

STEAB January 2015 Meeting
 January 13 - 14, 2015
 Renaissance Washington, DC Dupont Circle Hotel
 Washington, DC

JANUARY MEETING ATTENDEES

Designated Federal Officer (DFO):

- Monica Neukomm, DFO, Sr. Advisor, EERE, DOE.

STEAB MEETING ATTENDANCE		
BOARD MEMBERS	Present	Absent
Jeff Ackermann , Director, Colorado Energy Office		X
Roger Berliner , Council President, Montgomery County Council		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	
Marion Gold , Commissioner of Energy, Rhode Island Office of Energy Resources	X	
Robert Jackson , Director, Michigan Energy Office , Michigan Economic Development Corporation	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
Katrina Metzler , Section Supervisor, Weatherization Office of Community Assistance, Ohio Development Services Agency	X	
Andrew McAllister , Commissioner, California Energy Commission	X	
Frank Murray , Consultant and Strategic Advisor, Former President and CEO, New York State Energy Research and Development Authority	X	
Steve Payne , Managing Director, Housing Improvements & Preservation, Department of Commerce		X
William "Dub" Taylor , Director, Texas State Energy Conservation Office	X	
David Terry , Executive Director, ASERTTI	X	
Ginger Willson , Director, Nebraska Energy Office		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, Public Service Electric and Gas Company, Long Island.		X

Contractor Support:

- Stacey Young, Conference Manager, SRA, International Inc.
- Emily Zuccaro, Project Manager, SRA, International Inc.

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Welcome and Introductory Remarks

- STEAB Chair, Frank Murray (FM), opened the meeting thanking all members for their participation during the January 2015 Board meeting. He introduced and welcomed the new Designated Federal Officer (DFO), Monica Neukomm (MN). She provided the STEAB a background on her work within the Department of Energy (DOE) and the Office of Energy Efficiency and Renewable Energy (EERE), noting specifically her work with the Better Buildings Program and close work with Deputy Assistant Secretary for Energy Efficiency, Dr. Kathleen Hogan.
- MN and FM next reviewed the agenda for the day, and reminded the Board of the recent reappointments and the new appointment of Mr. Andrew McAllister from California.

Discussion with EERE's Deputy Assistant Secretary for Energy Efficiency

- The first agenda item for the January meeting was an update on activities within EERE and round-table discussion with Deputy Assistant Secretary for Energy Efficiency, Dr. Kathleen Hogan.
- Dr. Hogan reiterated that energy efficiency continues to be a top priority for Assistant Secretary for EERE, Dr. David Danielson, and the goal of the office is focusing on making strides over the next few years to set the table for longer term energy efficiency accomplishments. Appliance Standards is key to EERE and DOE put out two final rules just before the New Year. Looking forward in FY 2015 the Secretary of Energy, Dr. Ernest Moniz, indicated he would like DOE to put out 12 rules so there is a large challenge facing the department this year. That means updating measures and standards and allowing DOE to use their discretionary rules to add new products to the product lists should those reach the threshold of energy savings across an average home.
- These new Appliance Standards rules are part of the President's Climate Action Plan to avoid three billion tons of carbon dioxide going into the atmosphere by 2030. The standards put in place thus far during the current administration have resulted in about 400 million tons removed out of the three billion pledged. Looking at all the standards in place the country is saving about \$55 billion a year during the 2012 – 2013 timeframe, and by 2030 with the new standards in place it will be more akin to \$75 billion a year.
- Dr. Hogan went on to pose the question to the Board about how can this administration be proactive in continuing to lay the groundwork for the next administration and future generations. Secretary Moniz wants the federal agency to lead by example and following that vein she noted the importance of state and local partnerships. EERE is interested in helping states come together to deliver energy efficiency savings and looking at what the federal role actually is in that space. This is being done via the work of the State Energy Efficiency Action Network (SEE Action) with the Environmental Protection Agency's (EPA) 111(d) proposed rule. SEE Action is working with Air Quality Directors to understand the pathways available to project savings and identify measures that can be put into place in order for Evaluation, Measurement, and Verification (EM&V). EM&V is vital because it helps demonstrate the value of energy efficiency programs by providing accurate, transparent and consistent assessments of their methods and performance. The work SEE Action is doing in conjunction with Lawrence Berkeley National Lab (LBNL) is to create a guide useful to Air Quality Directors should 111(d) move forward. The Air Quality Directors need to know that there is a measure by which you can predict savings, and with good EM&V there will be confidence the states are hitting their proposed targets. The goal of this guide from LBNL is to outline pathways to make the most of what you can achieve out of energy efficiency as part of each states Clean Power Plan.
- In addition to the work with Air Quality Directors and SEE Action, EERE is also focused on clean energy manufacturing. Just within the last week the President announced the newest Clean Energy

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Manufacturing Initiative (CEMI) Institute focusing on advanced composites at the University of Tennessee. With that initiative, the office is also working on energy data disclosure. EERE sees the lack of data availability as hindering the advancement of better energy efficiency practices and technologies. Consumers have issues gaining access, and building managers of multi-unit dwellings only have access to data should a tenant sign a waiver granting access. The Better Buildings Challenge is working on this issue and asked 20 cities to look into what it takes to seamlessly provide building owners with the data they need to improve building energy efficiency.

