MALE: Now we're going to move into a few different sessions today where we will dig really deeper into these different track areas that we've been talking about. The first of these [inaudible] at least five times this morning, which is workforce. Extremely important, especially as we start thinking about the transition to clean energy. It brings up a lot of questions, including, how are we going to retrain people? Are we going to get the workforce needs that we have? Outside I was talking to somebody who was asking us about postdoc issues we're having in the national labs. I think every organization, irrespective of who you are, is not finding people today. But we have people. The question is, how do we ensure we get the grade? That's going to be the focus of this session.

I'm going to introduce John Vetrano, who is at the Department of Energy. He's a program manager in the Office of Science at the Department of Energy. John is going to be joining us virtually, and he will be moderating this next session. John?

JOHN VETRANO: Yes. I'm John Vetrano. I'm with the Department of Energy's Office of Basic Energy Sciences, and I lead the workforce development pillar of the Energy Storage Grand Challenge. So we've heard a lot today and in the past as well about the growth of energy storage, and today especially we've heard about a lot of activities that illustrate that this growth is increasing in the near and distant future, so you cannot sustain such growth in energy storage without a parallel growth in a well-trained workforce.

And so that's the issue that we're trying to look at in terms of the energy storage workforce development pillar. And when you think about all the different technologies that are being mentioned for energy storage, that requires a broad workforce as well, and then, even within a given technology, there's a lot of breadth required as well, and that's the entire life cycle, from the basic and applied research to develop the energy storage system, mining the materials to create it, refining those materials, building the factories that you're going to use to make the energy storage system and then running that factory, creating the batteries or other energy storage systems, testing these to make sure they work and then utilizing them, which is not always straightforward.

For example, long-duration storage on the grid – you don't just plug it in. You have to figure out how to best utilize it. And then at the end of the life, you need to be able to recycle these materials. We need to have [inaudible] to be able to understand how that can be done so that you can loop back around and develop additional systems. And it's not just a breadth in topics. It's also a breadth in education. So everything from PhD research and bachelor's and master's and trade school and two-year and certificate kinds of things, where you have a very broad need in all of these.

And so while energy storage can provide good opportunities, particularly to disadvantaged communities, it also provides educational challenges and opportunities for various educational institutes, and that includes also things like tribal colleges and universities and historically Black colleges and universities or minority-serving institutions. And these are things that the DOE is also focused on.

So to understand where some of those needs are, we wanted to try to do kind of a gap analysis, and this is the working group that has formed across labs. So the ones that are here today are shown here. Meridith Bruozas from Argonne National Lab, Evangelina Shreeve from Pacific Northwest National Lab, Moody Altamimi from Oak Ridge National Lab and Noel Bakhtian from Lawrence Berkeley National Lab. I think if you go another slide, and another – we're going a couple – so this shows, then – the top paragraph is the general goals for the workforce development pillar, and then below is what this working group is focusing on: assessing the current state of the national energy storage workforce and look to identify gaps in a range of areas. And so we held a variety of listening sessions, and that's what we're going to talk about today.

So if you could go to the next slide – this shows the committee members. So I introduced the ones who are going to speak today, but there are a number of other people who've contributed greatly who were not able to be here today, but they also contributed to this effort. So I will now turn it over to Meridith.

MERIDITH BRUOZAS: Thank you, John. So if you can go to the next slide, please. One of the things that our working group has done is actually hold a number of listening sessions, and we did it in a way in which we set it up as a series, so if you could go to the next slide. Thanks. Over the course of three sessions, we saw over 400 people that represented academic, industry, utility, nonprofit, trade schools and other kinds of workforce development entities in these roundtable conversations, and the goal of these conversations was to really listen and understand what's happening in this space around these three themes.

So we started off with just basically trying to identify and understand the current gaps. We took that information and curated it into a follow-up session to say, if these are the gaps, how do we start to build solutions? And then from those solutions we just began the conversation on measuring success and impact. We didn't get as deep as I think we wanted to, but we did identify things that this working group and the people that we were participating in these sessions would be top areas to start maybe making some impact in, so we kind of did a voting analysis activity with our participants.

In the course of the rest of our session, you're going to hear from the results that we heard during the listening session. So there's a number of findings that have come out from these conversations that we've had with all of these people in the three-part series, but also through other conversations that we've been invited to participate in from getting to know people in the three-part series.

So I'm going to toss it to Evangelina, who's going to I think share our first finding from the listening session.

