

Chart House Energy

Standby rate comments



Our future ?



We have....

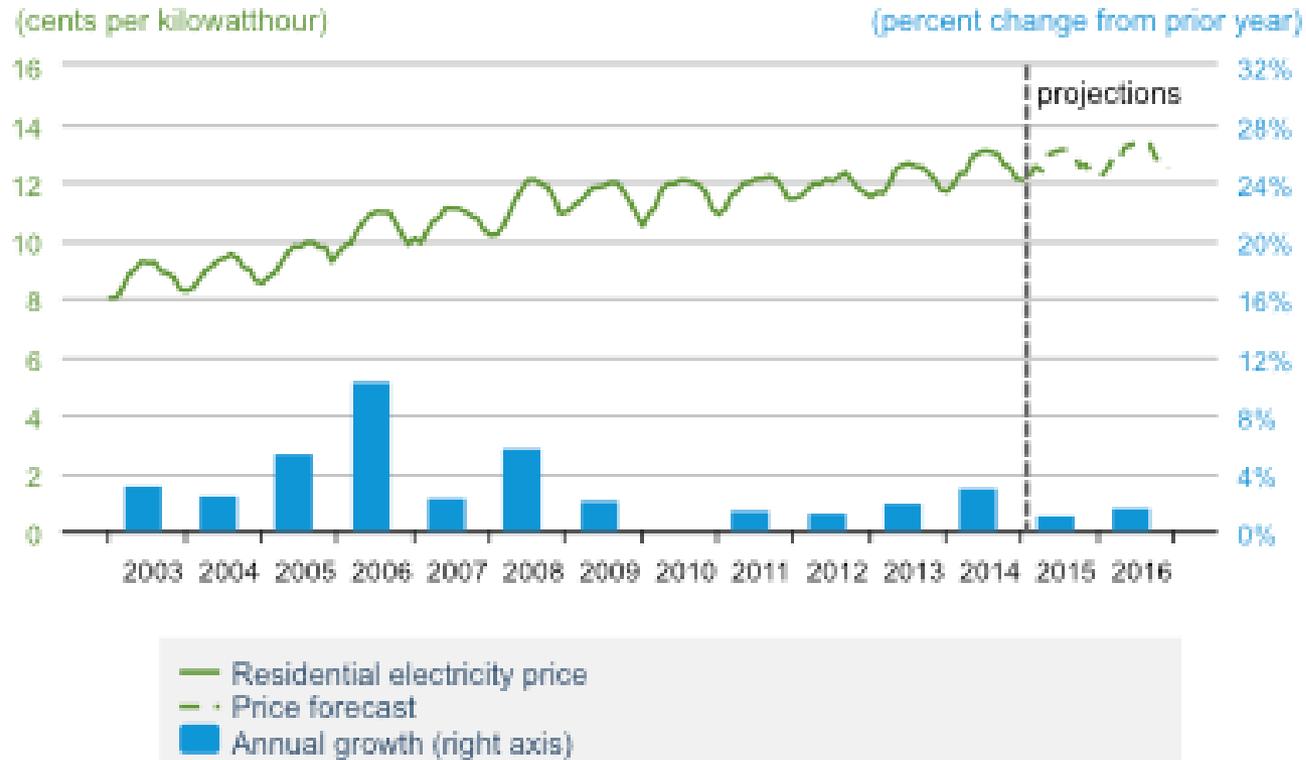


Countries with 100% renewable energy
Iceland, Lesotho, Albania, Paraguay,
Bhutan, Mozambique, Norway, Belize,
And Germany will be 100% by 2022.

81% of the worlds electricity
comes from fossil fuels.

Cost of Power

U.S. Residential Electricity Price



Source: Short-Term Energy Outlook, February 2015

Result of shifting cost to Demand

Shifting of cost allocation from energy to demand

Separating capital cost from operating costs

Thus creating a barrier to most saving strategies including generation

Rates should not discriminate against generation

Rates should not discriminate against any class

Demand charges allow the utilities to charge for power generated with capital cost but buy excess generation from customer owned generators without capital costs included

By billing demand at max period allows stacking demand charges potentially increases utility profits beyond “cost plus”

Demand charge

Why is this not “fair or reasonable”

