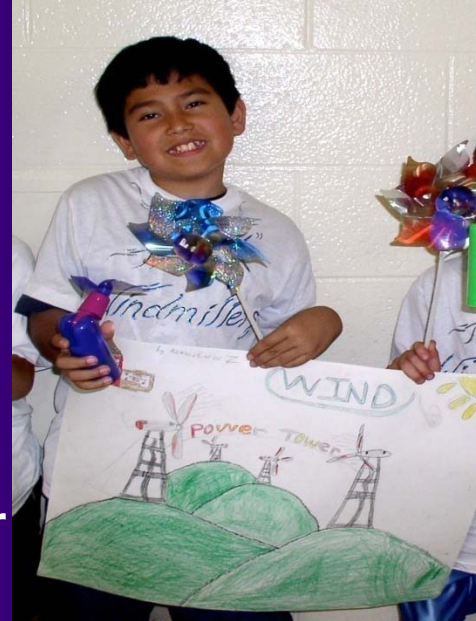




The NEED Project

Mary Spruill, Executive Director
29 Years of Energy Education



What is NEED? National Energy Education Development

The mission of the NEED Project is to promote an energy conscious and educated society by creating networks of students, educators, and business, government, and community leaders to design and deliver objective, multi-sided energy education programs.



In 2008-2009:

600 workshops

65,000 classrooms

50 states, Washington,
D.C. and U.S. territories

NEED's Governance and Leadership

NEED's Board of Directors:

Diane Lear, National Hydropower Association

Tom Fry, NOIA

Richard Zuercher, Dominion

Kevin Galligan, Cape Light Compact

Phil Cochrane, BP

John Weiner, U.S. DOE (ret)

Guy Caruso, U.S. EIA (ret) and Center for Strategic and International Studies

Constance Beatty, Kennedy Grade School

Dan Cummings, INEOS

Barry Russell, IPAA



Headquarters in Manassas, VA –
DC Metro Area

25 Staff in 7 regions

Expanding to meet partner and
classroom demand

NHA/HRF Associated Partnerships

NEED enjoys a number of strong and growing relationships with NHA/HRF related organizations including:

- Dominion
- American Electric Power
- U.S. Department of the Interior – Bureau of Land Management
- U.S. Department of the Interior – Minerals Management Service
- ComEd
- Exelon
- PECO
- Pacific Gas and Electric Company
- Gulf Power – possible new programs launching for Southern Co.
- Puget Sound Energy

Goals and Philosophy

NEED exists to:

- prepare future leaders
- train teachers to teach energy from a balanced perspective
- reach parents and community decision makers through energy outreach and education.

Materials are updated annually and reviewed by NEED's Teacher Advisory Board and an Energy Advisory Board in an effort to remain current – in both education philosophy and energy technologies and issues.





National Energy Education Day

By the President of the United States of America

A Proclamation

During the past decade it has become clear that our Nation faces an increasing shortage of its traditional energy sources. This energy shortage and our growing dependence on foreign energy supplies present a serious threat to the national security of the United States and to the health, safety and welfare of its citizens. In an effort to reduce our dependence on foreign energy, we have embarked on a number of programs aimed at the development of new energy technologies. We have also initiated a comprehensive program to educate the Nation, particularly the Nation's youth, about the consequences of the changing world energy supply.

In order to focus our attention on this ongoing program of energy education for the young—in both public and private schools and at all grade levels—and in an effort to bring together teachers, school officials and parent groups to help our children understand the current international energy situation, Congress has by Joint Resolution (S.J. Res. 43) proclaimed March 21, 1980, as National Energy Education Day.

NOW, THEREFORE, I, JIMMY CARTER, President of the United States of America, do hereby call upon all citizens and government officials to observe Friday, March 21, 1980, as National Energy Education Day with appropriate ceremonies and activities. I direct all agencies of the Federal Government to cooperate with and participate in the celebration of National Energy Education Day.

IN WITNESS WHEREOF, I have hereunto set my hand this twentieth day of March, in the year of our Lord nineteen hundred and eighty, and of the Independence of the United States of America the two hundred and fourth.

The signature of Jimmy Carter is written in cursive at the bottom of the document.

“... our nation faces an increasing shortage of traditional energy sources. The growing dependence on foreign energy supplies present a serious threat to the national security and economy of the United States and to the health, safety and welfare of its citizens.”

NEED Curriculum & Materials

Science of Energy

With hands on activities, students learn the science behind energy:

Heat

Light

Motion

Sound

Nuclear

Electricity

Chemical



NEED Curriculum & Materials

Sources of Energy

NEED provides comprehensive and objective materials on energy sources that power the country.

