

Hello. Okay. We're going to get started now. So welcome to the 2020-2021 Better Buildings Webinar series. In this series, we're going to be profiling the best practices of Better Buildings Challenge and Alliance partners and other organizations working to improve energy efficiency in buildings. So next slide.

So I'm your speaker today. My name is Shannon Zaret. I'm an energy technology program specialist at the US Department of Energy's Weatherization and Intergovernmental Programs office. And I'm excited to share some of our tools and resources with you today. Next slide.

Okay. So just to give you a little preview of what we're going to be doing, I want to give you an overview of what SWIFt is, and that's the Sustainable Wastewater Infrastructure of the Future Initiative. We're going to talk about the first phase of SWIFt, and what came out of that, which was the wastewater energy management toolkit. And then I'm going to go into the current iteration of SWIFt, the one that we're actively recruiting for now, SWIFt Phase 2. And then we'll have a little Q and A session.

But before we do that, I want to get a little bit of a housekeeping item out of the way and talk about one of our Q and A platforms, Slido. So we're excited to announce today that we'll be using an interactive platform called Slido for Q and A. Some of us who have joined us before may be familiar with this tool. So if you hop on over to www.Slido.com – you can use your mobile device or open a new window in your browser – and enter the code #DOE. So I'll give you guys a few minutes to do that. And so if you want to ask me any questions, you can submit them any time throughout the presentation using that platform. And we'll have a specified Q and A session later on. You can select the thumbs-up icon for questions that you like. And whichever ones are most popular will be moved up to the front.

And we're also going to be using Slido to do a front-end poll really quickly. So we're going to start things off with the poll, so if you want to head over to Slido.com right now so we can learn a little bit more about you and your familiarity with SWIFt. So please join us over at Slido now, and I'll pull that up so we can see the results of the polls. Okay. Great. So our first question is what sector does your organization represent? I'll give it a few seconds to kind of click in. Okay. Great. Okay.

So we'll see the majority of you are state and local government, followed by business and consulting. We've got a couple of public utilities: water, wastewater management. That's great. Okay. So we'll make sure that we kind of focus in on how state and local governments, as well as the wastewater facilities can get involved in SWIFt later on. Okay.

So I think we can move to the next poll question. Okay. So prior to this webinar, have you ever heard of the Sustainable Wastewater Infrastructure of the Future Initiative? Okay. Well, that's incredible. Okay. So we're getting a pretty high percentage of "No." So this is going to be great, very useful and informative. So that's good to know. That will definitely frame kind of how I get into SWIFt. Okay. Great.

And then we have one more question. Okay. Is energy management currently a priority in your organization? Okay. Great. We'll give it a couple seconds. But it looks like it's a resounding "Yes" at this point. *[Laughs]* Which is great, because we can talk about how SWIFt has a focus on energy management in a minute. All right. So, great. So I think we can come back to our slide deck. And thank you, guys, for answering those questions. It was good to kind of get to know the audience a little bit. Okay.

So I'm going to introduce SWIFt now. So just for some context, part of DOE's mission is to enable strategic investments in energy efficiency and renewable energy technologies through the use of innovative practices across the United States. And so the Department of Energy Sustainable Wastewater of the Future Initiative works with water resource recovery facilities to accelerate a pathway towards sustainable infrastructure. And I'll get into what that means in a little bit. But I want to focus on why this is important. So, next slide.

So throughout our work, we're really seeing that facility operators and state and local governments are ramping up efforts to reduce energy costs and improve performance in the wastewater treatment sector. Hence, I think the question that we have in Slido where energy management is overwhelmingly a priority for many of your organizations. And so statistically across the country, municipal wastewater treatment plants are among the largest energy consumers in a community. And so they're estimated to consume approximately 30 billion kilowatts annually. And that equates to about \$2 billion in annual electric costs. Which means electricity alone can constitute 25 to 40 percent of a wastewater treatment plant's annual operating budget and make up a significant portion of a given municipality's total energy bill.

And so with that in mind, individual wastewater facilities currently consume about five times more energy than is needed to treat their water flow. And with that energy use expected to increase by up to 20 percent in the coming decades due to more stringent water quality standards and, of course, growing water demand based on population growth; this is going to be a significant issue for the future. So reducing energy usage in those facilities can yield significant environmental, economic, and social benefits for local communities.

So in recent years, we've seen a growing number of utilities responsible for clean water moving towards not only wastewater treatment, but water resource management. And that's where you've seen some formally renaming themselves water resource recovery facilities, which is where we've taken the name on. And so energy efficiency in equipment, processes, and operations is a fundamental part of this transition. And according to the EPA, energy savings and facility retrofits can reach up to about 50 percent. And facilities can even expand beyond energy efficiency foundations with resource recovery measures to move closer to that sustainable wastewater infrastructure benchmark. Okay. So, next slide. Okay.

