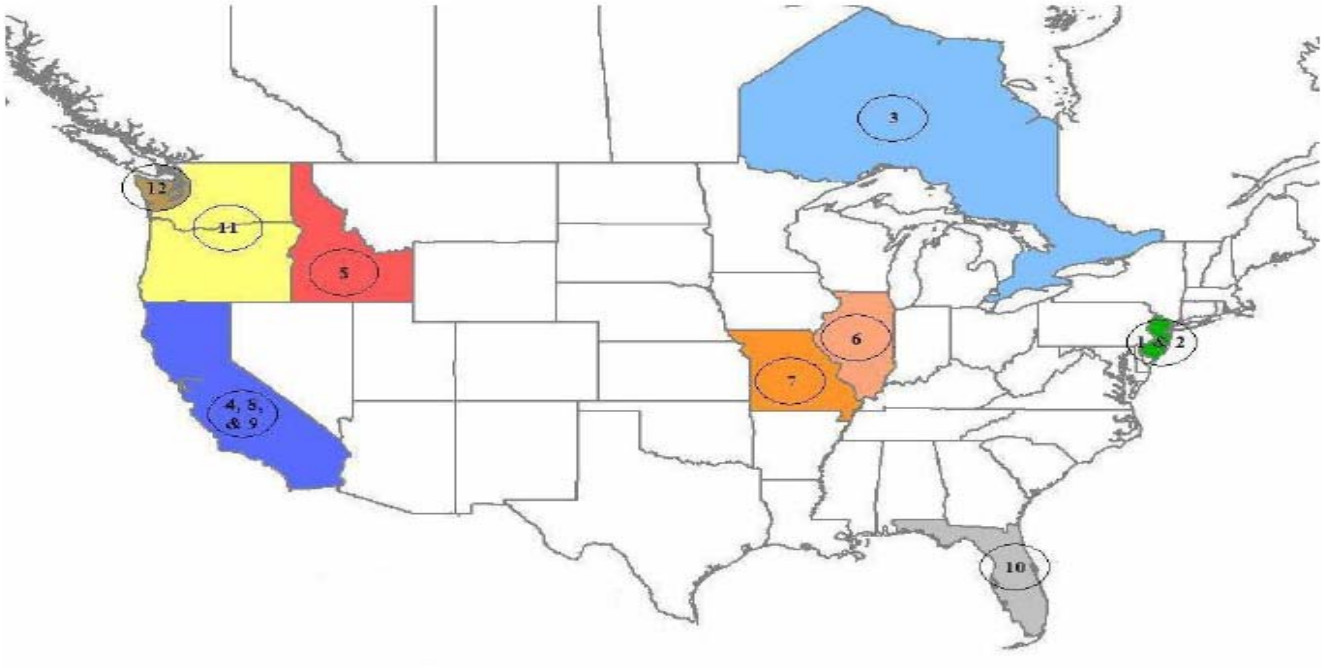
What is dynamic pricing?

Dynamic pricing refers to the family of rates that:

- Vary by time of day
- Are “dispatchable”
- Focus on reducing peak demand
- More accurately convey the true cost of providing electricity

