

# Case Study:

## Independent School Districts in Texas



# Coppell Independent School District

## Summary

Coppell Independent School District is a public school district just northwest of Dallas in Coppell, TX. The district has 16 campuses and serves portions of Coppell, Grapevine, Irving, Valley Ranch, Dallas, and Lewisville, TX. Coppell ISD is home to the state's first LEED Gold, net-zero elementary school, Richard J. Lee Elementary School. The school is able to sustain itself by producing as much energy as it consumes from the wind and solar energy generation occurring on site.

### Quick Facts

#### Location

Coppell, TX

#### Schools Participating

Richard J. Lee Elementary School

#### PV Capacity

358 kW

#### Land Use

New school

#### Annual Production

519,000 kWh per year

#### PV Equipment

1,069 Sunpower solar panels

#### PV Location

Rooftop

#### PV Installation

August 2014

#### PV Cost

\$1.2 million

#### Net-zero School Cost

\$21 million

#### PV Funding

Grant from Oncor - \$400,000  
Utility Incentive

#### Green Features

- LED lighting
- Geothermal heat pump
- LEED Gold Status
- Rainwater-collection system
- Wind turbines
- Daylight harvesting
- Efficient building envelope and plumbing
- Building made from local and recycled materials



Photo courtesy of Axium Solar

## Benefits of Solar and Sustainable Features for Education

Conservation and sustainability are a central focus of the school. The facility is equipped with several sustainable education tools: digital interactive informational displays of the building's energy use and renewable energy generation; an outdoor lab; a wind and solar panel learning station; rainwater harvesting and native gardening; and a campus wide recycling program. The solar arrays can be monitored by interactive dashboards that are available to the students. This allows the students immediately know

The land used to construct Richard J. Lee Elementary School was originally annexed from the City of Dallas to be the site of a power plant!

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## Benefits of Solar and Sustainable Features Continued

the impact they've had on the environment with their school. Students are engaged utilizing the facility's sustainable features as a teaching tool. It creates ownership and encourages a deeper understanding of their contribution and impact on the world. Additionally, the onsite energy generation is helping to minimize building maintenance and operations costs by harvesting on site energy which lowers utility costs.



Photo courtesy of Stantec

## Funding

Coppell ISD received \$21 million from a \$79.5 million district bond to construct the net-zero elementary school and an additional grant from Oncor Electric for the installation of the solar array. Adding the solar technology is what made Richard J. Lee Elementary school eligible for net-zero status.



Photo courtesy of Stantec

*The North Central Texas Council of Governments recommends to have an energy audit done by the State Energy Conservation Office to establish where solar might fit into overall energy efficiency improvements and energy saving potential. For more information on the SECO Technical Assistance Program, please visit: <http://seco.cpa.state.tx.us/energy-reporting/gov-assist.php/>*

The North Central Texas Council of Governments is working under contract with the State Energy Conservation Office (SECO) to expand best management practices for solar photovoltaic systems throughout the State of Texas. For more information about solar in Texas, please visit: [www.GoSolarTexas.org](http://www.GoSolarTexas.org).