Residential Demand – What, Why, and How

What

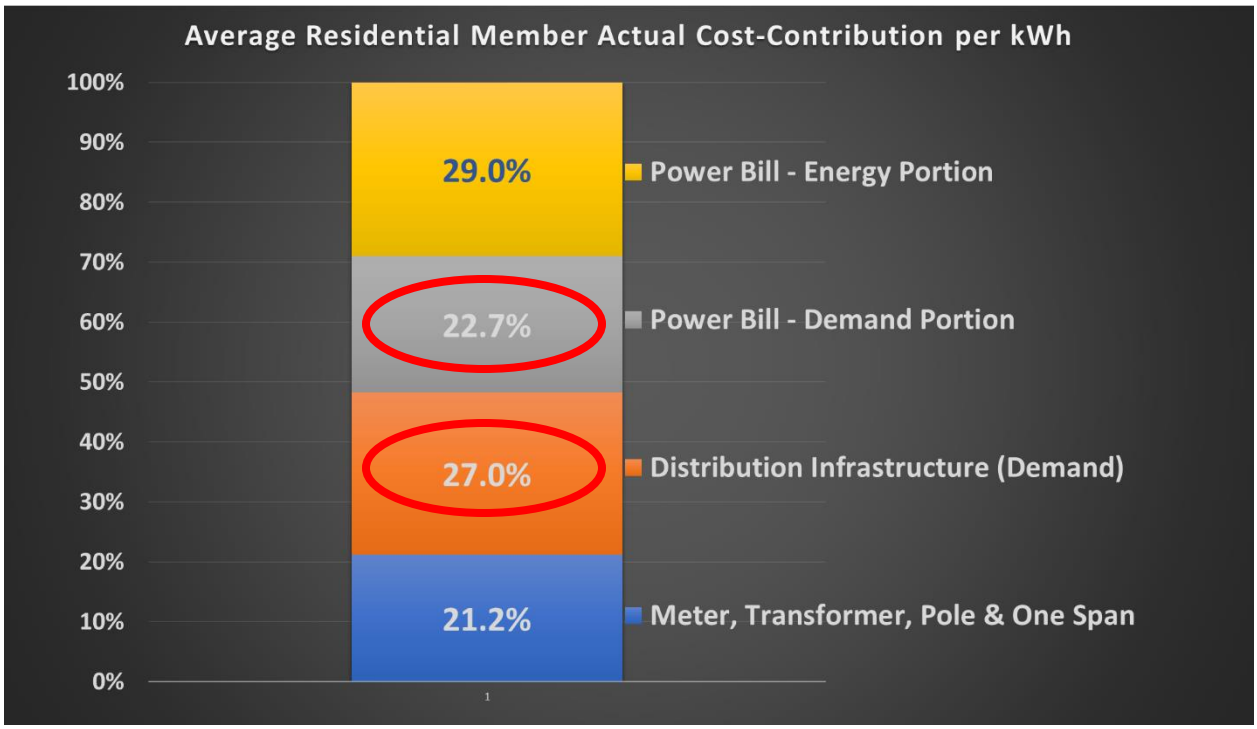
What the cooperative is doing

The cooperative is decreasing residential energy rates and increasing the kW demand rate to compensate. This will bring a little less revenue in for the cooperative while providing many members a new way to save.

What kW demand is

Residential kW demand is simply the maximum 1-hour of energy needed at a location during the billing period.

Think of it like filling a stock tank. If you need to fill a 100-gallon stock tank, you could fill it in an hour or in 10 hours. If you fill it in an hour, your demand on the water system is 100 gallons-per-hour. If you fill it over the course of ten hours, your demand on the water system is 1/10th of that, or 10 gallons-per-hour. A 10 gallon-per-hour well pump and piping will cost less than a 100 gallon-per-hour. kW demand is similar. Higher kW demands require bigger transformers and other infrastructure.



