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# EVOLVING RETAIL RATE DESIGN



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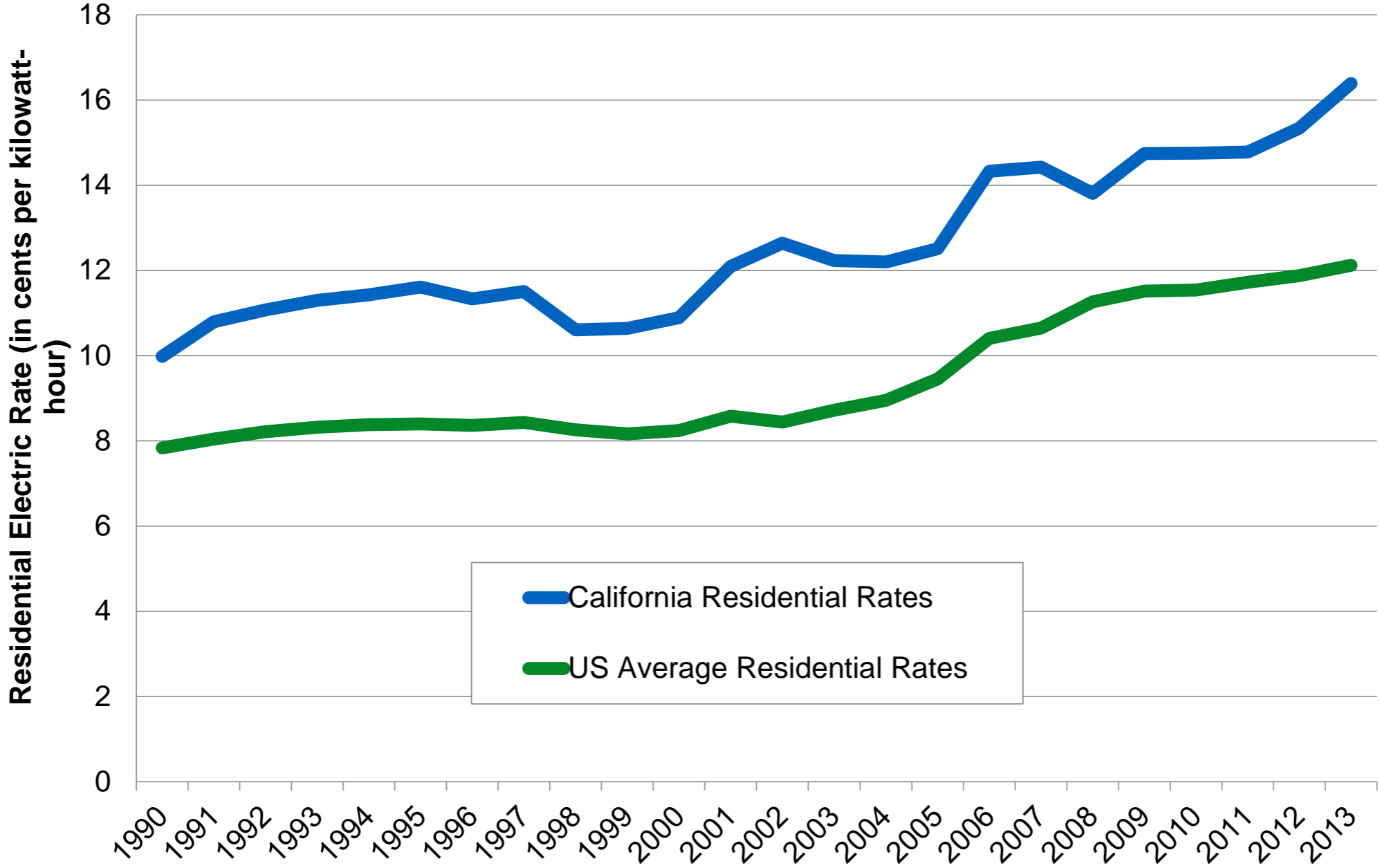
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# Trends & Rates vs. Bills