So I'm going to talk about the very first phase of SWIFt. So we call this SWIFt Phase I, sometimes SWIFt 1.0. So Phase 1 was a three-year partnership that took place between 2016 and 2019. We engaged with over 50 water resource recovery facilities in 25 different states to accelerate the adoption of innovative and best practice approaches in data management, technologies, and financing for infrastructure improvement. And in fact, I think we had in total about 70 water resource recovery facilities. And so overall SWIFt partners sought to improve the energy efficiency of their facility by at least 30 percent and integrate one of the resource recovery measures that I'll talk about later on into their improvement plan. Okay. Next slide.

And so what we saw is some pretty robust results from our SWIFt 1.0 partners. Specifically we saw reduction of about 8.1 percent in average energy intensity. And we also saw all of our partners put plans in place to reach that target of 30 percent. Some of those plans they shared with us, and I'll show you later on in the presentation. But pretty significant results within the three-year training period. Okay. Next slide. Okay.

So one of the benefits of SWIFt 1.0 – and I'll get to the structure of what that program looked like so we can have a little bit more clarity in a second. But essentially one of the benefits from that effort was the development of a wastewater energy management toolkit. And I'll go into the specifics of what is in that toolkit. So it's a collection of resources that will essentially enable other facilities to benefit from the work of SWIFt Phase I. And so they support all of the same best practices and innovative approaches that we outlined for those 70 facilities that wastewater facilities can establish and implement energy management into their planning. Okay. Next slide. Okay.

So this is a nice visual, because it gives you a general idea of how we structured SWIFt 1.0. And there were four main phases. And if this is a little bit tough to read, we'll expand on this in a moment. There are four main phases to SWIFt 1.0. We first started to really think about, okay, the building block of how do we manage energy data? For those who hadn't been tracking their energy data, how to tool to do so? This is where we kind of really began and dove into the foundations. And so what ended up coming out of this was an energy data management manual, and provides step-by-step guidance to track energy performance, and it compares publicly available tools to help you manage your energy data.

The second module after we got them established in terms of managing their energy data was measure planning. So what measures could they put in place to achieve those energy savings? And so we have a measures checklist: one with low and no-cost measures that are pretty simple to implement. And then one with 23 high-impact energy conservation measures that are a little bit more capital intense to put in place, but yield between 10 to 30 percent energy savings.

From there within that, we have the measure planning workbook. And this is an incredibly useful tool that allows users to compare all of the 23 measures side-by-side and determine what would fit best for their facility. Then finally – well, not finally – third measure, or module, we went on to project financing. So how would we finance all of

these measures that we want to put in place? And so we created the financing matrix, which is, again a comparison tool of available funding mechanisms, as well as an energy savings performance contracting guide specifically tailored for the wastewater sector to introduce users to the step-by-step guide on that particular funding mechanism.

And then lastly, the very last module, was plan development. So now that we've figured out how are we going to track our energy data, what measures are we going to implement, how are we going to finance those measures, how do we draft a plan to put all this in place? So that was kind of the very final step. How do we put this all together in a cohesive plan that we can present to management? And so that's where we have the infrastructure improvement plan template, which helps kind of guide users along in the drafting of that plan. And we also have several example plans that we can share, as well. Okay. So that's just an introduction. I'll get into these all in detail in a minute. So next slide. Okay.

So I'm going to start out with the key accomplishments and results fact sheet first. So next slide. Okay. So this is a great tool to start with. It's the best logical first stop on your tour when you're exploring the toolkit. And so essentially it briefly summarizes the work in 1.0. You can see it showcases our partners. Right there is the kind of visual map to show which facilities participated in SWIFt 1.0. Good geographical distribution. We talk about some of the accomplishments of those facilities. And then we get into the structure of the toolkit. So when you're first coming into looking at the toolkit, you should have this fact sheet up. It's kind of your one-stop shop. Very nice to have along next to you as a compendium to guide you through how to walk through the toolkit. Okay. Next slide. Okay.

So these slides will be publicly available. I like this graphic because I think it's a nice way to organize the tool. So right along with the key accomplishments and fact sheet, you can utilize this organizational diagram to kind of help guide you. Okay. Where are the resources nested within the phases? So the getting started section has all the kind of introductory fact sheets, and then the four different phases. It just outlines what are the specific tools within those four phases. So this is a nice graphic for organizing your interest in the toolkit. Okay. Next slide. Okay.