- Malcolm Woolf (MW) noted this is an issue on the energy front because of the disconnect between builders, landlords and tenants. Dr. Hogan agreed saying this is a question she and her team are facing because how can the agency bring these people together to have a conversation about energy efficiency. One of the issues they are running into is that states themselves have not done a deep dive into the portfolio of EERE. The agency itself does not fully understand the issues and potential solutions to questions like this, such as what is the federal role in providing better energy data.
- FM asked Dr. Hogan about the long-term goals of EERE and looking ahead about 24 months, what role could STEAB play with states and EERE to advance energy efficiency and renewable energy goals. He noted it would be likely a new administration in place in the next two years so what recommendations and feedback could the Board provide to be helpful to EERE now and looking towards the future.
- Tom Carey (TC) suggested STEAB continue being involved with the Weatherization Assistance Program (WAP) National Evaluation. Dr. Hogan agreed noting that Robert Adams from the Office of Weatherization and Intergovernmental Programs (OWIP) would be talking to the Board more about this the next day at the STEAB meeting.
- Maurice Kaya (MK) talked about managing grid integration and how commercial buildings can maximize the efficiencies of the electricity system. Dr. Hogan said this is something EERE is talking about currently. How to enhance the value of buildings based on their contributions to the grid. Both the Pacific Northwest National Laboratory (PNNL) and the National Renewable Energy Laboratory (NREL) are looking at this and how EERE can play a significant role.

Update on new HUD EE incentives and efforts with Arah Schuur (DOE)

- Arah Schuur from DOE spoke next providing the Board with an update on how she is trying to understand how the work undertaken within the Department of Housing and Urban Development (HUD) interrelates to work within DOE, and also how to better enhance coordination between the two agencies. Her colleague at HUD, Kevin Bush, was present at the meeting and his work within HUD focuses on resilience and energy planning.
- Ms. Schuur noted that clean energy is a big priority within HUD and the work underway in that agency is being done in support of the President's Climate Action Plan. She has currently been on loan from DOE to HUD for the last two months looking at HUD's work in the housing sector and sees a natural synergy between HUD and EERE in this space given both agencies have vested programs in multi-family housing units.
- Mr. Bush went on to say that the President's Climate Action plan asked HUD to work with DOE in 2013 to expand to multi-family housing. The goal is to leverage both DOE and HUD to advance this call, and with it then advance and integrate energy efficiency practices into policy and regulations. HUD is currently using DOE's Better Buildings Challenge to roll out five policy incentives to drive investment in energy efficiency. Other incentives include the Pay for Success program and the Direct Technical Assistance program.

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- Ms. Schuur expanded on the Better Buildings Challenge side noting HUD's involvement highlighted a number of areas where DOE and HUD align in terms of leveraging DOE's research and development capabilities to track energy usage and utility impact on energy data. This is a new avenue for HUD and it is just getting started. Additionally, EERE is building tools with EPA to help the building industry understand energy consumption in commercial and multi-family dwellings. HUD is involved in this by trying to get a handle on how these tools can then be incorporated into current programs and initiatives.
- TC asked about how the Weatherization Assistance Program is being coordinated between both agencies, if at all. The response was that HUD is looking at the opportunity around regional and resilience planning, but nothing has solidified yet in terms of a path forwards. Mr. Bush added that the Office of Community Planning and Development (CPD) has been working with states on the resilience side and that Congress appropriated about \$45 million for CPD disaster recovery and preparedness grants. He said if a state was to come to HUD with a proposal for grid resilience to do distributed generation and that sort of energy planning it would do well since energy efficiency was incorporated into the grant funding.
- Ms. Schuur stated that unlike DOE, HUD has no budget for research and development or technical assistance. Finding areas where HUD can partner to advance or incorporate EERE's mission and initiatives via interagency collaboration is something they are looking into and would like STEAB's assistance.
- Katrina Metzler (KM) commented how difficult it is to measure energy savings in multi-family buildings. Helping DOE and STEAB understand how to prioritize multi-family versus single family homes to re-qualify for Weatherization assistance would be very helpful. Ms. Schuur agreed saying the work EERE has done to create energy consumption tools does apply to multi-family housing. HUD is working with building owners and the Energy Star program and managers to help answer KM's concern. There is technical assistance still needed to assist with audits, and what KM addressed does remain a large issue with DOE and HUD.
- Vaughn Clark (VC) reminded STEAB that in the past there was a HUD-DOE Task Force within STEAB. He suggested perhaps STEAB members consider re-vamping or revitalizing this group to tackle some of these questions. He indicated the importance of collaboration and coalitions between both agencies to help continue the good work of Community Development Block Grants (CDBC) and WAP. In order to do this he feels it is necessary that State Energy Office (SEO) Directors be at the table with HUD and other agencies.
Dub Taylor (WT) asked about what new clean energy initiatives are emerging at HUD. Ms. Schuur answered that Secretary Castro wrote an open letter to utilities on the energy data issue. He has also been interested in how to engage Mayors and utilities to move this issue forward. Partnership and collaboration is key to moving forward the milestones within the Climate Action Plan.
- TC asked about low income tax credits. He thought states would appreciate more models and perhaps DOE could assist HUD on this front. Additionally, with DOE's Weatherization program there are rules to address quality and health and safety which are costly for states. On that front, HUD recognizes the federal median income and WAP recognizes state median income. That is a point needing clarification and perhaps HUD and DOE could address this discrepancy.
- KM asked about the creation or implementation of a successful education program for people in multi-family housing on how to save energy. Mr. Bush replied that under the Better Building Challenge, the city of Baltimore, MD formed a committee on sustainability. This incorporated five multi-family buildings where check-meters were installed. On top of that they created a Task Force that put out

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YouTube videos of residents talking about conservation measures they undertook, and created an online dashboard for residents to utilize to see their energy use compared to others. From this work the buildings and residents saw a 30% reduction in energy use in a year. The only investment was the check-meter. HUD sees this as a big accomplishment and they are working on trying to turn this into a city-wide/multi-state implementation model.

