AUGUST MEETING ATTENDEES

Designated Federal Officer (DFO):

• Julie Hughes, DFO, Sr. Advisor, EERE, DOE.

STEAB MEETING ATTENDANCE		
BOARD MEMBERS	Present	Absen
Jeff Ackermann, Director, Colorado Energy Office		х
Roger Berliner, Council President, Montgomery County Council		х
Tom Carey, Director, Energy and Rehabilitation Programs, New York	x	
State Division of Housing and Community Renewal		
William Vaughn Clark, Director, Office of Community Development,	x	
Oklahoma Department of Commerce		
David Gipson, Director, Energy Services Division, Georgia		x
Environmental Facilities Authority		
Philip Giudice, Chief Executive Officer, Ambri	х	
Marion Gold, Commissioner of Energy, Rhode Island Office of Energy	v	
Resources	X	
Paul Gutierrez, Vice Provost for Outreach Services, Associate Dean		
and Director, Cooperative Extension Service, College of Agriculture	x	
and Home Economics, New Mexico State University		
Robert Jackson, Director, Michigan Energy Office, Michigan Economic	x	
Development Corporation		
Elliott Jacobson, Vice President for Energy Services, Action Energy	х	
Maurice Kaya, Hawaii Renewable Energy Development Venture	х	
Ashlie Lancaster, Director, South Carolina Energy Office		х
Katrina Metzler, Section Supervisor, Weatherization Office of	x	
Community Assistance, Ohio Development Services Agency		
Frank Murray, Consultant and Strategic Advisor, Former President and	x	
CEO, New York State Energy Research and Development Authority		
Steve Payne, Managing Director, Housing Improvements &	x	
Preservation, Department of Commerce		
William "Dub" Taylor, Director, Texas State Energy Conservation	x	
Office		
David Terry, Executive Director, ASERTTI	х	
Malcolm Woolf, Sr. Vice President, Policy and Government Affairs,		
Advanced Energy Economy		Х
Daniel Zaweski, Assistant Vice President - Energy Efficiency and		
Distributed Generation Program, Public Service Electric and Gas		x
Company, Long Island.		

Contractor Support:

- Julia Downing, Conference Manager, SRA, International Inc.
- Emily Zuccaro, Project Manager, SRA, International Inc.

Welcome and Introductory Remarks

- STEAB Chair, Frank Murray (FM), opened the meeting thanking all members for their participation. He called attention to the two recent letters received by the STEAB from Assistant Secretary of the Office of Energy Efficiency and Renewable Energy (EERE), Dr. David Danielson, regarding feedback on the Weatherization Assistance Program (WAP) and STEAB's recommendations for the Small Business Lab Voucher Pilot Program. Julie Hughes (JH), STEAB's Designated Federal Officer (DFO), told the group that many of the suggestions made by the Board were being strongly considered or adopted at the Department of Energy (DOE), and STEAB's existing work was providing a foundation for the Board to build off of moving into Fiscal Year (FY) 2015.
- She and FM next reviewed the agenda for the day.

Discussion with Dr. Kathleen Hogan

- The first agenda item for the August meeting was an update on activities within EERE and round-table discussion with Deputy Assistant Secretary for Energy Efficiency, Dr. Kathleen Hogan. Dr. Hogan thanked STEAB for their recommendations to EERE regarding WAP and the Small Business Lab Voucher Pilot Program (SBV), and dove into her overview of the key focus areas for the office in FY 2014 and moving into FY 2015. The Clean Energy Manufacturing Initiative (CEMI) remains a top priority and a large manufacturing summit will be held in Washington, DC towards the end of September, which encourages broader engagement to meet the President's goal of doubling the countries productivity by 2020. On the Weatherization front improvement of quality, workforce and infrastructure are focuses for the Office of Weatherization and Intergovernmental Programs (OWIP). The next big thing is the release of the Weatherization National Evaluation which is due out later in the year. It was an extensive undertaking and right now DOE is looking at releasing two large volumes with roughly 40 technical appendices.
- Regarding the EERE Strategic Plan, she thanked STEAB for their feedback and comments. The document is with the Office of Management and Budget (OMB) for review and the goal is for a mid-fall release date. She also discussed EPA's proposed 111(d) rule and how EERE and DOE are interested in the finding best way to provide tools that they would need under an eventual rule, with the final rule slated to be proposed in June 2015. DOE wants to inform decisions about what assistance to provide with feedback from the states on what tools and analysis are needed, so that they can more effectively utilize existing tools as well as identify gaps. EERE aims to make best practices and innovative, replicable ideas available to states to help create pathways to clean energy that are robust, accountable and measureable.
- Dr. Hogan also discussed the new processes in place for providing states technical assistance via the State Energy Program (SEP) Competitive Awards. Those awards will be made in September.
- She addressed STEAB's concerns over funding for the Weatherization program saying she and the department are aware of the many funding, rule and legislative constraints. She noted it could be helpful if the STEAB could look at how all the different agencies could work together despite these constraints and create a model program highlighting areas where the different groups could make minor changes to create a major impact moving forward. Vaughn Clark (VC) agreed noting the ultimate goal of WAP is to help low-income families and suggested convening an intergovernmental council, similar to what was done with regard to issues of homelessness, and perhaps that council could be led by DOE at the federal level.
- Maurice Kaya (MK) acknowledged that much of what STEAB and states focus on are cross-cutting and cross-Program initiatives. He asked if the EERE Strategic Plan discusses how best to deploy assets within the office to collaborate on these different initiatives. Dr. Hogan responded that the Strategic Plan does

