Association of State Energy Research and Technology Transfer Institutions
February 17-18, 1999
Minutes

The Renaissance Mayflower Hotel
Washington, DC

Tuesday, February 17, 1999

ASERTTI-NASEO Joint Session

Memorandum of Understanding (MOU)
Panelists: ASERTTI-Mark Hanson, Energy Center of Wisconsin; Floyd Barwig, Iowa Energy Center; NASEO-Kristi Growdon, Washington State University; Rich Sedano, Vermont Department of Public Service.

Mark Hanson: Historically state energy offices had the responsibility of deploying energy services in the state. The funding of the state energy offices is often made up of federal funds and state level public interests funds. In the R&D and technology transfer area, the states realized that there was a need to collaborate, and ASERTTI was formed. State level funding for energy efficiency, and research, development, demonstration and deployment (RDD&D) is at 1.2 billion dollars with a portion of this allocated for DSM.

There is a change on the horizon, 18 states have gone through some sort of restructuring, and the outcome of this restructuring is still unknown. The new landscape appears to show that there are public benefit funds available. How states will use the public benefit funds and how to work with the federal government on joint funding remains a question still to be answered. This is why the MOU with the Department of Energy is in development. This is just one solution to joint planning over the next few years.

Rich Sedano: The tools to increase market transformation are imagination, technology, use of those technologies, breakdown those technologies, and deployment into the marketplace. There is still a long way to go on the MOU, but it is an important starting point in building collaboration efforts.

Floyd Barwig: One of the objectives of the MOU is to attempt to set long-term goals and projections. The federal budgets are set years in advance and it is important to look and plan ahead. Four MOUs are in place between the DOE and CEC, NYSERDA, ASERTTI and NASEO. These four groups not only collaborate directly with DOE but with each other and DOE. There are short and long term opportunities to work together and develop a new future. One mechanism is the idea of a coordinator for each of the collaboration areas. It will be the responsibility of this person to work with others, facilitate activities and guarantee the flow of communication.

Kristi Growdon: There have been six areas identified. These areas are a start with the potential to expand into other areas.

1. Bio Energy – Norm Olson of the Iowa Energy Center is the coordinator. States have various areas of what type of bio items to use for energy. The DOE has started to pull together groups to work jointly and there have been a number of short-term goals set. Lines of communication are being developed to share information and avoid duplication.
2. Distributed Generation and CHP – Judy Drau of the California Energy Commission is the initial coordinator Distributed Generation cuts across many areas, including fuel cells, PV's, and bio-mass. Currently, DOE does not have a department in this area, but are highly interested in becoming involved. One key issue is to develop a national interconnection standard. DOE is working to expand the interconnect standard to include other areas. The only standard currently is in the PV area. Judy will survey the interested states and plans to hold a conference call and develop some common areas of interest.
3. Micro-turbines and Fuel Cells – Richard Drake of New York State Energy Research and Development Authority is the coordinator. Within this area two technologies are encompassed. Micro-turbines are small gas turbines between 30 and 300 kWh. These turbines are about 27% efficient, but are quiet, small, clean, and require little maintenance. There are only a few manufacturers currently producing these micro-turbines. In the fuel cell area, there is good literature and one large fuel cell on the market. There are several companies working on small fuel cells and it is an appropriate time to work with developers.
4. Smart Schools – Sara Ward of Ohio is the coordinator. The states have a deep and wide area of interest and have been doing a lot of work in this area. The DOE focus is to have partners that will:
    - Reduce energy use and expenses
    - Allow school district to use saved funds in other areas
    - Improve facilities, i.e. temperature control, daylight
    - Increase awareness of both teachers and students

    DOE is also looking for information that may have already been developed in facility improvements, standards, manuals, curriculum and national marketing campaigns. DOE is interested in maintaining the improvements once they have been made.
5. EIA Data – Jeff Pillon of Michigan Public Service Commission is the coordinator. DOE is very open and willing to work for data collection. Information that will be used to be easily gathered, and may not be with the advent of competition.
6. Petroleum Industry – Jeff Burks of Utah Office of Energy Research and Planning is the coordinator. This focus group will work with OIT and the Fossil Department. It is hoped that states will work with DOE to identify efficiency measures. On March 11 is a kick off in California, DOE will be releasing information shortly on this area.

