STEAB Meeting Attendees

Designated Federal Officer (DFO):

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

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

Contractor Support & Other DOE Staff:

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

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

Welcome and Review of Meeting Agenda/Purpose

Frank Murray (FM) opened the March STEAB meeting and thanked everyone for coming. He asked the new members to please introduce themselves, and then Gil Sperling (GS) gave brief remarks about the new members who were unable to attend the meeting. GS continued noting DOE is in a period of transition with the outgoing Secretary Chu, and attention is currently placed on budget impacts and organizational changes.

Update on Energy Efficiency Programs

GS provided the overview of Energy Efficiency (EE) Programs within the Office of Energy Efficiency and Renewable Energy (EERE) noting bringing the market to scale with EE technology and identifying the gaps in the programs are the main goals for the next fiscal year. While there have been successes such as retrofitting residential homes and commercial buildings, there are still elements missing and actions that need taking. GS asked STEAB to help EE address the lack of consumer demand to assist with EE adoption to scale through changes in consumer behavior, new business practices, marketing and clean energy manufacturing. He reminded the Board the four pillars of EE are clean energy research, demonstration at scale, addressing core market barriers and codes and standards. He talked about how EE is hoping to accomplish those goals through the Better Buildings Challenge, commercial building codes and standards updating, and how the State and Local Energy Efficiency Action Network (SEE Action) and the new "Race to the Top" initiative are engaging with utilities.

Ron Binz (RB) reiterated working with utilities as so many are spending money on EE and the Environmental Protection Agency (EPA) is regulating CO2 emissions more closely. FM added that EPA discussions and regulations creates more of a value to invest in EE so it strikes him as an approach that offers more promise to get utilities to change their ways, than just providing financial incentives for upgrades. GS noted EERE as a whole is moving more towards market development with a long-term focus, than the traditional role of DOE as only and research and development agency. GS also discussed the work being done on the commercial side of EE, not just the residential side with incentives for home owners, but regional dialogues and investigating how to bring financing down to make EE retrofits and upgrades more appealing to businesses. John Davies (JD) asked about the Home Energy Score launch, and GS mentioned he would follow-up with Kathleen Hogan on that issue and get the details back to the STEAB on the upcoming April call.

GS concluded his presentation noting that overall what EE is trying to do is revamp codes and standards to promote EE, and increase consumer awareness about EE as well as work with the EPA regarding utility regulation. Malcolm Woolf (MW) commented he would love for STEAB to work with the administration to figure out how to assist with reaching these goals as he has yet to see a fundamental change through either incentives or financial resources.

Update and Budget Review of SEP and WAP

Anna Garcia, the Program Director of the Office of Weatherization and Intergovernmental Programs (OWIP), gave a presentation on the Programs under her office, specifically with regard to budget concerns. She indicated technical assistance and policy areas are a big part of what her office will be focusing on as when Recovery Act (ARRA) funding goes way she and her team need to make sure states remain engaged with EERE and OWIP, as well as are able to maintain their State Energy Programs (SEP) and the Weatherization Assistance Programs (WAP). She noted that since ARRA funding there have been a lot of successes in the states and by September of 2013 she expects to have a lot of these compiled and ready to share. The SEP National Evaluation underway at Oak Ridge National Lab (ORNL) will not only focus on the accomplishments, but also provide a financial analysis of how ARRA funding was utilized and leveraged.

The question now is how to keep these successes going without the level of funding provided under ARRA. She discussed funding provided to states under the SEP Competitive Awards, as well as how OWIP is working with states to identify new policy barriers. She discussed the State Energy Extension Partnership (SEEP) Grants which was an undertaking resulting from STEAB's partnership with the Cooperative Extension Service (CES). The SEEP Grants focus on bringing EE education to communities and there is exciting work in this realm underway in Kentucky, Nebraska and Wisconsin. FM voiced concern over the sustainability of these programs in light of limited federal funds. He asked if DOE was analyzing different types of leveraging opportunities to assist with funds. Ms. Garcia said at this point no, but it is a good issue to address. Currently her office is working on getting secondary markets established from which could

grow a "pipeline" of sorts for loans which would then be attractive to the marketplace for bundling and financial incentives. She noted right now there is not a lot of cooperation occurring after awards are made, so that is also an issue. She sees her office mostly responding to technical assistance requests, but hopes to promote more peer-to-peer exchange within SEP.