not specifically address this, but these are areas of great interest to both Assistant Secretary Danielson and DOE Secretary Moniz.

- Another area of interest for both the Secretary and Assistant Secretary Danielson is bringing technology
 to market more effectively and efficiently. Jetta Wong is spearheading the Lab Impact Initiative which is
 working to create the Small Business Lab Voucher Pilot Program that the STEAB provided feedback on.
 This project is designed to facilitate getting technology to market, with the labs playing a more active
 role, intersecting directly with the private market
- Finally, each EERE Technology Office ("program") is asking the national labs with which is works to develop a Technology to Market Plan laying out their respective activities in this area. This initiative is in early stages.
- Steve Payne (SP) spoke about the timing and communication strategy of the upcoming release of the Weatherization National Evaluation. With so much information coming out in the release, he asked about STEAB engaging with OWIP on the release of the results so the Board could potentially serve as a catalyst to bring different stakeholders such as HUD and HHS to the table in a group as proposed by VC earlier. There are ways to improve the program and the energy investment results out of WAP and SP would like at least STEAB's Weatherization Task Force to be involved in discussions about the results prior to the release of the evaluation.
- Dr. Hogan concluded her time with the Board again thanking them for their service to the Board, and for the feedback to EERE. She encouraged members to continue sending recommendations on ways to improve current and proposed energy efficiency and renewable energy initiatives.

Discussion and Follow-up to STEAB's Recommendations on a National Lab Voucher Program with Jetta Wong and Joyce Yang

- Jetta Wong and Joyce Yang of the Lab Impact Initiative presented the STEAB with an overview of their work noting the goal of the Lab Impact Initiative is to increase the industry impact and importance of national lab work and capabilities while working to double the intensity of successful lab and industry engagement over the next three years. They are also looking to establish an 'EERE-National Lab Constitution' which would ultimately be a high-impact, well-defined, and uniformly applicable model for engagement between EERE and the labs.
- Ms. Wong acknowledged EERE can do much better in the technology to market realm and that is really what the drive is for her and Ms. Yang. There are four aspects they are most focused on. Those include increasing impact on industry, elevating the lab brand/identity, creating the EERE-lab 'constitution,' and affirming EERE's committed relationship with the national labs. The key drivers behind these goals are things like relevance of capabilities, industry awareness, ease and affordability of access to capabilities, lab culture, and policies and commercial impact.
- Ms. Wong also noted that while this is an EERE-based initiative, it is a full effort that cross-cuts EERE and
 other offices within DOE such as the Office of Electricity (OE). One of these cross-cutting programs is the
 Lab-Corps program. The vision is to empower lab researchers to identify private sector applications and
 partners to commercialize high-impact lab designed technologies. Essentially it is a training program to
 help researchers understand what it is to be an entrepreneur. The effort was launched in order to try
 and change the lab culture in a way that really values the commercialization of lab technologies.
- The presentation then turned to the Small Business Lab Voucher Pilot Program (SBV), initially called the Lab Voucher Program. Ms. Yang noted this was the program STEAB provided recommendations on in terms of the design, implementation and metrics for success. She thanked the Board for their ongoing participation in conference calls over the last few months as she and Ms. Wong worked on the design

for a pilot program. Earlier in June the Ms. Wong and Ms. Yang met with the Secretary about the SBV and how the concept has changed over the year given the input received from labs, EERE and organizations like STEAB.

