

interNEF@nef1.org

APRIL 2003 • NATIONAL ENERGY FOUNDATION • ACADEMY PROGRAMS NEWSLETTER

“The mind is the limit. As long as the mind can envision the fact that you can do something, you can do it ... as long as you really believe 100 percent.”
—Arnold Schwarzenegger

Envision: to face; form a mental image of; form a concept of; visualize; imagine



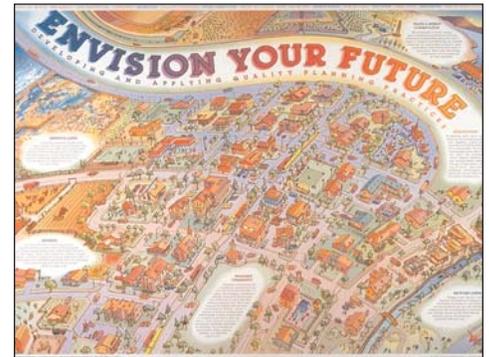
Envision Energy Action in Schools in Canada and across the United States. This *Energy Patrol* in Quebec, Canada left a green “keep up the good work” tag on a school room door. (left)

Envision Rebuild America activities in many different states. Teachers in Tulsa, Oklahoma attend a training session with NEF director Anne Lowe. (right)



Envision a variety of innovative teacher training events, like this *Out of the Rock* educator workshop field trip to the Cargill Salt operation near Grantsville, Utah. (left)

Envision environmentally-minded materials like the new *Envision Your Future* instructional poster and primer, part of an award-winning educational program. (right)



President's Message

Educational achievement increases through the skill of envisioning. Visualization makes it possible to learn in special ways, to construct things, illustrate and build. It is interesting how one's “mind's eye” works. In order to accomplish something, we've first got to envision it. This includes many of our valued successes.

Imagination and creativity go hand in hand. In education, learning is intensified through reflecting, contemplating, wondering, inquiring and questioning.

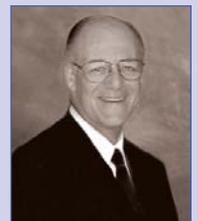
Do you take time to think ... to ponder ... to envision?

Give it a try. Imagine a quality of education for every child where resources, qualified teachers, school facilities, support networks, technology and everything needed to teach is in place. What an ideal.

NEF has been working hard to put into practice educational principles that we've found to be successful. We've been “envisioning our future!” What do we see? Challenges disguised as opportuni-

ties; needs and resources to be matched; performance and achievement in the results.

It's clear to me that the needs for creating the Foundation more than 26 years ago are still with us. They may have changed shape just a bit, but they are still ever present. Today we're even better prepared and qualified to meet these needs due to our experience and vision.



—Dr. Edward A. Dalton

New NEF Staff Members



Shannon Poulson

NEF welcomes two new part-time employees, Shannon Poulson as programs team coordinator/registrant assistant, and Rob Morgan as marketing assistant/special projects coordinator. Shannon attended Utah State University and Rob is a recent graduate of the University of Utah with a BA in Marketing. NEF welcomes both of these fine young people to our team!

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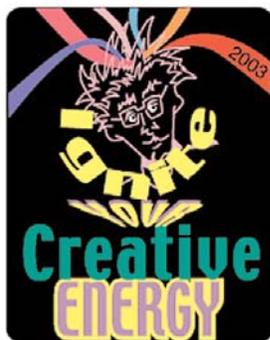
Rob Morgan

LSSU Teacher Training

In partnership with Lake Superior State University, Eastern Upper Peninsula Intermediate School Districts (Michigan), and Johnson Controls, Inc., National Energy Foundation conducted the first joint *Academy of Energy Education* training for classroom teachers and pre-service elementary education university students. In this new model for the *Academy*, pre-service educators have the opportunity to be trained in appropriate science methods and be mentored by teachers in their local area. Current educators have the opportunity to add depth to their science/energy curriculum through training and *Academy* materials. As in all schools where the *Academy* is implemented, the desired goal is a reduction of energy use and cost, together with an improved learning environment.



Students "Blast Off" with Winning Creativity



Congratulations Linnea Rowley, 4th grade, Albuquerque, New Mexico; Tyler Carter, 8th grade, Satellite Beach, Florida; and Marina Olevsky, 10th grade, San Diego, California!