EVANGELINA SHREEVE: So I'm going to share some of the themes that we heard in terms of the lack of energy storage career awareness from K-12 to career. So some of the themes included in that K-12-to-career area is, we had a lack of comprehensive inventory of the energy storage careers that could be consistently used nationwide. We also heard that there was a need for a clear understanding of the matrix of career pathways for energy storage careers. In particular, having a inventory of the necessary competencies for jobs. That included jobs that are in the applied space, so looking at all the energy storage jobs from installation to innovation and understanding where an individual could jump on and jump off the particular career pathways from that space, because one individual could continually be learning and growing their competencies and moving in different directions.

Another area that we heard that was vital for having a clear understanding on how individuals could join a energy career pathway was having more opportunities for hands-on internships and work-based experiences. This is a critical component. I think many of our industry and organizations could help with identifying opportunities to get both the younger career, the K-12 students, interested in the energy storage careers and then also, as one moves into their career, understanding where there's new opportunities evolving.

And then lastly, we saw a consistent need for outreach plans to the K-12-to-career, and in particular in the earlier stages of that spectrum. In order for us to start creating awareness and identify opportunities for energy storage careers, having targeted outreach plans across the nation and whatever's vital to that particular community was important. And a special note on that is understanding how we can do targeted outreach to underrepresented groups so we can be very purposeful in diversifying that energy storage workforce of the future.

And with that, I'm going to turn it over to Meridith.

MERIDITH BRUOZAS: Thanks. So we can advance a couple slides. There we go. All right. So finding number two was really focused on – something that bubbled up in conversations was this idea of connecting industry, academia in the service of building talent pipelines. Next slide, please. And what was really interesting – by bringing academic institutions and industry and utilities together is that it became aware that actually there wasn't a lot of communication across these organizations, in that academic institutions, particularly community colleges, were chomping at the bit to have conversations with industry to start to understand what their needs are so that they could start pivoting their program. Meanwhile, we learned a lot about how industry was popping up their own training programs. But one of the things that they came across or shared is that those things are very expensive and that finding and acquiring talent and training talent was a challenge for them.

And so one of the findings that we've started to realize is that there needs to be a stronger alignment between utilities, industry and academic institutions, all the way down to community colleges and trade schools. And so this idea of an ecosystem to talk across these organizations was something that was very much appreciated in the conversations, and that would then help academic institutions understand the fast-paced changes that are happening in industry and help them better align to that.

What did come out of it, like every new emerging industry, was this idea of a career framework. The term "standards" came up. But this notion of some kind of national document that could help unify across these three kinds of organizations for the purpose of building that talent pipeline. And so that was the second finding that we found. I believe Moody's going to share the third finding.

MOODY ALTAMIMI: Next slide, please. So, to echo some of my other colleagues' comments, when it comes to diversifying the workforce, this is one of our key findings, is that new industry holds much promise. We have wide-ranging industries that include manufacturing, recycling, safety, grid and transportation applications with many opportunities in energy storage, design, installation, operations, data management and automations, logistics, service, maintenance and also safety.

So therefore, these diverse teams are very impactful and important. And there's a need to apply best practices that bring in a wide variety of talent, creating an inclusive workforce with diversity backgrounds, perspective and experiences. And the key steps that were identified during these listening conversations were the need for connecting with high school students, again, as Evangelina mentioned, to help them understand opportunities [inaudible] training; partnering with colleges and universities to develop energy storage lines of study; growing workforce capabilities in all groups that may be impacted by energy storage, for example, people in rural areas and on tribal lands.

We found that diversity can be regional also, with the need to taking steps to expand and include regions that we are transitioning to clean energy. So one of the use cases for energy storage is in rural areas and tribal lands. Part of this work is important for people in these areas. We are currently in discussions with the American Indian Higher Education Consortium, AIHEC. These discussions continue the conversation on what an inclusive energy storage workforce looks like across the country. Next slide, please.

Another key finding is the offering of specialty certificate programs. So, until workforce resources are available to energy storage, industry will be held back from fully developing this sector. Specialty certificate programs will be key to addressing this challenge. There's a need to establish formal and broadly recognized certificate programs for critical skills with a rigorous accreditation for energy storage certification. In most cases currently, training is largely company-based, as Meridith mentioned, through internship programs. Establishing programs at educational institutions will reduce these training costs so industry doesn't need to serve as a trade school, and that's an important goal.

