On January 5, 2018, the DPU approved two significant changes to rate design proposed by Eversource: (1) a new set of complex and unmanageable rates for new solar customers starting at the end of 2018 and (2) elimination of residential on-peak/off peak rates. Current practices around electricity rate design, the structure of prices that consumers pay for electricity, have many advantages but also several downsides. The default structure for residential customers includes a modest monthly customer charge, flat per-kWh rates that are the same every hour of the month, and the availability of retail rate net metering for customers who install solar.

This combination is simple and understandable and provides substantial incentives for investment in energy efficiency and clean local generation like rooftop solar. For the past several years, a nationwide debate has developed about the virtues of retail rate net metering, a practice where customers with solar or other clean generation can run their meter backwards to offset future consumption. Utilities and some consumer advocates believe that retail rate net metering relieves solar customers from paying their fair share for the electric distribution grid. However, if solar energy provides enough value to the electric system, retail rate net metering can be fair overall. Additionally, flat per-kWh rates do not do a very good job of controlling electric system costs that are driven by usage at peak hours. These issues are complex, but smart reforms should be able to improve the fairness and economic efficiency of rates, while still paying for the electric system and allowing customers to manage their bills.

As a part of a broader compromise on solar policy, the Massachusetts Legislature included a provision that allowed a “minimum monthly reliability contribution” (MMRC) for net metering customers in the 2016 Solar Energy Act. The MMRC provision raised more questions than answers, in part because it is not a pre-existing regulatory concept but rather a phrase created by the Legislature. Proposals for an MMRC still had to meet traditional regulatory criteria, along with several new criteria laid out by the Legislature.

Eversource’s proposal for an MMRC in its rate case created a separate three-part rate structure for new net metering customers, with a higher monthly customer charge, a mandatory demand charge (described below), and a lower per-kWh charge, which leads to a lower value for net metering credits. The most controversial element of Eversource’s MMRC proposal is the mandatory demand charge, a rate that is common for larger commercial and industrial customers but has never been implemented in the US for residential customers of a major investor-owned utility. This proposal was opposed by nearly every party in the rate case, including the Department of Energy Resources.

Nevertheless, the DPU approved the Eversource proposal for mandatory demand charges for new residential solar customers. This charge is based on a customer’s individual peak – his or her single highest hour of consumption over the course of the month. Given the lack of sophisticated metering in Massachusetts, neither the utility nor the customer will know what time or day this peak occurred. As a result, consumers will not have the information needed to reconstruct the cause of these costs or the ability to manage these charges. In addition, this highest hour could take place anytime, so it has little link to the high demand hours that drive electricity costs.
The DPU claims that a customer education program could make residential demand charges work. However, Eversource already has these rates for small businesses, including some landlords of residential properties, who submitted comments to the DPU in the Eversource rate case reporting their difficulties with managing demand charges. While large customers with sophisticated metering and energy management systems have learned how to manage demand charges, it is nearly impossible for residential customers and small businesses. The rule of thumb would be to run only one major appliance at a time. This rule would apply at all times, not just during hot afternoons when the grid is stressed. This is an incredibly burdensome and inefficient step to take, effectively stopping all activities in your home while your dryer is running. It will also make owning an electric vehicle more difficult, forcing customers to turn everything else off during charging, a relatively high demand activity. Even worse, there are many types of appliances that cycle automatically, such as a water heater, which can be particularly difficult to coordinate with other appliances.

The DPU also approved Eversource’s proposal to eliminate optional residential “time-of-use” rates, which have higher per-kWh charges during the on-peak hours that drive electricity costs and lower charges when demand is low. These rates provide better incentives for a wide range of activities, including targeted energy efficiency, energy storage, electric vehicle charging, and even clean distributed generation. These rates are also much less punitive than demand charges because they are not linked to a single hour. If you need to run your dryer one day at a peak time, you pay a bit more, but not nearly as much as running major appliances simultaneously under a demand charge.

The DPU approved elimination of these rates in part to simplify the number of available rates, and it also argued that very few customers use these rates. However, low adoption rates to date are not necessarily a sign that the rate is unneeded or that there is a lack of consumer interest. Eversource made it nearly impossible to sign up for these rates—keeping them buried in tariffs on the Eversource website and not letting customers sign up online or through a normal utility service call. Other states, including Connecticut, have had much higher adoption rates with reasonable promotion and customer education efforts. In fact, Eversource recently proposed to improve its residential on-peak/off-peak rates in Connecticut.

Acadia Center and other partners argued strenuously against these Eversource rate design proposals in the rate case, and Vote Solar, Sunrun, and the Energy Freedom Coalition of America are appealing the decision on mandatory residential demand charges. In its testimony and briefs, Acadia Center laid out short-, medium-, and long-term pathways to improve the fairness and accuracy of rates for all customers, including reforms for net metering.

In the short term, Acadia Center proposed a distribution reliability charge (DRC), which would gradually evolve how net metering operates. The DRC proposal shares some similarities with Eversource’s proposal because it is effectively a three-part rate. But the third part would not be an unfamiliar and unfair demand charge, it would be a rolling 12-month average of a customer’s kWh consumption. In addition, it wouldn’t single out solar customers, but would apply to all customers in a way that would minimally impact customers without solar. Lastly, the distribution reliability charge concept wouldn’t require new metering but only may require some updates to utility billing systems. The DPU failed to respond to this proposal in its decision.

In recent months and years, the DPU has delayed grid modernization, approved as much as $460 million in extra revenue for Eversource with little benefit to consumers, and rubberstamped Eversource’s proposals on electricity rate design. These decisions reflect broad trends in the utility industry, where many companies focus on short-
term guaranteed profits and revenue, which leave consumer benefits and consumer control as secondary priorities at best.

Leadership at the Legislature would be particularly timely on many of these issues. As highlighted in Part One, the time is ripe for major improvements in the Commonwealth’s grid modernization processes, as included in H.1725/S.1875 and the omnibus energy bill from the Senate Committee on Global Warming and Climate Change. These bills would restart the grid modernization process with a stakeholder advisory board like those that have been successful for energy efficiency investments, establish protections for low-income consumers, require utilities to use cheaper and cleaner local energy resources when they can serve as alternatives to infrastructure, and offer optional on-peak/off-peak rates. These concepts have substantial support from a wide range of clean energy and public interest organizations and each concept has been implemented in other states. In light of the Eversource rate case decisions, the Legislature should also act to forbid excessive returns on capital investments going forward for utility shareholders, prevent automatic rate increases based on a negative productivity factor, and prohibit unfair and inefficient demand charges for residential customers and small businesses.

This piece was published in CommonWealth Magazine as “Utility Rate Design Needs Reform: Legislature Should Overrule DPU-Approved Measures,” by Mark LeBel on March 2, 2018.