- The SBV will roll-out as a pilot program and some of the features include an emphasis on technology assistance and collaborative research and development, streamlined agreement processes, tracking economic development and credits at the labs allowing small businesses to "buy" expertise or access to facilities.
- For FY 2015 the pilot program is looking at a budget of between \$10 20 million, allowing for between 60 115 small businesses to receive awards around \$175,000 each. The proposed implementation model has DOE issuing a lab call with multiple topics, the labs then submitting proposals to DOE to run small programs in specific energy sectors, followed by the best lab proposals being awarded blocks of funding. The labs then evaluate small business applications in those areas where they were awarded funding and the winning small businesses use the voucher credits at the national labs.
- Robert Jackson (RJ) and DT both questioned the model for award noting they don't hear anything in this plan about how labs or DOE will engage with State Energy Offices (SEO's) or state economic development offices. They noted this was a key design element in the recommendations to EERE about this voucher program, and questioned why states were effectively left out of this program.
- MK added that this model seems to lack customer engagement as well. That is a critical component to a successful program as you will need customers or industry to purchase the new technologies created.
- Ms. Yang responded that DOE recognizes that small business are innovation engines, yet have unique needs since they don't have the technical capabilities of larger businesses. It is that technical gap that this SBV hopes to remedy. Engaging customers will be driven by the small business and the business for doing such could be a component of their application to the voucher program. Ms. Yang confirmed that EERE does see a role for the SEO's by marketing technologies advanced by the SBV program to the state network of clean energy entrepreneurs or angel investors.
- Ms. Wong continued by saying DOE feels this is the most valuable model for labs and small businesses as
 it creates an environment in which they can work together towards a common goal. DOE wants to see
 lab proposals to DOE already highlighting the work they are engaged in with companies or entities in
 their states. FM commented that this seemed rather parochial as labs really only know what is going on
 in the local community or at most the state that they operate in. States without national labs are rarely,
 if ever, plugged into the national lab structure and the labs never engage with states in which they do
 not have a presence. DT agreed with that comment, noting the goal of the SBV should not be to engage
 where there is already engagement occurring between industry and the labs, but to enhance
 coordination across the country to connect activities and promote clean energy technology nationwide.
- Ms. Yang replied the labs have the ability and the encouragement to reach out to other states and businesses. Ms. Wong clarified that labs are being encouraged to design SBV plans that reaching beyond their home state. EERE is specifying outcomes that the voucher program should have, and the labs are responsible for proposing voucher programs that they think will achieve the outcomes.
- VC suggested that labs receiving funding be made aware that they should reach out to different SEO's and use those as a partner to identify the businesses or groups within each state that are working on the area of focus for that lab. Ms. Yang thought this would be a useful guideline and also asked STEAB to assist labs connect to SEO's and state agencies to help labs target their capabilities to small businesses.
- DT offered up time to Ms. Wong and Ms. Yang during an upcoming National Association of State Energy Officials (NASEO) meeting to discuss the Small Business Lab Voucher Pilot Program with the state

representatives at that event as many SEO Directors would be interested to learn more about the pilot project.

- Ms. Yang noted there would be a workshop regarding the SBV held in October 2014 at the DOE headquarters and invited members of the STEAB to attend that event and keep this dialogue going. RJ indicated he would very much like to be part of these discussions and Ms. Wong said she would provide an invitation to him and other STEAB members in the coming weeks.
- In closing, a list of questions was provided to the STEAB for consideration about the SBV and other lab initiatives. Ms. Wong asked the STEAB to please review and discuss these questions and give feedback to her and her team as these were areas where they hoped STEAB could provide insight and/or solutions to help keep these proposed programs moving forward.

Overview of Clean Power Plan with EPA's Reid Harvey and the Alliance to Save Energy's Rod Sobin

- Mr. Harvey, Director of the Clean Air Markets Division at EPA, provided an overview of the proposed 111(d) Clean Power Plan rule to the Board, noting EPA wants to work with states and be responsive to their needs with regard to what tools they will need to implement the proposed plans. The proposed plan looks across the nation's entire power sector in a way that will boost the economy, protect the nation's health and environment and fight climate change. By 2030 the goal is to reduce CO2 emissions from the power sector by 30% from 2005 levels, maintain an affordable and reliable energy system, and provide important health benefits and reduction in healthcare costs. The proposal will cut energy waste and leverage cleaner energy sources by setting achievable state goals for cutting carbon, all while giving states the flexibility to customize their own plans to meet the outlined goals. EPA is defining what they believe is the best system of emissions reduction and are establishing goals for states in such a way that each state has a different goal and based on an assessment of what a "best system" will look like. He noted that EPA recognizes that each state is different and it is important to EPA to make sure the goals they set work for each state as well as the country as a whole.
- Currently this proposed rule is in the open comment period. The rule is available for viewing and the public comment period is open through October 10th. Four public hearings are being held across the country and EPA is also using their regional offices to do outreach to states and meet with energy stakeholders to answer questions and receive feedback. According to the current plan, a final rule will be released in June of 2015 and the compliance period would start in 2020.
- Rod Sobin provided insight into the state and stakeholder perspective. He noted that there is need for clarification about how and where DOE and EPA can work together. In his opinion, there are areas where EPA needs to issue guidance to states, but where DOE can step in and play a technical role to assist states.
- States have a lot of outstanding questions about the proposed 111(d) rule, as do regulators and Public Utility Commissions (PUC). One specific area of concern involves EM&V, particularly how EPA will actually count carbon emissions as part of the regulatory framework.
- DT asked about the concerns regarding EM&V and Mr. Sobin answered that it would be helpful for EPA to signal which EM&V tools are acceptable for verifying emissions reductions (attributed to various activities). He suggested the ongoing Uniform Methods Project, conducted by DOE through SEE Action, could be considered as a source of acceptable EM&V protocols. Another approach would be to survey states to see what EM&V protocols are currently being used and EPA could then point to acceptable models for other states to follow.