And so what's great is very recently we've made the toolkit publicly available. It's going to be housed – or it is housed – on our Better Buildings Solution Center. And I'll show you at the end of our presentation how to access the Better Buildings Solution Center. But alone as a resource the Solution Center is incredible. It's got more than 2,500 solutions that are available for various topics; not just SWIFt, but a number of items. So it's an incredible treasure trove of resources. Okay. Next slide. All right.

So we're going to get into the specifics of the toolkit here. So next slide. We'll start out with the energy data management. Okay. So as I was talking about, the energy data management manual – again, this is specifically tailored for the wastewater treatment sector. So it's going to be specific and particular to each facility's individual needs there. And so it explains how do you develop a strong energy management program and

provide step-by-step guidance? So when you're first starting out, what data do you want to track? What tools should you be using? How are you going to do this long-term? What should you be measuring long-term? What kind of calculations should you put in place? So it's a great guide for how to set up your energy management plan.

What it also contains is a one-page comparison tool. So it compares three publicly-available energy data management tools. This includes EPA's portfolio manager, the DOE's energy performance indicator tool, and the EPA's energy assessment tool. So it gives them a sort of a guide in terms of what are your facility's particulars? Which tool is going to work best for the type of data that you have and the type of outputs that you're looking for? In addition to that, it also includes reference sheets on each of these three tools. And so I'll get into that in a minute, exactly what kinds of answers those provide. Okay. Next slide. Okay.

So again, this just very quickly outlines the step-by-step approach that you can find within the energy data management manual. So defining the boundary, establishing your energy baseline, assembling your data, converting it, determining the metric or set of metrics that you want to track over time, and then setting up a permanent system. This is a nice, clear, step-by-step guide. So if you're first getting started in energy management, this is a great resource to get started. Okay. Next slide. Okay.

And so to go into these a little bit deeper, again, the manual will highlight these three tools and go into details. And so the energy assessment tool and the ENERGY STAR portfolio manager; both EPA tools. EAT is an Excel-based tool, typically geared towards small- to medium-sized systems. And then the portfolio manager is an online tool. All of these, again, are no cost. So you can track and access your energy and water consumption. And then, of course, DOE's energy performance indicator tool, this is an Excel add-on, which allows regression analysis. So all three provide different outputs and can manage data slightly differently. So the tool is very useful at determining which one is going to work best for your facility's data. Okay. Next slide. Okay.

And then as I reference, we have what we call reference sheets for all three of these publicly-available tools. So again it's going to ask – it's basically like a frequently asked question sheet. So, how do you record in portfolio manager? How do you add data? How do you set up your baseline year? So if you've never used any of these tools before, these can help guide you through the process. Next slide. Okay.

So now I'm going to get into the comparison matrix a little bit more. So we'll go onto the next slide. So this is what the actual comparison matrix looks like within the manual at the very end. And so it will go over various inputs that you would put into the tool, outputs, any other insights or consideration; the size of the facility that it might be better for, and any of the types of analysis that you could be looking for. Okay. Next slide. Okay.

So I just kind of blew it up a little bit better so you can see kind of what goes into it. And so if you look, you can see. There's a little bit of – a slight – difference between what

kind of data that you would need to put into the tool, what you could get out of it, and any additional insights based on the particulars for your facility. And so again these slides, as well as all of this material, is available online. The toolkit is in the Better Buildings Solution Center so you can go through that matrix and kind of figure out which of these three tools is going to work better for your facility and the data that you want to manage. Okay. Next slide. Okay.

And this, as a note, this is not available yet publicly, but we've started working on creating a sample facility. That way, our partners within SWIFt 2.0 and other facilities that want to benefit from this work can use a sample data set and kind of play with the various tools and see what kinds of output they can get from it. And again, this is kind of your idealized data set. And so each individual's facility is going to vary. And it may not look necessarily as clean as this, but I think it's a great starting point to get an idea for how these tools work. So if you don't necessarily want to dig around, if you don't have all of that energy data compiled and organized quite yet, but you want to figure out which tool might work best, which tool you're comfortable with, you can use this sample data. And so we've got a sample facility set up, just as a mock, in Asheville, North Carolina. So we've got a couple of particular. So if you're a facility, you can kind of gauge the particular characteristics of it. Next slide.

And then we have a description of the facility process: the primary treatment and secondary treatment used, and any energy recovery, so we can consider on-site generation, as well as a little complicating factor for the data. Next slide. And then this is the actual data. So we have two years worth of information that you can play with. So if you want to look at each of the tools, some of the tools allow you to forecast and backcast. This is a good data spread to do that. Okay. Next slide. All right.

