



RELIABILITY AND COST

Electric rates should be on everyone's mind these days. With the transition from coal to natural gas affecting baseload and peaking capacity and with the many constraints on natural gas that have been recently in the news, the cost of electricity is most definitely on the rise and reliability is on the decline. We have this discussion on a regular basis, but it bears rehashing because it dramatically affects all of us.

At the time of this writing, the month is not even half over and we

have already had 10 hours of economic interruption for the May. In the past, you could count on a rational, hard explanation for this: generation was down for maintenance; weather was really hot, creating high air conditioning load (or really cold creating high heat load); or some other concrete reason for the wholesale formula to put us into an interruptible status. Now, with most of our interruptions, it is simply the market price for natural gas that is driving the situation. While there certainly has been

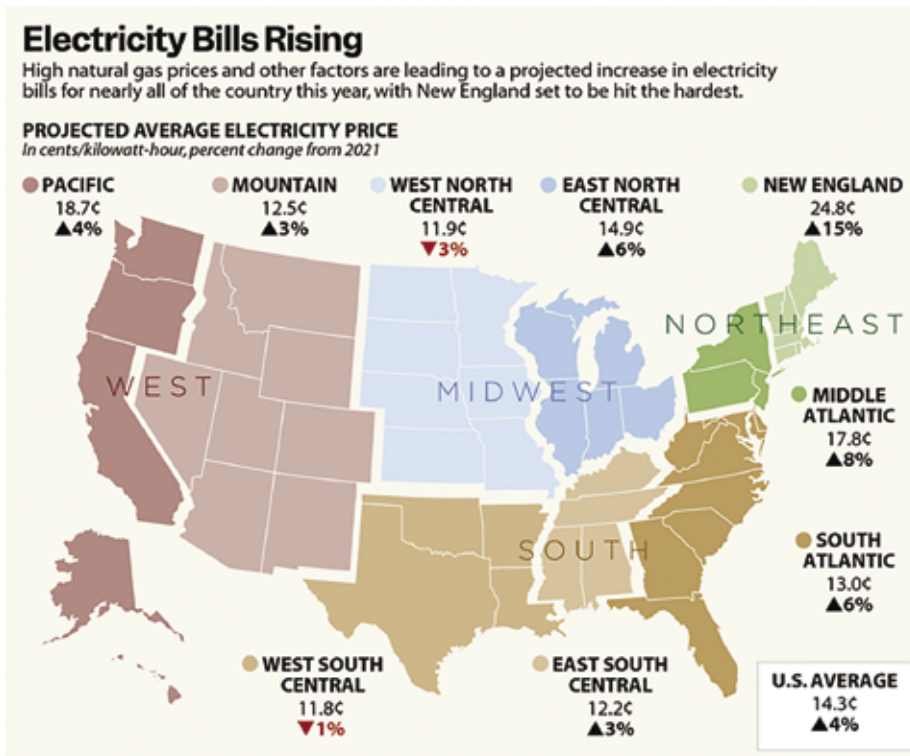
some 90 degree weather in May, in the past, this would not have been an issue.

To top it off, the Midcontinent Independent System Operator's (MISO) Resource Planning Auction showed a serious shortfall in capacity in several regions, one of which is ours. This is concerning to say the least. The auction results for \$/MW-day jumped from around \$5 to \$236. You can access the report at:

<https://cdn.misoenergy.org/2022%20PRA%20Results624053.pdf>

It will be a bit of a dry read for most, but the bottom line is that we can expect volatile pricing and there is a real potential for reliability issues. Remember my writing about how close we actually were to Texas last year? That small gap is closing. In fact, we are creeping towards California's rolling blackouts.

We aren't relaying this information in order to panic anyone, but the reality is that energy policy and the loss of good steady baseload generation fueled by coal and nuclear have put us into this situation and it will be a difficult situation, to extract ourselves from. We expect economic interruptions at the very least to continue and hopefully those do not morph into the rolling blackouts that have occurred elsewhere. As you all know, running those diesels is very expensive!



SOURCE: EIA Short-Term Energy Outlook

PAUL HORN / Inside Climate News

BASE CHARGES VS USAGE CHARGES

Our rates are made up of two components, the base charge and the usage charge. Usage charges are pretty self-explanatory and consist of our per kWh rate times the number of kWh used each month. The only thing that is slightly confusing about it is the dual nature of the usage charge, with the first 200 kWh charged at a higher rate and then dropping to a lower rate once that 200 kWh is reached. Our average rate for 2021 as calculated during our Department of Energy (DOE) reporting is roughly \$0.141 per kWh,

which is slightly below the average for the East North Central Region.

Energy/usage costs must cover line loss, which in our case is higher than most places. Line loss is the difference between energy purchased and energy sold or used. We have a couple of items that are not in our favor: first, a 4.7% multiplier to our WPS wholesale bill so that they can recover transmission losses getting the power from

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the substation south of Sister Bay to the metering point at Northport. We then have a calculated loss of just over 3% in our own submarine cable and substation transformer. This sets us up with a 7.7% line loss before we even distribute out to the members. Our seasonal nature exacerbates the situation because of idle transformers. In a year-round home, the losses inherent in transformers are buried in usage; however, in a seasonal home they become much more apparent (hence the reason for the first 200 kWh being at a higher rate). Even with this situation, our yearly line loss (which varies from 11% to 14%) is not terrible once you remove the fixed portion.