- TC and KM thanked Ms. Schuur and Mr. Bush for these comments saying they agree with VC's comment of creating/revitalizing a HUD-DOE Task Force within STEAB. TC hoped he would be able to follow-up with both speakers in the coming weeks about the initiatives covered during the day's discussion.

Discussion on Year 1 QER focus for QER 2015 with Karen Wayland (EPSA)

- Karen Wayland of the Office of Energy Policy and Systems Analysis (EPSA), and her colleagues Matt McGovern and Kate Marks, were at the STEAB meeting to discuss and update the group about the progress during year one of the Quadrennial Energy Review (QER).
- Ms. Wayland noted year one is coming to a close and discussions have started at the Secretary's level regarding the year two focus. Based on the results of year one's study, EPSA is focused on analysis in four areas: resiliency, reliability through the future of smart grids, modernizing global security, and shared infrastructure. EPSA is working on getting reports to the White House for review talking about modernizing and transforming US energy transmission, storage, and distribution (TS&D) infrastructures to enhance competitiveness and energy security.
- Regarding reliability planning and state energy assurance planning the report will be making recommendations for states. Those recommendations address ways for states to address energy issues with utilities and consumers, and also address ways to improve transmission, storage and distribution. States need ways to reliably measure energy savings so EPSA is looking at new utility business models.
- Malcolm Woolf (MW) asked if the recommendations that came out of the year one study would also be making policy recommendations for Congress and DOE itself. Ms. Wayland noted that the recommendations are focused on how the Federal government can aid the states. The report identifies issues states are dealing with and outlines how to help states better plan for the future given the rapidly changing landscape of energy efficiency and renewable energy in terms of both policy and technology. The report also looks at energy security and makes recommendations to Congress about the strategic petroleum reserve and other areas which will require statutory changes.
- MW went on to comment that energy infrastructure is an area where there is bi-partisan agreement in Congress and an area where progress can be made. STEAB sent a letter to EPSA with some recommendations in FY 2014 and one of those recommendations was how to make the results of the QER actionable. He asked if EPSA will be creating and/or staffing an office which will help track and monitor the implementation of QER recommendations.
- Ms. Wayland replied that they are currently staffing and hiring to assist with implementation. She thanked MW and the STEAB for their comments in the letter which was sent as it reminded her and her team that states were looking for actionable items and implementation. MW offered STEAB's continued assistance to help EPSA better understand how states can implement QER recommendations. Ms. Wayland agreed noting her office did a lot of stakeholder outreach before beginning the year one work and are looking to do more she moves into year two. The next thing she is looking at is to figure out what states are doing already and start to work on doing some analytical work. She hopes STEAB will be able to provide input in this area.
- David Terry (DT) thanked Ms. Wayland for her work on the QER stating that SEO's are already involved in state energy planning and are looking to the QER results to assist with that. He also said that the

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analysis her office will undertake will help states as they work on their energy plans because there are always gaps in state analysis and getting help from DOE in this area through the QER results is something the states are looking forward to.

- Elliott Jacobson (EJ) wanted to know how low-income families and households fit into the QER process and recommendations. Ms. Wayland answered there are parts in the document that address fairness and equitability and there are recommendations in the report that deal with low-income households. Any additional input STEAB will have after seeing the report once it is released would be helpful for her team, especially on the low-income side. EJ suggested that the QER should address training and leveraging those resources to help with implementation and Ms. Wayland indicated there are recommendations in the report about training and workforce development. Secretary Moniz wants to build out the capacity of DOE in the jobs and training sectors so that is a focus in the report.
- MK made a suggestion to Ms. Wayland about the Federal role in implementation of QER results. In Hawaii it was incredibly helpful when DOE brought together stakeholders and used its convening power to get state agencies and companies together to take on responsibilities for moving the Hawaii Clean Energy Initiative forward. It is hard for states to access resources without help from the Federal level. Having DOE act as a conduit to help states get better access to EERE program areas or National Labs would be a big help to states.
- Ms. Wayland and Ms. Marks noted there has been a lot of interest in that area and the State Energy Assistance Technical Working Group has been dealing with state requests that have come in and they are currently pooling resources from the Office of Electricity, EERE and other DOE program areas to get everyone involved in a coordinated effort to better understand state needs and how to assist.
- FM wanted to know more about QER year two and when those activities would be starting. Ms. Wayland told him that once the report is finalized for year one, EPSA will start work on year two. Right now they are waiting on the White House to finalize the scope of year two's activities and once that is ready more information will be made available. She did ask STEAB to please think about what type of analytical things EPSA should investigate at the state level and what questions should the QER be asking states that speak to the issues on the ground that states and communities are dealing with now.