- There also needs to be clarification on how carbon emissions related to biomass would be counted. If CO2 is counted "from the stack," the calculation may not be affected by whether the emissions are coming from wood chips or coal, but it should potentially "count" differently. EPA could consider using the "Biomass Accounting Framework" it is developing.
- Mr. Sobin noted that it would also be helpful for states to be given assistance translating the calculation of rate-based limits to mass-based limits. This clarity would be helpful to air regulators, and possibly energy producers/generators.
- Also, better tools and data for calculating marginal units of emissions resulting from power dispatch changes (e.g., introduction of renewables), and better modeling would be helpful as the EPA's AVERT tool is somewhat limited.
- DOE guidance on how combined heat and power (CHP) could be used to achieve emissions goals would also be useful.
- There remains uncertainty about the enforceability of the plans and specifically what will be enforced. For traditional regulations, what is enforceable is that the programs are being administered, rather than the emissions actually being reduced. Monitoring performance of some types of carbon emissions strategies will be difficult. For example, if the carbon reductions resulting from Energy Savings Performance Contracts are to be counted, it will pose challenges since they are very different than State-administered air programs (i.e., ESCO initiatives are less centralized, administered largely by private energy service companies, etc.).
- DT commented that he has heard feedback at NASEO meetings which has made him think about concerns in both a long-term and short-term manner. In the short-term there are questions which may be answered in the final rule that deal with energy efficiency such as the rate vs. mass approach. In the longer-term his concern is how states will deal with the durability of savings and demonstrate that to the governor and the legislators. Another long-term concern is the multi-state issue. Most states will do what they need to do to comply, but for this to really be effective the states will have to work together. It's difficult to see how that will occur or who will facilitate that in order to actually ensure this rule meets its intended outcomes. DT suggested STEAB may want to consider convening meetings or engaging with the energy efficiency industry to discuss the implications of 111(d) from the market perspective. FM agreed adding concerns were raised at a recent SEE Action meeting about performance contracting as well as the costs associated with the proposed rule and it would be useful to get that perspective now and share it with DOE.
- FM suggested STEAB determine a way to get moving on these issues sooner rather than later. As there are tools that states will need from DOE and from EPA to implement this rule, STEAB can help jump start these conversations and convene these players in a way where concerns can be addressed and brought to DOE's attention. FM suggested the States Needs Task Force that DT is the Chair of undertake this effort, and DT agreed and Katrina Metzler (DM) and WT volunteered to assist as well.
- In his final remarks Mr. Harvey noted that DOE is well positioned to provide technical assistance to states to help them comply with the proposed rules. EPA does work with their state counterparts to develop the plans, but DOE has deep technical resources. He hoped STEAB could assist by identifying what states need in terms of assistance, and highlighting gaps in the assistance available versus what is needed.
- JH thanked Mr. Harvey and Mr. Sobin for their remarks and used the closing comments from Mr. Harvey to kick-off a STEAB discussion about the types of tools states will need to conduct the types of clean energy planning needed for compliance with a potential rule. She reiterated the point that it is

important for states to determine what they need and then take those comments to DOE so the agency understands where the gaps are with regards to technical assistance.

• FM reiterated the importance of the States Needs Task Force taking on this issue and proposed DT convene a meeting of his Task Force within the next month to kick-off discussions about how to approach states needs with regard to 111(d).

Weatherization Assistance Program Update and Discussion with Bob Adams

- Robert Adams, Director of the Weatherization Assistance Program, met with STEAB to both provide an update on the Weatherization program, and to discuss with the Board their ongoing concerns and recommendations.
- Mr. Adams thanked STEAB not only for their continued support of the Weatherization program, but also for the recent letter to EERE regarding funding concerns and network sustainability. He also referenced the response back to STEAB from Assistant Secretary Danielson and encouraged the Board to maintain the dialogue with EERE on Weatherization issues. He noted Congress allotted a \$15 million set-aside for multifamily financing which DOE did not initially ask for. That puts the programs in a very different position than expected, if this set-aside is ultimately funded in the final budget. If it is funded it opens up a paradigm shift for funding possibly opening the door to a sliding scale for eligibility in the future.
- He did say that currently Congress has proposed an operating budget of at least \$171 million for WAP in FY 2015 which is better than expected and overall OWIP and EERE are pleased with this number. Tom Carey (TC) agreed this funding level was better than he and other states had hoped for but that the program was still not funded at the level that states need to run their programs effectively as they know they can.
- Mr. Adams reminded STEAB that out of the \$1 billion in funding used by the network to weatherize homes last year, only about 15% -20% of that was DOE funding. The rest came from the Low Income Home Energy Assistance Program (LIHEAP), utilities, as well as other agencies.
- Mr. Adams noted that a significant upcoming milestone for the program is the release of the National Weatherization Evaluation. It was conducted out of Oak Ridge National Lab (ORNL) and represents a \$35 million investment. The evaluation looked at 35 – 40 million households to analyze an estimate national energy savings and overall program cost effectiveness. Non-energy benefits will also be estimated and a comprehensive process evaluation will address program operation, training, and quality assurance. The evaluation also looks at the programmatic advances that took place under the American Recovery and Reinvestment Act (ARRA) and the effectiveness of ARRA spending.
- Mr. Adams reminded the STEAB that in the response to the Board from Dr. Danielson regarding Weatherization the Assistant Secretary invited STEAB to engage with OWIP to determine best-practices and identify what delivery systems worked best to incorporate those findings into new WAP guidance to states.
- TC and EJ were very pleased to hear that STEAB's input and insight into this process were welcome and encouraged. Mr. Adams noted that DOE will be working with a public relations firm to determine how best to get the messaging out to stakeholders regarding the outcome of the evaluation. From there the agency hopes to bring everyone together to discuss methodologies about how best to implement new policies. The purpose of the evaluation was to identify successes, failures, best-practices and lessons-learned about WAP, disseminate that information to states, utilities and stakeholders in an effort to revitalize and improve the overall program.
- Katrina Metzler (KM), TC and SP agreed that changes were needed to the program as there are challenges now that need new guidance, and they circled back to an idea VC put forward earlier in the