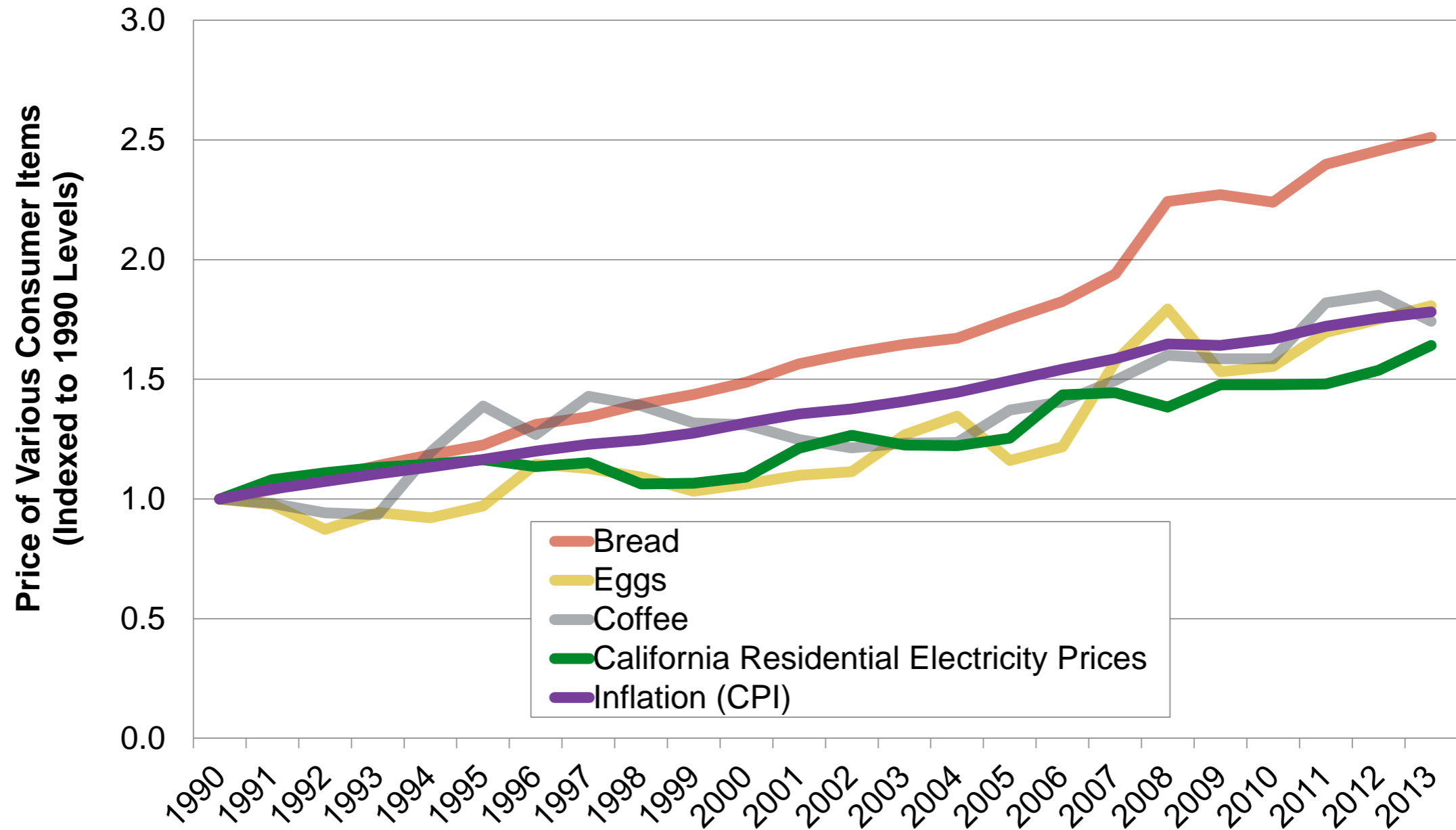


# National Rates



