Less Work, More Accuracy: DEW Implementation Results in Win-Win for Cooperative and Consultant

When working with the complexities that make up electric systems, time-saving efficiencies can make a huge impact. When a company outsources engineering work to external contractors, they realize some of those efficiencies will likely get lost in translation.

When Pennsylvania-based REA Energy Cooperative sent out a request for proposals for its 2025-2028 work plan, they knew some of the benefits gained after implementing a new engineering software would likely not be accessible to the contractor they chose.

According to Nicholas Hartman, REA's Manager of Engineering, REA began using NISC's Distributed Engineering Workstation (DEW) about a year and a half ago and has been very pleased with the results. DEW's tight integration with the cooperative's GIS and metering systems, as well as NISC Operations Analytics, has allowed them to look beyond peak system analysis and better grasp real system performance. They can now review large amounts of data collected over long periods of time and identify trends and use patterns to make better planning and operational decisions.

"DEW produces highly accurate models of the entire system with more detail than just its peak loads," Hartman said. "The software we previously used didn't have the integration DEW has, so if we wanted any data beyond just a snapshot, there were several extra steps we had to manually perform to get it. Because the DEW software has access to things like member meter data, GIS data, and which loads are residential and commercial, the models are much more accurate and require much less work to optimize. Unlike the previous software that required a lot of set-up time to resolve errors and warnings, DEW models are consistently clean and usable."

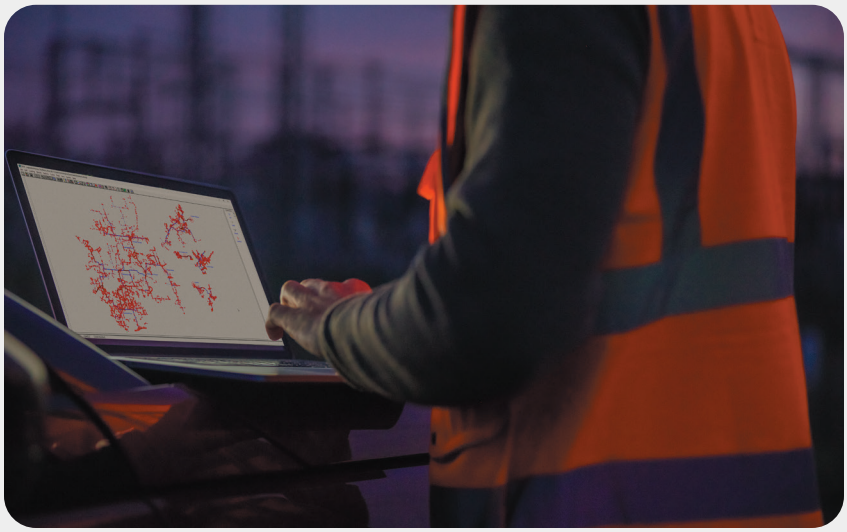
Sean Kufel, Regional Lead System Engineer for PSE, the consulting firm that had completed REA's last two work plans, said the company had implemented and recently received initial training on DEW prior to submitting a proposal for REA's work plan.

"Our goal is to provide the best service possible," he said. "Knowing the benefits many electric cooperatives have gained by using DEW made us realize this could likely be a tool that could benefit both our business and our current and future clients, too. We know there are benefits to using the same software solutions clients use and that it helps us prepare plans that are truly useful to them. That's why we decided to implement and learn to use DEW."

Even though REA was happy with DEW, Hartman said they didn't list it as a requirement in their RFP because they didn't want to limit the pool of contractors that submitted proposals. But, after seeing that PSE had implemented it, REA awarded them the contract and together they began moving forward on the development of the work plan.

The first step in implementing DEW was learning how to use it, so they reached out to NISC to set up a two-day training session. "There is a learning curve whenever you use new software," Kufel said. "It felt daunting during that first training session, but then we began using it more, and by the time

we held a second session, we understood it more and were able to dive even deeper. NISC has been quick to respond whenever we have questions and even did a demonstration from the perspective of a day-to-day user, which was very helpful."



After using DEW for about one year, Kufel said he has noticed some big improvements over their previous software. "Usability is critical for us. DEW is much simpler and more accurate," he said. "The fact that it has upfront data gathering is huge – the bulk of the time we usually spend on plans like this is on the engineering analysis and that was all done automatically through DEW's integration with REA's other systems. Having interval data really sets it apart as well. Getting load data, which was not real-time data, into the model using the previous software was unwieldy – a very large, clunky process that in the end gave us a model that was a reasonable approximation of what the system actually looked like. Having a baseline that shows actual peaks and receives every meter's actual data rather than something that was somewhat realistic – is a big deal. It helps us see trends and address things before they become problems. That's very valuable."

Kufel said this was the first client PSE used the software with, and it took about the same amount of time as the previous software. "But remember, we used the previous software for 15 years," he said. "Now that we've used DEW and are more familiar with it, we anticipate it'll save us about 20 percent more time when we use it with future clients."

Kufel said implementing DEW was a smart move because not only does it save employees a lot of work and provide more accurate models, but there are numerous utilities that use it – and not many consultants. He said using it is a selling point that opens the door for additional clients for his company.

Kufel and Hartman agree that the accuracy and integration DEW provided resulted in a much better overall work plan than in previous years. Because this is the third consecutive work plan PSE did for REA, they're both confident that using the new software is what made the difference. "If we would have selected a company not willing to use DEW, we're not sure what kind of results we would have gotten with the plan," Hartman said. "We can use the accurate, detailed model that was developed as a baseline and refer back to it to plan for many different scenarios. It really helps us determine what improvements we need to make to best serve our members."

For more information on how Operations Analytics and DEW can benefit your utility, to inquire about pricing or to set up a demonstration, contact us at operationsanalytics@nisc.coop.