Discussion on SEP Competitive Awards and Overall Energy Advancements
with Amy Royden-Bloom (WIP)

- Ms. Amy Royden-Bloom led a discussion and presentation on the State Energy Program (SEP) and the competitive award process, providing information from FY 2014 and a look at what the program is going to be doing in FY 2015. SEP competitive funding allow States to compete for funding designed to meet EERE's initiatives for the fundamental and permanent transformation of markets across all sectors of the economy. While the bulk of SEP funding is provided to states as part of formula funding, around \$5 million is allocated to competitive awards. Each year the focus for the competitive awards is different. SEP's competitive awards allow DOE and state partners to invest in high-value projects to advance energy efficiency policy initiatives.
- Ms. Royden-Bloom noted the department was going to be announcing the 2014 awardees at an upcoming NASEO meeting. Five states won funding to develop integrated energy, air quality and economic development roadmaps. Another state will be streamlining the permitting process for integrating distributed energy resources into the grid and creating web-based tool to facilitate siting. There are also five states expanding building energy performance benchmarking and disclosure policies.
- She went on to say that while she acknowledges that the competitive process is challenging and time consuming for states, DOE wants to understand how they can make it easier for more states to apply.

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There are rules they have to follow when putting out the Funding Opportunity Announcement (FOA), but what can DOE do better to encourage more states to apply for grants.

- DT reminded STEAB the idea of having concept papers included with the applications had been tried before but did not have the benefit DOE or states were hoping for so that idea was dropped. Robert Jackson (RJ) suggested to DOE that they host webinars to talk interested states through the process and explain the expectations and intent of the awards. That would be helpful for states to use to then structure their application around the information provided during those webinars.
- WT said from his states perspective the hardest part of the competitive awards is actually getting the funding out to the states through the very specific procurement process. That is a challenge and it takes a long time and there are not a work-arounds or alternatives. It is hard to get the money to the state after the award is made.
- Vaughn Clark (VC) suggested that the SEP Program Manager should visit the states where the awards are made. They did that in his state of Oklahoma and they were able to build a relationship with DOE and the Golden Field Office staff and after those meetings the ability to get the funding went very well.
- Ms. Royden-Bloom thanked the Board for their feedback. She then told them about the FY 2015 competitive award notice of intent. There are going to be two areas. One will focus on state energy planning and the other will focus on opportunities for innovative energy efficiency and renewable energy practices.

States Needs for Developing Clean Power Plant Plans and STEAB recommendations
with Frank Murray and David Terry

- FM opened the dialogue reminding the Board that STEAB had sent a letter to Dr. Danielson on January 8, 2015 addressing 111(d) recommendations. The recommendations were generated out of the States Needs/111(d) Task Force which was formed in December 2013 to provide high-level input and direction on where DOE would be most helpful to states in considering energy efficiency, renewable energy, and transmission and distribution compliance options to meet the rules outlined in 111(d).
- DT said he has met with states and the recommendations in the letter to Dr. Danielson resonate with all the states. One of the biggest concerns is that states want DOE to engage with external groups working on similar issues to get a sense of what is already being done ahead of the final 111(d) rule. It is hard to keep track of all the different activities in all the states and DOE needs to at least be aware of what is going on so that any help they provide is not duplicative.
- States are concerned about technical assistance as it relates to 111(d) compliance. States worry any technical assistance help will be too detailed and too analytical and provided too soon. Additionally, with so many stakeholders and agencies already working to get out ahead of 111(d) any assistance by DOE may ultimately get more in the way of what is already being done and not be helpful or useful. DT feels that coordination and education are things that need to be addressed in the short term to assist states and DOE needs to hear these concerns.
- MW noted the proposed 111(d) rule is the biggest transformative development coming and a variation of carbon regulation has to happen, even if 111(d) does not happen. He feels there is a big disconnect between air regulators and State Energy officials which is hard to overcome. A lot of energy information that isn't getting to the air quality regulators need to so they can understand the suite of compliance options and various pathways to getting there.
- WT agreed but did say that in Texas there is a working group where air regulators, utilities and other stakeholders affected by 111(d) have been meeting to discuss a compliance plan and that has been very helpful in his state. RJ and FM agreed saying the way Texas has handled getting out ahead of the rule is a

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great idea, but they are worried also about making sure every player gets the right information. Utility commissioners don't know a lot about technology, and air regulators don't know much about energy efficiency. There is a need to get all parties on the same page before the ruling comes out.