With regards to WAP there is a lot occurring in terms of guidelines and technical assistance, and the WAP Plus 2015 Working Group within EERE is looking at how to make sure the program is sustainable in the future. There is also the WAP Plus Health which bring together Housing and Urban Development as well as Health and Human Services to collaborate and improve the health aspect of WAP. Moving forward, EERE wants to make sure that they are expanding the resources they have and leveraging financing while building partnerships with states to make sure WAP continues to be successful and continues aiding low-income families. Tom Carey (TC) replied he was happy to hear about DOE embracing the WAP Plus Health initiative. Ms. Garcia noted her office is also trying to work with National Labs to make sure the technical assistance they offer is the most current and effective.

David Gipson (DG) noted while it is clear what WAP is doing with standards and delivery, SEP and even the Energy Efficiency and Conservation Block Grants (EECBG) offer more of a challenge when trying to establish energy saving metrics. What are the opportunities for capture and he asked if the upcoming SEP Evaluation will answer those questions. Ms. Garcia indicated that the evaluation is showing how individual states are collecting information, but whether that tracks nationally is yet to be determined. Maurice Kaya (MK) spoke more about innovative financing opportunities noting many states are interested in exploring and developing different models. He asked if OWIP is aware of an inventory of everything going on in different states and if so, could she share that information. Ms. Garcia said that is a challenge of her office and hoped STEAB may have some insight into how to gather that information.

Continuing the discussion on budget concerns, Ms. Garcia noted many Funding Opportunity Announcements (FOA's) are coming through her office and OWIP is using two planning numbers right now; one being the Continuing Resolution and the other being the President's budget. By utilizing those numbers as bounds she and OWIP are evaluating each allocation and developing a methodology to determine the estimated amounts states will receive depending on which funding level is ultimately rolled-out.

Stakeholder Engagement

Kerry Duggan, the Director of Stakeholder Engagement for EERE, spoke next and provided the STEAB with an overview of her role within EERE. Her office looks at all incoming information to EERE and works to form better partnerships with states and other organizations like Trade Associations, Governor's offices, and Non-Governmental Organizations. Her office was formed by Dr. David Danielson, the Assistant Secretary for EERE, after he realized the poor track record of stakeholder engagement with EERE. The goal of her office is to improve stakeholder relations, amplify program successes and create a platform for group policy discussion. He office works to tell the whole EERE story and therefore works across all of the EE and Renewable Energy (RE) Program areas. As the office is new, most of her time as been spent getting a handle on what stakeholders want to know and how best to engage these various groups. EERE has a lot of great resources, but they have been hard for "outsiders" to find so her office is working to create a "menu" of resources within EERE to share with stakeholders.

MK was happy to hear EERE is looking to be more open and engaged in dialogue with states and various groups. Ms. Duggan said her goals was to bring these groups together as there are a lot of different groups investigating financial models but as one-size does not fit all states or programs, EERE needs to hear what is working and what is not in order to make better informed policy decisions. JD asked if Ms. Duggan was aware of the SEEP model or the Memorandum of Understanding (MOU) signed between DOE and US Department of Agriculture with regards to bringing energy education and awareness to communities. Ms. Duggan indicated she was not, and JD promised to share that information as it certainly would be of interest to the stakeholders her office liaises with. Dan Zaweski (DZ) noticed on the list of stakeholders he did not see utilities represented. Ms. Duggan responded saying utilities are more state leaders and their relationship lies more closely with the Office of Electricity, but that EERE was working to find a way to better engage with utilities.

SEE Action Network Update

The SEE Action coordinator, Johanna Zetterberg, engaged with the Board and discussed the role of the larger Network and the role of the SEE Action Sub-Committee within STEAB. The larger network recently published the EE Program Impact Evaluation Guide which is a guide for regulators and a guide outlining the successful implementation of state combined heat and power. There are also a variety of other upcoming events and paper releases and SEE Action would like more readership and awareness around the activities of the larger network and hopes the Sub-Committee can assist in that area.

The network is proposing the creation of a forum for discussion between the Sub-Committee and the larger network. Her hope is that after each Executive Committee meeting that the STEAB members of the Sub-Committee could attend a debrief session on issues the network would like feedback on and also would like states to be aware of. There is a need to create that pathway out of the larger network and into the states. GS responded that he would like to see members of the larger network be more engaged with STEAB, and the network should come to the Board with ideas of recommendations about state and local policy which the STEAB can then act on and work to suggest a larger federal policy to support it. Phil Giudice (PGD) was interested in discussing opportunities for federal policy that arose out of suggestions from SEE Action, but noted there needed to be more engagement with the larger network and more recommendations to the STEAB's Sub-Committee.

