

STEAB July 2013 Meeting
 July 17-18, 2013
 Double Tree Hotel Crystal City
 Arlington, VA

July Meeting STEAB Attendees

Designated Federal Officer (DFO):

- Gil Sperling, STEAB DFO, Senior Management Technical Advisor, EERE, DOE.

STEAB TELECONFERENCE ATTENDANCE		
BOARD MEMBERS	Present	Absent
Roger Berliner , Council President, Montgomery County Council	X	
Ron Binz , Public Policy Consulting		X
Susan S. Brown , Deputy Administrator, Wisconsin Division of Energy	X	
Tom Carey , Director, Energy and Rehabilitation Programs, New York State Division of Housing and Community Renewal		X
William Vaughn Clark , Director, Office of Community Development, Oklahoma Department of Commerce	X	
John H. Davies , Director, Division of Renewable Energy and Energy Efficiency, Kentucky Office of Energy Policy	X	
David Gipson , Director, Energy Services Division, Georgia Environmental Facilities Authority		X
Philip Giudice , Chief Executive Office, Liquid Metal Battery Corporation	X	
Paul Gutierrez , Vice Provost for Outreach Services, Associate Dean and Director, Cooperative Extension Service, College of Agriculture and Home Economics, New Mexico State University	X	
Duane Hauck , Director, Extension Services, North Dakota State University	X	
Robert Jackson , Manager, Michigan Economic Development Office, Michigan Energy Office	X	
Elliott Jacobson , Vice President for Energy Services, Action Energy	X	
Maurice Kaya , Hawaii Renewable Energy Development Venture	X	
Ashlie Lancaster , Director, South Carolina Energy Office	X	
Lou Moore , Chief, Energy and Pollution Prevention Bureau, Montana	X	
Agnes Mrozowski , Assistant Deputy Director, Illinois State Energy Office	X	
Frank Murray , President and CEO, New York State Energy Research and Development Authority	X	
Steve Payne , Managing Director, Housing Improvements & Preservation, Department of Commerce	X	
David Terry , Executive Director, ASERTTI	X	
Malcolm Woolf , Sr. Vice President, Policy and Government Affairs, Advanced Energy Economy	X	
Daniel Zaweski , Assistant Vice President - Energy Efficiency and Distributed Generation Program, Long Island Power Authority	X	

Contractor Support & Other DOE Staff:

- Emily Zuccaro, SRA, International Inc.
- Felicia Der, SRA, International Inc.

Please note presentations from the July STEAB Meeting can be found online at www.STEAB.org

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NASEO Introduction to State-EERE Summit

The State Energy Advisory Board (STEAB) members, as part of their July meeting, attended the NASEO sponsored State-EERE Summit on the first day of the STEAB meeting. The goal of the State-EERE Summit was to identify specific near- and long-term actions to improve coordination and collaboration among State and Territory Energy Offices, research institutions, and the Office of Energy Efficiency and Renewable Energy's (EERE) technology programs and initiatives. An overarching goal is to ensure that States and EERE work in partnership to integrate program and initiative planning.

David Terry (DT), a STEAB member and the Executive Director of NASEO thanked everyone for attending this meeting of NASEO Board members, STEAB members, and EERE staff. He reiterated the concept of the meeting saying the long-time interest by all of these groups to collaborate on research, development and deployment and at this meeting he hopes the three groups can find opportunities and synergies to keep these areas moving forward.

Anna Garcia, Program Director for EERE's Office of Weatherization and Intergovernmental Programs (OWIP) said she is excited to hear state perspectives on advancing energy efficiency and clean energy technologies. She indicated her office is interested in collaborating with commercial buildings and how to leverage pathways to lower the cost of demonstration of emerging technologies and identify ways to expand future research. Vaughn Clark (VC) replied the goal of the meeting is to specifically hone-in on projects and areas where these groups can work together and commit to moving forward. Ms. Garcia reiterated the priorities to move energy efficiency forward were in areas such as appliance programs, building codes, improvements and upgrades to existing buildings, with combined heat and power projects (CHP), as well as with low-income households.

The summit then turned to a series of moderated discussions led by Dub Taylor, the Director of the Texas State Energy Conservation Office. The goal of these sessions were to identify more effective approaches to coordination and collaboration between the states and EERE by focusing on several technology areas and crosscutting activities in order to identify priorities and action items.

State and EERE Roles in Advancing Emerging Technologies, Economic Development, and Financing

Session 1: Electric Vehicles and Infrastructure

Robert Jackson (RJ), STEAB member and Director of the Michigan Energy Office opened the first session by providing the state perspective on electric vehicle (EV) technology and infrastructure. State priorities surrounding EV include addressing challenges of electrification, exploring alternative funding possibilities and avenues, supporting innovative research and development as a supply chain economic opportunity, and assessing opportunities for EV to grid applications. Ways to address electrification challenges include the removal of barriers to the deployment of EV, and taking actions such as assisting state fleet managers to explore policy and financing drivers to aid in driving down the cost. State departments of transportation could be an important partner in this effort. Funding is clearly an issue for all states and DOE and states should work together to examine state funding policies and encourage public-private partnerships. Additionally, RJ believes vehicle industry partners have to be part of the conversation about innovative research and development that is occurring at DOE and within the Lab structure.

