

Argonne's 'Power Unit' keeps the research going

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For those who spend their time in buildings 206, 221 and 300, October 2 no doubt seemed like a normal work day. They were probably unaware that during a heavy storm just hours earlier – at 12:35 a.m. – lightning struck a power pole on Argonne property, knocking out electricity completely to their buildings and partially to others. Electricity was automatically transferred to powerless areas, with various structures in the 200 and 300 areas experiencing a power bump.

Fortunately for the researchers and operations employees in those buildings, the laboratory has a crew dedicated to monitoring and fixing such circumstances. The crew jumped into action to reset the system as soon as possible.

When the lightning strike occurred, the off-shift team – which has a foreman and mechanic onsite 24/7 to troubleshoot problem areas – saw the automatic power bump and, at the same time, heard a loud bang. After identifying the cause, they alerted the High-Voltage Crew foreman just after 1 a.m.



A lightning strike on this pole momentarily interrupted power to part of the Argonne site. Near the top of the pole, the lighter, unweathered wood was exposed where the lightning hit.

High-Voltage Crew linemen were onsite by 1:40 a.m., working with an engineer to fix the problem. By 2:45 a.m., they had restarted electricity from a substation that had been impacted by the lightning strike and all buildings were back at full power.

Just a few hours later, by 7 a.m., the crew was on the move from building to building, ensuring that all equipment was functional. To find the source of the power outage, linemen were also checking each power pole, even traveling outside the fence line to inspect poles located in Waterfall Glen Forest Preserve. By midmorning, they had found the damaged pole. The next day, they returned to repair it. Everything was back to normal within three days.

Argonne administers processes and research that require 24-hour power, and the off-shift team, in tandem with the High-Voltage Crew, provides constant monitoring and support to make sure it's available where needed.

"The off-shift team is the eyes and ears of the facility," said Josh Koons, manager of utility systems. "They're like an EMT, patching up a patient until the doctors – in this case the High-Voltage Crew – can get involved."

The High-Voltage Crew is just one of the teams that are ready to respond at any moment. As with problems with power issues, the off-shift team monitors for anything that goes awry with infrastructure, including sanitary waste treatment, water and steam systems, buildings and roads. These crews are also prepared to jump into action at a moment's notice.

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