Each area will have a coordinator from NASEO, CEC, NYSERDA or ASERTTI, with a lead person from each agency to serve as a conduit for information to the Coordinator.

DOE is very committed to this effort and feels that working as collaborative is necessary, and will incorporate collaborative efforts into future DOE budgets.

Collaborating with DOE on a more formal basis will allow for easier collaboration with the National Labs. Currently because of restrictions, it is difficult for the states to work the Labs on a contractual basis. With the MOU in place working with the Laboratories should become easier.

ASERTTI Session

The meeting was called to order by Mark Hanson, ASERTTI Chair at 1:00 p.m. with the following persons present:

Larry Ambs, University of Massachusetts
Floyd Barwig, Iowa Energy Center
David Block, Florida Solar Energy Center
David Claridge, Texas A&M University
Jim Cole, CIEE
Mike DeAngelis, California Energy Commission
Dave DePerro, Cutler-Hammer
Ron Edelstein, Gas Research Institute
David Furr, Oregon Energy Office
Mark Hanson, Energy Center of Wisconsin
Jack Harris, Lawrence Berkeley National Laboratory
Kristi Growdon, Washington State University
Duncan Kincheloe, Energy Power Research Institute
John Morrison, Advanced Energy Corporation
Frank Murray, Former ASERTTI Chair
Ron Nesse, Pacific Northwest National Laboratory
Jon Pietruszkiewiez, National Renewable Energy Laboratory
Mark Rea, Rensselaer Polytechnic Institute
John Ruckes, Connecticut Energy Office
Bill Ryan, Gas Research Institute
Ron Shelton, Oak Ridge National Laboratory
Carol Tombari, National Renewable Energy Laboratory
Bill Valentino, NYSERDA
Joe Visalli, NYSERDA
Gunnar Walmet, NYSERDA
Jack White, The Winslow Group
Jim Wiet, Energy Resources Center, University of Illinois at Chicago
Bill Worek, Energy Resources Center, University of Illinois at Chicago

Welcome to New Members

The University of Illinois at Chicago-Energy Resources Center has joined ASERTTI. A formal presentation of UIC-ERC goals is discussed later in the minutes.

Collaborative State Research Update

1. Joe Visalli, NYSERDA will serve as the Key Relationship Manager (KRM) for Kathleen Hogan, EPA.

2. Review of champions that were identified at the ORNL meeting in October 1998. ASERTTI identified many more areas of potential collaboration than was identified with the DOE MOU. These were listed and some brief updates given as follows:
   - Lab and Clean Room (Jeff Harris, LBL; Dan Sardo, Massachusetts Department of Energy) – There is not a lot of national interest in this area. California has current interest and is looking for collaboration partners, and this will be an industry of the future.
   - Thermal Distribution-Commercial (Jim Cole, CIEE) – No report.
   - K-12 Curriculum (Ron Shelton, ORNL) – No report.
   - Benchmarking (Ron Shelton, ORNL) – No report.
   - Benchmarking-Industrial (Larry Ambs, UM) – Not much progress, however DOE's Industries of the Future in very interested in benchmarking.
   - Building Commissioning (Dan York, ECW) – Four training sessions have been held and future trainings are in progress. The Oregon Department of Energy has been awarded a contract to make commissioning common practice. There has been an association formed with associates having an interest in commissioning and being commissioning providers. The Association was initially formed to serve the northwest, but is now going national. The effort will concentrate on demonstration of commissioning helps and training is initially geared toward building owners.
   - Bio-Mass (Floyd Barwig, IEC) – This was discussed in the joint session with NASEO.
   - Fuel Cells (Larry Golan, SCIES) – some work being done in this area and Larry has been in contact with interested parties via email.
   - Wind Renewables (Larry Ambs) – Jim Manwell will be taking over this area and will be the contact.
   - Behavioral Science (Rick Kunkle, WSU) – currently working with LBNL. Interest in the procurement side, goals and priorities are open. It was suggested to work with DOE to have procurement rules set up.
   - Energy Star Label – Evaluations are in progress.
   - Advance Metering (Dan Sardo, Larry Ambs) – No report
   - Aggregation (Marilynn Brown) – No Report
   - Daylight/Green Building (Mark Hanson, ECW) – The Daylighting Collaborative has been established with membership available similar to the Compressed Air Challenge. The first training is scheduled for June 10, 1999. There may be a connection with the Smart School area of collaboration.
   - Pricing Indications (Ron Shelton, ORNL) – No report.
   - Electric Reliability (Tony Schaffauser, ORNL) – No report.
   - PV Installation (Carol Tombari, NREL) – No report
   - Industrial Tech Transfer (Kristi Growdon, WSU) – No report.
   - Steam Challenge – Alliance to Save Energy is still the lead in this area.

