

# Renewable Energy



Story Wind Farm, Story and Hardin counties, Iowa

COOPERATIVES HAVE A LONG HISTORY OF COMMITMENT TO THE COMMUNITIES THEY SERVE AND THE ENVIRONMENT WE SHARE.

Renewable energy represents an important part of Hoosier Energy's All-of-the-Above power supply strategy, which also includes coal, natural gas and energy efficiency.

To help meet member electricity needs now and in the future, Hoosier Energy's Board of Directors established a voluntary renewable energy policy in 2006 to encourage the development of efficient, economical renewable energy resources. Our renewable energy program now includes more than 100 megawatts of landfill methane gas, solar, wind and hydropower resources.

The solar program, high-capacity landfill gas facilities as well as purchased power agreements for wind and hydropower resources complement coal and natural gas

resources and energy efficiency programs. Taken together, they provide the best balance for electric service reliability, affordability and environmental stewardship.

## CONSUMER-OWNED GENERATION

With nearly 2 megawatts of consumer-owned renewable capacity in place across member service territories, Hoosier Energy and member systems are working together to develop consistent guidelines for residential distributed generation. Materials include information for consumers on interconnections, compensation and what to consider before investing in a renewable energy project.

# Hoosier Energy Renewable Energy Resources

## HOOSIER ENERGY'S RENEWABLE SOURCES OF POWER INCLUDE THE FOLLOWING:

### LANDFILL METHANE GAS

High-capacity landfill methane gas (LMG) contributes to the reduction of greenhouse gases by destroying methane and using the remaining gas to produce electricity.

Landfill gas, which occurs naturally from decomposing waste, consists of about 50 percent methane, whose emissions are many times stronger than carbon dioxide and considered a contributing factor to global warming. LMG facilities capture the methane and use it to produce electricity instead of flaring the gas into the atmosphere.

Hoosier Energy owns and operates two landfill methane gas facilities: the 15-megawatt Livingston plant located on Republic Industries' 460-acre Livingston Landfill near Pontiac, Illinois, and the 16-megawatt Orchard Hills facility in Davis Junction, Illinois, about 20 miles south of Rockford, Illinois.

Livingston began operations in 2013 and Orchard Hills came on line in September 2016. Renewable energy credits for the Livingston and Orchard Hills facilities are sold to third parties.

### SOLAR

Hoosier Energy's solar program consists of ten 1-megawatt solar arrays placed along highly visible roadways across member service territories. Collectively, the solar sites will provide approximately 20,000,000 kilowatt-hours (kWh) of energy annually for the 300,000 consumers served by Hoosier Energy's 18-member distribution cooperatives.

A key goal of the project is to learn how this variable energy resource integrates onto the grid and how solar might offset the need for other more costly energy resources during periods of high demand. Once collected, this information will help member distribution systems give advice to member consumers on the operational issues, costs and benefits of solar as a renewable energy resource.

### WIND

Wind power comes from several purchased power agreements. Projects include agreements for wind capacity from Story County, Iowa, the Rail Splitter Wind Farm in Illinois, and most recently an agreement to purchase wind power from the Meadow Lake V wind farm in Northwestern Indiana.

### HYDROPOWER

A 20-year purchased power agreement was finalized in 2012 for electricity produced by a 4-megawatt hydroelectric facility near Dayton, Illinois. The plant produces about 18,000 megawatt-hours annually, enough to power about 1,500 homes.

### SMALL-SCALE PROJECTS

Hoosier Energy provides support to member cooperatives in analyzing data from seven distributed generation solar facilities, three wind facilities, as well as a solar thermal system in use at West Washington School in Jackson County. The solar hot water system was the first of its kind to be installed at an Indiana public school.

Data from these facilities is helping members evaluate the long-term feasibility of residential- and commercial-scale wind and solar generation in Southern Indiana.

## PERCENT OF VOLUNTARY RENEWABLE ENERGY REQUIREMENTS BY YEAR