Linnea, Tyler, and Marina are the Grand Prizewinners of the 2003 *Igniting Creative Energy Challenge*. The *Challenge* is an educational competition designed to motivate students to learn more about energy and the environment. Students were asked to use their creative energy to develop entries in the categories of Visual Arts and Music, Science and Technology, and Language Arts. Entries related to the theme *Igniting Creative Energy* and demonstrated character building as it applied to wise energy choices and environmental stewardship. Ideas were put into action in their home or community.

Elementary division grand prizewinner Linnea Rowley entered a musical composition. Her project, "It Sounds Like Recycling to Me" included an original piano score, lyrics and a cassette tape recording of her performance of the song. She extended her project by constructing musical instruments from recycling materials. Linnea writes, "Stewardship is the care of something that doesn't necessarily belong to you.

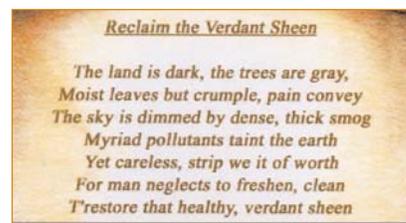


Environmental stewardship is the care of the environment. Good care of the environment means you do the most possible good and the least possible bad."

The grand prizewinner in the middle school division, Tyler Carter says, "My choice of a comic book came to me for many reasons. It was something children of all ages could relate with. I think the constant struggle of good and evil presented in comic books is the perfect way to show perspective of the energy crisis." Through graphics and words, Tyler demonstrated why energy conservation is so important. He also encouraged people to "become soldiers in the war on energy" by providing fun activities at the end of his story.



Language Arts, specifically, a poetic art form, was the genre Marina Olevsky chose for delivery of her project in the high school division.



"The *Igniting Creative Energy Challenge* has certainly proven to play a pivotal role in my life as both an individual and an environmentally-aware part of a community." Marina, a talented writer, employed the use of sensory imagery to ignite readers' interest. Her poem, *Reclaim the Verdant Sheen* is thought provoking and inspiring as is demonstrated in the first stanza shown above.

Texas WaterWise Program Great Success

The Harris Galveston *WaterWise Program* enjoyed its most successful school year to date. In its ninth year, funding from the Harris Galveston Subsidence District enabled the program to expand to over 50,000 students in more than 400 Houston schools.

The Subsidence District has taken an active role in groundwater conservation efforts due to problems resulting from the over-withdrawal from the area's aquifer. It is estimated that this year's school program will save 4 billion gallons of water, 84 million therms of natural gas, and 88 million kWh of electricity over the next 10 years.

In addition to the district's water conservation effort, the *WaterWise* program

has become a highly praised educational tool. "The program activities support Texas grade level learning objectives, not only in science but in math and social studies. With the emphasis on our teachers meeting high educational standards, the program fits in beautifully," commented Susan Brown the Harris Galveston Program Coordinator.



Houston students measure water flow from different shower heads.

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WaterWise is one of the *Resource Action Programs* developed by the National Energy Foundation. Other *Resource Action Programs* include *LivingWise*, which teaches the importance of energy and energy efficiency.

Both school-to-home programs include unique environmental teaching materials and retrofit products for students to install in their homes.

Energy Topic Debated

Winners were determined in the April *Utah Debate Program* as over 225 students participated at the elementary and junior high school final state competition. Several school districts were represented as students presented arguments about this year's topic of mass transit. Many industry professionals were featured at an earlier conference for the debaters and



their coaches where about 500 students and teachers heard presentations from Utah Transit Authority, Fannie Mae Smart Commute Initiative, the Utah Department of Transportation, and others. Thousands of students participate each year in the *Utah Debate Program*, now in its 13th consecutive year under the coordination of NEF.

Energy Action Patrol and JROTC

Mini-grants were awarded to 20 Brevard County, Florida schools for the school year. The grants were funded through *Academy of Energy Education*, a cooperative alliance between Johnson Controls, Inc., NEF and the Southeast Region *Energy-Smart Schools' Grant* program.



One group of students to receive a grant is the Army JROTC unit at Astronaut High School in Titusville, Florida. Major John Mallamaci started the patrol with volunteers from his second period class, Bravo Company, the first high school *Energy Patrol Team* in the Brevard School District. Now members of all three school JROTC companies are involved and cadets can even earn a special teal participation cord for their uniform.

Major Mallamaci sees the *Energy Action Patrol* a perfect fit with JROTC. "Our mission is to motivate young

people to be better citizens and this energy awareness helps them be more responsible," he says.