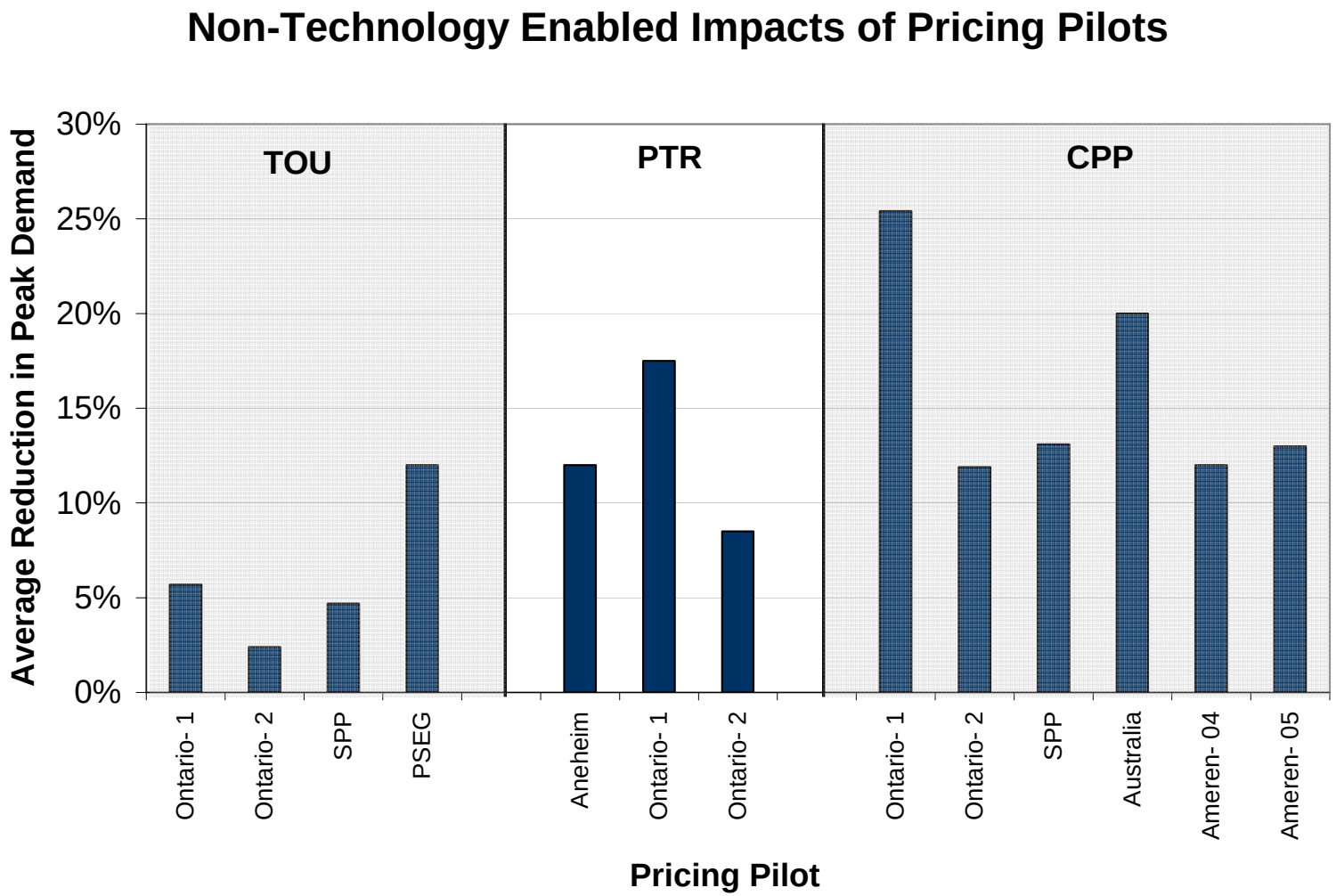


Several new dynamic pricing experiments have been conducted across North America since 2000

