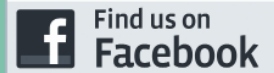




A Touchstone Energy® Cooperative

West Central *Electric News*



West Central Electric Cooperative, Inc. ~ Serving our members' needs since 1939

Holden Power Plant readies to chase the wind

Innovative new Fast Start system shaves six minutes off Holden plant's start time

Less than 24 hours after Fast Start, a new system for starting gas power plants super fast, was commissioned at Holden Power Plant, it did just that. When two other units in the Associated Electric Cooperative (AECI) system (which supplies West Central Electric's power) went off line, the Holden plant (located on Highway 131 just north of Holden) ramped up and ran in less than nine minutes -- six minutes faster than past starts.

So what's the big deal? Isn't that what

peaking power plants are supposed to do? Yes, but not so quickly. And every second of downtime is critical.

Chris Bolick, manager of system operations, explained why the Fast Start system is important to members. Standards set by the North American Electric Reliability Corporation for maintaining frequency and capacity on the national electric grid give utilities 15 minutes to recover from a sudden loss of generation.

"Holden used to take 15 minutes to reach full load, and that didn't allow much time for response after we received notification of a unit outage. The new system gives us more megawatts faster, ensuring we remain in full compliance, and helping us mitigate the risks with wind power," he said.

As Associated began integrating wind -- currently at 300 megawatts -- the possibility of sudden generation loss became more likely. That's the nature of wind: Sometimes it blows too hard, and turbines automatically shut down. Or, it may not blow at all. Either scenario results in generation loss.

With another 300 MW of wind generation coming on line this year from the Flat Ridge 2 project in Kansas and another 150 MW expected in 2014 from the Osage project on Oklahoma, Associated knew it needed to address system responseiveness. Several alternatives were considered on the basis of low cost -- from constructing new units to modifying other units to start in under 10 minutes that would have cost millions of dollars. The answer was Fast

Start capability at Holden.

There was a catch. Though electrical engineers Siemens Corporation had tested Fast Start at other power plants as part of commissioning, it had no installations used routinely. Still, said Rod Rupert, principal engineer, the system looked promising and would help mitigate the risk of losing generation. And, it would not be the first time Associated took the lead in innovation.

"Holden is a good example of making the best use of what we have," said Rupert. "There needed to be a way to mitigate some of the volatility of wind with assets we already have without putting in a huge investment."

"With Fast Start, we gained operational flexibility at a very low cost for our

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UP, UP AND AWAY...Holden Elementary School Principal Angela Helms waves to students from her perch in the West Central Electric bucket truck. WCE visited the school during the annual Fall Festival at the end of October 2012. Students got a chance to see how cooperative linemen use the bucket truck, and were also treated to a Power Town demonstration which taught about electrical safety. In addition to apple peeling, bags of kettle corn and face painting, one of the highlights each year is watching the principal go up in the bucket truck.



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TOURING THOMAS HILL...Mark Cunningham (right), training coordinator at the Thomas Hill Power Plant in Clifton Hill, Mo., points out the surplus of coal left after this past mild winter to WCE General Manager Mike Gray (center). Cooperative employees took a tour of the plant in November while two of the three generating units were offline for maintenance and repairs. Employees were able to get a first-hand look at the source of the power the cooperative provides to its members.



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The person responsible for coordinating this organization's nondiscrimination compliance efforts is Mike Gray, general manager. Any individual, or specific class of individuals, who feels this organization has subjected them to discrimination may obtain further information about the statutes and regulations listed above from and/or file a written complaint with this organization; or the USDA Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Ave. SW, Washington, D.C. 20250-9410; or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer. Complaints must be filed within 180 days after the alleged discrimination. Confidentiality will be maintained to the extent possible.

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Cooperative, Inc.**

A Touchstone Energy® Cooperative 

The Touchstone Energy® logo signifies that a local electric cooperative is among the hundreds of consumer-owned co-ops which have joined in a nationwide marketing alliance dedicated to providing superior service at affordable rates to all customers, large and small, and the communities they

Reminders to members...

West Central Electric would like to remind members that there is no mail service to our Oak Grove Office.

Any correspondence or payments must be mailed to WCE headquarters in Higginsville to the following address:

**West Central Electric Cooperative,
P.O. Box 452, Higginsville, MO 64037**
(Walk-in and night-drop box services available at both locations.)

Scholarship information...

Watch the February issue of Electric News for details on:

John & Kathryn English Memorial Scholarship
deadline Feb. 22, 2013

West Central Electric Cooperative Scholarship
deadline March 22, 2013

**West Central Electric Cooperative & Linn State Technical
College Electrical Distribution Systems Scholarship**
deadline April 1, 2013

Scholarship applications are available at high school counselor's offices & area WCE offices, as well as on line at
www.westcentralelectric.coop

This is the time: resolve to implement efficiency

Jan. 1 has come and gone. You've never been too good at resolutions. But you really need to do something about your electric bill, and you've been thinking about how to cut back. Maybe 2013 is the year to turn the corner on getting resolute and becoming more energy efficient. Plus, they say, writing resolutions takes you one step closer to making them happen.

