

# OUTAGES AND ENGINES

I have spent the last several magazine entries talking about the importance of preventive maintenance on our equipment. It is indeed incredibly important, especially when it comes to complex equipment such as our switch gear. That said, sometimes, things just don't work no matter how you care for them.

Case in point, the storms that came through on September 7. Between 6 and 6:30 a.m. as the thunder and lightning were making a show and the rain began coming down in buckets, we lost power from the mainland. Luckily, we were already on our way into the cooperative when this occurred and we began the procedure for starting the engines. By the time we had fan room doors open, north reclosers open and other outside prep accomplished, we were soaking wet.

Safety relays in the switch gear were tripped, indicating a low voltage condition. This had actually occurred when we were doing testing of the substation breaker a week before. We were unable to clear this fault on the relays and we made the decision to take on the Island's load with a single engine in manual operation. We started the engine and took on the load of the south end of the Island and waited for the load to settle down a bit before closing the reclosers on the North end. When the last recloser was closed, the load on engine number 8 was approximately 1,450 KW. It has a capacity of 1,600 KW. The load was unbalanced enough that the indicators on the safety relays were flashing as it kept going back and forth across the threshold from balanced to unbalanced. We kept our fingers crossed that things would settle down the longer the engines kept running, and for about an hour this was the case.

Of course, there is no practical way at this time of the morning to ask you, the member, to shed load. When we were in the middle of the cable crisis and we were down to one engine, this happened mid-day and the word got out and everyone did an excellent job of only running what was necessary. Morning is the time that everyone is getting up and going, taking showers (which work those water heaters), cooking

breakfast, opening up their businesses, and more or less creating a peak usage time.

System Operating in Green Bay did not have any ETA because there was a 911 call in the county, lines down across Highway 42 (arcing lines no less), as well as reclosers and fuses tripped that were causing the outage for us. Obviously 911 calls and arcing lines take precedence over finding what caused our outage. I left a message for one of the linemen from WPS to give me a call when he could catch his breath and give me an ETA since we were on one engine. This is something I hate to do! We here know exactly what it is like to be asked, "What is wrong? How long is it going to take?" when you are only just getting started looking for things and really have no idea.

In any case, he called me back and said that when they had the situation with live lines lying in the highway under control (which, as it turned out was the 911 call as well) they would start looking for our problem. Our problem was affecting everything north of Sister Bay as well. He made a point to laughingly tell me we are spoiled up here having those engines. He is right.

Shortly after this conversation, the load went unbalanced for long enough to shut the engine down. And we had to start the process all over again...this time without the rain though! We no sooner had the engine running again and the south end of the Island back on than a tree branch fell in the lines by the shipyard, causing the load to go unbalanced again and tripping the engine off. Luckily Brian Mann witnessed it happen and we were able to clear the fault quickly and get running again.

We were no sooner running again and we got the call that the problem in the county was solved and they were ready to close us back in. Once this was done, we took another outage (because the engine was running in manual) and got back on shore power. We have since spent a large amount of time troubleshooting the problem with the undervoltage relays and with the help of Fabick Cat, are back in business. Sometimes things go smoothly and sometimes they don't!



Trees uprooted and precariously hung up in other trees during a recent storm were a threat to both cooperative lines and Gudmundsen Road. No story is necessary to note the importance of a planned outage and cooperation between the Town of Washington and the Washington Island Electric Cooperative to eliminate the hazard to both and clean up the mess!



# FIBER UPDATE:

## Fiber optic cable arrives, make-ready work continues, grant moving through review process

**W**e now have 140,000 feet of fiber on the ground. This was logistically not as easy as it should have been. With material delays affecting most sectors, fiber optics has not been spared. As noted in previous communications, resin shortages (these resins are used to make the PVC jacket of the fiber cable) created delays in delivery. Then shippers created other problems.

The first reel of fiber arrived in a closed semi, unpalletized and all the way in the front of the semi. It weighed just north of 2,000 lbs and had to be physically spun around and rolled out of the semi onto the back of the Ferry Line's flatbed. The flatbed was then driven to the cooperative where we unloaded it with the digger derrick.

After this, the shipper was called and told that they either needed to come across on the ferry to the cooperative for unloading or the reels needed to be palletized and arrive on a truck with a lift gate so they could be unloaded at the dock. They agreed.

Of course, this did not occur. Six reels came loaded in the front of a covered semi, unpalletized. After some blue air telephone calls with the shipper, the semi came to the Island, where we pulled the reels to the back of the trailer with a chain and Brien Jordan unloaded them with Tom's rubber-tired loader.

With approximately 106 miles of fiber to hang, this will obviously not be the last delivery and we have told our supplier, RESCO, that future deliveries must come on a flatbed and must come across on the ferry to the cooperative. Now, we continue to wait for pole attachment hardware to arrive so we can begin work here on the Island.

At the time of this writing, we are scheduled to be on Plum Island with Nsight contractors on September 16. The fiber that was moved by the wayward buoy this spring will be tested, fiber will be pulled through the duct installed as part of the



The first 20,000-foot reel of 96 strand fiber are unloaded at the cooperative.

cable project, and everything will be spliced. This will allow us to fill the trench that we opened as described in the last issue of this magazine.

Nsight has the engineering complete for the mainland portion of the project and is just waiting for the go ahead from WPS to begin installation. The route we planned is allowing Liberty Grove to work on a project (they applied in the same grant round that we are waiting to here about with the PSCW) to connect the folks along Kenosha and North Port Des Morts. We highlighted this “neighboring community enabled project” in our grant application to the NTIA.