For our discussions with industry, safety programs were apparent. They're largely company-based. Certificate programs that include a focus on national safety standard would improve training methodology in these focus areas. Another finding to address critical skills training is through industry community college partnership, to be particular, and the need to create incentive programs to help higher education be more flexible and responsive to the accelerated changing workforce needs. These partnerships will help produce workforce that is needed in the energy storage industry with necessary critical skills that can also help small companies, which may fall behind the better-equipped larger companies as they compete to recruit well-prepared talent. We heard today from our keynote speaker that it's no longer enough to train tens of individuals, but rather hundreds and thousands of individuals for the critical skillsets that are necessary for energy storage.

I'm going to hand it over to my colleague –

NOEL BAKHTIAN: Hi, everyone. I'm Noel Bakhtian. It's funny – when we started this Energy Storage Grand Challenge adventure, I was at Idaho National Laboratory, and now I'm at Lawrence Berkeley National Laboratory. I'm the Executive Director for the Berkeley Lab Energy Storage Center. We're home to the birth of Lithium-ion electrochemistry. We've got over 200 researchers working on energy storage, and we definitely have this focus of workforce that we've been bringing to the picture as well.

So if we could go to the next slide, please – thank you. Let's stay on this one for a second. So some of the challenges that we've heard in the last few speakers is just this concept of, there's a lot of different stakeholders that need to come together in order to solve energy storage workforce. We're thinking about the people and the organizations that are able to provide or enable the education, the training, the skilling, on one hand, and then there's the energy storage industry, representative of the home of the workforce, of the need, on the other.

And the linchpin, at least for us, has been thinking about the usual, which is streamlining communication and connection points between different stakeholders. So having a common understanding of the needs and challenges, a common understanding and a place to launch new solutions. So what this breakout was about was about this concept of creating a energy storage workforce development network. And if we can go to the next slide, please. And so basically the concept here is to bring together all of these different stakeholders, and one quote that we got that was great was, "It would be great to know all of the players in this space. There are folks that don't even know where they could be going for solutions, or the solution people don't know exactly who to talk to in the problem space." But of course, sharing the usual best practices, lessons learned, and also thinking about the regionalness of all of this – because that's where the people and the solutions are really going to take hold, is in certain local regions.

And then the idea here is just to have a place where everyone is at the table having the discussion, to Moody's point about diversity and inclusion. So thinking about the challenges that we heard before – we heard from Evangelina that we need to bring together academia and industry. We heard that we need to bring together community colleges and universities and trade schools and technical colleges. We heard the need to bring in the underrepresented minorities, and of course we need to be thinking about connecting the research communities with the other stakeholders. So this is kind of one idea to do it. And my recommendation, of course, would be to make this entirely inclusive – no barriers to entry – and to really start to leverage this network to start building pathways between organizations, to accelerate the education training and rescaling and upscaling of the workforce that we need to see for batteries and energy storage.

And finally, I'll just note that this is very aligned with some of the conversations that we're having in Lybridge [phonetic] and also hearing in government meetings about the battery workforce councils, and so this seems to be something that's floating to the top in many different venues, and so we're excited to be part of that.

JOHN VETRANO: I did want to point out that there are a number of workforce activities that are going on at the DOE, either now or in the future, so we're still working on trying to coordinate that and to understand the gaps, but there are a number of existing programs – for example, some of these have very much focused on workforce development within batteries – for example, this battery supply chain workforce initiative, which is led jointly by EERE's Advanced Manufacturing and Vehicle Technologies offices. And they will start training pilot programs. We also have something like the Office of Science Graduate Student Research Program, which offers opportunities for graduate students to work at national laboratories, and that's something that is broader and across a number of [inaudible] in the Office of Science. One of them, though, is electrochemistry and energy storage.

Similarly, in the Office of Science, there is a recent funding opportunity announcement called Renew: Reaching a New Energy Sciences Workforce, which was to look for research proposals and teams that would feature non-R1 research institutions and HBCUs, tribal colleges, minority-serving institutions and so forth. And again, energy storage would be one of the categories within that. But also more broadly, our Office of Clean Energy Development [inaudible] – I forget – I think I got that wrong. Sorry. And broadly, the bipartisan infrastructure law implementation includes workforce development broadly across all of these areas, and energy storage in particular. And these are also occurring while responding to the Justice40 Initiative guidelines, specifically.

So these are just a few of the types of programs that are ongoing that relate to energy storage and will help try to fill some of those gaps. So I think that's all for our presentations, and I think now Meridith will go to the podium.

MERIDITH BRUOZAS: I think we're ready for Q&A, and I know there's people online that might be putting questions in the chat, but also invite anyone in the room who wants to come up and ask a question.

