

# Nature Lights the Way At Woodcliff Middle School; STEM Classes Get Data

May 24, 2019 John Snyder



A BRIGHT IDEA! Woodcliff Middle School's new renewable-energy remote power unit, installed on Earth Day, has a wind turbine, a solar panel, and an LED lamp. And it'll charge your phone.

WOODCLIFF LAKE, N.J.—Renewable energy is on the job at Woodcliff Middle School, powering a lamp standing sentry between the gymnasium entrance and campus playing fields.

The device also is a scientific instrument, streaming data on wind and solar power to the campus's elementary- and middle-school students for use in their studies.

It was approved at the school board meeting of March 19 and erected April 22: Earth Day.

A district official said the unit, which cost \$14,490 installed from Aris Wind of Mount Vernon, N.Y. will capture and store solar energy year round and can work off its own stored power for up to five days.

Check it out: It sports an 80-watt LED street light, a gentle turbine, a solar panel, a wind vane, and a USB charging station—parents, students, and guests using the district's facilities will be able to charge their personal electronic devices at its base.

The funds came from the district's Building and Grounds budget.

The unit, nearly 30 feet tall, is a distinctive addition to the grounds. It's space-agey and cool, and festooned with gear, though an affixed blue school district banner is its most colorful component.

It's centrally located to the gym, playing fields, and new STEM class space 200 feet away, lighting the area in a beam 70 feet wide by 35 feet deep.

According to Board of Education President Jeff Hoffman, who advocated for the unit after seeing nearly a dozen in operation last fall on a high school campus in Dobbs Ferry, New York, the data can be brought back into the classroom "and used like a field trip, which is the next step in getting students interested in STEM," the acronym for learning in science, technology, engineering, and mathematics.

Hoffman researched the devices and contacted consultant Aris Wind LLC of Mount Vernon, New York to learn more. The district's Buildings and Grounds Committee took up the idea and recommended it as a good fit for the Woodcliff Middle School and Dorchester Elementary School campus.

Aris Wind regional manager Jake Whitney told Pascack Press on May 14 that three workers took a short time to erect the unit on a poured footing.

The company, founded in 2013, hadn't done any business in New Jersey before. Whitney said after safety, the prime benefit to students is the data they'll gather, as this will demonstrate how renewable energy works.

He also said there is no underground wiring, a cost savings that the company's school and municipal customers—in New York, Connecticut, and Chicago—appreciate.

"Their carbon emission is zero. There are no electricity bills. And even if the [power utility] grid goes down it's still going to work," he said.

Superintendent of Schools Lauren Barbelet said in a press release that understanding alternative energy is paramount for the next generation of learners.

District STEM instructor Tom Nikolaidis is happy to have the resource. He said it will offer students the opportunity to understand and appreciate the value of renewable energy.

They'll examine real-time data from the turbine and learn how wind can be converted to usable electricity.

"The future of energy is one that is clean and green, and now we have this wonderful educational tool right in our backyard," Nikolaidis said.

Eighth-grade science teacher Patricia Sullivan added she'll use the turbine as an example of clean energy in her unit on renewable resources.