

# Exploring Energy's Future

**F**ORTY-SIX SOUTH DAKOTA TEENS VENTURED TO the coal mines of North Dakota to explore the cooperative-owned energy complex that delivers reliable energy to cooperative members' homes in a nine-state area.

The students were part of the annual Youth Excursion sponsored by 14 South Dakota electric cooperatives. Each of the cooperatives which participate in the program selected students to represent their co-op on the trip. During the three-day excursion, students learned about the basics of cooperatives, how the region's Touchstone Energy Cooperatives work together and career opportunities at cooperatives.

The highlight of the trip was a day spent touring Basin Electric Power Cooperative facilities near Beulah, N.D. While at Beulah, the students toured the Great Plains Synfuels plant, operated by Basin Electric subsidiary Dakota Gasification Company. The synfuels plant transforms coal into natural gas and other by products. After touring DGC, the students went next door to see the Antelope Valley

Station, a 900-megawatt coal-fired power plant. At the plant, students peaked inside the 277-foot boiler which transforms heat produced from the coal into steam energy which then turns the plant's turbines.

Next on the agenda was a tour of Coteau Properties' Freedom Mine which supplies coal to both DGC and AVS. Students watched as the mine's dragline removed huge buckets of overburden from above the mine's coal seam. The bucket on the dragline can hold the equivalent of four Chevrolet Suburban vehicles. The students also watched as the mine's 300-ton coal haulers transported lignite coal from the coal pit to the handling facilities near AVS and DGC.

The last energy stop of the day was a drive through the 40-mw Wilton Wind Farm north of Bismarck, N.D. The farm is operated by FPL Energy and Basin Electric purchases the energy output of the farm.

The students concluded the trip with a riverboat cruise of the Missouri River, a game show quiz contest and a dance.

**Below: Forty-six students representing 14 electric cooperatives took part in the 2008 Youth Excursion.**





**Top:** Students unroll a 35-foot bag used in environmental controls at AVS. **Left:** Students are all smiles on AVS's 17th floor observation deck. **Above:** Students peer into AVS's boiler. **Below:** A student adjust his hardhat before touring AVS. **Below left:** Students inspect a damaged dragline bucket that had its teeth ripped from it when it hit frost. **Bottom:** AVS employees led the students on tours of the plant.



## Youth Excursion Participants

### **Bon Homme Yankton Electric Association, Tabor**

Kellyn Neth Jennifer Ratzlaff  
Dave Sestak

### **Butte Electric Cooperative, Newell**

Stephanie Stark

### **Cam Wal Electric Cooperative, Selby**

Chad Ablor Alex Rau  
Cody Sterkel

### **Cherry-Todd Electric Cooperative, Mission**

Thomas Fanning  
Theresa and Tony Benda, Chaperones

### **Codington-Clark Electric Cooperative, Watertown**

Andy Hiedeman Kaitlin Hintz  
Samantha Ronke Shelby Sumner  
Courtney Zwieg

### **Dakota Energy Cooperative, Huron**

Russell Mendenhall

### **Grand Electric Cooperative, Bison**

Colt Besler Shayde Brengle  
Kayla Gerbracht Ben Juelfs  
Trey Wammen  
Helen Aker, Chaperone

### **H-D Electric Cooperative, Clear Lake**

Brandi Hanten Stephanie Stee  
Erica Thiewes

### **Lacreek Electric Association, Martin**

Nate Kaltenbach Rebecca VanderMay  
Johnny Yellow Cloud

### **Lake Region Electric Association, Webster**

Sarah Gaikowski Ross Kwasniewski  
Christa Wik

### **Northern Electric Cooperative, Bath**

Vanessa Burggraff Jenna Dennert  
Randi Jo Haas Megan Knecht  
Kailee Koester Bailey Kopplin  
Emily Sperry Desirae VanZee

### **Oahe Electric Cooperative, Blunt**

Chase Hill

### **West River Electric Association, Wall**

Morgan Austin Adam Grubl  
Shayla Johnson Marie Mulloy  
Melanie Smith Madison Stephens  
Dylan Stuard

### **Whetstone Valley Electric Cooperative, Milbank**

Sean Larsen Annie Minder

### **South Dakota Rural Electric Association, Pierre**

Brenda Kleinjan, Chaperone  
Mary Neuhauser, Chaperone