

State Technologies Advancement Collaborative (STAC) DOE – ASERTTI – NASEO

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STAC Selects 13 Energy Efficiency Proposals for Federal Funding – Diverse Projects Involve Participants from 31 States –

WASHINGTON, DC (January 30, 2004)—The State Technologies Advancement Collaborative (STAC) today announced the results of its first-ever solicitation for energy efficiency research, development, demonstration and deployment projects. The STAC Executive Committee approved funding for thirteen projects valued at \$16,807,582, based upon a determination that these projects represent the best of the proposals submitted. More than \$9,793,873 of the selected projects' value represents implementation costs to be shared by non-federal government entities, and approximately \$7,013,709 in funding from the STAC program—or an average cost share of 58%.

Robert S. Kripowicz, STAC Program Director, announced the results of the solicitation review. “I’m extraordinarily pleased with the quality and diversity of the selected proposals, which reflect four areas of interest: Building technologies, industrial technologies, transportation technologies and distributed energy resources. Broadly applied, the results of these projects, which involve participants from 31 states, have the potential to change the way we think about and use energy in this country. And the projects represent a range of research, demonstration, and deployment activities.”

The proposals selected for award are summarized beginning on page 2 of this news release. Organizations from twenty-five states (AZ, CA, CO, FL, GA, IA, ID, IL, IN, MA, MI, MN, NC, NE, NJ, NM, NY, OH, OR, PA, SC, TN, TX, WA, and WI) are direct participants in the selected proposals, and at least six states (AL, CT, DE, MD, MO, MT) are considered for participation based on follow-on activity in training and outreach. Final project awards will be contingent on achieving the mandatory requirements of the solicitation in the contract negotiation process, which STAC expects to complete during the next eight weeks.

While STAC anticipated selecting proposals in the hydrogen education area, FY’2004 appropriations to the U.S. Department of Energy were not sufficient to provide funds to STAC for the effort. Thus, despite their quality, none of the proposed hydrogen projects were selected.

In all, 61 proposals valued at approximately \$68 million were submitted by State and Territory Energy Offices, state research institutions, universities and other qualified organizations in response to the STAC solicitation. More than \$40 million of the proposals' value was cost-share.

The solicitation, which closed in September, is being administered by the National Association of State Energy Officials (NASEO) on behalf of the STAC Executive Committee. The solicitation supports joint energy research, development, demonstration and deployment of technologies where common Federal and State objectives exist. The program and the solicitation emphasize the wide dissemination of results from projects and the transfer of technologies for broad application and impact.

STAC is a five-year pilot program funded by the U.S. Department of Energy and directed by an Executive Committee that includes representatives of the Association of State Energy Research and Technology Transfer Institutions (ASERTTI), NASEO, the U.S. Department of Energy’s Office of Energy Efficiency and Renewable Energy (EERE) and Office of Fossil Energy (FE), and an independent member. To learn more about STAC, please visit www.naseo.org/stac.

Projects Summary (by Solicitation Area)

Building Technologies

Building Commissioning-Innovation to Practice

This two-year project targeting commercial buildings includes research, development, demonstration and deployment, and is directed at overcoming owner and industry barriers to the adoption of building commissioning.

The project includes seven primary participants.

Total project cost: \$2,227,304

Funding request: \$999,229

Strategies to Increase HVAC Efficiency in the Northeast

This one-year project focuses on cooling technologies. It combines a characterization of the market and analysis of trends with an assessment of HVAC efficiency potential, followed by a field assessment of the effectiveness of training for heating and cooling system installations.

The project includes three primary participants.

Total project cost: \$588,104

Funding request: \$261,955

Development, Implementation and Deployment of Automated Fault Detection and Diagnostics for Vapor Compression Equipment

This two-year project aims to improve the technology and reduce the cost of automated fault detection and diagnostics in HVAC equipment. Field-testing will be undertaken in residential and commercial buildings, and training programs will be developed for technicians.

The project includes two primary participants.

Total project cost: \$1,146,600

Funding request: \$426,250

Closing the Gap: Getting Full Performance from Residential Central Air Conditioners

This two-year project includes the development of next-generation central air-conditioning performance ratings, development and demonstration of a central air conditioner for hot/humid climates, and HVAC contractor training.