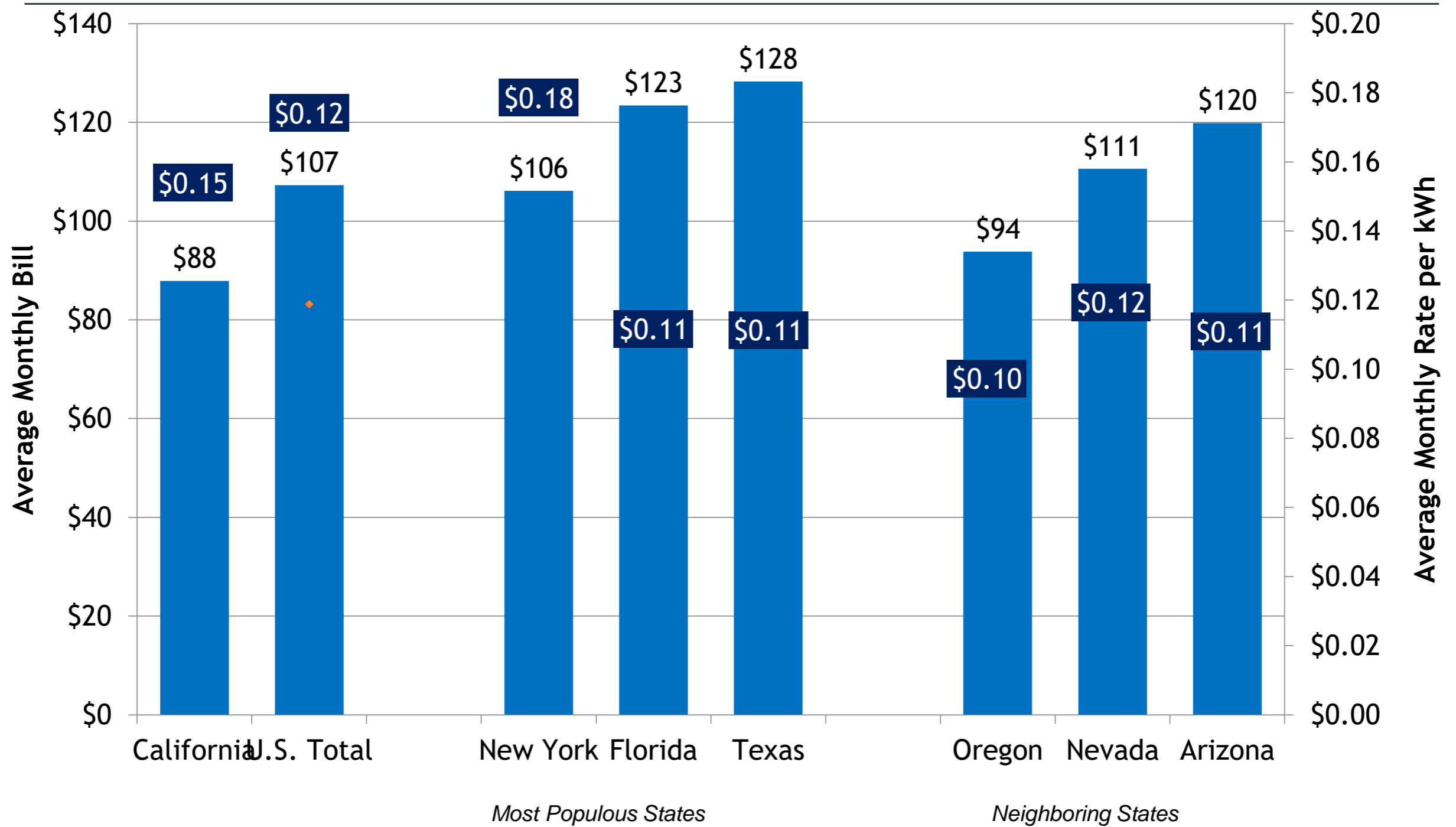
Source: U.S. Energy Information Administration (2014).