GS proposed setting-up a SEE Action Sub-Committee call for April to discuss how best to create open lines of communication between the Board and the network. MW added there are policy discussions already underway within SEE Action, and STEAB should really be involved in those and discussing what has already been generated and use those discussion areas to determine whether there is an opportunity for federal policy development. The members of the Sub-Committee volunteered to make themselves available for future teleconference calls on the subject and indicated they looked forward to finding areas of discussion to bring to STEAB for debate and further consideration.

State Energy Financing Initiatives

The Deputy Director of Outreach and Public Engagement for DOE, Colin Bishopp, spoke to the Board about financing opportunities and the resources currently available as well as the need to compile best practices and models. Mr. Bishopp participated in the Clean Energy Roadshows that occurred under ARRA so he has seen how states took their approaches to financing. He noted the importance of finding financing solutions because taxpayer and ratepayer funds alone cannot finance a 20% increase in EE across all buildings and residences. The only way to accomplish the President's goals is to leverage public investments with private dollars. He is looking to enhance two types of public-private partnerships: Top-Down (green banks) and Bottom-Up (public dollars leveraging private investment).

The Energy Investment Partnership (EIP) is a public-private lending entity that has the authority to raise capital through various means including bonds. The goal is to encourage a move away from simple grant-making and towards more credit enhancement. The focus if on the mature technology arena in EE and RE in order to encourage investment. With the looming Sequester DOE does not have new pots of money so the agency is looking at different types of models to continue funding. Florida has the Solar Energy Loan Fund which looks at low and middle income families who want to invest in EE and RE on their homes. While these types of loans are not that appealing to a capital market, the question is how to balance these loans with a larger market to make the program sustainable.

He noted barriers to procuring financing which include garnering support from multiple public and private stakeholders. He asked for STEAB's help sharing what the member's see as working in their states with regards to innovative financing opportunities because the sooner DOE can centralize learning from states and State Energy Offices (SEO's) the faster DOE can pull together all of that information in a manual or a website for nationwide distribution. Bottom-line is that EIP's leverage capital and provide us with tools to reach energy goals. This presents an opportunity for local and state governments to work with the private sector. DOE will maintain a role as a convener and disseminator of information to encourage the growth of these relationships.

GS asked what type of outreach had been done by DOE and what is still to be done. Mr. Bishopp noted the biggest issue he faces know is a lack of staff. The Secretary's Energy Finance Roundtable is one area of outreach, and the other is with technical assistance and working to make connections between states. There are lots of calls for technical

assistance and DOE is working to connect and empower people to engage with each other to assist and share lessonslearned. There is an immediate need to educate decision makers and a goal to bring them together in a series of roundtable discussions in 2013 to participate in peer-to-peer sharing as well as gain insight and details into what has already been accomplished. Mr. Bishopp indicated DOE is looking at all ways to best gather information and package it so it is accessible to all states who are interested. He asked for STEAB's assistance with sharing what they see occurring in their states and where they think DOE needs to be looking for the success stories and best-practices.

MK commented he was encouraged by the aspects emerging from DOE including stakeholder engagement, but noted the attention placed on creating consumer demand cannot be underestimated. Mr. Bishopp then asked STEAB to help DOE engage with states and how DOE can support states with demand generation. He asked if DOE should work through the SEO's or with commercial lenders and MK replied that was a tough question as the electricity industry also comes into play here as well. The point needs to be made that there is no cookie cutter approach and that all the key components to generation need to be addressed in order to create demand. MW relayed a conversation he had had with Secretary Chu and when MW had asked "what comes next" after ARRA, Secretary Chu had replied financing and PACE. Clearly that had not occurred in the way he had hoped, but there are a lot of states trying to make it work. There definitely needs to be a link made between demand and financing.

Mr. Bishopp asked if DOE should convene a meeting to talk about the different markets, financing and the varying state priorities in an effort to be cross-cutting and find areas where states agree. That could become a jumping off point for future discussions and potential policy decisions. MW indicated there needs to be a focus on "what is the market" and working with states to identify that and work around and within that definition. FM added that DOE needs to also sit down with consumers and figure out what customers need. PGD agreed saying without a demand, there is nothing financing can accomplish.

