

Every summer, no matter what utility provider you have, bills typically increase. Sometimes this is because the rate you pay for energy changes, but most often, it is because the amount of energy used increases. Many of our customers have relocated from areas that seldom ever have 90 plus degree heat, much less sustained heat waves averaging over 100 degrees for several days. Below is some information that will help you understand how Lathrop Irrigation District's rates are set and why.

BILLING RATES:

Logically, you would expect PG&E rates to be much less than LID's, because PG&E has the ability to generate their own power and transport it over their own system and they have been around collecting money for a long time. Oddly, (but intentionally) LID's kwh rates are lower than PG&E, even though LID purchases all of the energy we deliver to customers and also pays PG&E to use their lines to get it here. (We do not purchase the power from PG&E, we have market contracts to try to keep the prices as stable as possible). LID was formed to help protect the River Islands customers from volatility in the PG&E rates and reduce the cost associated with connection to PG&E.

As a brand-new utility, there are costs associated with the building of the infrastructure (substation, underground and overhead wiring) and equipment (transformers, poles, meters, etc). Even an established or older utility has similar costs, not just for installation but for maintenance and replacement of the equipment. These costs are either collected through the kwh charge or through a monthly fixed cost. If LID only collected the costs through the kwh charges, not everyone would be paying their fair share, therefore the infrastructure charge was established to distribute the costs among all users equally based on the total monthly usage of the home. This charge can be \$16, \$24, or \$32 depending on how many kwh the homes uses each month, both solar and utility provided energy.

Infrastructure Charge

0-200 kwh = \$16

201-600 kwh = \$24

601+ kwh = \$32

We are often asked, "Why do solar customers have to pay?" The answer is simple-- solar users actually use the system twice as much as non-solar customers. Not only because the homes require energy from the system when the solar is not operating but also when it is producing more than the home can use at that point in time. If your solar system is larger than what is needed by your home during daylight hours then any excess will be sent back to the grid.

The State of California also requires certain charges to be collected for payment of mandated services and fees, such as Renewable Energy Credits (REC) and Resource Adequacy (RA), and State Sales Tax, as well as local charges (City of Lathrop) which the District passes back to these and other required entities. All utilities must collect for similar

fees, many just roll these charges into the kwh charge while LID choses to separate it out so we can monitor any changes in the required amounts and adjust as necessary.

Let's compare a recent PG&E customer's bill to LID's rates and see how it stacks up:

Below an actual PG&E customer's billing information for the month of July/August.

07/10/2020 – 08/10/2020		Your Tier Usage		1	2
Tier 1 Allowance	505.60	kWh	(32 days x 15.8 kWh/day)		
Tier 1 Usage	505.600000	kWh	@ \$0.24373		\$123.23
Tier 2 Usage	344.400000	kWh	@ \$0.30672		105.63
Energy Commission Tax					0.26
Total Electric Charges					\$229.12

This same kwh usage (849) for a Lathrop Irrigation District Customer would look like this:

LID RATES			
420 kwh @.159	\$ 66.78		
429 kwh @.221	<u>\$ 94.81</u>		
Energy Charges	\$ 161.59		
Infrastructure Charge	\$ 32.00		Varies depending on total kwh usage
RA Charge*	\$ 5.94		*State and Local required charges
REC Charge*	\$ 4.39		
City of Lathrop Fee*	\$ 3.87		
State Sales Tax*	\$ 0.26		
Mandated Charges	\$ 14.46		
TOTAL CHARGES		\$ 208.05	

So even though LID has many of the same costs that PG&E and other utilities have, our goal is to deliver the energy as cost efficiently as possible. LID is not-for-profit, so we don't have shareholders and aren't here to make profits. That said, we do have to prepare for any uncertainties in the energy world, and every month the kwh cost the District pays for energy fluctuates depending on supply and demand. When we set the rates, we factor in all of the anticipated fluctuations and set those rates at a point that insulates our customers from the constant energy cost fluctuations. If we are paying \$.05 for power one day in July and a heat wave hits, that same kwh can jump as high as \$.12-\$.30. We don't want to have to impose that fluctuation on our customers so we analyze our annual energy purchases and expenses and determine the retail kwh rates to include the cost of the energy, the cost of paying PG&E and other entities to get the energy to our substation, the costs of labor, utilities, software, rent, and all of the other normal costs businesses experience. As you can see from the above, we are very competitive with PG&E and as a small, brand-new customer-owned utility, that's something our customers should be proud of.

WHY IS MY BILL SO MUCH HIGHER IN THE SUMMER?

The above sample bill was before the extreme heat wave we experienced this summer. In order to see how the hotter temperature affected the usage at this location, look the chart below which shows the usage at the same location for the period during the two most recent extreme hot weather events. The purple line represents the average daily temperature (not the daily high temperature). You can see that changes in the usage based on the temperature. During mid-August when the daily usage was over 75 kwh per day, the AC was set at 79 degrees, but was running between 11-14 hours per day to keep up with the heat, but could NOT cool the house down. It was discovered that the attic fan was not working properly, and when it was turned back on it took the hot air out and the AC began cooling the house down immediately. During the second extreme hot weather event in early September when the temps were again 112-114 degrees and the AC was still set at 79 degrees, much less energy was used because the attic fan and the air conditioning worked together to make the energy use more efficient. Although the temperature setting on the AC remained the same, the AC unit used much more energy during the hotter days (an average of 5-7 hours per day more than on the cooler days). Even though this customer didn't do anything different, there were changes in how the home used energy because of the heat and the failure of the attic fan- sometimes three times as much energy usage in a day!! Although these are new energy efficient homes with good insulation the temperature can be 30 to 40 degrees higher in the attic than outside. We have all stepped into a car on a hot day and found it to be quite warmer in the car than the outside. The same is true with your attic. The way to combat this is with a thermostatic controlled attic fan. This will pull the cooler outside air into the attic while expelling the existing high temperature.