Pat Davis, Program Director of the Vehicle Technologies Program within EERE, spoke next and provided the DOE perspective on EV. Three offices in EERE are involved with EV and include his program office, as well as the Fuel Cell and Hydrogen Technology Program Office, and the Biomass Program. The budget specifically within Mr. Davis' are is \$314 million to work on combustion, materials, batteries, fuels and vehicle systems. The goal of his office is to remove market barriers and promote the adoption of EV across the country. The EV Everywhere Grand Challenge launched last year is a nationwide program which focuses on the U.S. becoming the first nation in the world to produce plug-in electric vehicles as affordable to the average family as today's gasoline-powered vehicles within the next 10 years. Additionally, his office is kicking-off the Workplace Charging Challenge which encourages employers to increase workplace charging stations ten-fold within five years. This specifically is an area that EERE needs assistance from states. Another option for state involvement with national programs includes reviewing funding opportunities online and competing for these funds in partnership with other organizations. If one company applies with an idea it may be strong, but could go further and be more successful if that company had partnered with a university, research institution or even another company. A

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collaborative effort seem to more effectively drive innovation and creates an opportunity for deployment at the completion whereas single award winners can find themselves plagued with a stranded technology and no outlet for testing or deployment.

Gil Sperling (GS) commented on the importance of getting local governments involved with the EERE efforts as local governments have a bit impact on the structure of EV deployment, but was surprised EERE is not also looking at natural gas and other alternative fuel opportunities. Ms. Garcia responded Mr. Davis's shop focuses specifically on EV, but other offices within EERE are looking at these options. Mr. Davis added his office is primarily research and development focused, but has struggled with the natural gas question. He is open to suggestions about how to engage better with states on that issue.

Maurice Kaya (MK) noted that in the presentations he did not detect an emphasis on what is needed with regards to EV to improve the electric utility industry. In Hawaii the agenda of industry and agenda of utility companies are not aligned. DOE and states should look at this issue, as well as that of adding EV into the grid. Without similar approaches by industry and utilities there will be barriers to deployment. Todd Currier of NASEO asked about the two or three main areas where EERE sees states as central to the strategy to accelerate EV adoption and Mr. Davis noted technology roll-out and deployment is an issue. The more standardized the landscape can be the better it will be for the EV market. VC replied states really need a champion in either the Governor or a local Mayor that can take up the banner of EV as a personal issue and garner bi-partisan support. He commented that EV seems to be a more urban and coastal idea, so how can states and EERE help emphasize the importance to rural communities needs to be a question EERE looks at moving forward.

Frank Murray (FM) indicated he saw three areas where EERE and states can work together better to push EV into the marketplace. One area is with research and how the states need to have a better understanding of what is occurring at the federal level. The second area is funding and the third area is policy. Perhaps gathering information on what is going well currently in states would help develop a more national policy.

Session 2: Advanced Manufacturing, Industrial Efficiency, Clean Energy Manufacturing

The second session focused on advanced manufacturing. Chad Smith the Deputy Chief of the Ohio Department of Development provided that state overview and perspective to attendees of the summit. States currently focus on clarifying the range of opportunities and advancements in manufacturing to enable more effective interactions between public and private entities to identify partnerships and targeted policies. There is also a need to establish a process by which states and key industries are incentivized into joint investments. Additionally, leveraging state resources for advanced manufacturing is not a one-size fits all solution. Each state has different capacities and states would like DOE assistance in performing strategic analyses of current advanced manufacturers and supply chains which have had success. There is also the issue of smaller manufacturers. Many small manufacturers may not have the capacity to take on a big challenge like this so how can EERE provide technical assistance and network solutions, or is there a space for a federally funding support program for these smaller companies. Training and workforce development also remain an area of concern. There is a space for federal aid to identify current models of training that are successful and assist with nationwide roll-out.

Libby Wayman gave EERE's perspective with regards to advanced manufacturing citing the Clean Energy Manufacturing Initiative (CEMI) which is an opportunity recently launched by the office to look at all manufacturing aspects across all of the ten EERE program areas, and offer chances for coordinated strategies and collaborative efforts to reach the goal of increasing U.S. manufacturing competitiveness in the production of clean energy products. There are four focus areas under CEMI. One is looking at competitiveness analysis and strategies. EERE is convening a workshop to look at these areas and NASEO, STEAB and other groups can work with EERE and identify other partners to participate in these workshops. Secondly, EERE has made a \$500 million request for funding of manufacturing research and development in FY 214. Thirdly, EERE has created facilities in Tennessee and Ohio that are manufacturing innovation and demonstration facilities. Finally, partnerships and engagement is key to broad adoption of advanced manufacturing. EERE will be carrying out regional summits to identify new investment and program opportunities, and if NASEO and states can get involved in this it would help to elevate these events and bring more ideas to the table.

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Davanand Shenoy of EERE's Advanced Manufacturing Office (AMO) continued the agency perspective noting the program area has three main focuses; research and development, shared research and development facilities and industrial technical assistance. There are several initiatives underway within the office, aside from the EERE-wide CEMI effort. Those are the Innovative Manufacturing Initiative which leverages cutting-edge technology in a way to help increase next generation manufacturing capabilities, and the Critical Materials Initiative. AMO is also looking at supply chain issues, industrial issues and how to work with stakeholders and local governments to break down barriers to investments in advanced manufacturing opportunities. He asked how states can work with AMO to adopt strategic energy operation management practices. Would EERE hosted webinars and conferences help increase state engagement with national priorities?

Jeff Genzer of NASEO replied that if EERE wants to have a meeting about how to engage states with AMO, DOE has to let states know about events, webinars, etc ahead of time to NASEO can help with engagement and publicity to make sure states are involved. On the flip side, when states meet about advanced manufacturing opportunities the states can let EERE know about the events so there can also be participation from the federal level. Simple coordination such as that can really move the dialogue forward and bring all parties together more easily. Mr. Taylor agreed noting a more established form of communication is needed between EERE and the technology areas with the states and the State Energy Offices (SEO's).

