## PROJECT DESCRIPTION

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Going Green! Middle Schoolers Out to Save the World (MSOSW) serves over 1,000 middle school students across the country including students in: Hawaii, Louisiana, Maine, North Carolina, Texas, Vermont and Virginia. Student participants are monitoring home energy use under the supervision of their teachers. The data collected by the students are being used to develop optimum scenarios for conserving energy and reducing production of greenhouse gases in local communities. Participating teachers receive professional development to carry out the project. Students and teachers use online software tools to record and analyze their data and create projections of current and future energy use. Students communicate their results within the project via information communication technology. Data is collected to determine the effects of the project on students' and teachers' changes of attitudes and interests in science, and in students' gains in science content knowledge.

### GOALS

Goal 1. To create interest in and to prepare middle school students to participate in the science, technology, engineering, and mathematics (STEM) workforce of the future.

Goal 2. To foster knowledge, skills, and dispositions in middle school students, their families, and their teachers that enable both awareness and on-going monitoring of home and community energy consumption.

Goal 3. To produce model scenarios and activities that can be disseminated to educators nationwide, enabling classrooms beyond the immediate Going Green! MSOSW project to prepare STEM workforce participants for the future.



Lead Principal Investigator



**Rhonda Christensen Co-Principal Investigator** 



**Tandra Tyler-Wood Co-Principal Investigator** 



PERSONNEL

Middle

1505

Going Freen!

Dana Arrowood Site Coordinator



Anastasia Spatz **Project Coordinator** 

A green light to greatness.

NSF Innovative Technology Experiences for Students and Teachers (ITEST) DRL# 1312168

# **Going Green! MSOSW**

Addisor



#### **SCHOOL LOCATIONS**

## **EVALUATION**

Harrisburg

Graham

Burlingto

- Both quantitative and qualitative evaluation
- Measure changes in participants' interests in careers, as well as attitudes of teachers and students toward technology and global citizenship
- Quasi-experimental design for the analysis of outcomes for teachers and students
- A measure of student expectations, a 21st **Century skills inventory, and STEM** questionnaire
- **Evaluators: Penny Nolte & Lesley Leach**





**Pamela Ponners Research Assistant** 

**Jennifer Miller Research Assistant** 



**Cliff Zintgraff Research Assistant** 



**James Odiorne and Eugene Wu TAMS Students** 

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