- CHP (Larry Ambs) – DOE has rolled out the CHP Challenge to double CHP by 2010. The economic area is largest uncertainty in this area. This is a good area for collaboration.

3. Impact of MOU on ASERTTI
   The initiation of the MOU was a result of many years of attempting to work with DOE in a more formal fashion. Long term planning is necessary to insure that the MOU is followed and that the lines of communication between DOE and the others remain open. It was also suggested to investigate the possibility to have an MOU with the EPA.

   The California Energy Commission (CEC) and NYSERDA have MOUs in place with DOE independently of ASERTTI. CEC has seen some progress, but feels there is still a long way to go to create a more formal process of working with DOE and others in contractual issues.

   For ASERTTI and the smaller states, the MOU allows collaboration with DOE. Often the states do not have cash funds available, but have people and facility resources. These resources need to be identified as valuable resources.

National Reports

1. Marilyn Brown, Oak Ridge National Laboratory (ORNL). The Scenarios for Carbon Reductions (5-Lab Study) was initiated by EE/RE in mid-1996 and was jointly led by ORNL and Lawrence Berkley National Laboratory (LBNL). There were five sector teams formed: Buildings, Industry, Transportation, Electric Utilities, and Integration. The final report is scheduled to be released in June 1999.

   Key findings of the study include
   - High Efficiency/Low Carbon case can cut 2010 emissions to near 1990 levels
   - Direct costs and benefits are comparable
   - Attainment of goals will be difficult i.e. policies, energy price increases, and technology advances

2. Kathleen Hogan, Environmental Protection Agency (EPA). Kathleen provided an overview of EPA's target areas including:
   - Smart Investment
   - Sizeable capitol stock turnover to build on – 60% of 2010 emissions are from yet to be purchased equipment. There are opportunities for closing the 2010 gap in the areas of transportation, electricity supply, industrial intensive and non-intensive, CHP, and buildings.
   - Potential for cost effective investment
   - Smart Technologies
   - Policy package can spur investment – Policy tools include tax credits, R&D, technology deployment including Energy Star, price restructuring, industry consultations. Enhanced deployment is key for 2010.

- EPA's partnership programs – deploy existing technology, condition the market for energy efficiency for long term and turn energy efficiency into market products rather than a concept.

The Energy Star label for Buildings is going forward and Charter applicants include the Empire State Building, Sears Tower, World Trade Center, TransAmerica Pyramid, Time-Life Building, and American Express Tower. All have signed letters of intent to comply with Energy Star requirements. The key strategies for FY99-00 are to define and measure efficiency of buildings including characterizations of buildings, integrated solutions, market evaluation, and market transformation.

The Energy Star label on products is very successful with a savings of over $1 billion per year with a 25% awareness of the Energy Star label. Key strategies for FY99-00 is to qualify more products for the label, leverage consumer awareness, and consolidate purchasing.