So now I'm going to get into the next section, which is looking at various measures to implement. So next slide. All right. So the very first list once we move away from energy data management and we have that set, now we're going to look at what measures to implement. So the first step is looking at our low- and no-cost measures list. So this is a checklist of things that are pretty simple to implement. Right now, they're not capitolly intensive. They were recommended by our DOE industrial assessment centers. And on average, we can see a five to seven percent energy savings with implementation and less than a two-year payback. And so these are kind of simple things, where it's like you're kind of questioning, well, why is my energy bill so high? There may be things that you can examine like does this need to be turned on at all times? Can we upgrade these lighting fixtures? So things like that. Very simple low- and no-cost things that still achieve that five to seven percent yield in terms of energy savings. Okay. Next slide. Okay.

Then once you've kind of sunk your teeth into that low- and no-cost measures list, you start to see some of the impact. The next area of focus is our 23 high-impact an innovative energy conservation measures. And so this list provides all 23, as well as the average energy savings that can be achieved. And like I had mentioned before, depending on the technology of your interests, you could see anywhere from 10 to 30 percent energy

savings with implementation. Of course, these particular measures are a little bit more capital-intensive. And so those would rely on a lot of the financing mechanisms that we outline in later sections. But this list is useful when you're making your implementation plan and you're trying to figure out which of these measures you can implement to achieve your goal. So if you set a 30 percent goal, you'd know, okay, I need to implement two, or I need to implement three of these to get to where I want to be. Okay. Next slide. Okay.

And so just so you can see them a little better, because I think that list is kind of tiny, we have them divided by technologies, management approaches, process improvements, as well as resource recovery measures, as well. Okay. So next slide. So then the next step once you've identified the measures, is to evaluate whether or not those measures would work best for your facility. And so that's where the measure planning workbook comes in. and again, I know this is a little small. I'll zoom in onto these features in the next slide. But just so you can get a sense, it's essentially a planning tool that allows you to compare those 23 technologies side-by-side. Or, if you have multiple vendor proposals for the same technology, you can compare those side-by-side. So it's a useful tool for analyzing which measure is going to work best based on your facility's particulars. Okay. Next slide. Okay.

So there are four main components to the measure planning workbook. And I'll guide you through them. It's very easy. It's a very easy tool, very intuitive. There's the market landscape sheet, criteria weighting, the evaluation matrix, and then of course the dashboard. So you can score individual technologies or vendor proposals, and so you can allow facilities – it allows facilities to decide how to implement the specific measure and compare multiple proposals side-by-side. So let's see how this works. Next slide. Okay. Okay.

So the first step is the market landscape. And so based on a number of criteria, it scores key considerations, typically in the areas of costs, savings, payback, and any other specifications; workforce development, capacity, training, things like that. They're divided into the main phases of decision making. So preparation, installation, ongoing operations, and potential benefit. And the user has the option of adding in additional criteria. So here is an example of a criteria that we recommended. But if there's something else that's important to your facility, we have the functionality of adding that in, and it will move throughout the entirety of the workbook. So it – and you'll see how that works if you're entering that information in, weighting it, and scoring it; it will take that all the way to the end and evaluate that with all the other criteria.

So here, for example, this one focuses on installation, and specifically installation price. So what is the purchase price of ammonia-based aeration control equipment? So the lower the cost, the higher the score. So obviously greater than 100,000 would be scored as a one. These are just suggestions for scoring the criteria. And then four would be less than 10,000. Okay. Next slide. Okay.

So where the market landscape slide introduces you to the criteria and allows you to input your own criteria, this is where you actually weight the relative importance of those criteria to your facility. So step two is weighting the criteria. So if purchase price is important to you, you might want to score that a little higher than what we've got here at 13 percent. Maybe that's worth 40 percent in terms of importance. And so all you need to do is fill out the relative importance to you in terms of weight, and then move onto the next step. So next slide.

From here is the evaluation matrix. So once you've weighted the criteria, then you would use the suggestions to score those criteria. So if you have a vendor proposal that's coming in at 50 to 100,000 for ammonia-based aeration control, you would give it a two. And so again, you could do the same thing for any added criteria that were important to you. All of that will carry through. Okay. Next slide.

So then eventually what ends up as a result is a final score. So once you've completed the evaluation matrix, the dashboard will display the names, the weighted scores, and the total scores of each proposal evaluation automatically. And that way you can view this side-by-side and see, okay, the aeration control is going to work better for our facility based on our criteria and based on our needs. And so you can see here in this dashboard some examples of other questions that we ask. So what's the potential environmental permit impact, payback period, level of effort to operate, energy savings that could be expected, what level of system is going to be installed, purchase price, staff training, and ongoing operations and maintenance needed. So those are just several examples of the criteria that you would be weighting for a specific measure. Okay. Next slide. All right.