MALE: – 10 years old now, so they're kind of learning about science and technology. So, as I think about them, skills of the future, parents were told, teach your kids coding, teach your [inaudible] STEM areas, and they're familiar. They see Teslas on the road. They know all of this kind of transition is happening. But what are the skillsets we should be teaching both our kids or even frankly folks who are scientists in the room here so that they can participate in the energy storage opportunities of the future?

MEREDITH BRUOZAS: Well, I think I'll take it, and I know Evangelina's online. Her and I – our portfolios include K-12, so I'll start off and then toss it to Evangelina. There's lots of things to do individually, so first off, I'll plug the National Labs. So every National Lab has a K-12 program in it, doing exactly what you're talking about. Here at Argonne, we have a Build a Better Battery activity, and if [inaudible] would let me, I'd send you all over to the Learning Center, and I'd try and make you build a better battery that we teach to middle school kids and see how that would look like.

But I would read out to places and National Labs. They have these very specialized programs that are about transitioning research to classroom, is what we call it. But exactly what you're talking about is, I think, the need that, in the finding Evangelina talked about – is that we need to start getting conversation into groups outside of the research population to help influence what gets taught in schools and other spaces. Not to get into the whole standards space, but just to make the teaching and community college communities aware that these are skills that are needed for the future, so the students that are 10 years old right now have a vision of what EVE [phonetic] looks like and what role they can play.

And so there's not a lot out there unless you go and find it right now, but there's definitely a need, and if Evangelina's still on, I'm going to ask her maybe to speak a little bit.

NOEL BAKHTIAN: While we're waiting for Evangelina, I'll just throw in – also what we're seeing a lot is that energy is not being taught in schools or even sometimes in undergraduate programs, and something we all learn but maybe it's in the back of our head is that it's really the passion and the mission that tends to drive people and keep them in a career, so teaching children young about energy and climate change could be that driving passion that keeps them in the science, technology and the math.

JOHN VETRANO: So I guess I can just mention one other thing or two things, briefly. One is that, broadly, maybe not K through 8, but, as you start to get into high school – so almost everybody gave us feedback that there's a diverse workforce in terms of what they understand – so a broad – a person who understands more than just specifically this one job can be useful, and in particular through energy storage, electrochemistry was generally seen as an area of interest, even if it's not super sophisticated, even if it's a few weeks to get a sense of, yeah, what is a battery, or what is a fuel cell, and how do these work broadly? Even if you're going to be doing assembly or other recycling kinds of things, knowing that, even if you're not a research scientist, is still very appropriate.

And also, I think another way that we can try to do this within the DOE is that, within the Office of Science, Dr. Ping Ge runs the Science Bowl [inaudible] try to think about focus areas in math and inspire kids to be thinking about that energy storage as that area of science in general and energy. Thank you.

MERIDITH BRUOZAS: While we're waiting for questions, I'll put in a plug. There's a book that just got published, and Julia reminded me. It's called *Everyday Superheroes: Women in Energy Careers*, and it's available on Amazon, and your libraries might have it. So it's great for kids to learn about clean energy careers and for women to see other women in that profession.

JULIA SOUDER: Thanks, Noel. Hi, I'm Julia Souder with the Long-Duration Energy Storage Council. Really appreciate you taking the time to talk about workforce development and highlight the just and equitable transition that we're all working through and the fact that is tough and not easy, but we have to ask the hard questions, and appreciate DOE's leadership with the labs pushing us forward.

I've noticed, speaking to my kids and colleagues' kids about – they want to be inspired. What is DOE and the labs doing to help share stories about how you can inspire kids to fight climate change with these types of tools? How do you help us who work with businesses help share their stories and relay the message? And then I have another question on internships.

MERIDITH BRUOZAS: This past year, for the very first time, the National Labs and DOE unearthed a – did Sunrise to Sunset, and it was about climate change, and so it was a highly successful online program where every lab had a activity or a speaker or some type of learning session that had across every hour of the business day to do something that focused – to focus the story of climate change. It was much broader than just energy storage. But it's things like that that I know that's happening within the National Education Laboratory Directors' Council and in partnership with DOE. That's something that we just kicked off this past year, and I know we're going to do it again next year.

Each lab individually has various kinds of activities. Some labs have podcasts. Some have lessons and activities and things that they push out. But it's not a unified space yet. But I think in the future it could be.

