

Versa-Tech® Recloser reduces maintenance and stock



Blue Grass Energy Cooperative (www.bgenery.com) has over 1,000 reclosers on approximately 4,500 miles of distribution line. Of those, 12 are Versa-Tech® reclosers and, considering all the advantages, the Co-op is ready to install more.



by Chris Brewer
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Blue Grass Energy (BGEnergy) is a 55,000 member-owned cooperative operating in 23 counties in north and central Kentucky. A consultant doing a sectionalizing study for the cooperative first mentioned Hubbell's new recloser. We liked what we heard and thought we would try some of them. BGEnergy currently has 12 Versa-Tech® reclosers in the field (in service for about six month) plus 33 more units in stock that will be installed soon with plans to order more in the future.

Big advantages

Why get them? The Versa-Tech® reclosers have several major advantages when compared to oil-filled devices. One big thing is
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Photos courtesy of Blue Grass Energy

the potential reduction in stock. While the Versa-Tech® reclosers are a bit more expensive than a conventional recloser, you can program them to the size you need (30 to 800 Amp minimum trip) and you therefore do not have to keep an assortment of fixed-trip reclosers in stock. We will not be able to realize significant stock reduction until we get more on our system. It may take us a while to get there, but that is something we are definitely looking at.

The lack of oil is another advantage for several reasons. For one thing, the Versa-Tech® recloser weighs a whole lot less than an oil-filled device and is therefore much easier to handle and easier for a lineman to install. No oil also means no spills. In today's world, anytime you can avoid something oil filled, you are better off avoiding that potential liability.

The new reclosers have far fewer moving parts (and no oil), which means a big reduction in on-going maintenance. That is a definite advantage. The only regular maintenance required is a battery change-out every eight

to ten years – and that can be done in the field, without removing the recloser from the pole.

Flexibility, troubleshooting, recordkeeping

As the system grows and load increases, we periodically need to increase the current-carrying capacity of a line. With the old, hydraulic reclosers, our only option was to remove and replace the old unit. With the Versa-Tech® recloser, a technician only needs to spend about five minutes in the field and he can change the settings without touching the recloser. That saves a lot of time and work.

The other thing I like is the flexibility in the programming: You can be more size specific with the Versa-Tech® reclosers. Since you can program them in 10A increments, if you do not want a 70A recloser, you can configure it like an 80A

unit. You also have more timing curves compared to the traditional hydraulic reclosers.

So far, I've done all the programming, but we plan to have our line superintendents do it in the future. I have already created computer files for various common configurations, so all the superintendents will have to do is pick the one needed and install it. It is a fairly simple process.

The event history records will also be helpful. We have had a few operations so far and we checked to see what fault current the Versa-Tech® recloser saw and compared that to what the substation OCR (oil circuit recloser) detected. The fault currents were similar. Right now, BGEnergy is not installing Versa-Tech® reclosers in series. We are putting them on the first set, right out of the substation, so we can take advantage of the

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Versa-Tech® Recloser



Lockout beacon gives a clear indication when the Versa-Tech® Recloser has interrupted service. Digital record of operations count displays in a window next to the beacon. Clearly marked manual operating handle and non-reclosing lever are color coded.

U.S. Patents 6,753,493; 6,794,596; 6,852,939; 6,936,779; and 7,215,228. Other Patents Pending

EXCLUSIVE FEATURES

- All systems up to 27 kV, 125 kV LIW (BIL)
- User-Settable 30 to 800 Amp Minimum Trip
- Beacon indicates lockout condition
- 400 Amp Continuous & 8,000 Amp Interrupting
- Records fault history for later review
- Password-protected programming
- Self-powered, 8-year minimum battery life
- Light weight, easy to handle and install
- Oil free
- Up to 75% lighter versus equivalent OCR (55 lb. versus 210 lb.)
- Minimal maintenance & insulation concerns
- Radio-programmable in-service option

event history. If we have a problem, we can use the Versa-Tech® recloser as an additional tool to locate the problem.

On the downside, you cannot do shunt trips (single-phase fault – three-phase lockout) with the Versa-Tech® reclosers because right now they cannot communicate with each other.

Things to consider

The Versa-Tech® recloser is a live-tank device, which is an issue for some people. On the plus side, you can increase the distance between the ground and energized lines, which should increase the BIL rating of the installation. And, I think the negatives can be addressed. If

the line technicians are doing what they should be doing and following standard safety rules, the live tank should not be a problem. To have a contact accident, a worker would have to violate multiple safety rules.

I think the big thing is that the Versa-Tech® recloser is something different and everyone has to learn how to work with it. As we get further through the process, I expect people to become more comfortable with it.

The other thing BGEnergy is working on is the installation of lightning arrestors for added protection of the system when Versa-Tech reclosers are open or locked out. We still are working on what is the best way to install them. We have not had any problems with lightning so far, but the reclosers have not been in the field long. ■

For details on the Versa-Tech® Recloser, visit www.hubbellpowersystems.com, click on the catalog icon, select construction-switching-protection, and scroll to Catalog Section 10E.

For more information, contact your Hubbell Power Systems representative, fax 573-682-8714 or e-mail hpsliterature@hps.hubbell.com.

Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.



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