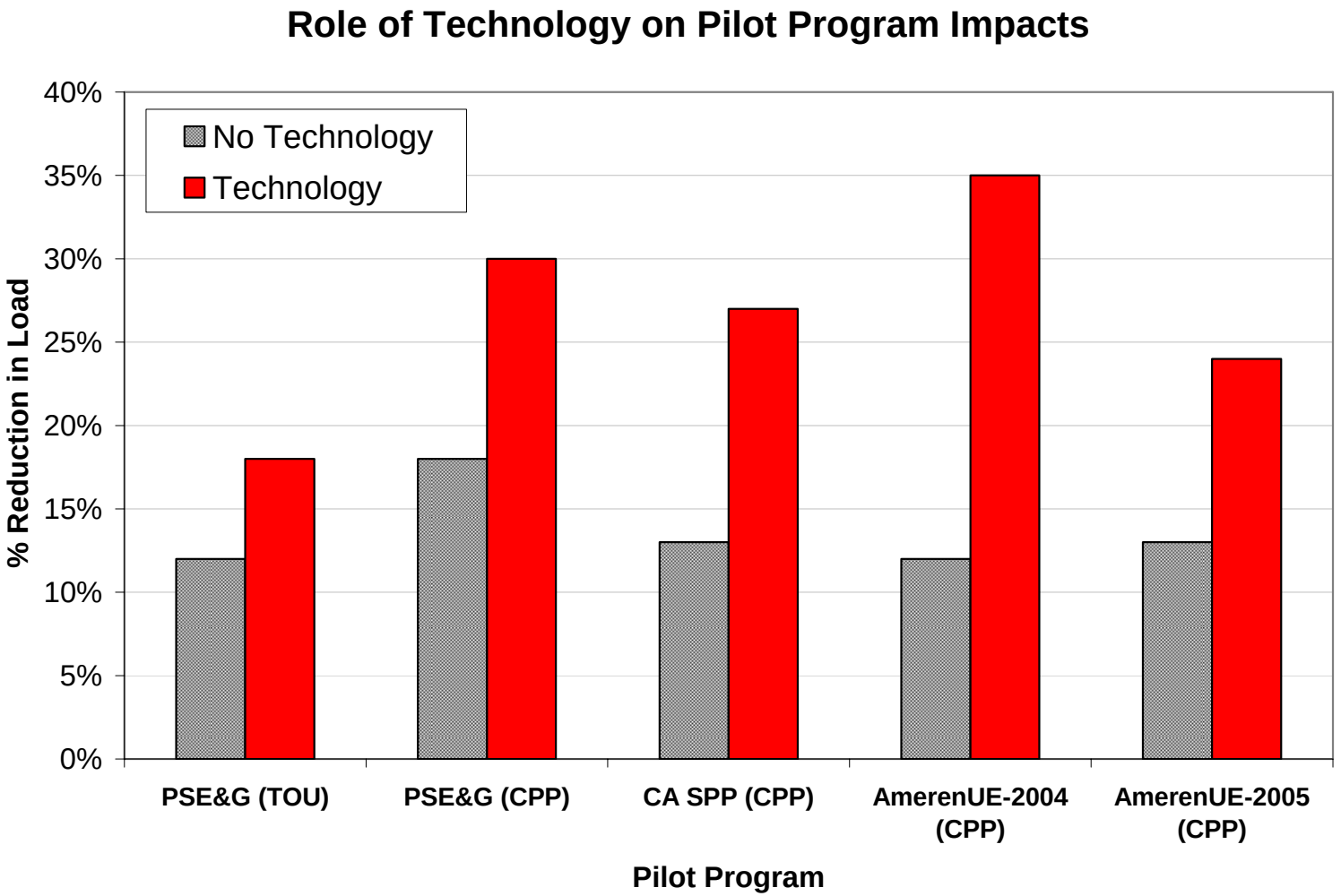


1- PSE&G Pilot Program
2- GPU Pilot Program
3- Ontario Energy Board Smart Price Pilot
4- Anaheim Critical Peak Pricing Experiment
5- Idaho Residential Pilot Program
6- Energy-Smart Pricing Plan
7- AmerenUE Residential TOU Pilot
8- ADRS Pilot
9- Statewide Pricing Pilot
10- The Gulf Power Select Program
11- Olympic Peninsula Project
12- PSE TOU Program

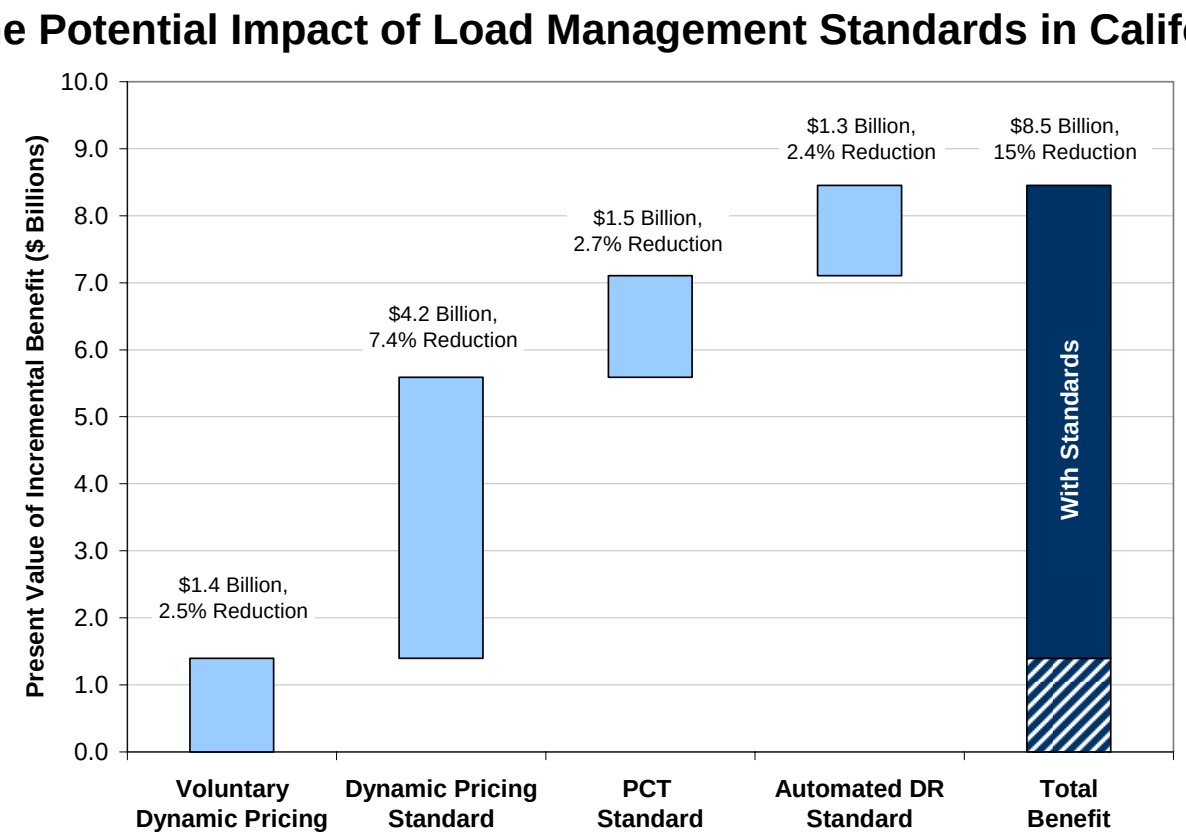
The pilots have shown that customers do respond to dynamic pricing