day. VC had suggested creating an intergovernmental council on Weatherization similar to the council which convened on homelessness. The Weatherization group would focus on energy, housing and health and the evaluation seems like a catalyst for this discussion. VC added that the purpose of the intergovernmental meeting was to bring all the stakeholders to the table in a manner that facilitates change. Agencies would be more willing to compromise and give something up if they were easily able to see how that would solve a problem or streamline the process.

- VC then asked about reauthorization and if it was required for non-Weatherization groups who receive Weatherization funds, and also asked about training and if anything had been decided about funding a who does not yet have a certified inspector. The response was that no work can be completed unless it is reviewed by a certified inspector. That being said, DOE is realizing how challenging this is because of training costs and staff losses turnover. DOE is working on accommodating those issues, but the rule is still as it stands currently. There are 22 accredited training centers across the country where training can be taken and certifications received. DOE does understand the certification process is challenging and they are working to improve it.
- SP reminded the Board that for some states DOE is the only resource for funding. While other states may use LIHEAP or other funds from HHS, DOE funding for the program is vital to keep it moving in several areas of the country. He felt there needed to be more coordination between DOE and HHS as there is a lot of confusion in the industry over using LIHEAP funds for training and technical assistance. Mr. Adams thanks SP for bringing this up and promised to address this with OWIP and EERE.
- TC then asked Mr. Adams about an issue that has come up both in the letter to EERE from STEAB and also earlier in the meeting day. It had to do with better coordination and collaboration between states, labs and DOE. He asked if Mr. Adams saw a way for the labs to be a resource for WAP. The response was that WAP works with Lawrence Berkeley National Lab (LBNL), ORNL and NREL. For example, currently the Weatherization health and safety protocols and other research needs such as the national evaluation are supported out of ORNL, LBNL is working on a cloud-based system affecting multi-family needs, and NREL is focused on certifications and training.
- EJ asked Mr. Adams to let the STEAB know if there were areas where the Board could help coordinate with the labs better or assist EERE with the work occurring at the labs for Weatherization.
- The last part of the discussion focused on lessons learned from ARRA. Paul Gutierrez (PG) asked Mr. Adams what the three most important lessons-learned for Weatherization. Mr. Adams noted that the three areas where OWIP learned the most about the program under ARRA involved implementation strategy, the ramp-up of skilled workforce, and post-weatherization product. In terms of implementation strategy there was a lot DOE did well and a lot that needed improvement. With so much money coming into the program under ARRA it was difficult to get a handle on how best to utilize it all so quickly. On the employee side, there were challenges with training and certifying enough workforce fast enough. There was not enough prep-time to start the training process before workers had to go out in the field. Finally, he noted the final outcomes of weatherization on the homes serviced is difficult to measure right now as they are still working on the evaluation and determining how the finished homes are holding up, but despite negative press about the program under ARRA, well over a million low-income families benefitted from Weatherization under ARRA.
- FM thanked Mr. Adams for speaking to the Board about the program and briefly reviewed the agenda for the following day.
- FM and JH also asked the Board about potential meeting dates and locations for FY 2015 STEAB meetings.