Session 3: Grid Integration – Buildings, Vehicles, Distributed Generation

FM opened the third session and spoke of the state perspective on grid integration. The key is to find a way to bring together the EERE and other DOE expertise in a way that is helpful for states. Mostly states struggle with ensuring a policy perspective is injected into regional resource planning to support grid integration. States also need federal guidance and the development of a national message that can help drive state leaders and legislatures to develop policy promoting grid integration and deployment. Another way states and EERE can partner is to explore new utility business models in light of the changing infrastructure, energy loads and administration priorities. Finally, examining the cost-effectiveness tests used by the states/utilities for clean energy policy and programs and the impact on the deployment of energy efficiency and renewable energy resources is another priority for states. It is important, FM reminded the group, to also keep in mind those segments of society who would be least likely to capitalize on the new technology. Low-income households and the elderly cannot be left behind and states need to make sure the impacts on those households are included in strategies moving forward.

Kevin Lynn, the Systems Integration Lead for EERE then discussed the EERE perspective on grid integration. His role is to lead the energy assistance integration team which cross-cuts across DOE, not just EERE. This is a key inter-office activity and brings together the Office of Science, the Office of Electricity, ARPA-E and EERE in order to help understand how all of these areas impact and touch the grid. He has hosted a handful of workshops that have kicked-off discussions about how all of these different offices can work better together and integrate activities like codes, standards, communication and protocols. He noted that while the breadth of organizations involved has helped kick-start discussions, he would like to see state involvement to talk more about the utility business models and how to promote demonstration and show how these technologies work together to benefit states, consumers and the country. There are a few states like Hawaii, California, New York and others that are already heavily involved in grid integration studies, but like VC noted earlier it has been a challenge to reach more rural states. States need to be able to access lessons-learned and understand the impact of integration and distributed generation so DOE needs assistance developing modeling that can be showcased in states where there is currently little to no interest in this area.

FM asked if DOE had funding to help with demonstrations of grid integration in these different states, and Mr. Lynn indicated each program area has an area focusing on this effort but there is not large designated pot of money for this although he is looking at how to pull these different activities together in a way where it will provide a practical demonstration and showcase new business models. Mr. Lynn continued saying it is in the DOE's interest to see the technologies it has developed successfully deployed. It will take all states and the federal players to make grid integration successful. GS indicated he feels state regulatory policy is the largest obstacle to renewable energy and distributed generation markets. States need federal assistance to identify what changes need to happen and this should be done in a

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consistent manner across all states via standard policy. While EERE seems to be looking at the technical part of this, there needs to be a broader approach to policy and standards, not just the technical integration side. Roger Berliner (RB) noted the state of Maryland has been driving utility 2.0 and has been looking at the grid in terms of reliability, resiliency, and other aspects as a regulatory issue. He asked if DOE would be able to convene conversations with states to help figure out what the utility future looks like and how managing the grid will work.

MK mentioned at an earlier STEAB meeting Steve Chalk spoke about how EERE was pulling together resources to assist with grid integration, but there is still no explanation of how this will work. There is a lot of attention paid to how to get distributed systems to communicate, but there needs to be a conversation with those on the ground who will be implementing technologies into the grid. There also needs to be a conversation about how to address the reliability of the system and who can help work with states and DOE to answer these questions. Janet Streff added Minnesota is doing an integration study with wind and solar power and the grid and is working with NREL on this study through the Technical Assistance Program. How can states strengthen the connection through OWIP to get a regular accounting of the different grid studies and explorations that are ongoing? Hawaii and Minnesota have studies and certainly other states do as well. How can we make these connections so there are not duplicative efforts? Veronic Marier noted that within NASEO there are regional meetings where PUC's and other organizations come together to talk about regional activities. At the national level anything states can bring to NASEO would be helpful so that NASEO could act as the liaison between DOE and states with regard to the different activities.

Mr. Genzer again noted that one size does not fit all with regards to grid integration. The real issue is the need to improve communication and exchange peer to peer experience. This is a conversation that has to happen initially in smaller groups to address state and regional issues and then grow into a broader national discussion. Ashlie Lancaster (AL) noted state regulators are reactive and in smaller states, like South Carolina, she and her office are not really able to interact with regulators. There are initiatives trying to move forward grid integration, but the policies of utilities and the legal structure all models show that none of the integration options will be cost effective with the way things are now. She indicated she would like to see DOE engage with these smaller states to help get policies to change, or at least convene a dialogue to help state regulators understand the process.

Session 4: Solar and Other Renewables Soft Costs

Mark Sylvia, Commissioner for the Massachusetts Department of Energy Resources, spoke about state perspectives on solar and other renewable energy soft costs and the effect they have on wide-spread deployment. The priorities in reducing soft costs are aimed at increasing the utilization of available tools and resources to streamline siting and permitting at low to no cost to states and develop solar mapping tools that easily enable assessment of site conditions. Working in conjunction with local governments to streamline the deployment of photovoltaic (PV) and scale-up the private sector investment in PV is also important. Finally, working with states that have successful net metering models and utilizing these models in other state energy plans will assist policy makers with actually changing state policies. DOE is needed to help states conduct training workshops for installation, helping states streamline their permitting processes, and facilitate state and national collaboration on things like investment, financing opportunities, and providing guidance and best-practices to help states jump-start these activities.

