

# What Do You Know About Substations?

**YOU MIGHT THINK**, “Why would I want to know about substations?” But substations are an important part of the electrical system that delivers safe and reliable electricity every time you flip a light switch or turn on an appliance.

A substation supports delivery between the transmission and distribution systems. Transmission substations give electricity its first step-down; distribution substations step voltage down even further and maintain it at a constant level so that it can be sent on to the consumer.

A constant level of voltage is particularly important: To travel long distances over wires, electric power voltage must be much higher than the level at which it is produced by a power plant. For example, electricity leaves a power plant at about 22,000 volts then is increased to as much as 765,000 volts. The higher the voltage, the lower the line loss and voltage drop—thus, the greater the system’s efficiency. As the power gets closer to its destination, voltage is gradually decreased to a level safe for consumers.

A mass of equipment can be found in a substation: transformers, insulators, circuit breakers, lighting arrestors, etc. The thing that looks like a garbage can near the top of a pole is the transformer. Its function is to increase voltage for efficient long-distance transmission or to lower voltage for co-op members to use. The lines leaving a distribution substation are owned and maintained by the local co-op. These lines carry the power to industries, businesses, homes and schools.

The next time you drive by one of those menacing, fenced conglomerations of power lines and equipment, remember this: A substation is an important part of your power system. It helps ensure that you receive electricity in a reliable and safe manner.



Substations are an important part of the power system, ensuring the safe delivery of electricity.

## RECIPE OF THE MONTH



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## Taco Soup

- 1 pound ground beef, turkey or venison
- 1 package taco seasoning
- 1 can (11 ounces) tomatoes with green chiles
- 1 can (14 ounces) ranch-style beans
- 1 can (14 ounces) hominy
- 1 onion, diced
- 1 tablespoon minced garlic
- 2 cups grated cheddar cheese, divided use
- 4 cups tortilla chips
- 1 cup sour cream

1. Brown the meat, drain off fat and stir in taco seasoning.
2. Put meat mixture, tomatoes, beans, hominy, onion and garlic together into a large pot. Simmer over medium heat for 30 minutes.
3. Stir in 1 cup cheese during final 5 minutes. Serve in individual bowls or pour into an insulated bottle for lunchtime.
4. Top a serving with chips, a dollop of sour cream and a generous sprinkle of remaining cheese.

This recipe was a winner in the August 2013 recipe contest. Submit your best soup recipes to *Texas Co-op Power* by August 10 for a chance to win our *Nourishing Soups* recipe contest. Visit [texascooppower.com/contests](http://texascooppower.com/contests) for rules and details.

Find this and more delicious recipes online at  
**TEXASCOOPPOWER.COM**

# NCEC Awards Grants: Operation Round Up



| ORGANIZATION/AGENCY               | GRANTS          |
|-----------------------------------|-----------------|
| Common Ground Ministries          | \$1,060         |
| Dawson ISD                        | \$3,000         |
| Family Services Association       | \$3,000         |
| Meals on Wheels (Johnson & Ellis) | \$3,000         |
| Senior Connect                    | \$3,000         |
| Waxahachie Preparatory Academy    | \$1,499         |
| <b>Total</b>                      | <b>\$14,559</b> |

## Cool Summer Evenings Call for Fans, Not AC

**EVEN THE HOTTEST** summer gives us a break occasionally, sending pleasant temperatures and gentle breezes our way, especially in the evenings.

When it's not too hot outside, you can cool your house more economically with fans than by running your central or window air conditioner.

Placing a fan in a window circulates the air and freshens the home by exhausting stale air. It also can remove odors from smoking and cooking that tend to linger in the air when all the windows are closed.

A ceiling fan can be used whether the air conditioning is on or off. During the summer, the blades send a slight breeze down into the room and will make anyone in that room feel more comfortable.

**But remember:** Fans don't actually cool the house off. Instead, they make the air feel cooler to people in rooms where they are located because they move the air around. So turn them off when you leave the room.



Place a fan in an open window to cool down on pleasant evenings.



### Navarro County Electric Cooperative

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Operating in Ellis, Freestone, Hill,  
Limestone and Navarro counties

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