Students learn about the economic and environmental impacts of these sources and are able to explore the history of energy, the current energy situation, and the energy challenges and opportunities ahead.

Special Programs in place:

- Exploring Hydropower – 4 levels
- Energy Careers
- Offshore Energy
- Wind, Solar and Transportation
- DOE, DOI, and USDA programs
- Electricity Generation
- Home Energy Efficiency

NEED Curriculum & Materials

Electricity

Particles that make up atoms and the movement of electrons are incorporated into hands on activities. Electricity is discovered with hands on experiments and reinforcement activities.



NEED Curriculum & Materials

Efficiency and Conservation

NEED helps schools and students make wise energy decisions. At home and at school students learn how to reduce energy costs, to understand energy technology such as meters, and to be smart consumers.

Schools look to NEED not only to provide science and energy education in the classroom but also to help them reduce their energy costs.



Evaluation and Curriculum Connections

Materials are updated annually. NEED has a dedicated Teacher Advisory Board of educators and an Advisory Board of energy experts to review materials

Program participants evaluate materials, training programs, and new activities.

All NEED activities are correlated to the National Science Education Standards and to state science, social studies, technology, language arts, and math where available.



Training and Professional Development

NEED offers a variety of training opportunities for teacher and students.

During the school year, training programs are offered for teachers, students, and the community. Professional development or graduate credit can be earned.

NEED is also working to create materials for teachers to use as they discuss energy careers with their students.



Student Leadership

NEED students don't just read textbooks and answer questions. They are actively engaged in their own learning and in teaching others. Some states host summer energy camps, spring break camps, overnight energy weekends, and student internships.

It is this student leadership that will allow the energy industry to find talent for the future.

NEED students are an excellent candidate pool for future hires.



Teacher Networking and Support

NEED provides a support system for educators, helping them plan individual energy units, connecting them with each other and with resources in their area.



The **NEED Network** connects educators, students, directors, coordinators, sponsors and community partners.

Recognition and Awards

NEED rewards student leadership and innovation with a Youth Awards Program for Energy Achievement. Many schools submit reports on their energy activities.

Awards are given at the local, state and national level with the National Recognition Ceremonies held in Washington D.C. each June.



Outreach and Professional Development

- Demand Side Management Programming
- BLM and MMS partnerships to discuss energy development on public lands and the OCS
- Energy and outreach training for energy professionals
- Speakers bureau training
- Energy Industry Study Program



The NHA/HRF/NEED Partnership

- Launched in late 2007 to create 4 levels of educational modules for hydropower
- Engagement with stakeholders for technical assistance and review
- Educator input on applicability to classroom activities
- Launch of first workshop in 2008



The NHA/HRF/NEED Partnership

- Materials piloted at NEED summer teacher training conferences – 400 educators
- Included field trips to Hoover Dam
- Throughout 2008, educators used materials, provided feedback
- Final materials printed and in use by October 2008



The NHA/HRF/NEED Partnership

- Field trips for educators to Hydro facilities
- Twice-annual Energy Industry Study Program for DOE/EIA employees
- Updated hydropower fact sheets online and in core curriculum
- Career Currents newsletter (33,000 circulation) on hydropower
- NHA presentations to NEED groups and partner agencies



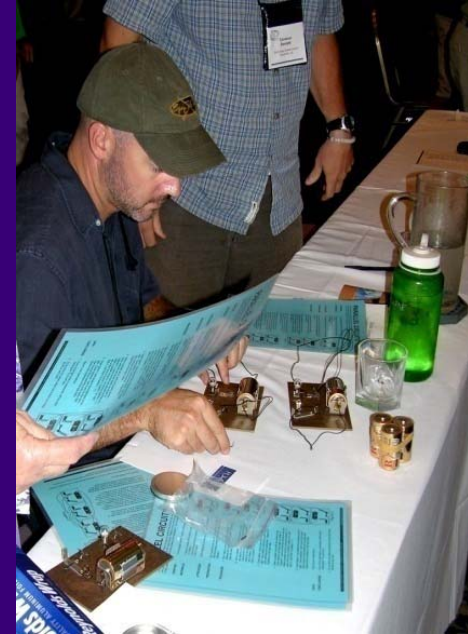
What's Next?

- All Teacher Guides and Student Guides are loaded to need.org and are available for free download or linkage
- Turn-key workshop available for NHA members to support in local communities or as part of energy education efforts
- Included as part of the new PECO-Eco Environmental Education Program



Students and Teachers Learn by Doing





Visit www.need.org

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