Minh Le, Program Director for the Solar Energy Technologies Program at EERE, responded to Mr. Sylvia's comments noting in 2010 solar used to be about four times the cost of other forms of electricity. Since then costs have dropped significantly, but it is true that soft costs will determine the future of solar deployment. The challenges of interconnection and consumer adoption will be addressed in an upcoming fall meeting. He agreed with the state perspective that the best methodology should be one which is standardized across the country. Right now DOE is asking a lot of questions in order to arrive at a common set of approaches and determine the different areas of solar deployment that are affected by these soft costs.

GS noted NREL has a nationwide process underway called Solar Access to Public Capital which is aimed at standardizing contracts and assisting with securitization. That assists on the financial side, but VC added it remains difficult to get consumers in smaller and more rural states to understand the viability of solar as a good form of electricity. VC would like to see DOE provide these states with information and modeling to convince the state policy makers and

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legislatures that solar is a good option and not the old expensive, bulky and unreliable technology that so many people think it is. Mr. Le replied this comment was spot on and that 85% of solar deployment occurs in only about 12% of the country in states like NY, CA, NJ and MA. The SUNRISE initiative launched earlier this year is a program looking to engage with states offering technical assistance to help combat these old mentalities about solar. FM added New York has a great relationship with DOE and it was through an NREL and DOE study on solar that really helped shape and drive New York's policy toward the technology. This was a very successful study and if it could be replicated in other areas it would probably persuade many states to expand solar opportunities. Mr. Le responded the solar program's approach to deployment is multi-pronged and there are a lot of challenges, but he wants to try and capture the low-hanging fruit now to showcase success stories and provide more positive data, while working in conjunction with states to address the bigger and longer-term issues.

Session 5: Economic Development and Financing Initiatives

The final session of these moderated discussions on state and federal perspectives covered economic and financial initiatives. Chris Lohmann, Senior Finance Policy Advisor to DOE, opened this session discussing how DOE wants to create an environment where companies can be more competitive. DOE recognizes that they must mitigate risk for businesses and there is a need to reinvest capital locally using clean energy as an economic development tool. He sees a need to work on bringing energy efficiency and distributed generation to states which could generate re-investment of capital into the regional economy and spur economic growth. He noted the state of Virginia exported \$26 billion in capital on energy consumption and that could have been left in the state. Focusing on economic vitality and growing that market is a key priority for DOE.

Mr. Genzer asked Mr. Lohmann how NASEO, STEAB and states can move forward together to reach the administrations' goals as well as state goals in this area. The response was to help states recognize the value of these technologies and the investment, and then monetize the value of those investments and package it in a way where it will be picked-up by financial firms. This can be done via public-private partnerships on mutually supporting projects which could then create a way for secondary benefits to be turned back around to private investors. DOE has the Energy Financing Working Group and the Energy Investment Group working on these questions and proposals.

GS informed the group that the Energy Investment Group is working on a "how to" guide for energy financing and there are about 15 states invested in the creation of this type of guide. This would act as a guidebook for other states to identify financing mechanisms. Mr. Genzer noted there will be a discussion at the White House to take a look at low-income and what solutions there are in terms of financing options for low-income households. VC suggested looking at incentives and aligning SEO's and state Departments of Commerce. That could help increase the availability of capital and open up other options for financing. Mr. Sylvia asked how DOE and states would quantify economic development and job creation with energy financing incentives. There are a number of clean energy companies and it is important for future incentives to capture this information. Whatever the methodology would be to capture this information, it would need to be uniform across states and projects.

Actions to Improve State-Federal Collaboration in the Emerging Technologies, Economic Development, and Financing Areas -- Aligning State and Federal RDD&D Interests

The next part of the EERE-State Summit focused on trying to draw-down on the sessions from earlier in the day and distill at least three formal actions that reflect the priority issues and opportunities for enhanced State-EERE collaboration. Dr. David Danielson, Assistant Secretary for the Office of Energy Efficiency and Renewable Energy, and Mike Carr, the Principal Deputy Assistant Secretary for EERE participated in this discussion.

Dr. Danielson began by noting the financing part of energy technology deployment and commercialization is very important. A lot of people are working on clean energy investment opportunities but he is worried about venture capital going away and thus innovation going away so how can states and EERE work better together to take advantage of what is already out there, and what can the government do to fill the gaps on the front end to get more corporations and private investment involved. FM spoke about the big constraints of trying to access the capital market with things like energy technology and energy innovation. State programs create demand for energy efficiency and renewable energy

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technologies and expertise, but SEO's need to do a better job attracting clean tech firms to the states for projects. New businesses normally go to the state economic agency but the energy offices need to look at ways to attract energy business and energy investment.

Dr. Danielson expressed his enthusiasm for this meeting saying states are critical partners with DOE and help the agency reach its goals when states and DOE work together and push ideas and programs forward. He hopes dialogues like this can continue in the future as he sees a lot of good ideas being generated. He asked for feedback from the group on concrete ways EERE and states can work better together and areas where greater collaboration is needed.

Mr. Genzer replied that on the electric vehicle side of things DOE and states need to know where the utilities fall on the issue and how industry feels so that there is a standardized understanding of how EV will interact with the grid. DOE can work to improve communications around the release of FOA's for EV funding, and also elevate the best-practices learned from experience with Clean Cities to other states and localities. Sharing these lessons-learned on peer to peer exchanges really helps funnel information and ideas and leads to more collaborative opportunities. JD commented on his perspective that all the program areas of EERE are very research and development focused and yet deployment should also be part of that portfolio. Each program should have a metric on how well deployment is going in that area and commit to deployment in a way that communicates that to the SEO's and the Labs as well. Dr. Danielson indicated there is a vision to get all the deployment across all the programs coordinated in a comprehensive way, so EERE is aware of this and is working on it.

