



ESP Student Educational Energy Audits

One of the benefits of participating in Energizing Student Potential is the Educational Energy Audit. The audit has one of NEED's energy management educators working with a small group of students 10-15 to complete an energy audit of their school building. The lessons, observations and analysis allow students to learn and share about building science, energy efficiency and conservation and how they can use what they learn at school at home. ESP offers both In-Person audits (where we arrange a time to visit the school and work with your students) or the Virtual option as well. Both are detailed below.

What is it?

A virtual student energy audit is offered when an in-person energy audit is not possible due to Covid-19 pandemic restrictions. One of NEED's CEM or BOC staff members will provide virtual instruction to a small group of students and a teacher as they move through the school building and examine different ways the school uses energy

Who does it?

NEED has on staff CEM and BOC certified current or former teachers who know the ins and outs of energy use in a school building as well as what typically goes on in a classroom – a combination of knowledge most energy auditors just don't typically possess! The virtual audit team will consist of one of these NEED staff members working remotely with one teacher and a small group of students on-site. The optimal audit team size is 10-15 students for a virtual audit. It is also helpful to have a building engineer or maintenance individual on hand for the mechanical room / boiler part of the audit, but that is not required.

How does it work?

Before the audit, the teacher will receive a set of audit tools for students to use during the audit. An appropriate date and time for the virtual audit will be scheduled through NEED's main office, and the auditor will use Zoom to work with the teacher and students. The teacher should use a laptop computer, tablet, or smart phone to be able to move around the building and remain logged into the Zoom platform.

A typical audit lasts 2-2 ½ hours and includes a brief lesson on efficiency and conservation, instruction on using energy audit tools and how to conduct an energy audit, and short tours of energy-using spaces such as an empty classroom, the boiler room, library, offices, cafeteria, etc. Ideally four spaces will be audited in addition to the boiler room discussion, where students learn the energy source of their heating and cooling systems and see all the parts involved in keeping the school building comfortable and healthy for students and staff.

How is a virtual audit different from an audit conducted in-person?

The biggest difference is the physical presence of the NEED energy auditor. While being in person is always best, it is sometimes just not possible to predict when conditions will be conducive to in-person scheduling. Continuously fluid state and local requirements along with rising and falling Covid infection numbers make it difficult, if not impossible, to know whether in-person auditing is possible.

The virtual audit will limit the amount of information the auditor can observe and relay to students during the audit, but the instruction and major points of the energy audit should be achievable. NEED auditing staff have extensive experience over several years with working with students of various ages and abilities both in-person as well as within the virtual environment.

Any questions please email Kimberly Swan at kswan@need.org.