EERE Disaster Recovery Efforts

The next presentation to the STEAB was by Steve Lindenberg who discussed EERE's efforts with disaster recovery. In Summer 2011 there was an effort to develop the National Disaster Recovery Framework (NDRF). This grew out of the need to have cross-agency preparedness as well as short-term, intermediate, and long-term goals for disaster recovery. NDRF is not a plan it's a framework that is scalable and flexible to guide effective recovery efforts. It clearly defines roles and responsibilities for each agency and within each agency, each office. This is a structure in which different entities have varying responsibilities. The plan promotes early planning and being transparent and allows for the Federal government to come in and offer assistance and bring a process, organization and a way to convene groups of people who are most typically retreating from a disaster area. There are joint field offices in NY and NJ right now assisting with Hurricane Sandy recovery, and there are a dozen Federal agencies working in those venues.

Unfortunately, there is not a lot of money to support disaster recovery. EERE is currently working with FEMA to arrange a mission assignment and put DOE in a position to support FEMA and other activities, and is also working with NREL to draft a recovery support strategy for Sandy affected areas. DOE is doing as much as they can with limited resources.

With the NDRF there are 6 specific recovery support functions: community planning, capacity building, housing and economics, health and social services, infrastructure, and natural and cultural resources. This is very local and interactive planning. The NDRF has methodologies to each of these and engages with the community in every step of the process. The outcome of these 6 support functions is to implement strategies over the long term to bring these communities back after disaster strikes. All agencies are learning for the first time through Sandy because this structure didn't exist until the fall of 2011 and it is now being exercised for the first time. That being said, there are areas where DOE and the other agencies learned how to work together, such as with New Orleans and Joplin, MO, and utilizing the lessons learned in those locations has assisted with the creation of the NDRF.

Mr. Lindenberg indicated that the NDRF was only part of community disaster recovery. It also takes the citizens of those places to engage in the process and sit-down with the agencies and think through what they want the future of their community to look like. This worked very well in Greensburg, KS where the town decided they wanted to be green and now actually generate not only enough energy to power the town, but are also able to put more energy back into the

grid. EJ asked if this was the future of disaster recovery nationwide and asked how NDRF deals with answering questions for communities about whether homes should be rebuilt in areas where there are flood plains or where homes will be overcome by the ocean in another big storm. How does NDRF address these issues? The response was that the Army Corps of Engineers is working on questions like this and putting these issues on the table when discussing recovery and rebuilding with communities. For instance with Hurricane Sandy, discussions surround putting homes on stilts or other raised platforms to avoid seeing what happened with Sandy occur again. The key is to rebuild, but also to rebuild smarter and differently to avoid situations in the future.

MW asked if there was a way DOE could provide lessons-learned to all states so each individual state can learn from this example. States want to have plans like this and can DOE and the other agencies involved share their knowledge. Mr. Lindenberg noted he hopes to be able to do that in the future, but at this time the process is still evolving and there is not enough repeatable experiences to draw from. The hope is this insight will come via the strategies that are underway now. JD agreed it would be helpful to share any information DOE and NDRF has now with states. SEO's are always looking for more information and data and it could assist with smaller recovery efforts since NDRF only assist with National Disaster areas and not smaller state disasters.

Overview of The Office of Strategic Programs

The final presentation of the first day of the STEAB's March meeting was delivered by Jason Walsh, a Senior Advisor within EERE. He spoke about EERE's Strategic Program mission to increase the effectiveness and impact of all EERE Program activities by funding cross-cutting initiatives, analysis, and engagement functions with key stakeholders and the media and public. Most activities under the Office of Strategic Programs are not technology specific, but it is where EERE comes together to be more effective and cross-cutting. There are three areas of focus which include analysis, deployment and communications. With analysis the office really looks into the EERE Programs to determine what is ongoing and where there are areas of value for stakeholders. For deployment, it looks at brining technology to market and works to break down barriers to commercialization. With communications the office engages with Congress and stakeholders to tell the EERE story and assist with building a clean energy economy for the country.

Mr. Walsh continued saying there is more the office can do around the energy ecosystem and EERE's technology to market push. He recognized how powerful it is to engage at the regional level to create demand pull out of Labs and EERE. There was a round of Innovative Ecosystem Funding in 2010 and they are looking to do more of that, and the National Clean Energy Business Plan Competition also brings together leaders and innovators at colleges and universities. He noted that he hopes to continue integrated deployment efforts and is working to disseminate information and best-practices as well as programmatic models. MK asked that on the technology to market arena as it relates to electricity, there is also a need to drill down on RE integration; essentially where the rubber meets the road with what states are currently facing. States need the ability to maintain reliability and address interconnection standards and accommodate the different state approaches to deployment as there really is not one size fits all solution.