Dr. Danielson then asked about brainstorming on big-picture ideas such as communication between states and DOE as well as better publicity surrounding FOA's. MK asked for EERE to do more outreach with industry with respect to EV. He has not need industry involved enough in the conversations about large-scale deployment and marketability. Malcolm Woolf (MW) would like to see EERE work with states individually and then pull together a matrix which outlines what the priorities of EV are from a state by state perspective. Once this has been gathered it will be clearer where the synergies are and that can spur on a dialogue. Lou Moore (LM) suggested states really need a concise message. Doing something with EV akin to the SunShot program would be helpful because it clearly states the goal and purpose of the initiative and states and industry can rally around a clear national message better than a state by state or regional initiative.

Moving on to discuss how EERE and states can better work together on advanced manufacturing efforts, Dr. Danielson elaborated on CEMI and how it is designed as a cross-cutting engagement activity, but how can EERE work with states to create real value added with regards to advanced manufacturing. There are existing and fruitful partnerships at the industry level, but more representation from states would be great. He asked that states get involved and attend these CEMI regional meetings and reference the DOE website for FOA's regarding advanced manufacturing opportunities and he will be reaching to invite states and other partners to participate in these discussions and with this initiative.

Mr. Genzer then moved the discussion onto grid integration and indicated the main issue was how states and DOE can work together and bring all parties to the table including utilities, commissioners and legislatures to talk about this complex issue. Dr. Danielson suggested using DOE as a convening authority to begin these dialogues because grid integration is really a state and regional challenge and states need to start internal discussions first. EERE can help to convene and promote these meetings as a way to support states. RB reminded the group that Maryland's Utility 2.0 is the model that DOE can use and promote in other states. This project provided technical assistance, addressed overcoming institutional issues and regulatory issues and is a working and successful model that can be replicated in other areas.

Mr. Genzer then spoke about the key issues addressed during the solar and renewable energy soft cost discussions. The suggestions from the earlier session was to utilize and replicate successful models and then elevate the importance of reducing soft costs in each states' energy plans so that policy makers are then driving the change with regard to economic development and environmental impact. Working with local building officials to reduce barriers is another area where states and EERE can work together. Local governments can do a better job scaling-up and deploying PV, but there needs to be a more coordinated effort between NREL activities and the dissemination of information to states to help change the minds of consumers and legislators who are mired in the old way of thinking of solar energy. Dr. Danielson agreed and noted the Energy Systems Integration Facility at NREL is looking at a lot of these issues and while

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the SunShot program did a good job of addressing some soft costs DOE does need to continue facilitating these kinds of efforts and providing information to states to help address these barriers to large-scale deployment.

Turning to the last set of comments from the day's earlier sessions, Mr. Genzer discussed the need for EERE to support commercialization of clean energy technologies, unlock state economic development investment funds and drive policy change, while also looking into why some forms of clean energy financing work well and others do not. States also want to revisit PACE and receive assistance from DOE distilling the complex financial issues surrounding energy financing to help increase the demand. MK suggested DOE look at successful energy financing programs and then try to replicate those in other areas and creating a motivation for states to want to invest in financing initiatives. Talking up the connections between job creation and economic development could also be selling points for states and institutions which are hesitant to get into new financing schemes.

Final Discussion and Commitments – Next Steps

DT turned everyone's attention towards the session where final comments and action items would be decided. He noted the overall theme of this meeting discussed collaboration and partnership. Without DOE's regional offices it is imperative that every technology and program office work with SEO's and other partners to try and recreate that level of engagement and outreach. Regular phone calls, emails or other types of communication between DOE and states is key to moving initiatives and programs forward. Adding specific deployment activities in each program area would also be beneficial as states are poised to connect technology offices to industry and connect the dots with deployment at the state and local level. He noted how well the SunShot program ran and suggested building on this model and utilizing it in the areas of EV and grid integration. He thanked EERE staff and NASEO and STEAB members for participating in the discussions and for the candid comments regarding what states and EERE could do better to move the energy agenda forward.

Dr. Danielson followed-up saying EERE is trying to be more engaged and work more closely with partners to get to where DOE wants to be on the energy front. Some good ideas have come out of this discussion about how EERE can refocus efforts and communicate more effectively. He looks forward to engaging more directly with SEO directors, and having the technology program directors work better together and conduct more outreach to states as well. The new incoming Secretary of Energy will be excited about collaboration between DOE and states. Dr. Danielson then challenged NASEO to come up with a national program on what state energy engagement will look like and would like to present that idea to the new Secretary as a suggestion of how to push forward the energy agenda.

The President's Climate Action Plan and DOE's Strategy

On Thursday morning, the STEAB meeting opened with Melanie Kenderdine, Energy Counselor to the Secretary, as the first speaker. Ms. Kenderdine opened her comments noting Secretary Moniz is engaged in all aspects of DOE's mission areas and is deeply knowledgeable about the science of the department. She also stated the Secretary will be reorganizing the department and combining the Undersecretary of Energy and Science into one position and then there will be an Undersecretary for Management and Performance as well as an Undersecretary for NNSA. Additionally, the Energy Policy and Science Administration (EPSA) will be set-up and Ms. Kenderdine will be running that office. She emphasized the need for a state and local focus in her area because a lot of creativity in energy policy and implementation occurs at the state and local level, and indicated she is looking for that kind of feedback from organizations like STEAB.