Update on EPSA Activities and Direction with Bill Hederman and Kate Marks

- The first presentation of day two of the STEAB meeting was from the Office of Energy Policy and Systems Analysis (EPSA). Mr. Hederman recapped EPSA's focus on three main priorities: the QER, the President's Climate Action Plan, and ad hoc policy issues such as the Ukraine and other immediate energy concerns.
- On the QER, the focus for the first year of the review is transmission and distribution issues. DOE is also looking at the energy infrastructure and more broadly American infrastructure as well. The first report is slated for release in January 2015. Year 2 of the QER which is in the planning stages will focus on supply and demand, and then year 3 of the review will most likely deal with supply chain and critical materials for energy.
- Mr. Hederman continued discussing the QER noting during the process EPSA is taking into account state policies and regulations. They are approaching this analytically in five different areas. One of those areas is gas fuels as they pertain to things like storage fields and infrastructure. Another area is in liquid fuels such as petroleum and crude product lines. With production growing so quickly in North Dakota there is the big question of moving liquid fuels via rails or pipelines and DOE is looking at both of those areas because of concerns and rising costs.
- DT agreed that states and NASEO have been discussing the propane issues, specifically around storage and delivery methods. He pointed out that something must happen now to solve these issues otherwise areas like the upper Midwest and North East will continue having energy issues such as they experienced last winter with the extreme cold conditions. He asked how the analytical work that EPSA is doing could help governors solve some of their issues. Mr. Hedermen responded that the office is working on this now and hopes to have insight or guidance coming soon.
- Mr. Hederman discussed a third area of analysis regarding high voltage lines, substations, and electricity distribution. The issue here deals with distributed energy resources and photovoltaic (PV) on residential and commercial buildings. The resources are there to ramp-up this technology, but it is a systems issue with the new load entering the grid. A fourth area surrounds climate and greenhouse gas emissions and finally the fifth area they are delving into deals with gas replacing coal.
- MK inquired as to what EPSA was working on in terms of vehicles and the reliability of electricity and how states can address distribution needs. The response was DOE is aware of the challenges in the vehicle arena admitting permitting as well as getting the right systems in place has been very difficult. One of the areas he hears a lot about from states relates to regulatory policy and that the PUC's understand distributed generation requires a new business model and states are in need of tools and examples of what works and how to explore options.
- Kate Marks talked to the Board about the different types and locations of public meetings DOE has been hosting around the country to gather input and feedback on the QER process. So far DOE has hosted 10 different regional meetings thus far which have included 26 different state government officials representing 17 states. There are more meetings planned for the remainder of FY 2014 and the final regional meeting will be in Newark, NJ in September and will address electricity issues. In Washington, DC in September there will be a meeting to analyze everything gathered from the regional meetings. Once DOE better understands the energy vulnerabilities and opportunities there will be a meeting in the New York City area to discuss financing, to begin to analyze issues related to how the country would fund all of these surfaced needs.
- She promised to provide information to STEAB about the New York meeting as there was interest from members of the Board in attending that event. She reminded STEAB that the public comment period for the first year of the QER was open until October 10th and encouraged the Board to provide feedback and

continue engaging with Karen Wayland, State and Local Director within EPSA on state concerns regarding the QER.

CEMI Update and Summit Details with Libby Wayman

- STEAB next met with Elizabeth "Libby" Wayman of the Clean Energy Manufacturing Initiative (CEMI). She is the Director of the initiative which is run out of the front office of EERE. The objectives of CEMMI are to increase United States' competitiveness in the production of clean energy products and increase U.S. manufacturing competitiveness across the board by increasing energy productivity. The goal is for the U.S. to be a world leader by taking energy efficiency science, technology, and market solutions and turning it into high-impact manufacturing leading to economic growth, energy security and innovation. CEMI itself launched as an initiative in March of 2013 and began focusing on energy productivity, engagement and partnerships as well as looking at manufacturing research and development.
- EERE has done a lot of outreach and engagement hosting a showcase of regional clean energy manufacturing, fostering networks and partnerships, and partnering with the private sector via the Council on Competitiveness. Ms. Wayman commented that EERE is very interested in improving efforts and understanding on how to more broadly benefit the U.S. through the efforts of CEMI by scaling-up clean energy manufacturing. There are currently seven states involved in clean energy projects, but EERE hopes to scale-up to at least 20. Extending beyond state based activity, EERE hopes to initiate regional or multi-state activities in the coming year as well.
- Ms. Wayman noted that the crux of this initiative is the technology. CEMI's purpose is to identify and
 figure out the best technologies available for manufacturing competitiveness. She and her team recently
 put out a Request for Information (RFI) to determine the technology needs for maintaining
 manufacturing competitiveness. The RFI asked about types of technologies available and the
 competitiveness issues surrounding each type. This ultimately will aid CEMI determine the most
 impactful technologies and develop new strategies for advancing manufacturing across the country.
- VC pointed out that some states already are advancing their clean energy technologies and other states, like Oklahoma are not because it is not yet a priority for the state. He reminded Ms. Wayman that her team needs to pay attention to those states that are in the South as those states have not yet made clean energy manufacturing a main focus area. RJ agreed with VC and encouraged Ms. Wayman to contact and involve the SEO's with this as they know what the economics in their states look like in the energy sphere. Ms. Wayman thanked RJ for his comment saying advice on how to connect the dots for DOE with economic offices in the states is key.
- Marion Gold (MG) followed-up on RJ's comment saying the SEO can act as a powerful convener on initiatives like CEMI to help people and players within states and regions understand the benefit of investing in clean energy manufacturing but noted a lot of states are concerned about this because costs are a giant obstacle for states.
- WT commented that is seemed like there were missed opportunities if the focus of CEMI is to focus only on the new clean energy technologies. In some states, like Texas, there is work done on manufacturing but it is not limited to clean energy. FM agreed saying the current state endeavors may not be a perfect fit in terms of what CEMI is doing but it does result in overall state-led manufacturing improvement. Other members agreed advising Ms. Wayman to look at what is most important to industry as many state programs are already doing what CEMI is looking at, but they are doing it at the state, not federal, level.
- Ms. Wayman then briefly touched on the Better Plants Challenge. This is a program where industrial companies commit to improve the energy efficiency of their plants 25% over 10 years, and in exchange