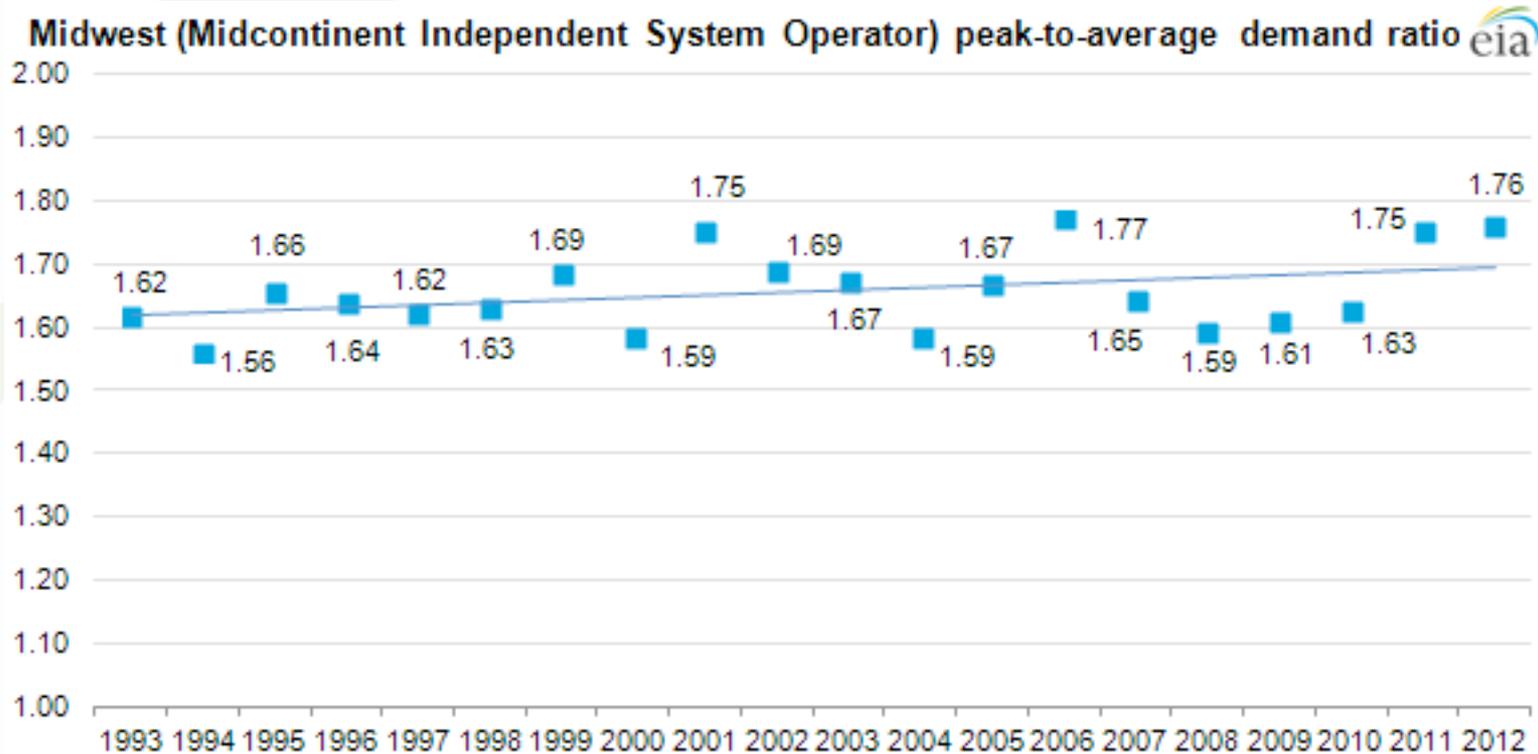
Co-incident peak

If demand charges were applied only to one customer than it would be reasonable that the needed generating capacity

But because max period demand charges are applied to most customers and those peaks do not coincide

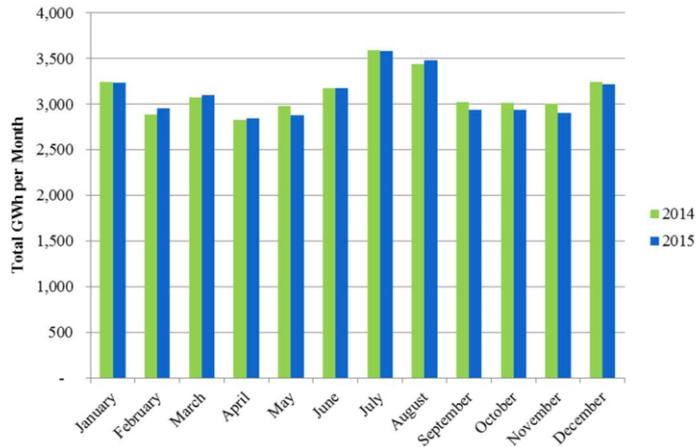
Result is the peak charged are stacked no on “cost plus” but “cost plus plus plus plus.....”

Average to Peak ratio



This means that by charging shifting cost to Demand and charging for max monthly peak the utilities charge multiples of cost. According to this graph from EIA, at least 1.7 times as much.

Actual usage



CMS Energy electrical delivery
From 2015 annual report

Max to minimum power usage across all customers less than 20% deviation
Very consistent year by year thus predictable

If all rates were energy only, the deviation in power usage could be covered by seasonably adjusted rate that includes all costs.

Where does energy and capacity come from?

2015 Sources of CMS Energy electric supply from 2015 Annual Report (GWh)

Owned generation

Coal	15,833
Gas	3,601
Renewable energy	1,056
Oil -	467
Net pumped storage ¹	(186)
Total owned generation	20,304

Purchased and interchange power

Purchased renewable energy	2,163
Purchased generation – other	11,720
Net interchange power	1,327
Total purchased and interchange power	15,210 42.91% of annual supply

Total supply **35,514**

Integrated Resource Planning

Integrated resource planning

Start with anticipated customer usage

Less Owned generating assets (including outages)

Less customer owned generating assets

Less anticipated energy efficiency improvements

Result in required purchases (capacity and energy)

Thus the Utilities are counting on the customer owned generating assets to reduce their purchasing requirements to purchase Demand/Capacity

Thus the Utilities are profiting from customer owned generating assets

Stand by charges

Stand by charges should be eliminated because they are counter to reality of utility purchasing practices.

Similar to coincident peak, customer owned generators operate at different times thus producing a system wide consistent generation profile.

Since the power companies are reducing their purchase of demand/capacity they should pay the customer owned generators for those savings.

Thank You

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