Secretary Moniz is looking to make DOE a partner with states and localities and this is a huge priority of his. She then asked how DOE can help states accomplish their goals and how states and DOE can work better together. FM thanked Ms. Kenderdine for her thoughts and commented that STEAB has not been used as successfully as it could be and feels encouraged to hear about the Secretary's willingness to partner with states.

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FM continued noting that many concerns facing states reach outside of just EERE. Issues like smart grid, climate change, fuels, etc. cross-cut EERE, the Office of Electricity and other DOE offices. Ms. Kenderdine responded that the office will be working on broad spectrum energy policy and the Secretary's Chief of Staff, Kevin Knoblock, is taking up the cause of the climate action plan. That is an area where STEAB could get involved as well. JD suggested that as Ms. Kenderdine's group undertakes energy policy changes they should also make sure to look at the economy side of policy and how the energy, environment and economy are all tied together at the state level. RB added how important local government involvement is and how by working with local government a lot can be accomplished without Congress. If DOE is looking at infrastructure, the state of Maryland has Utility 2.0 which is looking at reliability and resiliency. He encouraged DOE to liaise with local governments as well as state governments.

PGD reminded Ms. Kenderdine that STEAB and other advisory committees are able to fast-track opportunities and put them into action plans. As ideas come to EPSA and her group he hopes she will reach out to STEAB for advice and insight. The STEAB can use its power to convene to help push ideas forward and gain feedback from states on potential new policy changes. Ms. Kenderdine thanked the STEAB for their comments and thoughts and encouraged the group to engage with her and the Secretary. She asked for the Board to think about potential white paper ideas over the next few weeks. These ideas could be presented to her group and she would then work with STEAB to help bring these ideas and white papers to the Secretary for his comments.

DOE's "Race to the Top" Initiative Update

Holmes Hummel then provided an update to the Board on the status of the potential "Race to the Top" initiative being developed at DOE. At the time of the meeting the President had asked for this program to be funded at the \$200 million level. As the country moves into austerity and sequester, convincing Congress to accept this budget level for this program represents the interest and opportunity for engagement with states that will implement performance based engagement. The "Race to the Top" initiative was well received on both sides of the aisle with regards to this program and DOE is currently working on developing an FY 15 budget request. She and her team still need additional input from FACA's like STEAB on the way the program would be implemented.

GS asked where Ms. Hummel felt she and her team needed more guidance and input. The response was there are parts of the current proposal which are very short with regards to eligibility and criteria for the competition and the selection of winners. There is an opportunity to influence and comment on the design of both of those phases. There is currently no clear articulation about how the winning funds should be committed to a state program and the energy activities. With regards to eligibility the agency's approach was to set a minimum bar that most states could clear and provide technical assistance to states which needed a boost to get over the minimum levels. She asked for comments and thought on those areas, specifically about how technical assistance resources could be utilized at the state level.

VC encouraged Ms. Hummel to think about the minimum threshold criteria. Looking at a map of where energy grants go there is a clear desert of states rarely winning because they do not have the support or funding to support grant writing activities. DOE needs to acknowledge this and remember that threshold criteria is an issue for small states. Ms. Hummel thanked VC for his comment and indicated the technical assistance portion of the eligibility requirement is in there to aid states with exactly this problem. DT noted he and other organizations are concerned this could turn into more of a "race to the middle" than to the top. GS discussed the need to look at how states will utilize the money from this program and stimulate other capital investment and involvement. How does this program work across states to generate demand in the aggregate to attract capital markets? Ms. Hummel indicated that DOE was working on the scaling of capital markets and the agency would

like to ask STEAB and other groups to think about how to really bring this to bear and not be distracted by what states have to do to reach the markets.

FM thanked Ms. Hummel for her continued outreach to STEAB and indicated the Board would follow-up on this topic during the upcoming August teleconference call.

Update on WAP, SEP, and SEP Budget and National Evaluation

The next speaker was Anna Garcia, the Program Director for OWIP. She opened her presentation by showing a slide of the McKinsey analysis recognizing the opportunities in the energy efficiency space and the priorities needed in order to achieve nationwide energy efficiency goals. These priorities and opportunities are appliance programs, building codes and improvements and upgrade programs for existing buildings, combined heat and power (CHP), government focus and a low-income focus. These priorities align with DOE's goals and her office is pulling at the federal, state and local level to push more clean energy technology out into the marketplace. Engagement with state and local government is key to making these priorities successful.

Ms. Garcia encouraged states to also work with her office on formula funds and getting 75% or more of those spent in the year they are appropriated and leaving very little balance remaining. DOE will start taking back fund balances that go back to earlier than 2009 and there are just enough funds and states with these issues that it is starting to cause problems. SB indicated states need acknowledgement that expenditures may be ahead of actual draw-downs, but states will help OWIP with this plea and try more real-time utilization of funds. Ms. Garcia thanked SB and also noted she had heard comments about how EERE needed to better publicize FOA's. On that front all new FOA's should be ready by November and while the department is working on the development phase of those she encouraged STEAB to provide input.

GS encouraged Board members to find a way of working with Ms. Garcia and her program area to find a way to make SEP formula and competitive funding more relevant to the areas noted as priorities since those are key areas that have both political and economic relevance. SB indicated that her state of Wisconsin has a great project officer who has helped elevate what is being done in Wisconsin to EERE and had invited EERE staff to the state to then share what the federal level was working on. There have been calls from EERE staff to have states engage more with the agency but it is difficult because states only really have a relationship with the project officer. If that individual is not engaged it is hard for states to know what is occurring at the agency level. She asked if it could be a metric of OWIP to have project officers try to facilitate this two-way chain of communication.