So now we're going to move into the project financing section of the toolkit. So next slide. All right. So the project financing and funding comparison matrix is very similar to our energy data management matrix. So it basically is a two-page reference document. It outlines nationally-available funding and financing sources for the wastewater sector and it allows you to compare financing options. So looking at what is the eligibility criteria? What do you have to do to become eligible? What's the application look like? What is the turnaround time? What are the requirements? And what types of technical assistance you'll actually receive, and what types of financial assistance would you actually receive? So that you can go in here and look at it and see if your facility has the requirements needed for that type of funding mechanism, and if that is something that looks attractive to your facility. Okay. Next slide.

In addition to that tool, what's also in here are a set of essentially search tools to identify potential financing or funding sources. So it identifies DOE's Better Buildings Financing Navigator, EPA's Water Finance Clearinghouse and the Database of State Incentives for Renewables and Efficiency. So it also houses these tools that you can use to find publicly-available financing mechanisms, as well. Okay. Next slide. Okay.

And then we also developed an energy-savings performance contracting guide for the water resource recovery facility sector. And so it provides decision makers at these

facilities with the information and resources that you need to consider this particular financing mechanism as a way to implement upgrades. Okay. Next slide. All right.

And then we're going to move now to the final stage. So we've worked with energy data management. We're starting to track our energy data. We've thought about what measures we want to implement, both low- and no-cost and the higher-impact energy measures. And then we've now thought about financing mechanisms. So now we want to bring all of that together into an improvement planning structure. So next slide.

So the infrastructure improvement plan template just serves as a kind of a guide to help you sort of refine the questions that you need to ask yourself. So it kind of goes through, okay, what are your improvement goals? What are your facility improvement goals? How do you currently track your data? What are you going to use to track your data? What measures do you plan to implement? What type of funding do you use? So just helps provide that structure that you need to set up this plan. So there's no standard template that you need to use. There's no standard form it needs to take. It just essentially helps guide you through that thought process. Okay. Next slide. Okay.

And what's great, and I think I talked about this before, is that we have a number of SWIFt 1.0 partners that develop their implementation improvement plans and shared those with us. So these are publicly available within our toolkit. So Metro Wastewater in Denver; Wastewater Treatment in Warren, Rhode Island; Miami-Dade and Waterbury, Connecticut all provided their implementation plans for other facilities to look at and benefit from. So when they're drafting their implementation plans, they can kind of get a sense of structure. Okay. Next slide. All right.

And so here's just an example. This comes from the Miami-Dade. So you can see this is just sort of showing you this is just sort of showing you the calculations for implementing the low- and no-cost measures. And then they also have, this is their baseline recording consumption over the three-year period. So their baseline year, the energy savings they achieved in 2017, and then 2018. We also do have 2019 data that we're analyzing right now. But these implementation plans are great because you get to see the SWIFt tools in action and how the facilities utilize them to achieve energy savings. Okay. Next slide.

And then the last piece is that we have guiding principles and frameworks. And so this resource is just a one-page guide, describes some of the most common principles used in water resource recovery facilities across the country. And so it links to these other principles, to the 50001 Ready Program, Effective Utility Management, Net Zero Energy, Resilience, Sustainability, Utility of the Future. So that you could see other organizations that are involved in this space, as well as frameworks for how to develop an implementation plan. So it just leads you onto, then, the next step in your development. Okay. Next slide. All right.

So now I'm going to move into talking about Phase 2. So that was the toolkit that resulted from Phase 1. And so, like I said, that's publicly available. It's on Better Buildings

Solution Center. And so now I'm going to talk about what we're recruiting for now, how we're moving into the next three years with SWIFt. Okay. Next slide. Okay.

So since SWIFt 1.0 partners achieved robust results using those energy management decision making tools and how to resources, we want to continue this momentum and help facilities beyond the accelerator leverage these tools. So what we're looking for in Phase 2 is to engage 100 facilities – 100 additional facilities from the 70 – in a voluntary partnership to achieve 5 percent short-term. That's with using those low- and no-cost measures that I outlined. And then setting a goal to achieve 25 percent long-term facility-wide energy savings. In addition to this, we also want to work with 25 facilities in a smaller cohort to implement at least one next-generation technology. Okay. Next slide. Okay.

So I want to break these two initiatives down a little bit further. So we have two separate things that are going on in SWIFt 2.0. We've got the SWIFt toolkit training, and then the SWIFt energy recovery accelerator, which we're affectionately calling SWIFter. So for the SWIFt toolkit training, this is really for facilities that are interested in prioritizing energy savings and introducing the building blocks of energy management into their operations. Maybe they haven't looked at energy management as a priority, yet they want to. Maybe they're just getting started and they need a little help with how to track and manage that data. But this initiative is essentially designed to provide a deep dive into the resources that support best practices and innovative approaches that were used in SWIFt 1.0 to establish and implement energy management and planning. And so it's going to be a deep dive into the toolkit that I just outlined and how to utilize those resources. And so partners who sign up for that voluntary partnership, they're going to commit to achieving 5 percent short term, as well as setting a goal to achieve 25 percent long-term energy savings.