Why

Why we charge for kW demand

The cooperative pays a power bill to our G&T every month. About 23% of your electric bill goes to cover the G&T demand charge on that bill. Another 27% of your electric bill goes to pay for the demand costs associated with distribution infrastructure necessary to serve your site. Your electric cooperative saves a little bit from that demand expense when you set lower kW demands. So, this rate change allows your electric cooperative to provide some of that savings back to you on those months.

Why we made the change this year

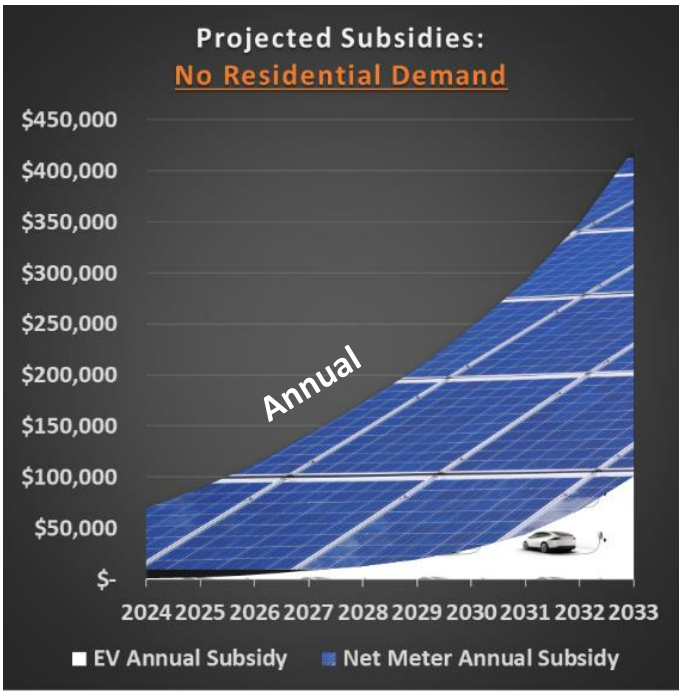
New savings opportunities and improved transparency

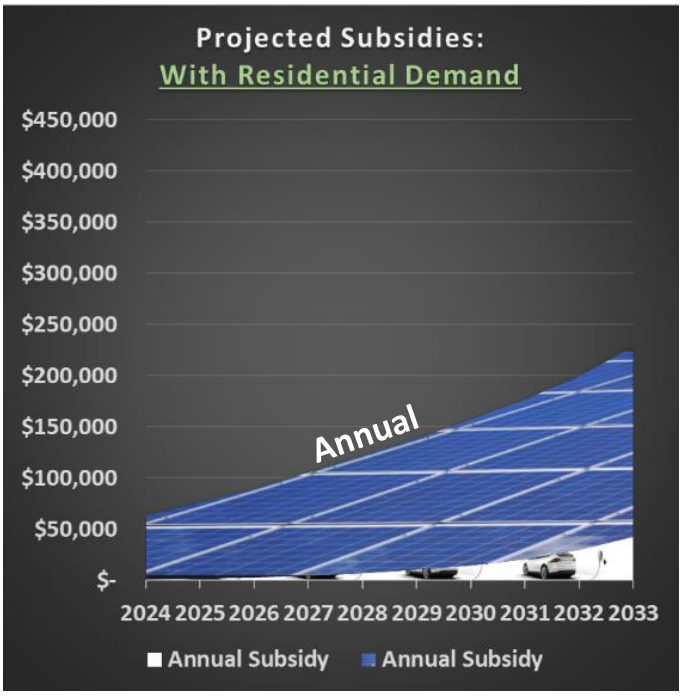
Your electric cooperative did not have residential kW demand meter data until new meters were installed around 2018. The board required hundreds of studies to be run in order to ensure that this residential demand rate, if implemented, provided savings possibilities to members while also minimizing any possible cost increases to the vast majority of members. Study scenarios were performed across multiple years in order to understand impacts to and benefit the membership. The board was confident in these results after the final study scenarios completed in late 2023.