3. Denise Swink, Office of Industrial Technologies Initiatives. Denise presented the new budget structure for Industries of the Future. The specific areas that OIT are targeting with budget implications:
   - Forest Products increase by $9.1 million
   - Steel
   - Aluminum increase by $3.1 million
   - Metal Casting
   - Glass
   - Chemicals
   - Petroleum increase $1.0 million
   - Mining increase $1.0 million
   - Agriculture $2.0 million

   Important priorities include integrated technologies. One example of this is OIT's current partnership with the steel industry. There are immediate results with the partnership. OIT's plans are to have at least one business demonstration/case study in each of the eight identified areas: Forest Products, Steel, Metal Casting, Glass, Aluminum, Chemicals, Agriculture and Mining.

   OIT's web site (www.oit.doe.gov) is kept updated for all current and past projects. Also available are a new brochure, partnership portfolios, impact book and industrial market book.

Tuesday, February 18, 1999

Commercial and Residential Building Update

1. Jim Cole, California Institute for Energy Efficiency, reported that there are ongoing collaborative efforts in this area between ASERTTI and DOE including commissioning and technology assessment.

2. Mark Ginsberg, DAS Office of Building Technology State and Community Programs presented DOE's Partnership Marquee Programs. Programs include:
   - Building America
   - Rebuild America – currently with over 200 commercial partners
   - Energy Star Labeling of appliances for energy efficiency
   - Collaborative Initiative in Energy Efficiency for state and community partnerships
   - R&D partnerships
   - Building codes and standards – cooperative efforts to raise minimum energy efficiency standards in buildings and appliances.

   Key changes for FY99 appropriations include an increase in overall budget from $262.2 million to $335.9 million.

   The research areas in the Building Technologies area include:
   - Fuel Cells – not quite ready for the market in the development, deployment and demonstration areas
   - Lighting Research – compact fluorescent, LED and other sources
   - Envelope and Thermal Research – Oak Ridge National Laboratory is the lead for DOE in this area, the market for low E has increase to over 35%
   - Lighting and Appliance Standards – NAECA has made manufacturers put more energy efficient products on the market including washers, air conditioning, and lighting
   - Weatherization Assistance Program – over 5 million homes were weatherized with federal funds, with additional funds from state, local and private sources. Additionally, 52 direct jobs were created for every million dollars invested.
   - Four Times Square Building

   BTS is attempting to form a more definitive organized team approach and have successfully worked with a small community in Kansas to replace energy efficiency washers in over 200 homes.

   Commercial Building Roadmaps are concentrating on partnerships within the building industry. DOE is starting a new concept "Buildings of the 21st Century" which will encompass marketing, education, and systems. Low-income partners are also being sought.

National Report - Continued
Dan Reicher, U.S. Department of Energy, Assistant Secretary, Energy Efficiency and Renewable Energy informed the membership the coordination with DOE and ASERTTI's state energy offices is extremely important. The lack of coordination is being addressed and time and attention are necessary to continue this improvement. With the FY01 budget discussion scheduled to begin shortly, it is a good time to have impact for working with and coordination between DOE and ASERTTI.

ASERTTI and the state energy offices identified issues that are problematic when working with DOE. These issues include:

- Solicitations for proposals e.g. short response time, having to reapply for funds increases overhead costs for all parties. The Compressed Air Challenge is having difficulty getting the funds awarded by DOE, although all other parties involved have submitted contributions.
- Working within the current procurement process is very difficult, especially with the national laboratories. The laboratories are not able to contract with others on collaborative efforts. Additionally, the process difficulties can result in a suspension of programs.
- Need for joint DOE and ASERTTI solicitations with one ASERTTI member taking the lead in some cases.

The current MOU is a good start with collaboration between ASERTTI and DOE. The MOU is a first step and will be a test. A successful measure will be a consistent working group. It is extremely important to take action in the FY01 DOE budget.

Member Funding Information
Funding on RDD&D information is vital when working with DOE. ASERTTI will update the information annually and is relying heavily on membership to provide the necessary information. It was suggested to separate out R&D, market transformation funds and DOE funds to provide a clearer picture of when states funds are from and where which areas they are being invested. It would also be of interest to show National Laboratory funds to show how these funds influence future DOE budgets.