- MW asked if this is an area where STEAB could help fill that gap. Could STEAB propose to DOE that they do some scenario planning or modeling which could help states, and is this one area where the Board could advise DOE. DT noted the January letter alluded to that with the recommendation of having DOE undertake an expedited assessment of external technical assistance and analysis activities in order to identify gaps that might be filled by the DOE and avoid duplication of effort.
- RJ and FM thought perhaps the States Needs/111(d) Task Force could focus on one or two of the several recommendations made and work more closely on those and do a deep dive into those. By focusing on one or two the Task Force could really make an impact.
- MN mentioned that the Environmental Protection Agency (EPA) has a FACA which is a Clean Energy Advisory Committee. Perhaps STEAB and this group could meet and discuss needs and concerns.
- FM then asked the Board to re-read the January letter and be ready to discuss it with Mike Li who would be joining the STEAB the following day to talk about EM&V as he may have some additional insight into 111(d).
- FM then noted how surprised he was by the interest the Board had in HUD related issues. He asked if the Board thought they should form a Task Force to focus on DOE and HUD collaborations. TC offered to be the Chair of a HUD Task Force and Marion Gold (MG) indicated she would like to be part of the group.
- FM also asked MW, as Chair of the QER Task Force, to meet with Ms. Wayland and get some idea of action items and objectives to focus on in FY 2015. Now that year one is complete and the Board is awaiting the release of the report, what ways could the Task Force and STEAB be helpful as EPSA looks to year two.
- RJ asked the group about their thoughts if STEAB was to do a deep dive into the energy efficiency programs that Dr. Hogan manages. Dr. Hogan mentioned in her discussion with the Board earlier that she would like STEAB to look at the activities of The Federal Energy Management Program (FEMP), Advanced Manufacturing, the Building Technologies Program and Office of Weatherization and Intergovernmental Programs (OWIP) and better understand what they are doing and how well the programs are working. FM thought this was an appropriate activity for the Board, but noted it would be intensive. MN added the review could focus on technology and deployment instead of just looking at the programs under a much broader umbrella. TC agreed, but wanted to know if instead of looking at deployment and technology if the review could look at the different programs and how they interact with states and Energy Offices. MK agreed with TC saying that if the energy efficiency programs worked more closely with states the programs would have a bigger and better impact. MK wants to understand these programs better from the view of a state or stakeholder.
- FM, MW, and DT talked about how to make an activity like this relevant to EERE while also making sure it has an impact not only on this administration, but looking ahead two years to a new administration. There was discussion about creating a potential roadmap of what DOE is trying to accomplish on the energy efficiency side. It would look at how the programs are meeting the goals of the President's Climate Action Plan, and evaluate how well each program area is doing and where their programs are not delivering.
- MN asked the Board to keep thinking about this and pull together a proposal which could go to Dr. Hogan for her review so she can see what the STEAB is thinking of looking at and what the goal of a deep dive like this would be. FM asked the Board to talk more about this on upcoming conference calls and in Task Force discussions because there is a lot to do if the Board undertakes this effort. MN echoed that

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sentiment and again asked that the Board work with Dr. Hogan to get a better understanding of what she was looking for when she asked the Board to think about taking on a project like this. There are a lot of programs and STEAB would need to focus on a few of them and perhaps approach this from one perspective instead of trying to do too much and missing the mark.

- FM then turned the discussion to planning the next STEAB meeting dates and locations. He suggested Austin, TX and Albuquerque, NM which were mentioned at the last August meeting. Others suggested places like Chicago to visit Argonne National Lab, visiting Sandia National Lab or Pacific Northwest National Lab. The dates discussed were late April and early May for the next meeting, and then September back in Washington, DC for the final meeting of FY 2015.

Update on Small Business Voucher Pilot with Jetta Wong and Joyce Yang

- Jetta Wong, Joyce Yang and Josh Mengers updated the STEAB regarding the Lab Impact Initiative and the mission to significantly increase the industrial impact of DOE's National Labs on the country's clean energy sector. The Lab Voucher Pilot Program STEAB had been helping with in FY 2014 was one part of several initiatives under the Lab Impact Initiative umbrella.
- In FY 2014 Ms. Wong and her team went on six Lab tours as it was a priority to talk with the National Labs and give them EERE's vision for how they can impact the clean energy economy, engage with states and the private sector and advance technology deployment. Ms. Wong noted EERE gives about \$800 million to the National Labs each year and getting technology to market is a key priority for EERE. To assist that effort the Lab Impact Initiative created a Tech 2 Market Activity Plan which says that at a minimum one percent of each Technology Office's Lab budget will be used to implement the technology to market efforts. Also the Activity Plan outlines how to engage with the private sector and create a Lab culture that is oriented towards making a commercial impact and proposing new and innovative ways to get Lab technology into the market place.
- FM commented that EERE should have its own marketing and communication strategy to communicate information about new technology out to the private sector. It is easier to get information and updates out of the agency than having them come to Washington, DC with needs and questions. Getting information out about the technologies being developed and available will help get the private sector more interested in Lab activities.
- Ms. Wong then talked about the Lab Corps Pilot Program. It is a training program for scientists focusing on how to get technology to market while working in their unique Lab environment. It teaches scientists about commercialization pathways and how to engage the private sector through mentoring and outreach. There are currently six Labs involved with the Lab Corps Pilot Program, and it is funded at \$2.3 million. As this is a pilot it is very small this time around and the goal is to help selected Labs understand how it would work nationwide so it can move to a larger roll-out in the coming years.
- Mr. Mengers then talked about the Small Business Voucher (SBV) Program, and thanked the Board for their continued work on this effort with EERE. He said members of STEAB attended an October 2014 workshop at DOE where they talked about the program and provided feedback on issues like how small businesses will want a single application platform, and how important cost-share is to Labs and small business. He mentioned that during the application process different Labs will look at different types of applications based on the program areas or areas of focus. He discussed the process of applications through review and then to the voucher award and how they believe the pilot program will look like when it is ready to roll-out. The goal is to create a network of Labs and have them working together in a collegial manner within this program to determine which Lab is best suited to take on applications, while also encouraging the Labs to work with states and the private sector as well.

