EVOLVING UTILITY COST ALLOCATION ISSUES: A CONSUMER VIEW

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"I used to be open minded, but my brains kept spilling out."

Steven Wright

What's going on?

What the utility sees:

- DSM/EE growth
- DR programs
- DG, Commercial/Residential
- Automation leverage
- = reduced load growth
- = lower revenue growth

What the consumer sees:

Commercial/Large:

- Cost of wind and solar are competitive with/lower than embedded resources
- Constituents favor "green"

Residential:

- PV is green
- PV is <u>cheaper</u> than retail rate in many settings
- Net metering appears to generate savings, esp.
 through 3rd parties
- EVs and Storage emerging

= Desire for consumer options

But what do most consumers want?



- 1) Reliable and safe service
- 2) At lowest reasonable cost
- 3) Convenience
- 4) Environmental stewardship



What is the "Utility of the Future" for consumers?

- For most residential and small business it will be the "utility of the past"
 - The utility is the light switch and outlet
 - Consumers generally don't think about technical aspects of the grid, generation, load growth, RTO's, etc.
 - Electricity is a commodity not valued for itself, but for applications it enables

True, some electricity consumers are installing generation. Q: Why?
 Would they do it if it cost more?

Consumers' "Utility of the Future," cont.

- The Bill

- This may represent the biggest change in how consumers see their utility.
- Energy consumerism is on the rise
- Utilities should focus more on consumers, less on commissions/regulatory mechanisms
- Consumers focus not on energy, but its use:
 - Don't like price increases
 - Generally like options that increase control without complicating their lives
 - Those things will encourage increased interest in "breaking free" and at some point regulatory fixes won't be enough

Utility Cost Allocation

- Most costs are joint or common
- Goals:
 - Fair apportionment among consumers
 - Rates designed to encourage optimal system use

Attempt to tie rates to costs and costs to usage

Alternatives to differentiate usage characteristics:

Block (volume) rates

TOU

2 part, 3 part

Customer Classification

Class Characteristics include:

load characteristics and end use

voltage

energy consumption

Class Definitions

- Classes are typically broad:
 - > Industrial
 - > Commercial
 - > Residential

Yet, costs vary much more widely. Some consumers are using electricity in new ways.

What to do?

But even if, through the miracles of high speed megacomputers and of techniques of econometrics, all significant cost differentials could be measured without inordinate expense, they would then be found far too numerous, too complex, and too volatile to be embodied in rate differentials. Stability and especially predictability of the charges for public utility services are desirable attributes; and up to a certain point — or rather, up to an indeterminate point – they are worth attaining even at the sacrifice of nice attempts to bring rates into accord with current production costs.

> Bonbright, Danielson and Kamerschen, Principles of Public Utility Rates (1988)

"Life is short and people are busy.... For many people, life is good in part because a series of desirable default rules are in place, ensuring that if they do nothing at all, things will go fine. (O)ften we rely on the fact that choices are made by others, and we go about our business without troubling ourselves about them. This is a blessing, not a curse."

Cass Sunstein, Deciding by Default, U.Pa.L.Rev. (Dec. 2013)

How far should we go (and what do consumers want)?

Examples:

- Broadband
- Cities/neighborhoods
- Telecomm/wireless



The Goldilocks Problem

 Between classes too big or too small, what would be just right?

- DG rate example SFV or demand charges for everyone?
- EV rates example the case for TOU rates?

"Experience is something you don't get until just after you need it."

Steven Wright