The SWIFt Energy Recovery Accelerator is for facilities that are ready to adopt more advanced energy technologies. It's designed to provide customized technical assistance on energy and related energy data management, energy efficiency improvements, advanced technology integration, and project financing. And so partner facilities will voluntarily commit to issuing a request for proposals to implement one of these next-generation infrastructure improvement projects. Okay. Next slide. Okay.

So again, just to reiterate the SWIFt toolkit training is going to give you a deep dive on kind of what I just outlined there. It'll go through the same four phases looking at data management. How do you track and measure your energy data? What measures do you want to implement? We're going to look at those low- and no-cost measures first, things that you can achieve that two-year payback period. Things that are not capital-intensive. And then how do you set a goal to achieve the 25 percent? What measures do you want to think about putting in place in the future? What financing mechanisms can you utilize? And then how do you bring all of that together into an improvement plan? Okay. Next slide.

So what's also really nice about this initiative is that we're partnering with the Advanced Manufacturing Office, as well as their Better Plants Program. And so with the SWIFt toolkit, SWIFt partners also have the opportunity to continue their progress through the Better Plants program. And so the Better Plants program is a voluntary public and private partnership for manufacturers and industrial organizations. And a lot of wastewater facilities also sign up for these Better Plant commitments. And so through the Better Plants, you set your long-term efficiency goals very similar to the goals, same goals that you would set with the SWIFt partnership. But you would receive additional technical assistance. So once you're done with us, we want to make sure that you have the tools to be sustainable in the long term. And so you can sign up for this initiative and receive additional technical assistance, additional networking opportunities, and even national recognition.

So partners are assigned technical account managers to help them achieve energy performance goals, and so they can help them establish and improve that data collection and analyze that data. AMO also has a suite of industrial system and software platforms that you can be introduced to. You can connect to partners with peer-to-peer learning and get help setting your energy baselines and data tracking. And so since the ENPI tool is housed primarily within Better Plants, if that's a tool that you'd like to utilize, that's a great resource to get more information on that. So that's kind of a nice partnership through SWIFt. Okay. Next slide. All right.

So a little bit more on the energy recovery accelerator. So getting into that particular task, all partners will receive an introductory training on energy management resources. So that includes the SWIFt toolkit, DOE's 50001 Ready Navigator, as well as the Better Plants tool. We're going to help with energy, setting energy baselines and data tracking and reporting, customized technical assistance workshops on one of four technology tracks – which I'll outline in a minute – financial planning workshops, and up to ten hours of additional technical assistance through a technical account manager. And so again, opportunities for peer exchange. So this accelerator is designed to be flexible. We really want to accommodate participants' scheduling needs. We understand the challenges due to COVID, so for both track one and track two participants, we intend to be as flexible as possible in ensuring that you'll be able to participate in a meaningful way. Okay. Next slide. All right.

So just to outline the four tracks for the SWIFt initiatives. So partners facilities will choose from one of four advanced technology tracks. You have the option of observing the other track's sessions, but any customization is going to be reserved for our chosen track. So this includes energy capture, energy efficiency, resource recovery, and advanced data management.

And so your energy capture is going to look at resiliency, onsite generation, renewable energy integration. Energy efficiency is going to look at those advanced energy efficiency technologies that we highlighted through the 23 high-impact energy conservation measures. Resource recovery is going to look at your bio solids recovery and water recovery. And then advanced data management is going to look at advanced

sensing control for optimized energy performance. So those are the four tracks that you would select from for SWIFter. Okay. Next slide. Okay.

So then what are the benefits to SWIFt partners? So again, you'll get access to all of our tools and resources and options for measuring results, operationalizing efficiency and sustainability goals, and funding a transition to a sustainable wastewater infrastructure. You'll get our technical expertise. You'll get access and leverage our technical expertise developed by DOE technology offices, the EPA, our national labs, as well as our other partner organizations, as well as model solutions. So you'll get the full suite of SWIFt 1.0 partner success. You'll get to collaborate with peers and other stakeholders to create even more model solutions that we can share with the industry. And then, of course, national recognition should you want it. You can receive national recognition across all of our platforms for demonstrating the commitment to pursuing an energy efficiency pathway.

And so I think that might wrap it up, because we're getting close to the Q and A. So let me look at the next slide. Okay. Perfect. So what we're going to do – and I'll just remind you, we're going to begin taking your questions. So I want to transition over to Slido at this point, just so I can have enough time to get to some of your questions. So we'll take a minute to get over there. Okay.