Here are 10 simple and cheap resolutions to get serious about energy efficiency in 2013:

1. Do a home energy audit – First steps first. Check with your cooperative to see if it offers audit services or can recommend a professional. The audit will give you a plan of action.

2. Inventory appliances – Not many of us can afford all new kitchen appliances in one year. But if you have appliances that are 10 years old, you'll save a chunk of change in energy use with new models, starting with your refrigerator, which can use as much as 9 percent of total home energy consumption.

3. Caulk – Caulking and weatherstripping supplies are inexpensive and may give you the best bang for your efficiency buck. According to the U.S. Department of Energy (DOE), air leaks can cost you 30 percent of your utility bill. You can caulk throughout the winter if the temperature is above 40 degrees.

4. Replace incandescent bulbs with compact fluorescent light bulbs – CFLs have been replacing incandescents for more than a decade. In fact, light-emitting diode bulbs are now replacing CFLs. Either type costs more than the old incandescents but are 75 to 90 percent more efficient. And the CFLs have improved in light quality, styling and price. According to DOE, changing even a quarter of your lights in high-use areas with fluorescents can save about 50 percent on your lighting bill.

5. Lower the thermostat – Setting back the temperature in your home overnight or while you're away will save about 1 percent per degree of setback for eight hours. Setting it permanently back to a lower setting will save about 3 percent per degree lowered. Set the temperature as low as you can be comfortable, keeping in mind the temperature for the elderly and ill should not be below 68 degrees. If you can't resist fiddling with the thermostat, buy a programmable thermostat, which DOE estimates could save as much as 10 percent a year on heating and cooling.

(*PLEASE NOTE: Lowering the thermostat DOES NOT apply to heat pumps.)

6. Plant a tree – March or April are good months for planting trees and shrubs; otherwise wait until October or November. DOE estimates trees shading your house can reduce the surrounding air temperatures as much as 9 degrees and by as much as 25 degrees directly under the trees. Shading your air conditioner can increase its efficiency by as much as 10 percent.

7. Weatherize windows – New windows are expensive, but old single-paned windows are a big source of energy loss. If you have the budget, invest in efficient windows. If you can't afford new windows, add storm windows over single-paned windows or simply add plastic sheeting inside or out. You'll save enough energy in less than a year to pay for the plastic sheeting or in five to 10 years for storm windows, according to the Missouri Department of Natural Resources.

8. Wash cold and air dry – A clothes dryer uses a lot of energy, plus we tend to over dry clothes. Opt out in 2013, and instead, air dry clothes and linens outside when it's warm or inside when not. Air drying inside also will add some humidity to the air, generally needed in winter. As for washing, about 90 percent of the cost is for heating the water. With new cold-water detergents, you can clean as well with cold as hot water. These changes could save you several hundred dollars a year.

9. Don't duck the ducts – According to DOE, 10 to 30 percent of energy for heating and cooling is lost to conduction through duct surfaces. Another 30 percent of furnace heat can be lost through cracks in ducts. That's why it's so important to insulate ducts (and water pipes) in unconditioned attics (R-value 4 to R-value 8) and unconditioned basements and crawl spaces (R-value 2 to R-value 8).

10. Use fans and space heaters – Using inexpensive ceiling fans instead of expensive air conditioning can save hundreds of dollars a year. The simple movement of air can make you feel as much as 5 degrees cooler, according to DOE. Likewise, in winter, space heaters wisely used to heat a small space can be much more efficient than cranking up the furnace, which will heat the whole house.



The Holden Power Plant, located on Highway 131 just north of Holden, is a dual-fuel peaking plant used to supplement AECI's generation during peak usage times in the winter and summer months, as well as to make up for generation lost at other AECI plants due to outages or scheduled maintenance. Photo courtesy of AECI

Holden plant readies to chase the wind

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member owners," Bolick said. Associated hired Siemens to reprogram Holden's controls and implement Fast Start. And, in eight days, Sept. 27 to Oct. 5, for under \$200,000, that's what happened.

Associated's Joel Wilhite and David Shirley, both senior combustion turbine specialists at Holden, operated the plant throughout implementation. Once the team lowered starting time, they ramped the units faster by adjusting air and fuel to reach baseload in less time.

"We had to make some sequencing

changes for valves to open earlier,"

Wilhite explained. "It gave us means to chase wind."