Ms. Garcia then spoke about DOE's Better Buildings Challenge and the goal to make commercial and industrial buildings 20% more efficient by 2020. There have been a lot of successes in this program such as 40 implementation models completed or underway to highlight innovative and realistic strategies for realizing energy savings. She also spoke about the ESPC Accelerator which is a partnership with state and local governments to ramp-up investments in energy service performance contracts in public sector buildings. Ms. Garcia ended her presentation noting STEAB, states and EERE all have shared goals to save energy, save energy costs, create an effective policy framework and share and replicate success stories. Using these common goals she hopes the STEAB and EERE can work together to identify policies, programs and initiatives that are mutually beneficial.

Overview of Clean Energy Manufacturing Initiative (CEMI)

Libby Wayman, the Sr. Advisor for CEMI, spoke next about the mission of EERE to create American leadership in the transition to a clean energy economy. EERE understands energy, the environment and the economy are all interconnected and CEMI is looking to transform the clean energy economy in two ways. First,

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they are working on research, demonstration and deployment, and second by breaking down barriers to market entry. CEMI was formed to take advantage of the technologies already available and capitalize on the possibility of manufacturing those in the United States. CEMI works across all of the 10 program areas within EERE via collaboration and competitiveness by breaking down the “silos” within EERE and outside the agency that are barriers to collaborative efforts.

CEMI launched in March of 2013 and already has partnered with existing EERE manufacturing resources. The initiative is looking at state and local partnerships as well. Those areas are key conveners for research and development teams and her group is looking for new ideas to create additional National Network for Manufacturing Institutes. GS asked her how CEMI can get the word out to states about this undertaking and if states are interested is there a one-stop-shop for resources. Ms. Wayman indicated she and her team are working to build on that idea and are talking about creating a resource portal which would be both a repository and a route for better information dissemination.

PGD commented that while these programs are interesting it does not address why manufacturing really left the United States in the first place. Manufacturing companies are all about capital and there are a lot of countries looking for manufacturing and a lot of countries that are less expensive to manufacture in than the United States. JD appreciated the comments regarding CEMI’s emphasis on research and development but at the same time how is this program addressing the waste issues associated with manufacturing. Energy costs are going up, and energy waste is a big issue for manufacturers. Ms. Wayman thanked both men for their comments and said these are areas they are looking at and she and her team welcome ideas and input on how to address these. If individuals or states have had successes in those areas to please let her know and contact her office. FM suggested looking at the New York Flex Technology Program, and JD suggested the Save Energy Now program in Kentucky.

Ms. Wayman did note that CEMI is looking at silicon PV and the costs to produce them in the United States versus China. They are looking at the barriers to getting costs down in the U.S. such as debt costs, risk, labor costs, inflation, etc. By breaking these technologies down they can see what the exact barriers are and figure out how to assist industry and manufacturers to formulate strategies that can make U.S. manufacturing more competitive. They are also looking to increase deployment and drive America’s demand as demand helps drive manufacturing.

The presentation concluded with an overview of the regional summits hosted in Ohio, and another upcoming event in the Bay Area in October of 2013. These summits bring together state and local governments, manufacturers and other stakeholders and discuss partnership ideas, barriers to deployment and demand and push cross-cutting engagement. She asked for STEAB’s assistance thinking about how all of these players can work better together and work more efficiently on bringing clean energy manufacturing back to the U.S.

STEAB Logistics and General Board Business

FM then turned to a discussion about general business related to upcoming meetings and Board teleconferences. The Board agreed the next meeting should be in Washington, DC in October of 2013 and FM and GS asked for the members to please send agenda ideas and topics for discussion to them so they could start working on the agenda. The STEAB spring meeting will be in Golden, CO and the Board will visit NREL. That meeting will occur sometime in March of 2013 and those dates will be forthcoming. The Board decided to keep the monthly teleconferences on the third Thursday of the month at 3:30 pm and determined the next call would be held on August 15, 2013.

Discussion and Roundtable on EERE's Strategic Plan

Jason Walsh joined the STEAB to talk about the EERE Strategic Planning process and the focus of the new Strategic Plan. EERE is in the process of engaging with stakeholders and partners. The purpose of this plan is really to define EERE, provide information useful for EERE staff, demonstrate the logical basis for vision and goals, and connect EERE to its partners and stakeholders. EERE feels as if it has underutilized the power of partnership and collaboration with states and local governments and hopes to remedy that with this plan.

There are several stages of the planning process and EERE is currently engaged in the end of phase one and moving onto phase two. The EERE strategic plan is linked to the multi-year plans and the federal budget and the vision is to create a strong and prosperous America powered by clean, affordable, and secure energy. The mission is to create and sustain American leadership in the transition to a global clean energy economy. LM and Agnes Mrozowski (AM) both felt these statements were too broad and did not apply directly to EERE and Mr. Walsh indicated they were supposed to be broad but perhaps these are too all-encompassing and need to be refocused. GS indicated this plan should be one that is a plan for EERE telling the world where EERE fits into the broader vision for clean energy industry and a clean energy economy. MW commented if EERE is focused on outcomes then this plan should show the strategies for achieving goals such as energy saves, megawatts generated by renewable energy technologies, and list the metrics for measuring these outcome based goals. Mr. Walsh indicated the plan was looking at metrics and trying to show the "bang for the federal buck."