At the beginning of the school year, three teams of students patrolled the school throughout the day as they went about their regular schedule. As time went on, the patrol refined their strategy to make sure all classes were

covered and the entire patrol group meets once a week to debrief and plan strategy.

Patrol members have helped the school save on its electricity costs and have also seen personal benefits. Cadet Justin Holleran enjoys the energy patrol, declaring "this is a great team, great people—it helps the school but it also helps you learn responsibility." Another benefit patrol members have noticed is a decrease in home energy bills.



The Rebuild America-EnergySmart Schools' Message

Within the successful NEF and Johnson Controls, Inc. partnership has come the opportunity to engage in work that promotes the U.S. Department of Energy's *Rebuild America-EnergySmart Schools'* message. The objectives of this program include improving teaching and learning environments, increasing energy education, reducing energy consumption and costs, helping schools reinvest energy savings, and increasing student, teacher, parent and community involvement.

Three different grants have been awarded by D.O.E. through the state energy offices of Florida, Minnesota and Oklahoma to support the work of *EnergySmart Schools* by the NEF-Johnson Controls, Inc. collaborative.

The grants provide district personnel and teachers with energy education materials, training and support by means of the *Academy of Energy Education*. Technical measurement and tracking as well as consultation and support are also delivered through the grant.

In the Oklahoma grant, four districts are experiencing success. Tulsa Public Schools of Oklahoma and Albuquerque Public Schools of New Mexico have both demonstrated energy savings and have scheduled additional trainings for teachers. Oklahoma City Public Schools and Perry Public Schools are involved in pilot programs this year. In evaluating the program, one teacher from Tulsa Public Schools wrote, "I am pleased that a national program is being encouraged that I passionately agree with."



Teachers from Perry Public Schools, Oklahoma, participate in EnergySmart training activity.



Brevard students present energy puppet show.

The grant in Florida is still in the process of being implemented. To this date, teachers in Brevard County Public Schools of Florida, and Knox County Public Schools of Tennessee have been introduced to the program. Other school districts in Florida and North Carolina will be added to the project in the coming school year. Marion County Public Schools has already scheduled a teacher training.



Class receives energy-savings grant award!

The Minnesota grant services school districts in both Minnesota and Wisconsin. In Wisconsin, Germantown School District has implemented the *Academy of Energy Education* at Kennedy Middle School. Students are monitoring the energy usage of teachers, staff and other students. They hope their actions will reduce annual utility bills by \$20,000. Three districts in Minnesota have also been introduced to the grant opportunity and will implement beginning in fall of 2003.

National Conferences Showcase Energy Program

State Energy Offices in Nevada and Oklahoma are collaborating with the National Energy Foundation to provide *Energy-Smart Schools In Action* conferences to school district officials in Oklahoma City and Lake Tahoe.

The conferences are both scheduled for June 2003 and will promote the *Rebuild America* message and address opportunities for quality energy education. Participating schools will receive assistance with their energy action plans.

NEF is coordinating the program with the state energy offices and appropriate U.S. DOE *Rebuild America Energy-Smart Schools* representatives.



To obtain more information about both conferences, check on-line at nef1.org/essia.

Join In Partnership Underway in Bannock County, Idaho

NEF is working with Idaho State University on the *Join In Rebuild America* partnership in Bannock County, Idaho. The University is coordinating community activities to include all *Rebuild* sectors in the greater Pocatello area with NEF assisting on a K12 schools program.

ISU Physical Plant Manager, Jeff Madsen, is working with local school districts to assist community schools in energy efficiency and management. NEF's EnergySmart Schools In Action program has been placed in the schools to provide support to teaching and learning about energy and the impacts of its use.

A training workshop was conducted on February 20 with excellent teacher participants. ISU students and personnel are conducting follow-up presentations for selected classrooms.



Future goals include continuing to support the trained team of teachers, provide additional educational materials support to participating schools.

NERO Award Garnered by NEF

Word was recently received that NEF has been selected to receive the *2003 Public Education Award* from the National Energy Resources Organization (NERO). NEF was nominated by the United States Energy Association in recognition of outstanding efforts as the premier energy and natural resources education provider. Other honorees include U.S. Secretary of Energy Spencer Abraham – *Public Service Award*; Entergy Company – *Conservation Award*; and U.S. Department of Energy – *Technical Award*. The Foundation is extremely proud to be included in such an outstanding and prestigious group. CEO and President of NEF, Edward A. Dalton, will be on hand at the May ceremony in Washington D.C. to receive the award.