We have completed significant make ready, and are continuing to make progress on work to energize the new



Brien Jordan helps us unload 120,000 feet of fiber optic cable.



Poles are unloaded behind the cooperative.



underground feeders along Lobdell Point. We know that we will have a fair number of poles to replace/modify as we move forward with this project and we have received a shipment of those poles, including several 50-foot poles that will eventually find use for Nsight small cell installations that will improve cellular service.

You would think that delivery and unloading of something as unwieldy as a load of poles would be difficult. It usually is not. It makes a difference when, unlike the shipper of the fiber reels, the shipper has their act together.

In addition to all this, NRTC will have been back on the Island on September 14 and 15 to (Continued on page 18)

## 76th Annual Meeting, 82nd Year



**A**s announced/published in our September issue, the Annual Meeting of the Washington Island Electric Cooperative was held on September 11, 2021, in the parking lot of the cooperative. Compared to previous years (2020 excluded) it was lightly attended by 26 members. This was not unexpected, but hopefully we will get back to a more normal attendance and meeting next year.

It was a beautiful morning under the backdrop of the Fire Department's ladder truck flying the flag in honor of Patriots Day. The meeting was started by President Orion Mann with a moment of silence in remembrance of the victims and fam-

ilies of September 11 and all those who have sacrificed during the war on terror and a pledge never to forget.

The manager began his report by noting the loss of several Islanders who had served the cooperative over the years:

- Orville "Butch" Jess, lineman and diesel mechanic
- Randy Sorensen, lineman and former board member
- Dan Nelson, former board member
- Sally Clancy, perpetual ballot counting volunteer and wife of former board member, Dick Clancy

A handout bag was given to each member in attendance, and Lou Small quipped that we should have put a chunk of fiber optic cable in each one, because then we would actually be getting fiber to the home now rather than waiting for the process to unfold!

The normal business items were discussed and the potential effect of changes in the electric supply market were highlighted at the end of the discussion.

The meeting was adjourned with a hope for a return to normalcy next year.





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work on headend plans and discussion on as-built record keeping. Headend equipment is ordered and as noted last month, we lucked out with some surplus equipment that will get here much sooner than a new order. We have also been in discussion with NRTC regarding managed services, which will be a call-in methodology for future troubleshooting both on our end and on you, the member's end.

While we wait for word on the

PSCW grant (hopefully October) we are also working on things that occur in the background of a project like this such as acquiring IP addresses and working on regulatory issues, lending issues, backhaul agreements, and other such. The project is more complex than just stringing fiber and sticking it in your window. Rest assured, we will get there!

The NTIA grant process is also well underway and we have made it through the "volunteer review" process. We know we are at least still in the running for

this grant because we had some minimal questions that needed to be answered and some clarifications to provide regarding our application. Honestly, every question asked was addressed in the project narrative and it was apparent that the "volunteer reviewer" had only skimmed the application, so with any luck, now we just move on to the next more in-depth review process. No one will be notified of the status of the grant until after November 29, so the waiting will continue.

## RATE QUESTIONS AND WHOLESALE COSTS

One of the issues every cooperative and every utility faces is the cost and reliability of obtaining the electricity we distribute to our members/customers. One of the most miserable tasks faced by a cooperative's board of directors is making decisions on rates.

We have been pretty lucky over the past few years. We have not had to increase energy rates since 2015 and the necessary \$20 per month increase in monthly base charges that came as a result of the cable project have been reduced by \$15 per month, as promised, as we received disaster and budgetary aid.

With the average rate for a home using 1,000 kilowatt hours per month being \$0.135/kWh, we are slightly above the national average of \$0.1331/kWh and slightly below the Wisconsin average of \$0.1428/kWhr.

Our monthly base charge of \$36 per main meter falls squarely in the middle of the cooperative pack with a low of around \$30 per month and a high approaching \$41 per month. When compared with Wisconsin Public Service, their average rate for energy is \$0.11113/kWh and their monthly base charge is \$21. When the base charge is normalized on a customer per mile basis, WPS' 30 customers per mile and our eight customers per mile, base charges have a much wider spread, in our favor. Base charge per mile for WPS becomes \$620/mile compared to our \$288/mile. Now it can be argued that WPS has more equipment per mile because of more customers per mile, but the spread is still pretty wide.

All of this explanation leads to the fact that we have been notified by WPS that our demand charges will be increasing by \$2.40 per kilowatt for 2022. At an average monthly peak of 2,000 kW, this equates to a monthly

increase in our wholesale electric bill of approximately \$4,800. This is significant. In addition, we have been also notified that fuel costs that apply to our formula rate for energy are also on the rise. We also know that economic interruptions, where we are buying on the open market, are increasing due to the conversion to natural gas and the addition of renewables creating instability in the supply of electricity.

At this point, we do not know exactly where this is going as far as our local rates, but we think it is clear that we will need to do something after the first of the year. In order to offset expected increases, a base charge increase may be in order, a per kWh increase may be in order, a fuel surcharge in months that follow economic interruptions may be in order. Our response may be any one, any combination of, or none of the above items. We want to ensure that you understand and are informed of what is going on and what may occur, in line with our policy of "No Surprises!"

We have actually had a fair number of our members ask why we lowered the base charge in January by an additional \$5 rather than leave it where it was in order to be ahead of these changes. The answer is, because we said we would lower rates related to the disaster and budgetary help that we got. It is important to do what you say you are going to do even if it means coming back and increasing rates again a year later. Lawmakers who supported us were told we would do this, our friends in other cooperatives were told we were going to do this, and you the member were told we were going to do this. Future support depends on credibility, and we hope to maintain our credibility moving forward.

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