MOODY ALTAMIMI: I would agree. I can speak about Oak Ridge National Laboratory. Over the last several years, the Facebook page is full of these short videos that really distill and talk about the impact of the science of the wider audience, and they've started a series where you have a scientist interviewed by their child about what they do at the laboratory, and also, across National Laboratory, the aspect of community service is important, and I know that a lot of scientists would go and volunteer their times at high schools to really explain the science. We have one of our scientists leading a group for girls in robotics. That really actually benefited from the COVID pandemic because these classes were virtual, and it allowed more girls to join these classes.

So the creativity that's exhibited by some of our scientists and engineers of how to engage with the community, although not standardized or – there's a wide theme that's going on. But it's a lot of grassroots – that maybe we could actually discuss, well, what are the best practices, and how we could share some of the experiences. But I would agree. The inspiration comes from big science questions, and National Labs are ideal to raise those big science national important questions that will inspire the next generation.

FEMALE: [Cross talk] your question, Julia. I think it's a really powerful one, and to Moody's point, this idea of the Earth shots that we have could be really impactful. I know it's captured the imagination of the adults. I'm just wondering, how do we translate that to share with the children, the kids? But this event is supposed to be about listening to you guys, not you guys just listening to us. So I'm going to throw it back at you guys and just say, when I think about this, NASA is doing an incredible job of just inspiring the nation and the up-and-coming workforce, and so what could we be doing in that space at that level that NASA's doing? So if you guys have ideas, please come talk to us.

JULIA SOUDER: I think you're reiterating the charge that Carla gave us earlier, that we all need to be better ambassadors for DEI, and it's really hard to change the current educational curriculum, but the after-school programs, where a lot of kids of different diverse groups can really start learning about renewable energy and storage, so thanks for the pushback. Appreciate it.

And, just on that internship – I think it was called out earlier: We all kind of go to our comfortable circles of who we know in the universities and community colleges in our area. How do we make sure we've brought in our networks and our horizons to make sure we're pulling from a diverse, very talented set of individuals who are very capable to lead us to the next generation, but we just haven't opened up those doors?

JOHN VETRANO: Yeah, I guess maybe I'll start real quick. And I agree. And that also even goes back to what Moody's talking about, for example, where the labs and lab staff are doing outreach, but that's for a localized – around labs, and how can we make that broader? Because a lot of these issues of energy storage are very local, right? And we need to be able to be thinking about, how can we have that influence and inspiration in communities that are far-removed from a national lab, for example? So I do think that there are internships and ways and things that we can try to do that, and this is some of those Office of Science programs I mentioned, some other ones that – we're trying to start to chip away at that, but we're still learning, and there's a long ways to go. We appreciate that.

FEMALE: So I'm all in favor of building the workforce from kind of the ground up. You know, we're talking about K through 12. But in listening to the really excellent discussions this morning, there are two other things that jump out at me. One is that, particularly in the transportation segment, there's going to be a pretty dramatic shift in manufacturing and skillsets. One question I would pose to the panel maybe is, how do we ensure that the people who are involved in those careers and jobs today don't become totally disenfranchised?

And the second thing – I would go back to the wonderful discussion with Carla this morning. How do we make sure that the folks who are already adults, who are already part of the workforce, can participate in this clean energy economy? Because, yes, I'm totally in favor of the next generation, but there's a lot of people who are above the age of 20 who need to be part of this initiative to make the things happen that need to happen in the next 10 to 20 years. Thanks.

MERIDITH BRUOZAS: You're bringing up a really good point, and just to share – the majority of the listening sessions were about those populations. The conversation came to kind of K-12 when it was like, but how do we then get people into certificate programs and things of that nature? We got to start in high school for awareness.

But the majority of the conversation really was, we have a current workforce that needs to be upscaled or rescaled, and we have people who are not in the workforce that this could be a career opportunity for. And in the listening sessions that we've had and the conversations that we had that had industry at the table, there hasn't been a complete silver bullet to this challenge yet. So I guess that's part of the additional work that I think needs to be done by everyone, probably. But one of the things we have started to notice as people have reached out to us – that there are some interesting industry training models that are very regional, or there's some economic development ecosystem happening in certain parts of where manufacturing used to be or manufacturing will be moving to.

And so I think we need to start thinking about, where are people self-organizing, and ask the question of, well, who's self-organizing? Is it including everyone? And how do we – it kind of goes back to that network idea, of, how do we start connecting people and connecting people for the purpose of exactly what you said?

NOEL BAKHTIAN: And I'll just add – she nailed it. Meridith nailed it. But just to add a little bit more color, there are some National Labs that are actually working on programs where they bring together industry, academia, and the National Labs provide upscaling or rescaling experiences, like boot camps or short-term things, just to get the conversation started.

