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# ELECTRICITY 101: HOW THE GRID WORKS

From a simple flip of the light switch to charging multiple devices, electricity is a constant of modern life. While we depend on it continually, we don't often think about where our power comes from. The reality of the grid is surprisingly complex and evolving fast.

Where does Central Florida get its electricity?

Since Thomas Edison built the first central power station in 1882, power generation has evolved significantly. Today's primary energy sources in Florida are coal and gas. Wind, hydroelectric, and geothermal are not currently viable in our state, and while biomass and landfill gas are possible, they are only available in limited quantities. OUC is committed to a greener future, incorporating natural gas and solar in our energy portfolio. This diversification helps OUC achieve its goal of Net Zero CO<sub>2</sub> Emissions by 2050, with interim targets of 50% reduction by 2030 and 75% by 2040, ensuring a more resilient system for customers.

*How does electricity get from place to place?* Large amounts of energy are transmitted quickly across Central Florida by first increasing the voltage. OUC redirects electricity through centralized substations, where large-scale transformers "*step up*" the voltage to extremely high levels. This powerful electric current travels across transmission lines to local distribution substations, where the voltage is *"stepped down"* for regional use. Finally, electricity is stepped down once again through small transformers attached to power lines before it reaches homes or businesses.

As Florida's population grows and the demand for electricity increases, utilities like OUC are reimagining the traditional grid. The new grid will need to be decentralized, incorporating many smaller generation points – from solar panels paired with energy storage to peaker plants – to provide a more sustainable and resilient energy network.

As the energy landscape changes rapidly, there's no better time to get to know the infrastructure that will power Central Florida for years to come. Find out more about how OUC keeps your power running smoothly and ensures a sustainable energy future.

#### Read more at OUCBlog.com



# **STOREY BEND AND HARMONY II** – *TWO SOLAR FARMS, A SUSTAINABLE BRIGHT FUTURE*

Construction is at the midway point at OUC's two new solar farms in Osceola County: Storey Bend and Harmony II. Each contains nearly 300,000 panels that will track the sun throughout the day for maximum power generation. Once these projects are completed, OUC's collective utility solar energy capacity will reach 271.5 MW, enough to power approximately 50,000 Florida homes. Both farms are anticipated to be operational by the end of 2024.

### **BEAT THE HEAT WITH THESE BACK-TO-SCHOOL CONSERVATION TIPS**



With the kids headed back to school, take advantage of that empty house, and follow these energy saving tips to get your wallet back in check:

- A. Keep the Fridge Closed When you're packing lunches, don't leave the fridge open. Remove all needed items first.
- **B.** Use a Laptop For homework that requires a computer, a laptop uses less energy than a desktop.
- C. Turn Up the Thermostat With the kids at school all day, there's less need to cool your house. When the house is empty, bump up the thermostat above 78 degrees to save energy and money.
- D. Keep Showers Short This not only saves water but gets you out the door faster.

- E. Practice Good Laundry Habits Between school, sports and clubs, laundry can pile up. Make sure you're washing only full loads in cold water.
- F. Unplug Unused Devices All those TVs and game systems can eat up energy even when they're not in use. Unplugging devices will stop them from using 'vampire energy', energy that leaks out while they are not in use.
- G. Ditch the Oven Instead, use a toaster oven or microwave. This saves energy and makes meal prep easier on busy weeknights!

# **KEEP YOUR COOL AND YOUR CASH WITH EFFICIENCY DELIVERED**

OUC's Efficiency Delivered Program<sup>®</sup> provides up to \$2,500 of energy efficiency upgrades in your home. Eligible improvements include:

- A/C tune-up
- Air filter replacement
- Attic insulation
- Caulking and weather stripping
- Thermostat replacement
- Duct leak repairs



- WaterSense labeled irrigation controller
- Irrigation repairs
- Toilet replacement
- Water flow restrictors
- Window film installation

Discover more by visiting OUC.com/EfficiencyDelivered.



## **DID YOU KNOW?**

OUC's new St. Cloud Operations & Maintenance Center features two cisterns that can store up to 28,000 gallons of rainwater! This water is used for irrigation, thanks to EPA WaterSense fixtures and various water recycling techniques.

The campus, open since June,

also boasts two types of solar panels: a 520-kilowatt system on the warehouse and fleet shop roofs, and 200 kilowatts of building-integrated panels. Together, these generate **960** megawatt-hours of electricity annually, offsetting the buildings' energy use, which is estimated at 588 megawatthours per year. The campus is

designed to use 50% less energy than similar-sized buildings!



Para ver toda nuestra información en español, por favor visite espanol.ouc.com.



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