Formalization of ASERTTI
This topic has been brought up to the membership in the past, ASERTTI has come to a critical juncture especially in light of the MOU and in resources needed to continue Washington representation. Many Associates have funds that could be used to assist in offsetting expenses but there is no formal guideline for Associates to use in submitting contributions. It appears that first a general definition of what a member is needs to be defined.

In addition to a definition there are many other hurdles to overcome prior to formalizing ASERTTI. Some of the suggested options are:

- Follow the NASEO model
- Continue to contract with the Winslow Group for Washington representation and have administrative work done on a contractual bases with a member or other organization

- Create a not-for-profit entity – 503(c)
- Set up a formalized fee structure for all members to follow

The most common difficulty for current members to contribute is that they cannot give contributions to a non-entity. Currently, the immediate need for funds is for the Washington representation to continue and to offset the administrative costs.

A motion was made by Kristi Growdon, WSU to form a small committee to look into the various possibilities including a 503(c) and a survey on how members can pay fees. David Block, FSEC, seconded this motion. **Action: Kristi Growdon, WSU; Mike DeAngelis, CEC; and Bill Valentino, NYSERDA will look into the issue and have recommendation(s) at the fall meeting.**

Member Updates

- The University of Illinois at Chicago – Energy Resources Center (UIC-ERC) recently joined the ASERTTI membership. Bill Worek, Executive Director, provided the membership with an overview of UIC-ERC programs. UIC-ERC has 25+ years' experience in Public Service, Policy Studies, Research and Education. The ERC has a broad base of academic disciplines including mechanical and chemical engineering, economics, architecture, urban planning, transportation, computer and environmental sciences, and educational/information transfer. ERC is involved in energy conservation and environmental efficiency programs and energy marketplace deregulation.

  Recently, UIC-ERC and the Gas Research Institute (GRI) have begun a collaborative effort in gas technologies. This collaboration merges the strengths of both GRI and UIC-ERC to proved cost effective products and services, and a new resource to:
  - State Energy Offices
  - Energy Centers
  - Energy Utilities
  - Government Agencies
  - Consumers

- John Morrison, Advanced Energy Corporation (AEC) updated the membership on AEC's current projects. They have proven excellence in motors and related programs. There has been a great response from the industry in general regarding the certification program but it has been difficult for shops and industries to go through the actual certification.

  Another project was a direct result of concerns raised in the residential area regarding black stains that appeared on walls and carpeting in new homes. This "ghosting" is often costly for homebuilders to correct, as it is often a direct result of soot buildup caused by candles, fireplaces etc. For full details see the handout provided.

Lines of Communication regarding the MOU
Mike DeAngelis, CEC suggested the use of a matrix style tool to enhance the communication between members. This matrix would allow for a simplistic way of visualizing those interested in forming a collaborative effort in a particular area.

The use of the matrix was discussed and it was suggested to post this on ASERTTI's web site to use as a communication tool. This matrix will be distributed prior to the next meeting for information to be gathered.

MOU Response
The ultimate goal of the MOU is to create a meaningful relationship with DOE in working into the budget system. It was suggested that ASERTTI form a small representative test group (6-8 people) to put together a list of major areas to begin the process. This list would be presented to DOE to assist in DOE response to the call for preliminary budgets. DOE's next budget session is for FY01. DOE could commit funds at this time for FY01 to ASERTTI for collaboration efforts with the states and define how to specifically use the funds at a later date.

STEAB Nomination
It is important that ASERTTI nominate someone for the open position although it involves a rigorous application process. Mark Hanson, ECW; Jack White, The Winslow Group; and Bill Valentino, NYSERDA will look into the nomination process.

Wrap up and Adjournment
The remainder of the meeting consisted of planning for the meeting on February 19th with DOE.

Washington State University Cooperative Extension Energy Program will host the fall meeting in Seattle, Washington. Dates to be determined.

Respectfully submitted by,

Sherry Benzmiller
Assistant to the ASERTTI Chair