On the communications front, Mr. Walsh noted that the office is pulling together compelling information and working to make it accessible online. State summaries have been developed which discuss accomplishments in the EE and RE fields and these one-pagers were created as a way to education policy makers and members of Congress. 15 have been completed so far and should be available online within the next week. There is also a lot the office does with regards to legislative affairs. Monitoring current and future legislation is part of the communications goal. All of these activities are cross-cutting and are looking at the big-picture with trying to make EERE more accessible both internally and externally.

Board Discussion and Logistics

The meeting then turned to general Board discussion about what had been presented at the meeting thus far, as well as to Board logistics for upcoming meetings and teleconference calls. The Board will have its next meeting in Washington, DC from June 25 – 26, 2013 at a location TBD. RB commented on how he would like for the June meeting to focus on EE and how to bring it to scale. Steve Payne (SP) would like to talk more about the budget and how the looming Sequester will affect EERE Program areas. MK suggested more of a round-table discussion format for the upcoming meeting where STEAB could really engage with EERE rather than listen to presentations. GS agreed with MK

and encouraged MK and FM to work together to figure out how best to make that type of engagement work with the Board and EERE senior leadership. EJ asked to invite SEP and WAP staff to the meeting in June to focus on budget impacts to those programs under Sequester, and Duane Hauck suggested inviting the co-chairs of the SEEP Working Group to the meeting to talk about progress made with regards to the initiative since the MOU between USDA and DOE would have been signed about 9 months previous to the June meeting dates. DG commented he wanted the ability to meet with more policy makers and figure out how to assist DOE and EERE with strategies for moving forward in a post-ARRA funded world. Paul Gutierrez (PG) agreed that a roundtable discuss would be ideal and he suggested even inviting members of the Congressional energy committees to come and participate. Vaughn Clark (VC) also added that getting someone to come and talk with STEAB about national codes and how to be even more aggressive would be highly beneficial.

FM then asked for suggestions about locations and topics for the Fall 2013 STEAB meeting which would be the first meeting in FY 2014. Susan Brown (SB) suggested the National Weatherization Training Center in Bozeman, MT, RB suggested NREL in Golden, CO and DH seconded that recommendation. GS asked which lab visit the STEAB found most useful and insightful, noting that the labs where technology to market strategy is discussed seems to have generated the most recommendations post-meeting. JD suggested when visiting a lab to challenge the organization to prove how they are utilizing the Federal funding and translating that into deployment, market outreach, etc. DH added that he is amazed at the type of work going on within the labs that he and other members were unaware of. It is impressive to see the scope of work, but prefers when there is a connection between the lab and the community as the Board saw when visiting Brookhaven National Lab. If STEAB is to go to a lab in the fall, more pointed questions need to be asked about how labs are engaging with the outside energy world.

VC seconded DH's comments and noted he finds the visits to labs to be valuable, especially for someone from a state that has no national lab. Personally he would like to continue exploring how to engage all states with the greater national lab structure. If EERE is pushing deployment as the Board heard about from Mr. Walsh, then STEAB needs to assist with that endeavor and engage with the labs. GS reminded the Board that labs are multi-headed (both by DOE and by management organizations) as well as multi-funded. Perhaps instead of having a lab roundtable discussion, the Board meet with Dr. Danielson and address the nature of EERE's relationship with national labs. The Lab Task Force can create a list of questions and concerns about the access of companies and SEO's to the labs themselves, and how the money is determined by EERE to go to labs and what are the labs actually spending that Federal money on.

GS then asked the Board for suggestions on which lab to visit in the fall since that seems to be the general consensus given the concern members are expressing over lab accessibility and understanding of activities. DZ suggested NREL given that it is EERE's lab and they receive most of the funding from DOE. PG agreed and MK noted it was odd that labs are not coming *to* STEAB for help with deployment and commercialization. RJ elaborated that while the Lab Task Force will generate these questions to address with EERE they will also gather from labs information on what services are available and offer those up to states and organizations looking for assistance. STEAB should not only be collecting information from labs, but should be able to go to labs with problems that need a solution.

The week of September 16th was discussed as a possible date for the upcoming fall meeting, but more information about the actual date and location will be forthcoming later in the summer.