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- Mr. Mengers noted there would be a 20% cost-share on behalf of the small business, in response to a question by RJ.
- The next steps on the SBV program are to finalize the Lab calls for proposals in the second quarter of FY 2015 and do a budget and legal review of the calls. Then in quarter three of FY 2015 there will be the selection of proposals from the Labs and it will be determined what Labs will be participating in the program. Towards the end of FY 2015 opportunities under the SBV program will be released and selections made out of the applications submitted by small-businesses. The goal is to have awards of vouchers made to small businesses by the end of FY 2015. Currently, out of all 17 National Labs about 7 are very interested in being part of the SBV program.
- Ms. Wong made the point that with this program EERE is not trying to develop venture capital capacity at the Labs, but rather connect private business to the correct people at the correct Labs. As part of the application process the Labs are going to implement an outreach program of their own to small businesses and communities to reach people looking for assistance from the National Labs. She noted that in the evaluation of the Labs who are part of this program, there is an outreach and engagement component so Labs are aware they have to look outward which is a shift for them.
- MK asked about the intellectual property side of the SBV and Mr. Mengers noted that the small business will have a royalty free, non-exclusive license to use whatever intellectual property is generated.
- MK, RJ and TC indicated that while outreach is important it doesn't look like EERE is telling the Labs how to do outreach and engagement. Without a roadmap from EERE the Labs will keep reaching out in a narrow way to the businesses or universities they already have relationships with and could miss a large sector of companies who need their expertise. If the states could get involved with the Labs on the outreach side that would potentially help since states are acutely aware of what companies or industries are looking for technical assistance.
- MG asked Ms. Wong if she and members of STEAB could discuss this program with the small businesses in their state and the response was that yes it could be discussed, but formal information will not be going out about the SBV until later in FY 2015.
- FM thanked Ms. Wong, Ms. Yang and Mr. Mengers for coming to the meeting and the meeting adjourned for the day after a review of the agenda for January 14th.

Discussion with EERE's Principal Deputy Assistant Secretary for Energy Efficiency with Mike Carr

- Mike Carr, Principal Deputy Assistant Secretary for the Office of Energy Efficiency and Renewable Energy, provided an update on overall activities within EERE. He spoke about technology development across all the EERE program areas noting the technologies are very near the price point where they become commercially viable, especially in the areas of solar and wind. There are still soft costs to deal with so that will require more focus on the challenges in those areas with regard to permitting and siting. He asked for STEAB's input in this area and how to get more real world expertise with regard to tackling the issues of soft costs with technology deployment. On the energy efficiency side, how can EERE enable the marketplace to really get interested and involved in the deployment of these new technologies? He acknowledged the need for EERE to get more involved and collaborate with outside experts to help bring these technologies to scale.
- On the 111(d) side EERE is still in the interagency process to work out the nuts and bolts of what the rule will say and how implementation will work. Mr. Carr said that he hopes by the spring there will be a transition into how EERE can help support state and local agencies to develop their own compliance pathways. He asked STEAB members if technical assistance would be helpful, and if so what would that technical support look like in order to get states to comply with the statute. EERE needs data and input

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from the states to make sure that any help provided is not duplicative of what is already going on or has already been done.

- He then moved to talking about the QER. He posed that year two may focus on end use and generation but DOE and EPSA could use help on modeling. As the QER is meant to be a policy forming document, he would like STEAB's help making sure models that are developed represent the realities being faced in the states.
- TC commented that DOE needs to do more work engaging with the public and pushing out the idea and goals of energy conservation. There is little being done on this right now and if DOE could work with municipalities or conservation organizations it could have a big impact on the energy efficiency side.
- Mr. Carr responded that FEMP works on those types of issues, but admitted DOE struggles with communicating the progress made on energy education and conservation efforts.
- MW summarized the discussion regarding 111(d) the Board had the previous day, and STEAB recommendations to DOE regarding states needs to comply with the new rule. He outlined the recommendations in the letter and suggested DOE could lead an effort to find out what information is out there for states, utilities, air regulators and consumers and help highlight what is going on already as it is difficult for states and state agencies to get access to all the information. Also, if there is technical assistance available to states from DOE, STEAB would like to help in that effort and assist with modeling moving forward.
- The response from Mr. Carr was that DOE is already working to do a broad based analysis to bring more clarity to what is already being done on the energy efficiency and renewable energy side, and what the economics of compliance with 111(d) look like. The EPA's rule has both a technological and an economic impact across the country so trying to gather the data points has been important for DOE.
- MG addressed concerns of the north east states who are dealing with high electricity costs due to natural gas. She hopes DOE can do regional meetings to help states in that area address these issues which are so often political issues. Having DOE come and talk about energy efficiency and renewable energy options would be helpful during energy meetings. Also, she talked about the challenges facing offshore wind in New England. The goal is to bring it up to a large scale but there are a lot of frustrating challenges facing the states right now and they could use DOE assistance in that area as well.
- EJ thanked Mr. Carr and DOE for their continued support of the Weatherization program. He also commented on the ongoing challenges facing the new certification and standards issues, as well as the difficulties states are facing with the continued cuts to funding. He also asked for an update on the Weatherization evaluation release.
- Mr. Carr indicated the evaluation material was almost ready for release and should be made public soon. He hopes STEAB can be involved in the roll-out of the evaluation results and continue to communicate regularly with Anna Garcia and Robert Adams of OWIP.
- Mr. Carr also noted that the Secretary is very involved in trying to elevate the technology transfer question and figure out what the barriers are to commercialization and technology to market. The old position of technology transfer coordinator has now been elevated up to the Undersecretary's office in an attempt to reinvigorate the technology transfer conversation. Stakeholder engagement is key to this issue as well, but Mr. Carr admitted that to date not enough had been done in that arena and it has been a struggle to get the right people to liaise.
- FM thanked Mr. Carr for coming to talk with the Board and asked that he and EERE continue to find ways in which the Board can assist DOE and EERE push their initiatives and efforts forward. While he congratulated DOE on driving down the costs of the different technologies, he reminded Mr. Carr that unless the area of soft costs is addressed as the state and policy level, the technologies will only find