Enabling technologies facilitate even greater demand response



The potential benefits of dynamic pricing and demand response are significant



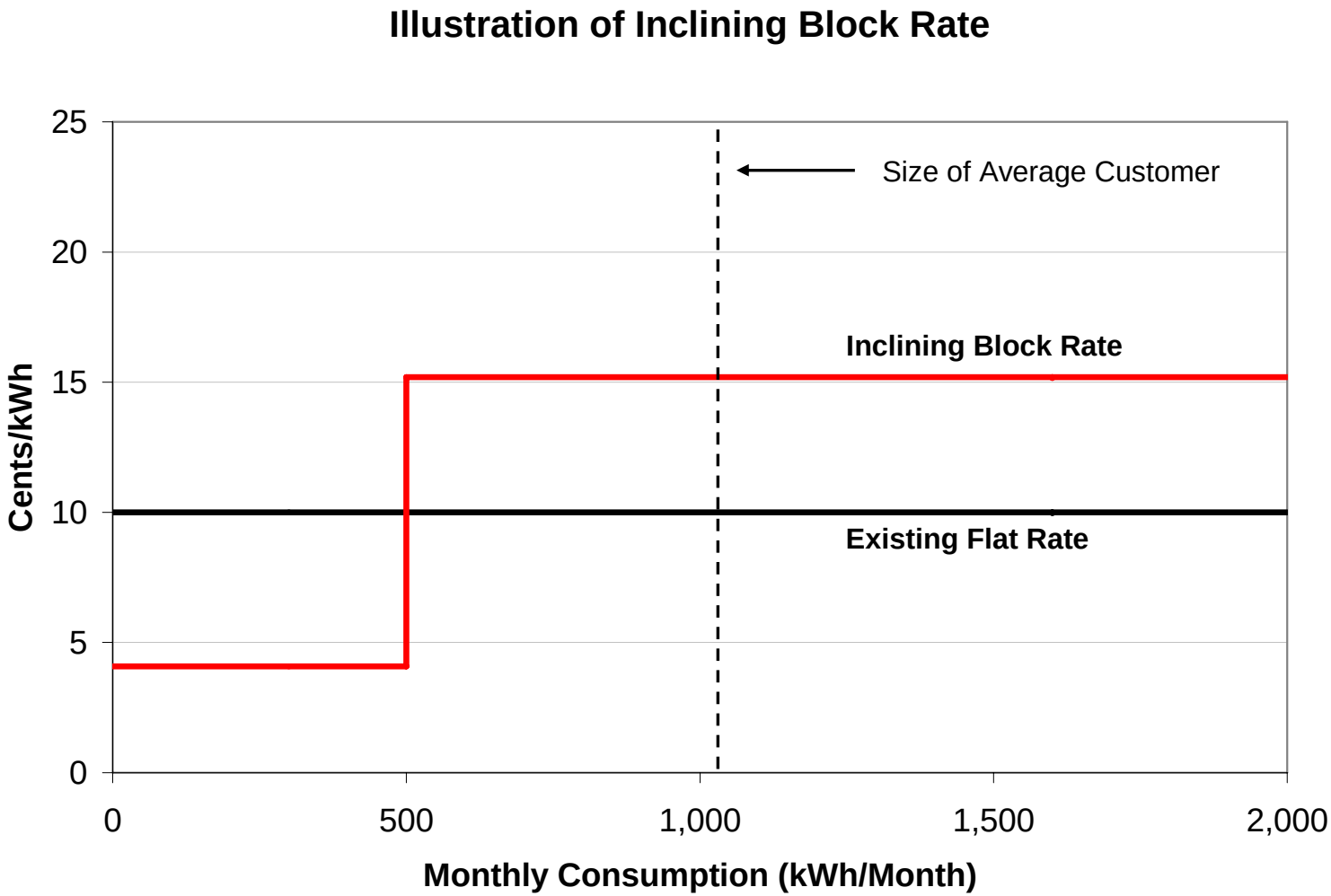
These benefits are driven primarily by avoided investment in new generating capacity through peak demand reductions