# California Rates and Inflation



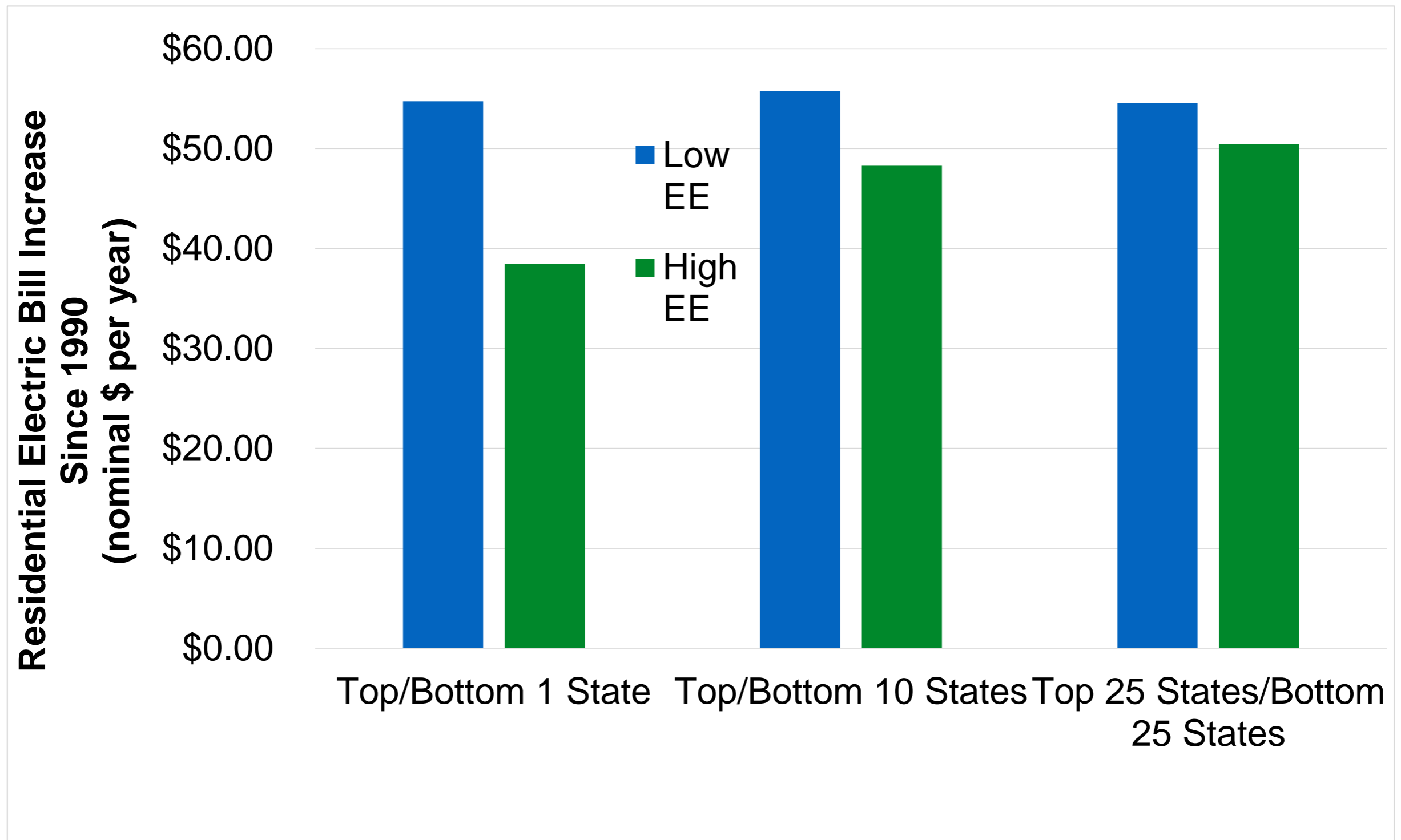
Source: U.S. Bureau of Labor Statistics, U.S. Energy Information Administration (2014).