FM asked the Board if they were happy with the schedule of STEAB monthly teleconference calls. Seeing as everyone was OK with the current schedule, the Board calls will be kept on the 3rd Thursday of every month at 3:30 pm eastern time.

GS updated the Board on the activities of the Strategic Planning Sub-Committee. He noted the group met in December at EERE with Mike Carr and Jason Walsh. The discussion centered around transportation, deployment and advanced manufacturing and how STEAB and EERE could work together to enhance engagement in these areas. The goal of this Sub-Committee is to engage more strategically and more often with EERE to make sure that state input is provided on these topics and that EERE is responsive to state concerns. GS noted his goal is to continue the conversation begun in December and make sure that the Sub-Committee stays engaged with these senior people within EERE and he hopes to revisit this engagement later this spring.

FM asked if there were any additional comments before the meeting adjourned for the day. Seeing as there were none he thanked the Board and adjourned the meeting for the day at 5:05 pm.

"Race to the Top"

FM opened the meeting on Wednesday, March 13th, introducing Holmes Hummel, a Sr. Policy Advisor to DOE, and asking her for an update on DOE's proposed "Race to the Top" initiative. Ms. Hummel thanked the STEAB for allowing her to come and speak to them about this initiative as she feels STEAB provides clear signals of where DOE is most likely to be successful and assists DOE in identifying leverage capacity. The purpose of this initiative is to drive innovation and bring the country closer to the President's goals for energy productivity. The theme of "Race to the Top" is sending funds to states to incentivize energy improvements by awarding states for changing policies in a way that align with the Federal goals for energy efficiency and renewable energy. The challenge structure is one where the bar is set for performance and clearly outlines how states can become eligible applicants.

The idea is to encourage as many states as possible to participate to eligibility requirements will involve energy efficiency but the standard will not be set at an unreasonably high measure. The goal is to double energy productivity set by 2010 levels within 20 years to 2030. DOE is looking at the FY 2014 budget and more details about the funding opportunities will be released in that budget request if appropriations are available. Ms. Hummel indicated she was with the STEAB at the meeting to discuss with them the development of the concept, the idea of eligibility requirements, and other ideas or questions the states have about an initiative of this kind.

VC asked if the qualifications will be looked at by DOE before states can be told if they are eligible so that states do not undertake the rigorous application process if they are not eligible for the prize. The response was yes, DOE will be looking at each state and letting them know which are and are not eligible to participate based on qualifications. RB asked if DOE knew the number of states they want to be eligible, and Ms. Hummel noted the real part of the challenge is harnessing intent to improve energy productivity. The goal is to reach about 30 states and DOE has been consistent with the White House requests to look at all states, not just those that have already advanced EE and RE programs, but all states who want a chance to compete. MW noted the success of the Department of Education's model for their Race to the Top program had billions of dollars dedicated to it, but this program sounds like it will be several million. The fiscal situation is different for DOE and the question really is will the fiscal prize be enough to incentivize governor's to move ahead with an application for the award. JD continued that thought noting cash prizes are not enough to substantially change the grid, but it is more the policy changes that come out of this initiative that can make the biggest impact, so will this money that DOE can put on this campaign really start those conversations about policy shifts?

GS responded by reminding STEAB what DOE is doing is sending out information which looks at the ways states can transform to improve energy productivity, while noting it is a multi-faceted plan. It will take a lot of work to make these changes but it puts on the table an incentive to do so. MK reminded the Board about the variations between states with regard to their outlook on energy policy and energy efficiency. If the intent of this program is to encourage policy development, DOE also needs to look at states that have already made great strides, like HI and CA, and not penalize those states who are further ahead than others. Ms. Hummel noted that energy productivity is a metric that is an imperfect instrument for an initiative like that. The metric is affected by the structure of the state's economy and energy over GDP is imperfect and DOE is aware of this. The point is to advance the "national interest" by engaging as many states as possible.

Ms. Hummel commented that the energy sector is privately owned and profitable and DOE is allowing for flexibility for the state to determine where they want to improve. GS indicated DOE is also working on the selection criteria and that will look at areas such as leveraging capital and the ability to replicate successful programs in other states. MW agreed that state flexibility is key and Ms. Hummel again reminded the Board that the prize is for improving investment and awarded to states demonstrating achieved performance. FM thanked Ms. Hummel for her comments and invited her to continue participating with the STEAB on future teleconference calls and at future meetings to continue updating the Board on the status of this initiative.