The next steps in the creation of this plan is to host stakeholder workshops in August and September asking the participants about the structure of the plan, the role of EERE in achieving the nation's energy goals, and if EERE's portfolio is in line with national strategies. VC asked where EERE thinks funding resources need to flow. States have to know what EERE thinks are priorities and if there are certain priorities then guidance should be given as to how much money should be spent in those areas. States need guidance on what to focus on. GS agreed saying states need clear guidance on where they need to go to be attractive to DOE for competitive funding opportunities. What investments should and could states be making to achieve a level where DOE would make competitive funding actually available to states? Mr. Walsh agreed noting EERE's ability to be clear on that has been difficult to dissect. SB added that states need that information also in able to target their resources to then leverage additional funding. Mr. Walsh completely agreed indicating this plan would discuss the need to leverage federal dollars.

RB asked about EERE's utility focus and noted that if EERE had a model for cost effectiveness states and localities have not seen that yet. Mr. Walsh indicated EERE was engaged in more conversations about this, and MW concurred that more leadership was needed in this area. Mr. Walsh then asked STEAB in what ways EERE can work better with states and local governments. It is evident that EERE and DOE need to be better partners with states, but what will that partnership look like and how can it be successful. GS then noted that the Strategic Plan also needs to have a recognition of deployment and MW added that the plan should showcase how the government will encourage deployment but also demonstrate how the agency will get out of deployment once it is successful and not stay mired in the process. Mr. Walsh thanked the group for their comments and promised to stay engaged with the STEAB on upcoming calls and at the next live meeting.

General Board Discussion

GS then noted to the Board that this was his final live meeting of the STEAB and hopes the Board can continue to work together with EERE to advance state and agency clean energy goals. He called on the Weatherization Task Force to focus their efforts on other WAP issues and not just the budget concerns the group has been working on for the last 18 months. What can be done to the program in the absence of funding and how can other programs engage with WAP to keep it successful? There needs to be ideas developed that

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deal with cross-agency coordination so that weatherization continues despite the lack of funding. He went on to say that low-income is an area which needs to be part of the dialogue in all program areas and cannot be forgotten about. If Utility 2.0 that RB and MW were discussion moves forward as a model for other states, low-income needs to be part of that program and part of the policy discussions.

GS noted the Board should continue engaging with Holmes Hummel on “Race to the Top” and continue looking at ways to assist with the eligibility and award process. He also encouraged the group to work with CEMI and Libby Wayman on how to get state and local governments involved. Finally, GS said another way for STEAB to make a large impact in FY 2014 is to work with Ms. Kenderdine and develop a few key areas that can be presented to her group and developed into white papers for presentation to Secretary Moniz. FM agreed and asked MW to pull together a small group to have these discussions and come up with some big ideas which STEAB can look at and assess for relevance and impact before sending to Ms. Kenderdine. MW indicated he would form this group and host a teleconference in the coming weeks. He also stated that STEAB has an opportunity to really make an impact at DOE and asked if it would be appropriate for STEAB to send a letter to Secretary Moniz introducing him to STEAB and asking for a meeting to talk with him about his visions for DOE and states partnerships. GS thought this would be a great idea and FM indicated he would work with MW to formulate this letter and get it to the Secretary.

The meeting then turned to the Public Comments portion and FM asked if any members of the public were present. Seeing as there were none he asked GS if any members of the public sent in or asked for comments to be read. GS indicated there were none and FM then concluded the Public Comments portion of the meeting.

Overview of USDA’s NIFA and Rural Development Activities

LeAnn Oliver, Beverly Samuel and Todd Campbell presented to STEAB on the activities occurring within USDA that are related to energy efficiency and other clean energy efforts. Ms. Oliver explained the connection between USDA and DOE with regards to the MOU signed last year to collaborate on bringing energy efficiency and renewable energy education and outreach to local communities via a partnership between SEO’s and the Cooperative Extension Network (CES). This MOU provided a basis for continuing discussions between USDA and DOE as it is broadly worded and allows for a lot of flexibility. The purpose of the MOU was to create a framework for these groups to work together and identify issues and find solutions and shared practices which can create meaningful change in the way consumers view energy.

Ms. Samuel mentioned that she, Ms. Oliver and Mr. Campbell met with Dr. Kathleen Hogan earlier in the day to discuss this MOU and identify how the agencies can work together to leverage and maximize existing resources. There are quite a number of programs already underway that could be incorporated into other programs and agencies once more resources are available, and programs that could be rolled-out to include more of an energy focus as well.

Mr. Campbell, of USDA’s Rural Development Program, noted his mission area is involved with biofuels and how to use bio-waste to power cars and electrical plants as well as looking at more energy efficient ways of farming. Rural Development is working to reduce energy costs by 20% and has engaged utilities and other power companies as well. The key to making these programs successful is finding out what works and what technical assistance is available to help consumers make sense of all the opportunities and what it means to retrofit homes and businesses. He went on to say that in the climate of limited funding there are a lot of things that can be done through regulation and policy to changes to consumer energy use and increase awareness of energy efficient practices.

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FM thanked the group for coming to speak to the STEAB about this MOU and the action items underway through this collaboration. He then asked the STEAB if there were other comments. Seeing as there were none he then asked if there was any old business to discuss. He then asked if there was any new business to cover before the meeting adjourned. Seeing as there was none, he called for a motion to adjourn the meeting. MW motioned and RB seconded. The STEAB voted and unanimously agreed to adjourn the July 2013 live STEAB meeting.