Joint Effort Receives Grant to Focus on Energy Instruction
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Teachers will learn new ways to approach lessons about energy thanks to an initiative at Illinois State University.

The joint effort, coordinated by the University’s Center for Renewable Energy (CRE) and Center for Mathematics, Science and Technology (CeMaST), is supported by a nearly $160,000 grant from the Illinois State Board of Education (ISBE).

The ISBE grant will fund two weeks of intense training and follow-up seminars for 25 Illinois teachers, for instructing on energy-related lessons to middle- and high-school students. The first training workshop will begin July 8.

“The workshops will help the teachers comprehend not only the big principles of energy in Illinois, but also the real-world applications,” said David Loomis, Director of the CRE and the Institute for Regulatory Policy Studies (IRPS). “As they work to develop new methods for teaching about energy, they will be visiting the nuclear power plant in Clinton and speaking with employees. They will get a look at the inner workings of a wind turbine, and tour Ameren facilities.”

Illinois State (through the combined efforts of the CRE, CeMaST, and IRPS) is the lead entity of the Energy Learning Exchange, one of eight statewide learning exchanges part of the Illinois Pathways Initiative designed to further Science, Technology, Engineering, and Mathematics (STEM) learning, preparing students for career readiness. Of the 25 teachers participating in the summer workshop, 13 will be from Urbana School District 116, a Race to the Top School District focusing on energy curriculum, making it a perfect match with the Energy Learning Exchange at Illinois State.

The Next Generation Science Standards (NGSS), which will likely be adopted by Illinois this fall, focuses on cross-cutting concepts including energy. “We know the state will eventually adopt some form of NGSS,” said Loomis. “The work our Learning Exchange is doing with the teachers will get us ahead of the game. We hope to have curriculum in place that can be adopted by schools across Illinois.”

The new standards aim to integrate concepts across all STEM fields. “The idea of energy cuts across disciplines,” said Loomis. “Whether it is plants doing photosynthesis in biology, fossil fuels forming in geology or wind power in technology, energy is prevalent in all of STEM.”

The two-year ISBE grant will fund an additional two-week workshop in the summer of 2014. “This will be an interesting process to see where energy fits into teaching, from the new federal standards to the classrooms of Illinois,” said Loomis.