So that's a great question. So the first one up at the front which was promoted says, "What were the sizes of these facilities? Is this toolkit aimed to help smaller, medium, or larger treatment plants?" And so there's no limitation in terms of size. So there was a pretty significant variability, and I think the key results fact sheet probably outlines the sizes of the facilities. But there was a significant variability in terms of size. So there's no restrictions. Track one we're hoping to engage a lot of the smaller facilities that may not have gotten attention during the first iteration of SWIFt. Okay.

Oh, thank you. *[Laughs]* It's right to the top. It says, "What is the ratio of focus in the SWIFt program on strategic capital projects versus the low- and no-cost projects?" So that depends on the two tracks that you pursue and where you are in the process. So for track one, for facilities that are just starting out, prioritizing energy efficiency, it'll probably be a significant focus on the no- and low-cost projects, just as they're beginning and getting started. They may not have explored those avenues. So that might be the primary focus there prior to moving onto the more advanced capital projects.

Since track two is designed for those that are ready to take on those more intensive projects, the majority of the time will probably be spent talking about those. But each track will have at least a little bit of a focus, and because it's meant to be customized and tailored, we're going to be very responsive to the facilities that join. So if they're at the place where they're ready for that, to talk about those strategic capital projects, we'll focus on that. So it's meant to be very responsive to the facilities' interests and needs.

And then, okay, the next question. "Are the meetings recorded and can I download the slide deck?" Absolutely. From what I understand, they should be available through the

Better Buildings Solution Center. So this will be recorded, and then you'll also be able to have access to this slide deck. Okay.

So the next question is, "Is there funding for participants in SWIFt 2.0?" So there's no funding required. You just sign up. It's completely free and open to anybody who is interested. There's no sign-up fee. There's no initiation fee, or anything required. You simply just need to express your interest, and I'll give you my contact information at the end of the presentation. But there's no money required to join in SWIFt 2.0. Okay. Okay.

It says, "For the 25 facilities where you want to implement innovations is financing provided?" We don't, the DOE doesn't – so that might answer the first question, too, because I don't know if I misunderstood that one. But we're not providing, necessarily, the funding directly. If any of that funding becomes available in the future, obviously the SWIFt partnership is a good vehicle for having that connection and being able to communicate those resources, should they become available. But what we would focus on is outlining what other publicly-available resources are out there in the financing section. But we're not going to be providing any specific financing for upgrades during this. This is primarily focused on technical assistance and guiding facilities through the process to get to that point. Okay.

Okay. It says, "How are you recruiting the wastewater sites for consideration for the Advanced Renewable Energy Measures?" So there are a number of outlets we're hoping as well, in addition to DOE's primary platforms for engagement, we work with a lot of the non-profits in the sector: the Water Environment Federation. We also have a network of state and local energy managers. And so through those platforms, we're hoping to recruit primarily for the 25. Yeah. Okay.

So then the next is – this is a good question. "Can water treatment facilities participate as well as wastewater treatment facilities?" So the answer is yes, water treatment facilities can participate as well as wastewater treatment facilities. Both can benefit from the tools that we develop through 1.0. Okay.

"How can state and local governments participate in SWIFt 2.0?" So this is a great question because it brings us back to the structure that we utilize for SWIFt 1.0. So essentially the way that that had worked is we worked with our network, as I had mentioned, our network of state and local energy offices. And through the partnership agreement, they would recruit the facilities to join in. and in return, what we do is we open the entire program to them. So if they want to sit in and listen to the toolkit training, if they want to sit in and listen to any of the SWIFter workshops, they're absolutely welcome to do that. So they'll get access to all the same technical assistance and tools and resources that the facilities do. So state and local governments are welcome to partner with us as they did in SWIFt 1.0. Okay.

And the next one. "How can water-focused non-profits and member associations get involved with SWIFt?" So that's a great question, as well. So through our network, we have a good working relationship with the water environment federation. And so what's

nice is that through this effort we'll be providing a comprehensive set of resources for our participants. And often a lot of times those non-profits and member associations have a lot of resources that are useful to the facilities. And so if that's the case, I encourage you to connect with me so we can learn more about your organization and what kinds of resources are available so we can share those with our partners, our facility partners, as well. Okay.

"What is the smallest facility that this is designed to assist?" I don't think that we've had any necessarily any limit before. I don't think we've put any end cap on it. So what we can do is if you connect with me offline and we talk about the particulars of that facility so I can get to learn a little bit more, we can probably talk about are there any limitations, just practical limitations, given the facility size that you're thinking of? Okay. Okay. It says – going to do – oh. Okay.