The project includes four primary participants.

Total project cost: \$1,534,716

Funding request: \$683,179

Real-Time Predictive Optimal Control of Active and Passive Thermal Storage Systems

This project will develop a real-time optimal controller for thermal storage systems from design through prototype development and testing in laboratory conditions, followed by field implementation in two commercial buildings.

The project includes two primary participants.

Total project cost: \$335,426

Funding request: \$150,489

Industrial Technologies

Field Trial of a High Capacity Gas-Fired Paper Dryer

This project builds on a pilot scale dryer project funded by the U.S. Department of Energy. From the results of that project, a preliminary and final design will be completed, a gas-fired system constructed and a field trial conducted.

The project includes three primary participants.
Total project cost: \$1,424,850
Funding request: \$634,850

Western U. S. Food Processing Efficiency Initiative

This two-year effort will develop a body of knowledge about the food processing industry's energy and water efficiency opportunities. At least six demonstration projects will be completed and an analysis and best practices portfolio will be assembled. Results will be disseminated via training and workshops.

The project includes five primary participants.
Total project cost: \$1,627,777
Funding request: \$730,652

Achieving More with Less: Efficiency and Economics of Motor Decision Tools

A total of 100 NEMA Premium motors will be installed while the displaced motors are tested to develop a strong industry case study. An analysis of the economics of motor reliability will be conducted, and a previously published document on horsepower breakpoint curves will be updated. Seminars will be held in five areas of the country.

The project includes four primary participants.
Total project cost: \$888,156
Funding request: \$320,156

Use of Pressurized Ozone and Compressed Air Flotation with Membrane Filtration for Industrial Process Water Treatment at a Forest Products Facility

In 18 months this project will demonstrate a membrane filtration system at a molded fiber paper mill. The process will reduce the amount of fresh water needed for mill operations. This project expands upon a complementary project, which focuses only on the ozone system in the plant stream. Integrating the ozone process with efficient membrane filtration will provide an overall efficiency not available with separate independent systems.

The project includes three primary participants.
Total project cost: \$848,132
Funding request: \$380,750

Development of a Total Assessment Audit Protocol for the Chemical Industry

This 18-month effort in the chemical industry includes selection of candidate firms, as well as on-site multi-day audits covering energy management, process safety, supply chain management, information systems, waste minimization and quality improvement, technology and innovation, and green chemistry. A protocol will be completed and disseminated.

The project includes six primary participants.
Total project cost: \$650,000
Funding request: \$289,250

Transportation Technologies

Advanced Travel Center (Truckstop) Electrification for Reducing Idling from Heavy-Duty Vehicles

In less than one year, 150 electrified truckstop parking spaces, Advanced Travel Center (Truckstop) Electrification (ATE), will be installed in three states. These spaces will demonstrate fuel conservation, improved air quality, and short-term payback to truckstop operators. The demonstration will provide impetus to widespread application of such technologies to the heavy-duty vehicle market.

The project includes three primary participants.
Total project cost: \$3,487,697
Funding request: \$1,500,000

Distributed Energy Resources

Distributed Energy Infrastructure Analysis and Pilot Project for New Jersey and Pennsylvania Targeted in the Small and Medium Sized Commercial and Industrial Sectors

This one-year project will evaluate a baseline of distributed energy resources (DER) for all markets, as well as the financial, regulatory and technical barriers to expanding DER in the two states. Based on the analysis, a policy manual will be produced, and pilot projects will be conducted with about 30 to 50 MW of DER installed in each state.

The project includes two primary participants.
Total project cost: \$1,300,000
Funding request: \$300,000

Distributed Energy Resources – Expanding DER Applications in Target Markets

This two-year project will develop and demonstrate a two-phase biofermentation system to produce methane from dairy manure and reuse resulting solids as a beneficial amendment to the soil while producing heat for internal use and electricity for sale. The process also involves a low water usage technology. Results will be documented and disseminated nationally.

The project includes two primary participants.
Total project cost: \$748,820
Funding request: \$336,949