Foundation Participates at AGA Forum

Dr. Edward A. Dalton, CEO and President of NEF, was honored to be asked to speak on the topic of energy education at the April American Gas Association Public Affairs and Marketing Forum in Austin, Texas. The Foundation is the nation's premier developer and provider of natural gas educational materials. This year alone, over 6,000 teachers in 46 states received complimentary natural gas materials through an NEF partnership fulfillment program with numerous natural gas utilities..

Doe, Re, Mi's Wow Missouri Audiences

Three representatives of Missouri's Doe Run Company have integrated NEF's *Rock Music* materials into an educational outreach presentation that is finding its way into classrooms, teacher workshops, and community events throughout Missouri.



The creative team of Sandy Phelps ('Doe'), Dawn Girard ('Re'), and Angie Nations ('Mi') are drawing accolades for their spirited "Rockin' to the Rhythm" trivia program.

The program, which is highlighted by the talented trio's vocal performance of eight songs from the *Rock Music* CD, is motivating teachers and students to creative efforts of their own.

NEF welcomes the Doe, Re, Mi's to the National Minerals Education Conference.

Davis School District Thanks NEF

The Davis County School District in northern Utah presented NEF with a plaque expressing appreciation for 25 years of service providing educational partnerships, cooperative training, materials, and leadership in facilitating partnerships. Steve Mangel, district science curriculum specialists, presented NEF President and CEO Dr. Edward A. Dalton with the recognition plaque at the Davis School District Board of Education Meeting in April 2003.

National Minerals Education Conference Plans Enter Final Phase

Minerals educators from around the country are preparing to converge on Park City, Utah for the NEF-hosted *12th Annual National Minerals Education Conference*, June 15-18. NEF is expecting a diverse and enthusiastic group of participants for this year's event.

Classroom teachers (K - 12); outreach representatives from coal, hard rock, and aggregates mining companies will all find plenty of educational and professional value in attending this unique event. Associations, government agency safety, information, and education specialists, and nonprofit organizations will also find this to be a valuable experience.

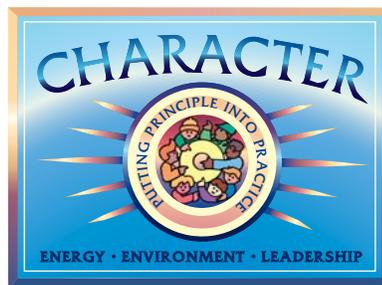


In addition to loads of sessions presented by local and national minerals education experts, conference participants will choose one of five field experiences, including trips to the Bingham Canyon copper mine, Utah's coal country, a Wyoming trona mine, the Great Salt Lake, and Wasatch Front heritage-related locations.

Sponsors for the conference include the Utah Mining Association, Kennecott, MMSA, Caterpillar,

Wheeler Machinery, Parsons Behle & Latimer, Joy Mining Machinery, Arch Coal, Polaroid, and Jack Parsons Company. If you are interested in sponsoring an event or participating in other ways, call Gary at NEF.

Update on Character Education Materials and Electrical Generation Poster Revision



National Energy Foundation is pleased to announce availability of the innovative *Character Education Enrichment Program* materials showcased in the previous issue of *interNEF*. The full-color set of five multi-disciplinary instructional posters addresses character building and leadership development principles. The series will enhance all educational curriculum.

Thanks to the support of the Edison Electric Institute and other industry partners, NEF's push to completely revise and newly illustrate the *Electrical Generation* poster is gaining momentum.

Incorporating updated information on technologies and trends, the revised poster will deliver essential new understanding to teachers and students learning about electrical generation. This poster is the latest in a series of NEF projects to update our posters dealing with sources of energy. The *Electricity Energist* is also being updated as a part of the project.

Additional sponsorship is still needed for this project. If your organization is interested in learning about the benefits of poster sponsorship call NEF.

Envision Materials and Program Debut with Great Success

Envision Your Future, NEF's award-winning new educational program dealing with vital community planning issues kicked off its implementation phase at a teacher training workshop on March 11, 2003. Unique teams of classroom teachers and community planners met to receive outstanding new NEF instructional materials, including the *Envision Your Future* poster and primer and to also receive training on the use of the new materials.

