

Fixed Charges and Utility Customers

Prepared for Consumers Union by
Synapse Energy Economics

Full Report Forthcoming

www.consumersunion.org

www.synapse-energy.com/fixed_charges_factsheet

How Fixed Charges Harm Customers

Recently, there has been a sharp uptick in the number of utilities proposing to recover more of their costs through monthly fixed charges rather than through rates based on usage.

Utilities prefer to collect revenue through fixed charges because the fixed charge reduces the utility's risk that lower sales (from energy efficiency, distributed generation, weather, or economic downturns) will reduce its revenues. However, higher fixed charges are an inequitable and inefficient means to address utility concerns.

1. Fixed Charges Reduce Customer Control

Since customers must pay the fixed charge regardless of how much electricity they consume or generate, the fixed charges reduce the ability of customers to lower their bills by consuming less energy. Overall, the fixed charge reduces customer control, as the only way to avoid the charge is to stop being a utility customer.

2. Low-Usage Customers Hit Hardest

Customers who use less energy than average will experience the greatest percentage jump in their electric bills when the fixed charge is raised, since bills are based less on usage and more on a flat-fee structure. For example, at one utility, increasing the fixed charge from \$9 to \$25 per month would result in bill increases of 17 percent or more for low-usage customers, as shown in the graph to the right.

There are many reasons a customer might have low energy usage—they may have energy efficient appliances or solar panels, or they may be very conscientious to avoid wasting energy. Low-usage customers may also be located in apartments and dense housing, and therefore also impose lower distribution costs on the grid.

3. Disproportionate Impacts on Low-Income Customers

Data from the Energy Information Administration show that in nearly every state, low-income customers consume less electricity than other residential customers, on average.

Because fixed charges tend to increase bills for low-usage customers while decreasing them for high-use customers, fixed charges raise bills most for those who can least afford it.

4. Reduced Incentives for Energy Efficiency and Distributed Generation

Energy efficiency and clean distributed generation are widely viewed as important tools to help reduce energy costs, decrease greenhouse gas emissions, create jobs, and improve economic competitiveness.

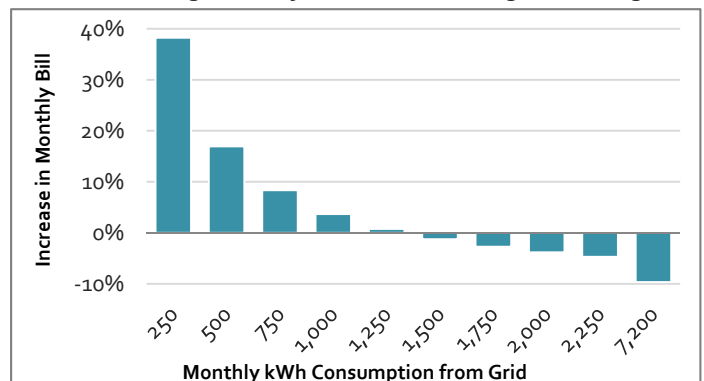
By reducing the value of a kilowatt-hour saved or self-generated, a higher fixed charge directly reduces the incentive that customers have to invest in energy efficiency or distributed generation. Customers who have already invested in energy efficiency or distributed generation will get burned by the reduced value of their investments.

5. Increased Electricity System Costs

Holding all else equal, if the fixed charge is increased, the volumetric rate (cents per kilowatt-hour) will be reduced, thereby lowering the value of a kilowatt-hour conserved or generated by a customer.

With little incentive to save, customers may actually increase their energy consumption and states will have to spend more to achieve the same level of energy efficiency savings and distributed generation. Where electricity demand rises, utilities will need to invest in new power plants, power lines, and substations, thereby raising electricity costs for all customers.

Increase in Average Monthly Bill due to Increasing Fixed Charge



Analysis based on increasing the fixed charge from \$9/month to \$25/month, with a corresponding decrease in the \$/kWh charge.

Common Myths

“Most utility costs are fixed.”

This argument conflates two concepts: **sunk costs** and **fixed costs**. Sunk costs are those that the utility has already incurred and must recover, regardless of how much energy a customer uses.

Few utility costs are truly “fixed,” as most costs vary with energy or demand over the utility’s planning horizon. This longer-term perspective is what is relevant for economically efficient price signals, and what should be used to inform rate setting. As James Bonbright, the patron saint of utility ratemaking, argued:

“[A]s setting a general basis of minimum public utility rates and of rate relationships, the more significant marginal or incremental costs are those of a relatively long-run variety – of a variety which treats even capital costs or ‘capacity costs’ as variable costs.”

James Bonbright (1961) *Principles of Public Utility Rates*, p. 336.

“Demand-related costs are best recovered through a fixed charge.”

Much of the distribution system is sized to meet customer maximum demand. However, residential demand-related costs have historically been recovered through the energy charge, as opposed to a demand charge. While energy usage (kWh) is not a perfect proxy for demand (kW), collecting demand-related costs through the energy charge is far superior to collecting demand-related costs through the fixed charge.

Research has demonstrated that there exists “a strong and significant correlation between monthly kWh consumption and monthly maximum kW demand,” which suggests that “it is correct to collect most of the demand-related capacity costs through the kWh energy charge.”¹

“Cost of service studies should determine rate design.”

Cost of service studies can serve as useful guideposts or benchmarks when setting rates, but there are several arguments against translating the results of such studies directly into rates.

First, embedded cost of service studies allocate historical costs to different classes of customers, but provide little information about marginal costs – the costs going forward. To provide efficient price signals, prices should be designed to reflect marginal costs, rather than embedded costs.

Second, other rate designs may yield the same revenue while also accomplishing other policy objectives, such as sending efficient price signals.

Cost of service studies are most useful when determining *how much* revenue to collect from different customers, rather than *how* to collect such revenue.

“I know of no ratemaking or economic principle that finds that cost structure must be replicated in rate design, especially when significant negative policy impacts are attendant to that approach.”

Karl Rabago, former Texas Public Utility Commissioner

¹Larry Blank and Doug Gegax, “Residential Winners and Losers behind the Energy versus Customer Charge Debate,” *Fortnightly* 27, no. 4 (May 2014).

Recent Commission Decisions

CUSTOMER CONTROL

“The Commission must also consider the public policy implications of changing the existing customer charges. There are strong public policy considerations in favor of not increasing the customer charges. Residential customers should have as much control over the amount of their bills as possible so that they can reduce their monthly expenses by using less power, either for economic reasons or because of a general desire to conserve energy. Leaving the monthly charge where it is gives the customer more control.”

Missouri Public Service Commission Report & Order, File No. ER-2014-025, April 29, 2015

AFFORDABILITY AND CONSERVATION

“The Commission concludes that raising the [fixed charge] would give too much weight to the ... cost-of-service study and not enough weight to affordability and energy conservation.... [This] highlights the need for caution in making any decision that would further burden low-income, low-usage customers, who are unable to absorb or avoid the increased cost.”

Minnesota Public Utilities Commission, Findings of Fact, Conclusions, and Order; Docket No. E-002/GR-13-868, May 8, 2015

APPROPRIATE COSTS AND CONSERVATION

“The Commission is not prepared to move away from the long-accepted principle that basic charges should reflect only “direct customer costs” such as meter reading and billing. Including distribution costs in the basic charge and increasing it 81 percent, as the Company proposes in this case, does not promote, and may be antithetical to, the realization of conservation goals.”

Washington Utilities and Transportation Commission, Final Order; Docket UE-140762, March 25, 2015