Solar

Additionally, present net-metering laws have created a situation in which most solar accounts are extremely subsidized by the other 99% of the membership. This is because net-meter solar accounts are allowed to trade cheaper kWh generated in the middle of the day for more expensive kWh from your cooperative during morning and evening hours when everyone is home and in need of more electricity. Demand rates will not remove this subsidization, but they will help share a little of the demand costs from the 99% back to the 1%.

For reference, the 99% of members without solar had to pick up a tab of more than $60,000 to subsidize demand for the 1% of solar members in 2023. It is estimated that this number will increase to $320,000 per-year by 2033 if the cooperative does not transition to this more transparent billing with lower kWh rates and the addition of the kW demand charge.





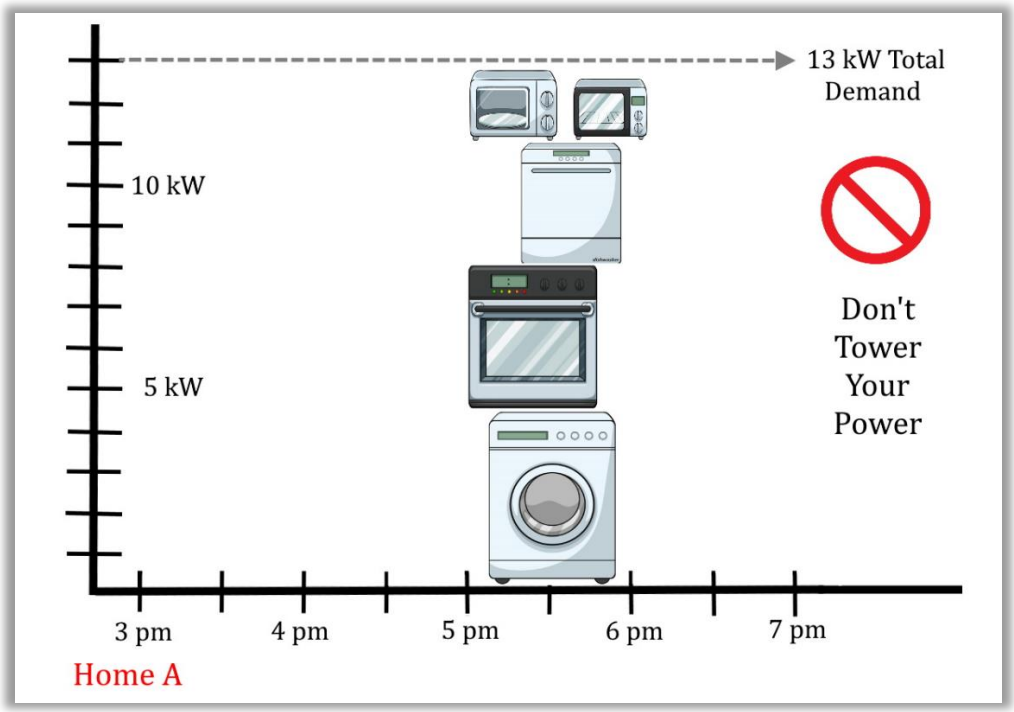
EV's

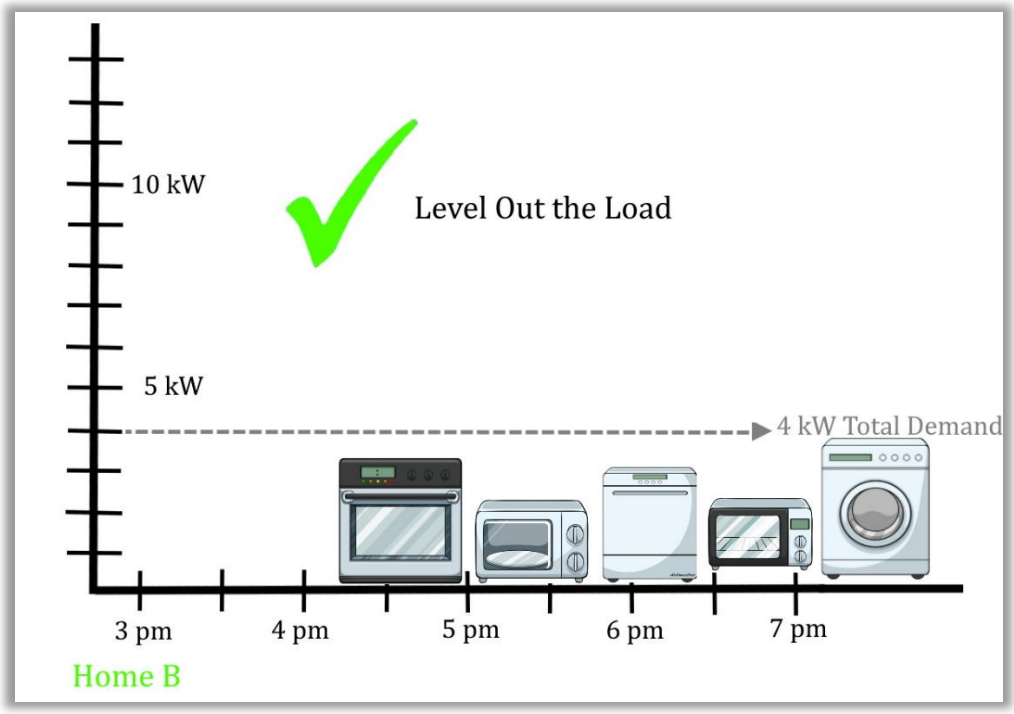
There are very few EV's presently on the cooperative system. In ten years, with small to moderate growth of EV's in this region, there would be a little under 5% of residential members charging EV's at home. It is estimated that members without EV's would subsidize EV-charging members over $100,000 per year by 2033 if the cooperative does not transition to this more transparent billing with lower kWh rates and the addition of the kW demand charge.

How

How members can save money with this change