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minimal success. States will have to modify the way they run programs to integrate renewable energy technology and energy efficiency practices. Without changes at the local level, a lot of the technology will just never be deployed on a larger scale. States are in a position where they can use DOE help to identify the challenges with soft costs and perhaps utilize DOE resources to get to the next step.

EM&V/ Workforce Certification Competencies Assessment with Mike Li

- Mike Li from EERE then spoke to the Board about Evaluation Management and Verification (EM&V). Everything EM&V does is to support the states gather data and as much of the energy efficiency potential as they can. Some state planners do not count energy efficiency in their evaluations and what DOE is working on is trying to help support public policy makers and the Public Utility Commissions (PUC) get the most out of their energy efficiency investments.
- There is an Evaluator Certification idea which came out of the SEE Action Network. The proposed thought is there is a value in having a certification for the people who are writing the actual evaluations. That way there is a minimum set of qualifications which will help improve the value of the reports being generated and make them easier to understand. This would be a certification for the people that work to create the reports, not the actual individuals going into the buildings to gather the data. The value of the certification is that if you are a state agency and you are hiring to review evaluations, it would be beneficial to know that this person has a basic understanding of being an evaluator.
- Additionally, the demand for EM&V services is growing because of the nationwide investment in energy efficiency practices and renewable energy technologies. This idea for evaluator certification has been discussed with stakeholder groups and what is being proposed is an incremental approach. Developing minimal standards you have to reach to be a certified evaluator, and then you can go from there to develop a master or expert level certification, or even specialize in a particular area.
- Proposed now is that DOE would seed this venture and then it would be spun off and run and managed by an independent organization. Mr. Li then asked STEAB members if they thought what was being proposed sounded like a good idea and something that DOE should continue pursuing.
- EJ thought it sounded like a good idea as it creates a standard within the evaluation sphere.
- MW expressed frustration from his interactions with EM&V evaluators. Also, he noted that different people are using the EM&V reports for different reasons and focus on different parts. Contractors sometimes only focus on the evaluation part, and others only focus on the verification part. He hopes that this program would help people understand both what they are supposed to do as evaluators and also what they are supposed to do with the results. If that is the point then he can see value in this proposition.
- FM agreed with MW saying this is a complex issue and he often found that the evaluations were so complex that the results sometimes became meaningless.
- DT echoed FM's comment and Mr. Li noted DOE is working on all of these issues and he hopes to provide STEAB with more detail in the future and update the Board again as DOE gets closer to a final product or outline for the program.

CEMI Update with Libby Wayman (EERE)

- Ms. Wayman updated the STEAB on the Clean Energy Manufacturing Initiative (CEMI) and the outcomes from FY 14 and the planning and priorities for FY 2015 and beyond. CEMI is an agency-wide effort doing analysis and evaluation, looking at resources and capabilities, engaging with industry and other partners and looking at workforce development in an effort to enhance the country's clean energy manufacturing capabilities.

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- The initiative has done manufacturing demonstrations, research and development, and pulled together innovation institutes. There are also new cross-cutting efforts underway such as competitive analysis which is a group at the National Renewable Energy Lab working in collaboration with other Labs to initiate and analyze a portfolio of important clean energy technologies. There is also the materials manufacturing acceleration effort focused on developing robust validated models of processing and end-use performance.
- There are also other areas that CEMI wants to focus on moving into FY 2016. Those include scaling innovation to manufacturing and then broader commercial use. Ms. Wayman noted her team is not seeing as much venture capital as they used to in the energy field so bringing innovation to scale is very important. Others include formulating intellectual property policy for clean energy manufacturing, and also partnering with the Department of Commerce.
- FM asked how the group was going to memorialize this undertaking so that future administrations can carry on the work already accomplished and currently underway with CEMI. Ms. Wayman would like STEAB's help with that effort to assist with bridging the knowledge gap during a changeover in administrations. FM replied he and the Board will think through how best to help her with that effort.
- She asked that STEAB and states think about new vehicles for engaging private sector investment in the early stages of energy investment. Venture capital was great news when clean energy manufacturing was new and able to entertain the private sector investment community, but that is not the right long term place for the type of work DOE is trying to accomplish. She asked the Board what their thoughts were on what DOE and the Federal government can do to make investments in clean energy manufacturing more appealing to the private sector.
- MK suggested she and her team reach out to states that have Clean Technology Accelerators. There are a lot of people and groups within the states that are currently working to get their heads around this issue and it would be worthwhile for the CEMI team to engage with those groups.
- Ms. Wayman thanked the Board for the feedback she got during the August 2014 meeting noting the suggestions which CEMI has incorporated. Those include making more connections to DOE's manufacturing innovation resources and focusing on gathering analytical data on the impact of the strategies employed.
- DT thanked Ms. Wayman for this update and for the presentation she delivered at NASEO earlier in the year. He encouraged her team to work more closely with states on this effort and engage also EERE's Advanced Manufacturing Office (AMO). By engaging in dialogue with states EERE can learn what state groups or businesses are interested in these types of investments and those local conversations can help to keep this initiative moving and potentially increase the scope of CEMI. DT feels that a lot of opportunities are available but a lot of people are not aware of this initiative.
- WT asked a clarifying questions about CEMI's cross-cutting nature, and Ms. Wayman elaborated that the three big areas CEMI touches, National Nuclear Security, Environmental Management and Science and Energy, fall within the Secretary's purview. While CEMI started in EERE under Assistant Secretary Dr. Danielson the initiative itself has grown in size and scope and is now managed at a higher level across the department.