The meeting then turned to Task Force updates and general Board discussion about the presentations and information they heard on Tuesday and so far during the morning session. The State Energy Program Task Force (SEP TF) spoke first and thanked Dr. Kathleen Hogan for responding to a letter sent by the SEP TF in February regarding SEP

questions on budget and the future of the program. The SEP TF also noted they have been working with ORNL and KEMA on the SEP Evaluation since July of 2011 noting original concerns that building codes and building evaluations would not be included as a metric are gone because now they will be included because of the work of the TF to bring this issue to the attention of ORNL and other states. Additionally, revolving loan funds and leveraging of funding sources were not going to be included until the TF addressed this with ORNL and now they are. Other questions about the evaluation remain; however, the TF will stay engaged with ORNL to make sure concerns are addressed. The other aspect the SEP TF is focused on is building a stronger working relationship with Anna Garcia, the Program Director of OWIP. The group hopes to meet with her while STEAB is in Washington, DC for the summer meeting.

The Weatherization Task Force spoke next. The group met on Wednesday morning with Bob Adams of DOE to discuss the budget concerns for the Weatherization Assistance Program (WAP) in a post-ARRA world. SP noted DOE and other WAP advocates had gone to OMB to discuss issuing a budget anomaly to Congress indicating that there is new information to be considered and the budget which was applied in 2012 is no longer applicable and the program should not be held to 2012 funding levels. It appears Congress is poised to sustain the 2013 Continuing Resolution for the balance of the fiscal year. This inadvertently locks WAP to the 2012 funding level. The TF will be asking that DOE take any action to return funding for the program to a sustainable level. Without this funding WAP will lose the ability to sustain the program on a national basis. The TF will be drafting a letter to Dr. Danielson about this and will also be hosting a TF call the end of March to discuss this more with Bob Adams and other DOE staff.

The discussion then turned to how STEAB can better interact with DOE and EERE to make a larger impact on the state and national level. GS asked STEAB how DOE can do more during tight financial times to help reach the president's goals by 2030. TC noted a focus on transportation is key, and VC encouraged initiatives like federal tax credits, while RB thought the focus should be more on utilities and regulatory incentives. MW asked for the April STEAB call to focus more on these large-scale options so the Board can have a clear focus moving forward. MK reminded the group that on Tuesday STEAB discussed how to enhance interaction and discussion with DOE to begin talking strategically about areas of interest both to EERE and to states. GS agreed noting STEAB brings together partners from the state and local level which provides a much needed view-point to DOE. JD thought the focus should be more on the things states and EERE is already doing and how to get the greatest return out of existing programs. PG suggested the Board move forward with setting future agendas to include round-table discussions with EERE and DOE officials, not simply presentations, as was discussed on Tuesday afternoon. FM asked if the Board was OK moving forward in that direction and having the Strategic Planning Task Force identify key areas of interest and work with GS and FM to then identify topics where STEAB and EERE want to engage. The group agreed and FM asked if there were already suggestions for the upcoming summer meeting. GS suggested grid modernization and advanced manufacturing, TC suggested addressing low-income beyond WAP, and JD suggested having the Vehicle Program come and discuss transportation and the EV Everywhere initiative. MK indicated what he wants to achieve is a better understanding of EERE's aspirations and he feels it is important to have high-level engagement with people like the Assistant Secretary. GS replied EERE already has set priorities and STEAB's perspective differs from that, so the question really needs to be is EERE making the right investment? Having that discussion will stimulate how states can work as a true partner with EERE, and also bring a new perspective to EERE about aspirations. GS also suggested a Lab visit in the fall for the first meeting of FY 2014. As NREL received the majority of funding, he made the observation that STEAB should focus attention on making a trip to the Lab in Colorado.

Update and Overview of Renewable Energy Programs

Steven Chalk, the Deputy Assistant Secretary for Renewable Energy, spoke to the Board about the diverse abundance of renewable energy across the world, and the mission of EERE's Program Offices to harness renewable energy capacity. The mission is three-fold: discovering and creating low-cost advanced technology, creating a market for the technology, and providing low-cost financing to scale-up deployment. Ultimately DOE wants to develop renewable energy (RE) technologies in a way that is cost competitive with traditional sources of energy, in lieu of subsidies. If RE cannot scale, then these technologies will not have a national impact.

In the area of wind, installment is currently 3% of all US electricity installation. EERE is doing better than expected with overcoming barriers to installation and permitting, but is just starting to really ramp-up. On-land wind is

looking at reliability, and for offshore wind the department is looking at technology development and the removal of market barriers.