Study of member bills shows that with no change to their current activities, this update to rates will provide a majority of residential members savings in the first year. Additionally, members can choose to adjust the times they use certain appliances, if they want, in order to decrease their demand and save more. See the graphic below. Q&A is available on the cooperative's rates web page.





Sample Bill Before & After Residential Demand

Old Rates

Meter	Rate	From	To	Days	Prev Read	Pres Read	Multiplier	KWH Usage
	1	11/24/2023	12/24/2023	30	91035	92477	1.00	1442

Previous Balance	$154.49	
Payments	$154.49CR	
Kwh Usage Charge (800 kWh @ 0.110000 per kWh)	$88.00	-Charge for energy
Kwh Usage Charge (642 kWh @ 0.095000 per kWh)	$60.99	
Demand Reading 5.10 kW		
Demand Billing (5.10 kW @ 0.00 per kW)	$0.00	-Charge for maximum hour of energy in billing period
Service Availability	$28.00	
County Tax	$1.77	
Amount Due 01/10/2024	**$178.76**	-Total

Updated Rates Beginning with May 1st Bills

Meter	Rate	From	To	Days	Prev Read	Pres Read	Multiplier	KWH Usage	Peak kW
	1	11/24/2023	12/24/2023	30	91035	92477	1.00	1442	5.100

Previous Balance	$154.49	
Payments	$154.49CR	
Kwh Usage Charge (800 kWh @ 0.100500 per kWh)	$80.40	-Decreased charge for energy
Kwh Usage Charge (642 kWh @ 0.092000 per kWh)	$59.06	
Demand Reading 5.10 kW		
Demand Billing (5.10 kW @ 1.00 per kW)	$5.10	-Increased charge for maximum hour of energy in billing period
Service Availability	$28.00	
County Tax	$1.73	
Amount Due 01/10/2024	**$174.29**	-Total