Update on Weatherization Program & Evaluation with Robert Adams

- The final presenter at the January STEAB meeting was Robert Adams of the Office of Weatherization and Intergovernmental Programs (OWIP). He opened his remarks updating the Board on the funding levels for the Weatherization Assistance Program (WAP) and mentioned DOE is ready to make an on-time delivery of the first 19 state grants and hopes states can get their plans into the agency quickly.

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- On the Quality Control Inspector Certification there have been over 600 staff certified under the new operational guidelines, and adding about 16 people a month to the pool of qualified candidates. Additionally, WAP related work plan requirements and policy documents are available so if your state indicates you need assistance or resources, those are available. Also, DOE needs to replace the head of Training and Technical Assistance as the current staff member has left that position.
- Weatherization will be having a national conference in December 2015 and more details will be coming out on that event moving forward.
- EJ reiterated the point that states are facing timing issues with regards to getting all the certifications finalized and staffing ramped-up by the April 2015 deadline. Mr. Adams replied the program is aware of these concerns. There are meetings ongoing and calls with states to help understand where they are and where they will be by April. He said DOE is working with states and will help with implementation as needed and plans on being flexible if needed.
- Mr. Adams thanked the group for their patience as they await the outcome and release of the national evaluation for WAP. The report is currently being reviewed and the hope is to release something by the spring of 2015. The evaluation was done in two parts and DOE intended to release the retrospective portion in December 2014, but it was recently determined it was more prudent to release the retrospective and the American Recovery and Reinvestment Act (ARRA) portions together to provide a larger narrative. The ARRA findings will not be ready until February 2015, and then DOE will do an internal review before the release. One of the reasons for the delay is the issue with ferreting out the impacts of the changes in the program which occurred under ARRA and how those changes have had an effect on the program since implementation and what the outcomes look for the program moving forward.
- TC asked Mr. Adams if he was involved in the work of trying to get Dr. Danielson out to a Weatherization site or training center. MN replied that she is working on that with Dr. Danielson's staff and they are trying to find a training center for him to visit in conjunction with other travels on behalf of EERE. Mr. Adams suggested the New York City training center, and TC agreed noting the NY center focuses on multi-family dwellings and addresses new technology involved in the program as well.

Public Comment

- FM then turned to the part of the STEAB meeting where members of the public can comment either in person, via the teleconference line, or through written and provided statements. FM asked if there were members of the public who wanted to make comments. There were none present, so he asked MN if she had received any written statements. MN replied she had not. FM asked once more if there were any public comments. Seeing as there were none, he moved on to the final agenda item.

Next Steps and STEAB Action Items with Monica and Frank

- FM turned the discussion to the STEAB's Task Forces. STEAB has four active Task Forces (Weatherization, States Needs/111(d)/QER, and the U.S. Energy Productivity and Economic Competitiveness), but wants to form a fifth for HUD and DOE collaboration. TC volunteered to be the Chair of that Task Force, and MG volunteered to join, as did WT and VC.
- FM asked RJ about the work underway with the U.S. Energy Productivity and Economic Competitiveness Task Force. RJ replied the work with the SBV has concluded and so the group needs a new focus. FM and MN suggested he and the Task Force engage with Ms. Wayman on CEMI matters since there are ways the Task Force could assist with her FY 2015 and other long-term initiatives.

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- FM then discussed the need for new STEAB members as both Ginger Willson and Steve Payne will be retiring from STEAB in the coming months. He asked for Board recommendations for replacements, asking members keep in mind gender and geographic diversity.
- FM talked to the Board about the upcoming meeting dates and locations, reminding the group there is a search underway for about six different locations for the April/May 2015 meeting, but that the Board would be back in Washington, DC in fall. VC pushed for a Lab visit in the spring since it had been almost a year since the Board visited a National Lab.
- TC asked about the status of the monthly STEAB conference calls. The Board voted to keep the calls on the third Thursday of each month, at 3:30 pm eastern time. The next call was scheduled for Thursday, February 19, 2015.
- FM asked if there was any old business, or new business to be discussed. Seeing as there was none, he asked for a motion to adjourn the meeting. EJ motioned, and MK seconded. The Board voted unanimously in favor of adjourning the meeting, and the January STEAB live meeting ended at 2:32 pm eastern time.