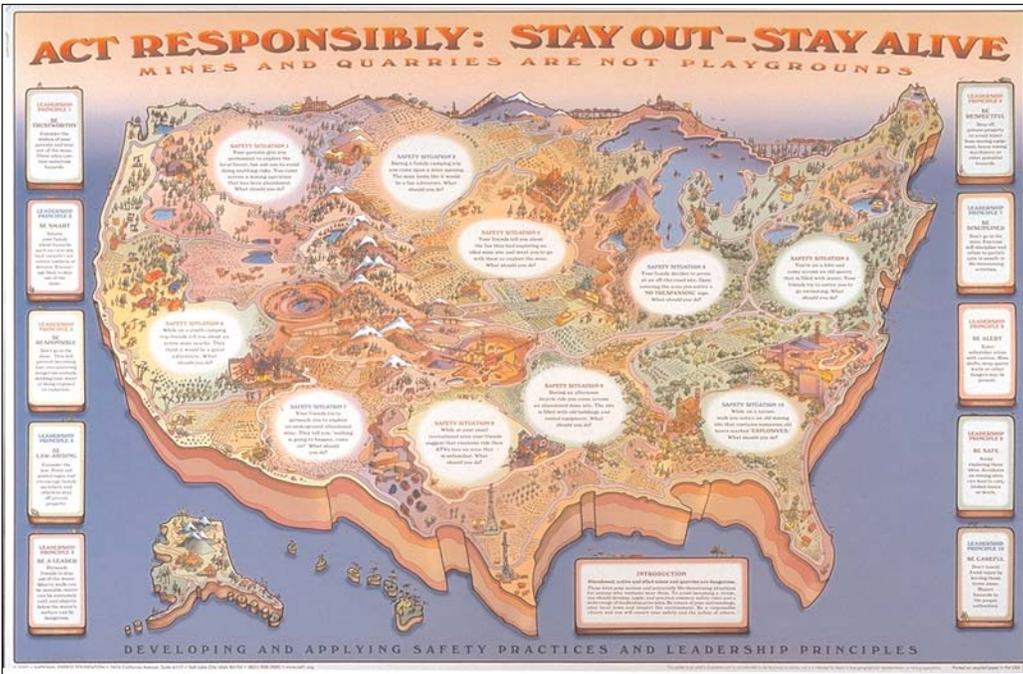


Jon Burton, Ed Dalton, Etta Stephens and Tony Hembrock work on development of the *Envision Your Future* materials.

Along with the materials and training, an engaging new planning simulation was presented, providing teachers and, ultimately students, the opportunity to go through a mock exercise in planning their own communities. To receive a complimentary review copy of the colorful new *Envision* poster and informational primer, contact NEF. (See front page for visual of poster.)



Students participate in planning activity.



New Mine Safety Materials Unveiled

In partnership with the Mine Safety and Health Administration (MSHA), NEF recently completed the new *Act Responsibly: Stay Out – Stay Alive* instructional poster. The 23” by 35” poster presents ideas for developing and applying safety practices and leadership principals when faced with potentially dangerous everyday situations. The poster front shows “safety situation” questions and “leadership principle” responses over an illustrated full-color map of the U.S. The reverse side of the poster contains background information and learning activities in NEF’s standard 8-panel format. A companion primer (shown right) has also been completed and a Spanish version of the poster will be available soon.

Additional support in developing and producing these resources was provided by National Mining Association, Caterpillar, NIOSH, Colorado Division of Minerals and Geology, Interstate Mining Compact Commission, Martin

Stone Quarries Inc., National Association of Abandoned Mine Land Programs, National Stone, Sand and Gravel Association, Nevada Division of Minerals, U.S. Bureau of Land Management, U.S. Office of Surface Mining, Utah Division of Oil, Gas and Mining, Arizona Foundation for Resource Education, and Utah Mining Association.

Through May 31, the posters will be available for only \$2.45 per copy as a special introductory price.



To order these or other NEF materials call for a free catalog or visit our website at www.nef1.org. For additional information or custom printing guidelines, contact Gary Swan, (801) 908-5800, 1-800-616-8326 or e-mail gary@nef1.org.



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interNEF

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NEF is a unique non-profit educational organization devoted to the development of high-quality instructional materials and their implementation through innovative teacher training and student programs.

NEF programs and materials encompass a wide range of natural resource topics—energy, mineral resources, water, science, technology, conservation, the environment as well as character and leadership.

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We are proud of our sponsors who have a commitment to education. It is our desire to share the efforts and successes of each of our programs, and *interNEF* will feature different programs and projects within each issue.

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