

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.

Hoosier Energy pursues renewable energy projects that make economic sense and contribute to an "all-of-the-above" power supply strategy for member systems. Our renewable energy program now includes

landfill methane gas, coalbed methane, solar, wind and hydro resources.

With renewable additions to the generation portfolio, Hoosier Energy is well positioned to meet the Board's policy of supplying 10 percent of member energy requirements by 2025 from a portfolio of renewables projects and power purchase agreements.

Hoosier Energy is a member of the National Renewables Cooperative Organization — a national group of co-ops working together to cost-effectively pursue renewable energy opportunities.

Hoosier Energy Renewable Energy Resources

HOOSIER ENERGY CONTINUES TO LOOK FOR WAYS TO MAKE COMPETITIVELY PRICED RENEWABLE SOURCES OF POWER AVAILABLE FOR MEMBERS. CURRENT PROJECTS INCLUDE THE FOLLOWING:

LANDFILL METHANE GAS

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. Instead of being flared into the atmosphere, LMG facilities capture the methane and use it to produce electricity.

Gas produced in a landfill provides a source of fuel to power generators around the clock.

Hoosier Energy owns and operates three landfill methane gas facilities: the 4-megawatt Clark-Floyd landfill gas plant in southern Indiana, 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, which is currently under construction.

Clark-Floyd began operation in 2007, Livingston followed in 2013 and Orchard Hills is scheduled to be operational by the end of 2016. Renewable energy credits for the Livingston and Orchard Hills landfill facilities are sold to third parties.

COALBED METHANE

Hoosier Energy produces power from coalbed methane gas (CBM) at the Osprey Point Renewable Energy Station that opened in mid-2013 on the grounds of the Merom Generating Station.

Coalbed methane is a biogenic natural gas stored in deep underground coal reserves. Coalbed methane technology has been widely used to collect gas for pipelines, but Hoosier Energy's plant is the only one in the United States that taps underground coalbed methane reserves to directly produce electric power.

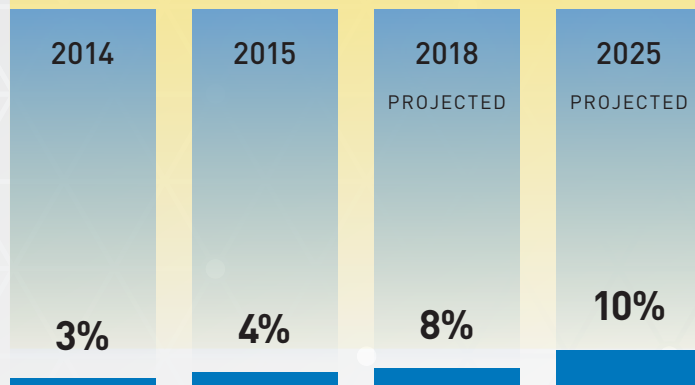
The 13-megawatt plant extracts coalbed methane from 58 production wells. Four General Electric reciprocating engines then turn the gas into electricity.

SOLAR

In 2015, Hoosier Energy announced a solar program that consists of ten 1-megawatt solar arrays placed 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.

PERCENT OF RENEWABLE ENERGY REQUIREMENTS BY YEAR



WIND

Wind power comes from several power purchase agreements. Projects include agreements for wind capacity from Story County, Iowa, the Rail Splitter Wind Farm in Illinois, and most recently a joint agreement with Wabash Valley Power Association to purchase wind power from the Meadow Lake V wind farm in northwestern Indiana.

HYDRO

A 20-year power purchase 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. A 600-foot-long dam on the Fox River regulates water flow that is directed to a side canal. Electricity is produced by water pressure with virtually no emissions.

DISTRIBUTED GENERATION

Hoosier Energy provides support to member cooperatives when they work with consumers on small-scale renewable energy projects. The power supplier helps member systems evaluate 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.

These renewable energy facilities are in operation to evaluate the long-term feasibility of residential- and commercial-scale wind and solar generation in southern Indiana.

A Distributed Generation Committee comprised of distribution cooperative managers from across the Hoosier Energy power network meets regularly to address common questions and considerations associated with consumer-owned generation. The goal is to provide member consumers with the tools they need to make an informed decision about adding generation to a home or business.