



SMALL SCHOOL DISTRICT, BIG CHANGE

Student-led project in Juda challenges other districts to make changes

Shelby Anderson

The Juda School District has cut its energy usage through a multi-year, student-led class project. The project is led each year by teacher Scott Anderson as part of his physics class. When he begins his class in the fall, he doesn't know what shape that year's project will take until his students brainstorm long-range goals. The only rule for the goals is that they must ultimately have positive community impacts.

"I challenge them to make real-world changes," Anderson says. The first year Anderson held the

special, project-based physics class, students investigated options to help the school district reduce its energy usage. The students concluded that a roof-mounted solar panel array would benefit the district. The students gathered bids from multiple suppliers, checked and organized permits, completed an energy audit, updated project progress to the school board and many other tasks.

This past school year, Anderson's physics class set a goal to generate 10 percent of the school's energy needs through solar power. Building

on work from the prior class, the class installed 24 solar panels last October and then, after receiving additional funding, 12 more in the spring. Ultimately, the panels ended up generating 8 percent of the school's energy needs, still making a positive impact on the students and the school.

The good news is that the project isn't over. It will be picked up again in the fall by Anderson's next set of students, who will set a goal for the school year and set out to achieve it.

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■ Project Based Learning

At the beginning of last school year, when his class decided they wanted to meet 10 percent of the district's energy needs through solar power, Anderson and the class set goals to track their progress over the course of the school year. These included timelines for raising funds to purchase the solar panels, research, and, ultimately, the purchase and installation of the panels.

Along the way, students found their niche in the project. While some of the responsibilities were outside the normal scope of a physics class (fundraising, communications, video production), Anderson said the class also learned physics through the scope of the project — learning about electrical and gravitational forces, thermodynamics, and more.

"I've never minded exactly how it ties to the curriculum," Anderson said. "I know that the students are learning and that they are remembering what they are learning."

In addition to learning, the students have helped secure funding for their solar panel project. Last spring, the district received a \$3,755 grant from Focus On Energy. This grant helped the district clear a big hurdle towards the additional funding the project needed. That grant, along with funding from student organizations and local businesses, brought the project to a reality.

Since then, Juda has been able to get additional financial help. In December, Anderson and his class were named the state winner of the Samsung Solve for Tomorrow award. The program funds education projects that are aimed at getting students interested in STEM subject areas.

In February, WEA Trust awarded the class \$2,500 as part of its Forward Together Award given to schools undertaking innovative education projects. Juda was one of two schools awarded the honor out of 150 applicants.



■ Project to Remember

Anderson admits that he doesn't remember much from his high school science classes as a student. That was part of the reason he created the special, student-led project at Juda.

So far, the project seems to be having an effect on students. Comments from senior exit surveys said that they will remember this project the best out of all their high school work. Another student said he "felt like I can do anything" after completing the project.

Each year, Anderson said, the project affects students differently. Based on their experiences with the project, one student is going to the University of Wisconsin-Madison to

major in engineering. Another student, who made videos on the project's progress, found a calling producing videos. Another student discovered a natural ability as a salesperson.

"Students are an untapped resource," Anderson said. "It's amazing what they can accomplish."

Anderson admits that the beginning of each school year can be challenging as students feel frustrated and aren't sure what the first steps should be. But each year ends with something that students can be proud of.

"I guide the class but I also let them find their own way," Anderson said. ■

Anderson is editor of the Wisconsin School News.

Start a **Green Initiative** in Your District

As the state winners of the Samsung Solve for Tomorrow award, the Juda School District is eager to share how they've outfitted their small school district with solar panels at relatively no cost to the district.

As described in the article, the solar panel project was a student-led effort with students securing funding and researching which solar panels would work best for their school. Teacher Scott Anderson said the project provided real-world learning opportunities for his students and will benefit the school district long term.

"Every district should be doing this," Anderson said.

For more information on starting a green initiative in your district, visit judaschool.com and select "Green Energy Initiative" under "Our District." □