One recurring question revolves around the monthly base charge. Our current base charge is \$39.50 per month. This is paid by each and every one of us regardless of usage. The purpose of the base charge is to fund all those expenses that would occur, regardless of whether we sell a single kWh of electricity.

The base charge covers such things as:

- trucks, wire, transformers, meters, and power poles needed to build and maintain the electric distribution system;
- labor to build and maintain the lines;
- labor and expense to maintain our buildings and generation equipment and substations;
- billing and administrative costs;
- and cost of insurance, interest, and taxes.

Because of the generating plant and the submarine cable (more so now with the new cable) the cooperative has the highest cost of capital per mile of line and the highest cost of capital per member of any cooperative in the country. We think we are doing pretty well on rates in spite of this. It is important to note that almost every utility subsidizes the costs listed above with electric rates as they are not completely covered by the base charge.

Many folks want to compare our base charge to that of Wisconsin Public Service, which is currently \$21 per month. Because their system is significantly more customer dense than ours, simply comparing the monthly base rate on a per member basis is not accurate. Our density here on the Island is approximately eight members per mile of line (which is actually high compared to other cooperatives). WPS and other investor-owned utilities average around 30 customers per mile of line, and municipal utilities are often much higher than that.

When calculated per mile of line, the base charge we are currently paying equates to \$316 per mile of line. WPS, in contrast, equates to \$630 per mile of line. During the last rate case at the Public Service Commission, WPS indicated that it would eventually need to be at \$62 per month in order to adequately cover costs, but such an increase would be completely unpalatable to their customers...much as it would be to us here!



1. Holes drilled (covered for safety) and a pole awaiting installation along North Port Des Morts Road.
2. WPS crew chips trimmings.
3. Two poles staged and awaiting installation.
4. WPS crews dressing newly installed pole.
5. Installed pole awaiting crossarm and hardware.
6. Finished taller pole installation

CONGRESSMAN MIKE GALLAGHER

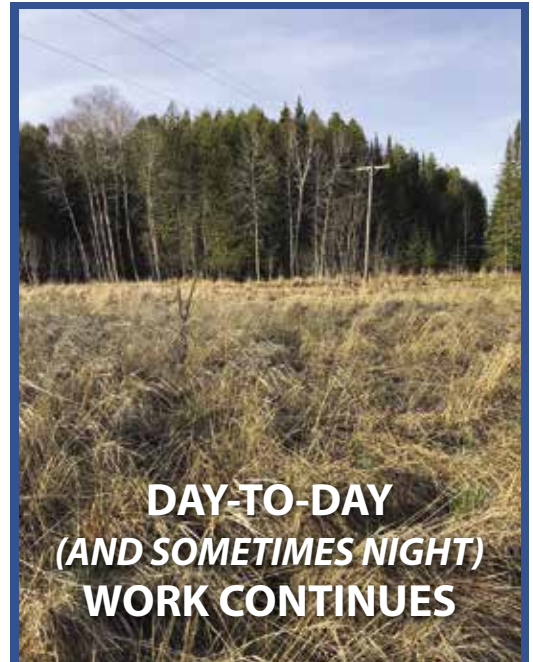
FRIEND OF COOPERATIVES AND WASHINGTON ISLAND

Congressman Mike Gallagher was officially awarded a plaque as a “Champion of Electric Cooperatives” by the Wisconsin Electric Cooperative Association at the annual Education and Lobby Days on February 2. Because Congress was in session, Mike attended the event via the internet.

As the managers of two of the four electric cooperatives in his district, Robert Cornell and Byron Nolde (Oconto) made the trek to his office in DePere to physically present him with the award.

Mike has always taken our interests seriously and you may remember that he was the first elected official to come to the Island after the cable failure and actually met with us with the engines running in the background. When we were awarded disaster funding and state budget funding for this situation, our non-profit status was suddenly in question, and he was the first Wisconsin federal official to cosponsor what became known as “The Rural Act,” which made grant funding and other government aid a contribution to capital rather than income. Washington Island was actually the poster child for this situation and, while political shenanigans kept the legislation from coming to the floor in spite of obtaining a super majority of sponsors, it was later signed into law as part of a continuing spending resolution.

Mike’s willingness to work with us and always be available puts us in a unique position, and the work we do together not only benefits us, but all cooperatives (which is the 6th Cooperative Principle—Cooperation among Cooperatives).



DAY-TO-DAY (AND SOMETIMES NIGHT) WORK CONTINUES

With line extensions in progress at Boyers Bluff, Deer Lane Road, Pedant Lane, and Foss Road, the fiber project is not the only thing keeping your crew busy.

One particular outage that affected Lobdell Point and the south part of Green Bay Road required inspection of the soon-to-be-abandoned-and-removed lines crossing Arni Richter’s Swamp.

When I was younger, I read a book called “Daylight in the Swamp,” which told the story of the early logging industry in Wisconsin, Minnesota, and the UP of Michigan. It was an entertaining book that illustrated how easy we actually have it today. A recent outage that required a trudge through the swamp was not so entertaining.

The photo above, while seeming to show a nice spring day, was taken from the middle of a trek across the swamp. It is a pretty picture that belies the fact that the grass you see actually is in knee-deep water and in some cases deeper mud. It was a good reminder that the electric underground project on Lobdell Point was a good one and that the full transition to the same cannot come soon enough!

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