MOODY ALTAMIMI: Just to add one final note – I agree with my colleagues. There's also some effort that's taking place – again, grassroots effort – to engage with some of the local community colleges to offer certain courses that will be utilized by folks within those areas for upscaling and rescaling. It's a lengthy road, but it's necessary, I think, and if we do this right in creating models, then this can be shared across different organizations to start becoming effectively engaged with some of the community colleges to design certain specific courses that will enable employees in these organizations to go through that course and acquire the necessary skillset.

MALE: My background is a PhD in Chemical Engineering, so I come from the oil and gas side of things. Now I'm an entrepreneur clean energy – have seen both sides. My question is, not too long back, petroleum engineering used to be one of the most sought-after career choices in many of the young adults. What are we doing to make that similar degree at a college, to have like a B.S. or a Master's or research in clean energy sector as attractive as petroleum industry has done for their programs in the past?

NOEL BAKHTIAN: Yeah, so the question was about petroleum engineering being a really strong option in the past, and what do we have as an option for something related to energy storage?

JOHN VETRANO: You know, part of the reason that petrochemical engineering, petroleum engineering became really sought-after was because it was clear there were a lot of jobs, and so I think one thing is just making it clear – and this is this communication that goes all through the variety of ages and education levels – that there are jobs, and this is what we've been discussing, for example, with AIHEC, the American Indian Higher Education Council. So I think part of it is just having that. But then part of it is having the appropriate sort of a pathway – that people can understand how they get there to different levels and different types of jobs.

So I think part of is just illustrating that there are jobs, and it is growing. Thank you.

NOEL BAKHTIAN: Totally agree with John. The communication is a huge part of it. And then maybe the next step is coming up with a few champions that we already know of in academia who are willing to put in the work to create those first courses, those first majors, et cetera, and then when that starts being competitive, I think the rest of the universities or whatever it is will kind of tag onto that. But of course we'd want to look at the regions that have the highest demand first, and it will just be easier to get those started there.

JOHN VETRANO: I would just mention real quick that one of the programs that has started [inaudible] for the bachelor's and maybe PhD level is, in Oregon, at the University of Oregon, is the Oregon Center for Electrochemistry. So that's one of those places that people may have looked for and we look to think about how this might be done and how useful this can be. So Professor Shannon Boettcher – I'm not sure if that's exactly how to pronounce his name, but he runs that program at the University of Oregon.

ALLISON BENNETT IRION: I am the Director of Supply Chain Research here at Argonne. One topic I was curious about is, this year I had the opportunity to be a part of Atlantic Council's Fellow for Veterans in Advanced Energy and really learned a lot about things that DoD was doing in that space, a lot of really interesting public/private partnerships there, and just was curious about your specific effort and outreach to the veteran community and those that are transitioning from active duty to the workforce.

MERIDITH BRUOZAS: I'm wondering if John wants to talk about our cross-agency conversations in that space.

JOHN VETRANO: Yeah. So I will say that it's in its infancy, and that there are some programs [inaudible] within Veterans Affairs, and they're looking at various educational opportunities and transitions. But we do also have a cross-cutting group on batteries that includes DOE. It's led by DOE but also includes DoD and other government agencies as well in this area. And there is a workforce aspect of that, and clearly there will be opportunities. But it's still in its infancy, at least from our perspective. There may be other people who are working this area. I'm just not as aware of it. But thank you.

NOEL BAKHTIAN: Allison, I totally agree with John, and there's actually a program called Hiring Our Heroes that some of the National Labs do, which is really strong. But if you think about it, it's a huge win-win. You know, let's get the veterans jobs in the clean energy space, but let's also leverage some of their incredible skills in technical fields. Sometimes they come in with clearance, which can be helpful, et cetera. So I think there is a lot for us to think about there.

MERIDITH BRUOZAS: It always goes back to this network idea, right? If we find these pockets of people doing this work, we should be bringing everyone together to have the larger conversation of how they can leverage each other. It kind of always goes back to the networking.

JOHN VETRANO: And I guess I will take this opportunity to thank Noel and Moody and Meridith and the others on the working group and the work that they've done to help bring their expertise and their vision and their energy to the working group and really try to see where we can make inroads and where we can – ultimately we all want to be in the same place, right? We want to have energy storage as a growth area, and I think that's happening, and then we need to make sure that we have the workforce that enables that. We don't want to be held up in this country by not having sufficient people to do the jobs that we need to get done.

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