So it says – I'm going to do the third one here, because I like the industrial assessment centers. So it says, "Does the SWIFt program bring in other programs like the industrial assessment centers or the Better Buildings program?" So, we had the industrial assessment centers participate pretty significantly in SWIFt 1.0. The challenge with the industrial assessment centers, I think, is primarily location. And so if some of our partner facilities may not have access to those industrial assessment centers based on location. But we will be bringing in people and experts from the industrial assessment centers in our workshops, and we're going to be making our users aware of those industrial assessment centers.

So if that's something that they want to do, if they want to partner and learn more about those resources, they can. So SWIFt is a part of the Better Buildings program, and so within Better Buildings, we're partnering also with the Advanced Manufacturing Office and Better Plants. And so we will be coordinating with Better Plants so that SWIFt partners will be able to become members of Better Plants, as well, if they'd like to, once they've completed the SWIFt training. Okay. Okay.

So I'm going to do, "What is the timeline for SWIFt 2.0?" Okay. So essentially what we're looking at is we're in the kind of planning development stages this fall. We'd like to ideally get started in recruitment right now so that we could begin in earnest in the calendar year FY '21 in the spring. And so we're open right now. We're recruiting for participants. That means we're going to be talking with them over the phone, getting a sense of what their particular issues are, what their interests are, and how we can help them. So this is the stage right now for the next few months where we're going to be working pretty closely with the facilities, as well as our contacts in the state and local governments to get a sense of how can we tailor this program, and how can we partner with these facilities? Okay. I think – let me see. Okay. One is here. Okay.

Let me do this, because I think this is something, it's an important thing, and I didn't discuss this in the presentation. So, "How is the 50001Ready Navigator being incorporated into SWIFt 2.0?" So that's a great question. So, given that we are partnering with the Advanced Manufacturing Office, and I had mentioned that the 50001 Ready

Navigator was one of the frameworks that could be utilized for implementation planning. What's great is we're partnering with Advanced Manufacturing and then Lawrence Berkeley National Laboratory that developed the Ready Navigator tool. So essentially the 50001 ISO is an international standard for energy management.

And so what we're doing is we're tailoring the navigator tool that AMO and Lawrence Berkeley developed for wastewater treatment facilities. And so essentially it goes through, I think, about a set of 25 different tasks that a facility needs to do in order to meet that standard. So it's kind of a nice compendium to your implementation planning, because it guides you through, okay, what's the step-by-step process that I need to establish that energy management standard in my facility? Okay.

What I think I'm going to do, because I do have a, want to make sure I give you guys my contact information for any state and local governments that are interested in learning more or any facilities that are interested in learning more. So I'm going to switch back over to the slide deck to talk about some additional resources really quick. Okay.

So again, these slides and the recordings will be available on the Better Buildings Solution Center so you can revisit the slide deck so you can access these resources. These are the links for the toolkit that I was discussing, as well as any of our on-demand webinars. Okay. Next slide.

So as we mentioned, this webinar is part of the 2020-2021 webinar series, and we have a great lineup of presentations through April. So please visit our Better Buildings Solution Center to register and be sure to subscribe to our e-mail list to stay up to date for the latest Better Buildings webinars. Okay. Next slide.

So then I want to highlight our next webinar. So on November 17, we have our next webinar entitled "Planning for Resilience in Multifamily Housing: A Portfolio-wide Approach." And so this webinar will provide participants with real-world resiliency planning frameworks that can serve as models for property owners and managers. Next slide. Okay.

And to watch recordings from the Better Buildings Virtual Summit, the 2020 Summer Webinar Series, or technical presentations for our national labs, visit the on-demand webinars library where all of our previously recorded presentations are archived. And then next slide. Okay.

And so just to help navigate through the Better Buildings Solution Center. So this is our Better Buildings Solution Center. And so you can find one of our 2,500 publicly-available solutions. You can explore by topic, solution type, or go to one of our programs and partner pages directly. And this is where you can find our toolkits tab with various resources, including where to find our wastewater energy management toolkit. So there's our wastewater energy management toolkit. That's what it actually looks like on the website. Okay. Perfect. Just so you can get a sense of what it's going to look like when

you're navigating. Okay. All right. So then make sure you visit www.energy.gov/bbsc, so that you can explore the Better Buildings Solution Center.

And then finally, next slide, okay. So like I said, we kicked off the summer 2020. We're currently welcoming interested state, regional, local agency and facility partners. So if you're interested in the SWIFt initiative, please contact me at Shannon.Zaret@ee.doe.gov. If I didn't get to answer any of your questions today, please feel free to connect with me offline, and I'd be happy to share some more information. But again, thank you for joining us. I appreciate getting to chat about SWIFt a little bit more. And I look forward to hearing from some of you. Thank you.

[End of Audio]