The Holden plant, a dual-fuel peaking plant completed in May 2002 has three simple-cycle units fueled by natural gas with the capability to burn fuel oil as a back-up. The units are suited for peaking power because they may be started quickly to meet peak power demands, typically occurring in the summer and winter months. The plant can also be started to make up for lost generation in the event of an outage at other plants in the AECI system. Story courtesy of AECI.



David Shirley, senior combustion turbine specialist at the Holden Power Plant, monitors plant operation from the control room. Photo courtesy of AECI

To report an outage...

Online:

Members can now use their cell phone or another medium to report power outages online.

Go to www.westcentralelectric.coop for the link.

By phone:

You may also call to report outages by phone. Call 1-800-491-3803 -- 24 hrs. a day, or Higginsville at 660-584-2131.

***During heavy outages, we will be busy, so please keep trying if you get a busy signal.**

Before calling, have you:

- 1) Checked your fuses or multibreakers?
- 2) Checked with your neighbors to see if they are out of electricity?

When calling, have this information ready:

- A) Your name, or the name your service is under;
- B) Your account number (Look on your latest bill to find it,) or your map location number. (This is the number the co-op uses to locate where you live. It was given to you when you signed up for membership.) Please keep both numbers by your phone for quicker service.

You could be here in 2013!

WCE is looking for a few good Youth Tour/CYCLE delegates

What do the schools in West Central Electric Cooperative's service area have in common? They have sent some of the best and brightest to both our nation's and state's capitals for the Rural Electric Youth Tour and the Cooperative Youth Conference and Leadership Experience. If you are a high school junior this year, YOU could be a part of that, too!

What is Youth Tour?

The annual contest for high school juniors is sponsored by West Central Electric Cooperative, which sends delegates on a six-day trip to Washington, D.C. to learn about our nation's history and government while experiencing our nation's capital firsthand.

Electric Cooperatives throughout the country sponsor delegates on the trip which includes students from more than 40 states. Cooperatives from the state of Missouri will send approximately 80 delegates. This year, WCE will send **AT LEAST THREE DELEGATES**, and, depending on the number of entries received, as many as five delegates to Washington, D.C.

When is it?

This year's Youth Tour will be June 14-20, 2013. Missouri delegates will meet in Jefferson City on Friday, June 14 for a banquet and orientation before traveling by plane to Washington, D.C. June 15. Delegates and their families will also have the opportunity to participate in Family Capital Day sponsored by West Central Electric.

What will we do?

While in Washington, D.C., delegates will have the opportunity to meet

Contest Details:

The contest is open to high school juniors who attend a school in the West Central Electric service area, or whose parents or legal guardians are current members of WCE.

How do I enter?

Submit a 600-word, typed essay on the following topic:

"It's a matter of principle"

Students will choose ONE of the Seven Cooperative Principles on which to base their essay

For more information:

Visit westcentralelectric.coop and click on "Youth Programs" then "Youth Tour" to download the information packet.

with their senators and representatives, as well as visit historic memorials such as the Lincoln Memorial, the Jefferson Memorial, the Tomb of the Unknown Soldier and the Two Jima and Vietnam memorials. Favorite Washington, D.C. landmarks are also on the agenda, including Mt. Vernon, the Smithsonian museums, Ford's Theatre, the Washington Monument and the Washington Cathedral. Delegates will also enjoy a moonlight cruise on the Potomac River and a MLB game or play at the Kennedy Center.

The Rural Electric Youth Tour provides a chance for high school juniors to learn about government, our nation's capital and electric cooperatives, as well as rural electrification and the impact it has had on our nation's development.

What is CYCLE?

CYCLE is the Cooperative Youth Conference and Leadership Experience which will be held July 17-29, 2013 in Jefferson City.

WCE will send **FIVE DELEGATES** to this conference sponsored by the

Association of Missouri Electric Cooperatives. They will join approximately 90 other delegates from across the state.

Students will hear amazing speakers, participate in team-building and leadership activities, and get a chance to debate their own bill on the floor of the Missouri House of Representatives.

For more information, contact your high school English teacher, FFA advisor, or Heather Hoflander at West Central Electric Cooperative in Higginsville at 1-800-491-3803 or 660-584-2131.



Top right: WCE Youth Tour delegates Hali Mieser, Taylor Edwards and Rachelle Engen (far left of photo) and a few of their 80 new friends at Mount Vernon.

Above: Lindsey Feldman helps her team build a model co-op at the Cooperative Youth Conference and Leadership Experience.



Above: WCE Youth Tour delegates Taylor Edwards, Hali Mieser, Kayla Goth and Rachelle Engen visit the United States Capitol Building while on the 2012 Rural Electric Youth Tour to Washington, D.C.



Left: Hali Mieser (left) makes new friends at the Washington Nationals game during the 2012 Rural Electric Youth Tour.