receive DOE technical assistance. She asked members of the Board to share information about this with their states and hopes to receive feedback on this program. WT questioned whether or not DOE would be providing technical assistance under this challenge. The response was that technical assistance is being provided but that feedback is needed to make sure the goals that were set by participating companies could be effectively supported with DOE's levels of technical assistance, which is why Ms. Wayman and CEMI are looking for state feedback.

• JH thanked Ms. Wayman for coming to the STEAB meeting and Ms. Wayman indicated her hope to continue these types of discussions with the Board moving forward, and was open to any advice or recommendations on how to advance the efforts of CEMI in FY 2015.

Overview of the Uniform Methods Project with Carla Frisch

- Carla Frisch of EPSA spoke to the Board about the effort underway at DOE called the Uniform Methods Project. The project is designed to develop a framework and set of protocols for determining energy savings from specific energy efficiency efforts. The protocols will then provide a straightforward way for evaluating energy savings for residential and commercial ratepayer-funded initiatives. This project thus refines energy efficiency EM&V activities. This program arose because there was a lack of consistency leading to a difficulty comparing and understanding the different results measured across different programs, and a lack of transparency about the savings calculations. The Uniform Methods Project aims to change those inconsistencies.
- There are two phases for the project and the first put together protocols for utility run programs. The second phase looks at other equipment as well as residential behavior. The project is currently undergoing a stakeholder review process. NREL is managing the steering committee for that and another group is focusing on the technical expert and technical advisory group feedback on the project All the protocols under the project have been developed in collaboration with energy efficiency program administrators, stakeholders and EM&V consultants.
- Ms. Frisch went on to say that there are some organizations which are already starting to use the protocols developed under the Uniform Methods Project. Some of those include Bonneville Power, the World Bank, MidAmerican and several states such as California, Arizona, Pennsylvania and Iowa.
- Ultimately what DOE has found is that there is greater consistency out of the resulting savings calculation when there is documentation of how the calculations were made, which gives organizations have more confidence when setting savings targets.
- Ms. Frisch noted that the Uniform Methods Project is referenced in the draft EPA 111(d) rule; if there are comments about the rule or how that works in the proposed rule, she encouraged members to submit their questions or concerns during the public comment period.
- FM thanked Ms. Frisch for her comments noting this project adds a lot of value should 111(d) move forward. DOE could ask EPA to utilize this methodology for EM&V and this would great help keep things simpler if included as part of the 111(d) compliance strategy.
- TC suggested sharing the protocols with the Energy Star program as well. TC went on to say that is, however, a totally different approach than how the Weatherization Program measures energy savings.
- SP agreed with TC saying health and safety are part the measure for Weatherization as well, not just energy savings. He asked if there may be a protocol released that could be applied in the Weatherization program to measure the value of a healthy home. That way the program could show not only the achieved energy savings, but also the added benefit to the resident of a weatherized home. Ms. Frisch responded that the project is not currently developing a protocol for that but does address the "social cost of carbon" in terms of the benefit that energy efficiency has to society.

- DT commented that the analytical work being done with the Uniform Methods Project is great. He and KM talked more about the need for DOE to coordinate on this issue of EM&V with EPA as the draft rule for 111(d) was out for comment. States need to have as many tools available to them as possible to aid with possible compliance and have confidence in the numbers they generate for estimated energy savings. Ms. Frisch indicated she was working on this but more detail was needed on the EPA side about how they want states to measure emissions reduction. Right now there are questions about the mass based and rate based approaches and more clarity from EPA would be instructive.
- Ms. Frisch provided a brief update on DOE's Technical Assistance Program (TAP). DOE has created a consolidated website for all DOE technical assistance which can be found at http://energy.gov/technicalassistance. The site is a DOE-wide intake point to support and coordinate all incoming technical assistance requests. There is also a working group which determines a featured topic related to technical assistance and the current topic is greenhouse gas reduction, but new topics are under development and will be highlighted soon on the website.