The conservation impacts of dynamic pricing are unclear

- Some pricing pilots have suggested moderate conservation impacts
- The California Statewide Pricing Pilot did not find a significant conservation effect
- Long-run conservation effects have not yet been tested

If conservation is the dominant policy objective, inclining block rates are an attractive complementary option…

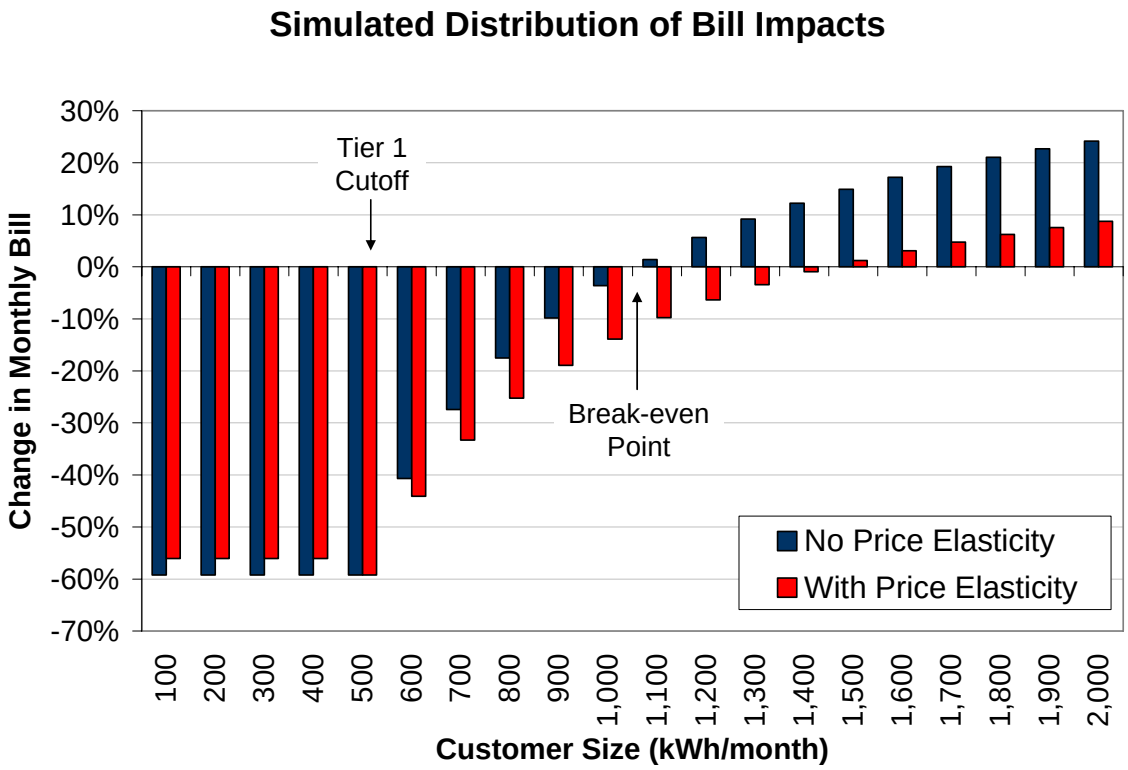
Dynamic pricing could be complemented by inclining block rates



Energy use and customer bills could decrease significantly in response to inclining block rates

Average short run impacts suggested by our simulations:

- Consumption reduction ranges from 1% to 6%
- Bill savings range from 1% to 9%



The way forward is to offer customers a menu of rate options