# Measuring Bills v. Rates



Source: US EIA, 2012

# Residential Bills and Efficiency



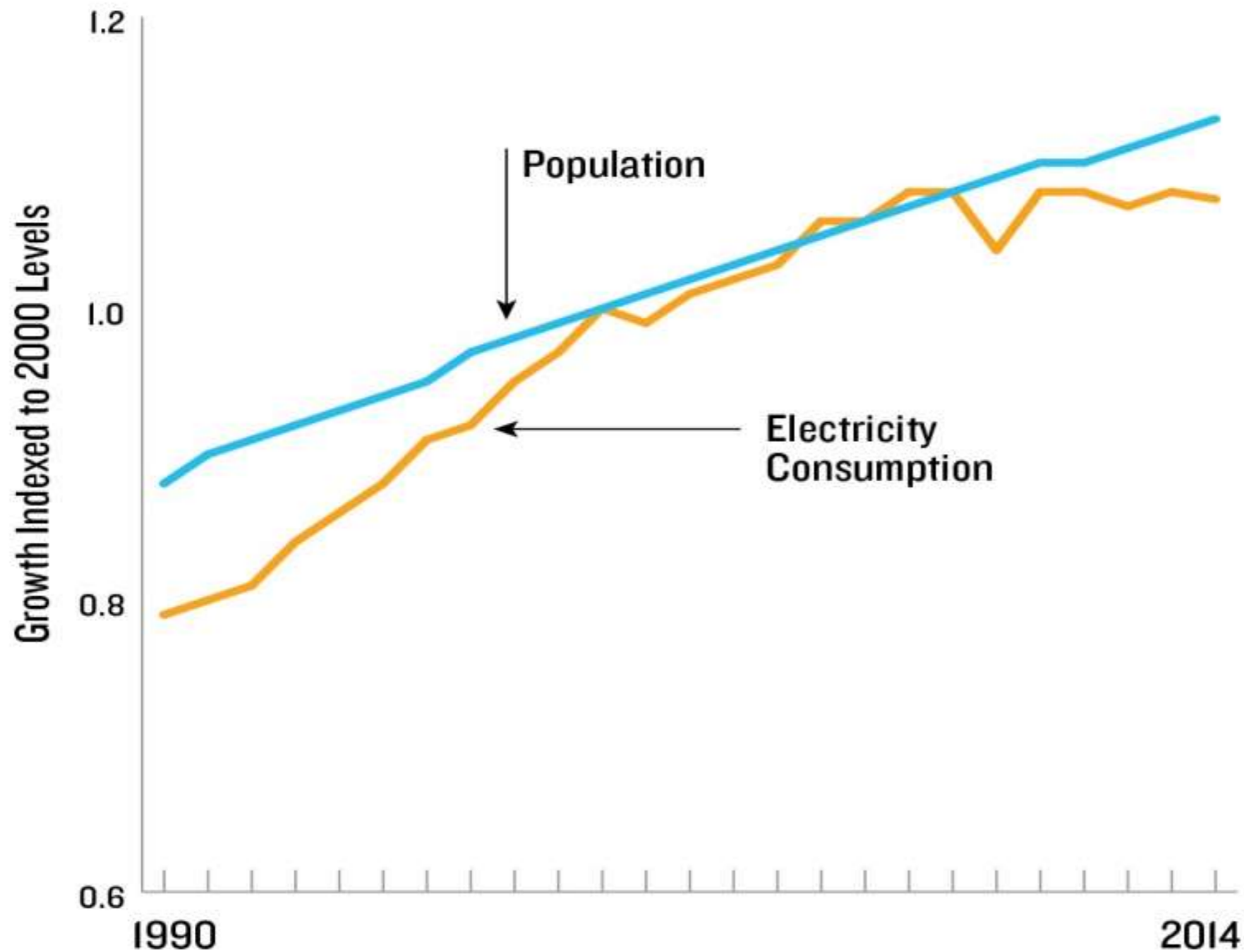
Source: U.S. Energy Information Administration (2014).

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# A Changing Landscape?



# Slowing Demand for Electricity?



Utilities' ability to recover their authorized costs of service has been complicated by a shift since 2000 in a longstanding trend of robust growth in retail electricity sales.

Prior to that year, for decades, electricity use consistently increased at a rate at least double that of the U.S. population, but since 2000, the average rate of sales growth has lagged consistently behind population growth, and total consumption in 2014 was actually lower than that in 2007.



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# Changing Customer Choices (in some places)

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Self-generation and  
on-site demand  
management



New electric end uses



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What does this mean for rates?



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# NOT growing fix charges

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**Raising fixed charges is a backwards-looking blunt tool that:**

- Removes consumers' control over their own electric bills
- Disproportionately impacts lower income households and those who use the least amount of energy
- Removes incentives to pursue renewable and efficient energy options

A coalition of consumer, low income, environmental and technology-specific advocates have opposed the growing requests for increased fixed charges across country, and won about 2/3 of the time. Now utilities are starting to propose demand charges as an alternative, which may be problematic as well....

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# Environmentally preferable rate design

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**Time-Varying Rates** - Can include “time of use” rates, critical peak pricing, and possibly demand charges linked to a customer’s peak usage coincident with system peak usage

**Minimum Bills** - Whereas fixed charges reduce all customers’ reward for saving energy and installing distributed generation, by moving revenue out of volumetric charges; minimum bills have this effect only on those who use little or no electricity in a given month

**Inclining Tiered Rates** - The more you use, the more you pay

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# Update from New York



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# Moving from NEM to “Value of DERs”?

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## *LMP+D+E*

LMP = Location-Based Marginal Price or “LMP.” LMP includes the wholesale price of energy, transmission congestion charges, and transmission line losses.

D = Value to the electric distribution system; DERs have the potential to bring value to the distribution system in addition to their value to the wholesale system. Utilities are preparing Benefit Cost Analysis (“BCA”) Handbooks to serve as the basis for calculating the Value of D

E = Value to society-at-large; the Commission’s Benefit-Cost Analysis Order established guidelines for valuing “externalities,” social benefits that may be provided by DER but which are not captured in current markets



THANK YOU