For solar, 2012 – 2013 has been a record year for solar. Three gw of solar was installed in 2012 which was enough to fully power 1 million American homes. Cost for solar electricity in its many forms has experienced a 3-fold cost drop and 30% of patents for solar technologies can be directly linked back to DOE. Mr. Chalk summed up his solar overview by stating DOE is confident it can reach its \$1/watt goal by 2020, if not before then.

With Geothermal ARRA created the opportunity to do about seven enhanced geothermal system testing. There are several of these testing's underway, and current geothermal activity in 15 states. In Water, EERE is looking at marine and hydrokinetic energy but this is in the early stages of research and development. For Biofuels the Program successfully completed research and development to produce cellulosic ethanol at \$2.65/gallon equivalent. The focus is now scaling-up that development. Abgengoa is looking at this and also focusing on bio-based gasoline's and jet fuel.

Fuel Cells was the most potent program in terms of progress and hitting emerging markets. The projected high-volume cost of fuel cells reduced to \$49/kWh and there is real-world validation of this as well with over 150 fuel cell vehicles demonstrating efficiency of up to 59%.

Mr. Chalk went on to discuss grid integration and the goals of creating a more flexible and resilient grid. He noted a solicitation out to the public encouraging utilities to take a hard look at grid integration and provide concept papers back to DOE by March 20th and full proposals due in May. This is mostly working with solar integration and the program is called SUNRISE. There are efforts underway to work with integrating wind technology as well. DOE conducted a study called the Western Wind and Solar Integration study. DOE is also working with the Energy System Integration Facility (ESIF) at NREL. This is a new research and development facility with space for 200 lab staff. GS noted the Board is considering NREL for the fall meeting location, and ended this presentation and portion of the meeting by asking the STEAB to think of having a grid modernization focus for the upcoming summer meeting.

Update on the Status of the SEP Evaluation

Marty Schweitzer of ORNL and Tim Pettit of KEMA provided the next presentation which followed-up on concerns and questions the STEAB had been working on with the evaluation team since 2011. The national evaluation is well underway, and the study will quantify key program outcomes from 2008 and the ARRA period. Based on the current status of data collection and evaluation, Mr. Schweitzer estimates the report will be complete in early 2014. The evaluation is looking at and evaluation energy usage, cost savings, job creation, RE generation and carbon emission reduction. The report will also highlight key accomplishments of different program types by state, and provide a basis for future program design and funding allocation determinations. The study is looking at 82 program activities in states occurring under the larger SEP Program, and those are a mix of project types, funding amounts, and other factors which helps the evaluation take a broad yet in-depth look at SEP over the last several years. Additionally, the evaluation is looking at the Technical Assistance Program, the capacity building effects of SEP, attribution effects and policy impact.

Mr. Schweitzer then noted the draft report on the overall findings will be available in January 2014, and there will be a Peer Review panel held in the early part of 2014 to review these findings before the final report is scheduled to be completed in February 2014.

DG asked about how the evaluation was going to include all state data, and the response was that KEMA and ORNL are seeking information on actions each program area being looked at took. The more data collected the better the evaluation of the data and the analysis. ORNL is collecting a lot of reports from states and are looking at that, as well as collecting data directly from participants engaged in these programs. Mr. Pettit added the evaluation does the classification by program level to look across like programs more effectively. FM noted his surprise at the length of time it has taken this evaluation to produce results. He noted state frustration with the data collection process and also the frustration that the results would not be available until early in 2014 which is significantly after ARRA funding ended.

GS and FM then turned to the part of the STEAB agenda where the meeting allowed for public comment. FM asked if there were members of the public present who would like to provide a statement, ask questions, or make comments. Seeing as there were no members of the public present he asked GS if anyone had provided written comments

to be read. GS indicated no one had sent him written comments, and seeing as there were no members of the public at the meeting he suggested the Board move on to new and old business.

FM asked if there was any old business to be discussed. MK reminded the group he would distribute the draft ideas he prepared about how the summer meeting should run given the STEAB's desire for more round-table discussion, and FM noted he would work with MK and GS to make sure the summer agenda provided more opportunity for interaction with EERE staff. FM then asked if there was new business. Seeing as there was none, he called for a motion to adjourn the meeting. EJ motioned, SP seconded, the STEAB voted to unanimously adjourn the meeting and the March STEAB live Board meeting concluded at 3:11 pm on Wednesday, March 13th.