Water-Energy Nexus: What are State/Local's Top Priorities and Needs with Mark Philbrick of EPSA and Scott Hutchins of EERE

- JH introduced the next discussion topic. Within EERE the focus has been on the energy for water side component of the "nexus", looking at how the office can be relevant in this sector. Energy consumption in wastewater facilities is high so EERE is looking at what they can do to accelerate the adoption of energy efficiency practices and technologies within the water sector. She noted there are efforts and tools underway at EERE already that have applicability to reduce energy consumption in the water sector.
- Mr. Philbrick is the Technology Coordinator of the Water Energy Technology Team within EPSA. The • group formed two years ago when the Government Accountability Office (GAO) told DOE water energy was an area where more work was needed. That was the catalyst for the creation of the technology team. The team is a broad-based team spanning all of the energy side of DOE and cross-cutting many different program offices. He informed the Board that about a month ago the team put out a report which outlines the context of what the future looks like in the water energy sector. It addresses the varying state policy issues, technology deployment, demonstration and data modeling and analysis. The national labs were involved in the effort to create and write this report and the technology team is now using the report as a springboard for dialogue. Mr. Philbrick said the team is working with EPA, the National Science Foundation (NSF), the US Department of Agriculture (USDA), the National Oceanic and Atmospheric Administration (NOAA) and others to hold regional workshops about the intersection of water and energy utilities. The first workshop will be held in California and the focus is on water used in cooling and in buildings, as well as the non-traditional uses of water such as fracking, municipal waste water, methane, etc. He noted the technology team sees opportunities to change the way industry and states use wastewater and looks forward to the outcomes of the regional meetings.
- Mr. Hutchins is co-chair of the Stakeholder Engagement Working Group of the Water-Energy Technology Team and handles outreach and engagement. Specifically he deals with industry issues and the stakeholders to see what can be done in this arena and how can DOE work better on this issue across the agency. He is part of EERE's Advanced Manufacturing Office (AMO). AMO is looking to welcome the water sector into its existing programs. For example, they are recruiting water utilities to participate in Better Plants. He and the team have reached out the Los Angeles Water and Power Company and offered up DOE technical assistance on the water energy issue. There are also assessments underway through the Industrial Assessment Centers (another AMO program), looking at water and wastewater as

an industrial process and trying to determine ways to use the available technologies to improve their energy efficiency.

- MG provided a good example of integrating energy efficiency practices into wastewater facilities in Rhode Island. After a flood in 2012 the state retrofitted a facility to include energy efficiency measures which caught the attention of the largest wastewater facility in the state. They partnered with the State Energy Office in Rhode Island and used ARRA funding to include energy efficiency and renewable energy practices and technology into their plants. The outcome has been a big success in the state and Rhode Island applied for and was awarded a DOE State Energy Program competitive award to continue the lessons-learned from this and make other improvements in the wastewater sector.
- DT thanked MG for her comments and added that what he sees at STEAB and through his work with NASEO is that this issue, which are inherently local issues, any program that DOE or EPA or another entity tries to establish really needs to be done in collaboration with, or through, the SEO. These are local and state issues and affect local and state policy. JH agreed noting the example in Rhode Island would not have happened without the SEO getting involved.
- JH then posed the question to the Board about what it thinks DOE can do to accelerate energy efficiency options in this arena, and what tools would be useful. She asked if states needed more data before they could answer this question, and asked if wastewater even was a serious concern for most states yet. KM replied to this focusing on Weatherization saying that including water conservation as part of the educational curriculum would be a good first step. If DOE could help pull together information the Training Centers could use that to train contractors and inspectors on these issues and bring that information out to the low-income households. She felt it made sense to include this as part of the Weatherization curriculum.
- JH thanked Mr. Philbrick and Mr. Hutchins for coming to talk about his emerging issue with the STEAB and hopes that more information can be shared with the Board as it becomes available.
- FM then moved on to the Public Comment portion of the meeting. He asked if there were any members of the public at the meeting who wished to make comments. Seeing as there were none, he asked if any members of the Board or if JH, as the DFO, had received any comments from the public which they wanted read during the meeting. Seeing as there were none, he moved on to the final agenda item which was next steps for the STEAB.
- FM reminded the group that the Board meets two to three times a Fiscal Year and the next meeting had been tentatively scheduled for January 2015 in Washington, DC. The Board had suggested second meeting locations of New Mexico or Texas; DOE will determine location in the near future.
- He reminded the group that this was the last meeting for David Gipson, Phil Guidice, and Paul Gutierrez as they were serving their second and final term as Board members. He and other members of the STEAB thanked them for their service and for their insightful comments and efforts to bring STEAB to the place that it is in FY 2014.
- FM also addressed the date of the next Board teleconference which will be held on October 16, 2014.
- JH and FM then asked if there was any other business to address. Seeing as there was none, FM asked for a motion to adjourn the meeting. EJ motioned and KM seconded. The Board voted and unanimously voted to adjourn the final STEAB meeting of FY 2014.