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Energy Delivery

Delivering energy safely, reliably, efficiently and affordably.

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Holland Bottom 500 kV Substation

For the past two summers, several substations in the Little Rock area showed low voltages with no significant transmission line failures in the area.

The loss of one of the 500/115 kV transformers at the Mabelvale substation in 2006 resulted in low voltages in the Little Rock area during periods when power was flowing from south to north.

When this happens the loss of the second transformer at the Mabelvale substation could result in widespread low voltage in the Little Rock area.

What's Energy Delivery doing about these problems?

?

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Building New Facilities to Mitigate Those Issues.

Holland Bottom 500 kV Substation

Phase 1: Build a 500/115kV substation near Cabot northeast of Little Rock.

This will provide voltage support to Little Rock and reduce some thermal contingencies.

Phase 1 is on track for its current projected in service date in 2011.

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Holland Bottom 500 kV Substation

Phase 2: Install 161 kV bus and a 600 MVA 500 kV / 161 kV autotransformer.

This will provide a strong source into Conway from the East.

The 161kV at Holland Bottom will also provide a long term conversion of the 115kV to North Little Rock and to Searcy Price.

Phase 2 is scheduled to be in service in 2012.

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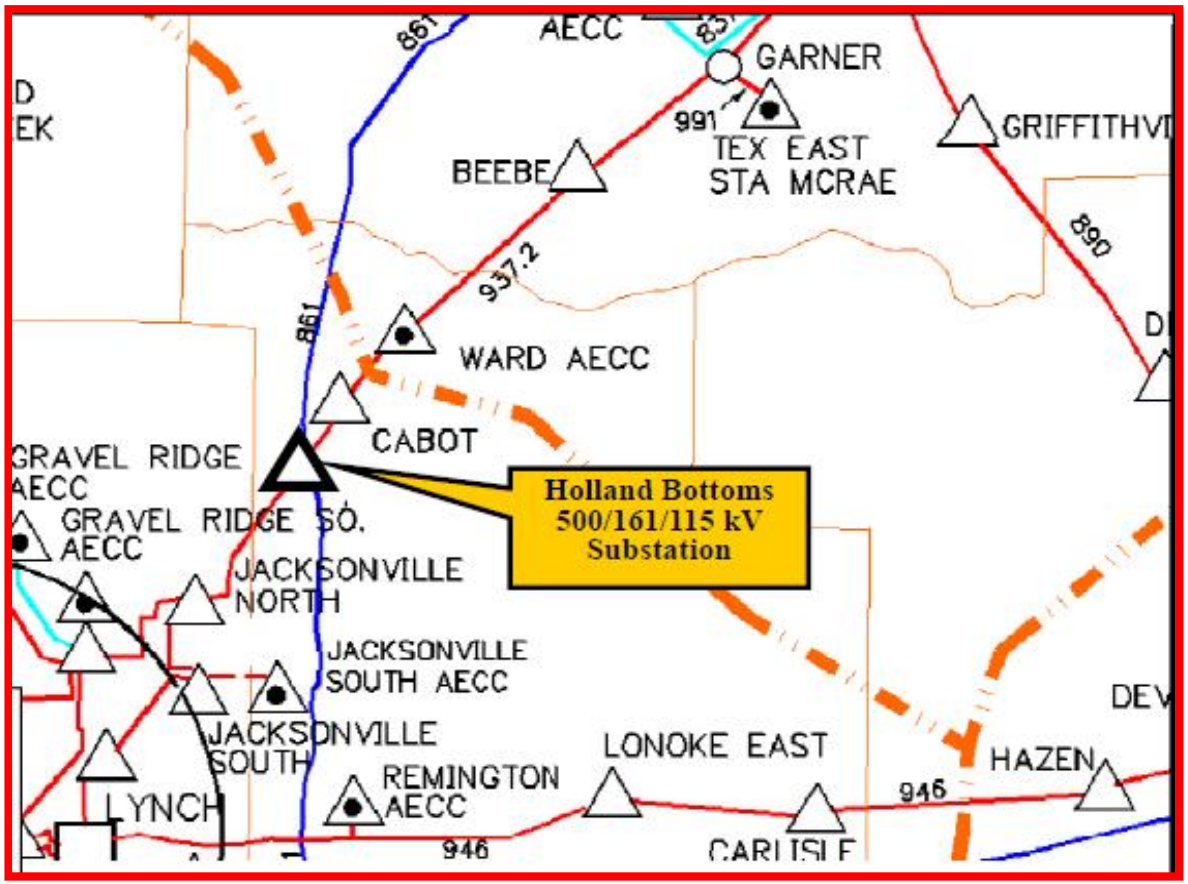
Holland Bottom 500 kV Substation



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Holland Bottom 500 kV Substation

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The site for the new 500 /115 kV substation was prepared late in 2010.

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Holland Bottom 500 kV Substation

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Construction crane places steel bar foundation pier.

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Holland Bottom 500 kV Substation

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Structural steel frame work of gas insulated switchgear building.

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Construction crane positions roof beam of gas insulated switchgear building.

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Holland Bottom 500 kV Substation

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Near completed gas insulated switchgear building. Objects in foreground are high voltage breakers.

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Holland Bottom 500 kV Substation

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Completed 500 kV gas insulated switchgear building.

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Gas Insulated switchgear building . Gas insulated switchgear minimizes the footprint of a substation switchyard.

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Holland Bottom 500 kV Substation

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Contractor pours floor for cable trough from Gas insulated switchgear building to autotransformer pads.

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Crews constructing fire wall foundations between 500/115kv autotransformer pads.

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Cable trough from gas insulated switchgear building to autotransformer pads.

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Holland Bottom 500 kV Substation

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80-ton capacity crane relocates scaffolding.

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Holland Bottom 500 kV Substation

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Completed 35' high firewall. These stand between the substation's 500kv autotransformers.

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Holland Bottom 500 kV Substation

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Firewalls that will separate autotransformers, completed cable troughs and switchyard terminal structures

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Holland Bottom 500 kV Substation

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Completed 35' high firewalls that will separate 500kv autotransformers.

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Holland Bottom 500 kV Substation

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Crew drilling foundation peers for fire wall foundation between 500/161kv autotransformer pads in phase two of site.

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Holland Bottom 500 kV Substation

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Substation line bay dead end structures. Components on ground behind the vertical structures are 161 kV breakers.

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Holland Bottom 500 kV Substation

Until this project and other improvements Entergy is making are complete, during times of high demand customers can help by conserving when possible.

Raise thermostats to 78 degrees.

Use fans instead of air conditioners if possible.

Use major appliances such as dryers, ovens, dishwashers and washing machines in the early morning or late evening hours.

Close blinds, drapes and curtains during the heat of the day.

Turn off unnecessary lights and use fluorescent light bulbs if possible.

Power off computers, TVs and other electronics when not in use.