Quarterly Stakeholder Script (June 13, 2024)

Please remember to turn your camera on when speaking. Feel free to remind attendees to post questions at any time.

Time (p.m. ET)	Topic	Speaker(s)	Slide # and Talking Points
1:30–1:31	Log-in period		N/A
1:31–1:32	Welcome	Jen	Slide 1: Hello everyone—good afternoon, or maybe good morning or evening, depending on where you are. I'm Jen Livermore and I'm an engineer with our Data, Modeling, and Analysis team. My background is in geophysical exploration for geothermal resources and I provide support for GTO projects across geothermal power and renewable heating and cooling technologies. On behalf of the GTO team, I'd like to thank you for joining us. Our quarterly webinars are a really important part of our work, giving us the opportunity to share news, funding notices, and project updates both in our office and in geothermal energy more broadly. We know everyone is busy and has limited time, and we appreciate you carving out this hour to be here.
1:32–1:33	Agenda Overview	Jen	Slide 2: Here is our agenda for today. We'll start with several updates from the Department of Energy and its Office of Energy Efficiency and Renewable Energy, of which GTO is a part. Then I'll go over GTO updates including upcoming and recent events, new outreach and communications tools, and some news articles featuring GTO staff as well as geothermal more broadly. Then our program managers will join us for program and project updates, including recent and new funding opportunities. We'll finish off with a question-and-answer session. Those tend to go pretty quickly, so I'd encourage you to enter your questions any time throughout the webinar using the Q&A tab of Zoom. We have a lot of updates to share, so let's jump right in!

	DOE/EERE Updates	Jen	Slide 3: Okay, so we'll start with updates from the Department of Energy and its Office of Energy Efficiency and Renewable Energy, or EERE, of which GTO is a part.
			The first item here—Meet the Champions Who Used Oil Industry Know-How to Break Ground in Geothermal Energy—is a particularly fun one for us to share. It's an EERE success story about José Aramendiz and César Vivas, two University of Oklahoma Ph.D. students whose team won first place in the technical track of our fall 2023 Geothermal Collegiate Competition. Both students were introduced to geothermal energy while working separately in the petroleum industry in Colombia. Their interest in geothermal led them to OU, where they and their teammates last year designed a system of geothermal wells to heat and cool the Osage Nation's 40,000-square-foot greenhouse, supporting efforts for native food sovereignty. Their winning team recently hosted a community stakeholder event to discuss their Geothermal Collegiate Competition project and you'll hear more about that later. Their story is a great example of how skills in the oil and gas industry can apply to geothermal energy. We hope you'll read the full story to learn more about these two engineers and we look forward to what they do next.
1:33–1:36			Next, we have a highlight from back in March, when DOE announced up to \$475 million for five projects in Arizona, Kentucky, Nevada, Pennsylvania, and West Virginia to accelerate clean energy deployment on current and former mine land. This funding from the Bipartisan Infrastructure Law will support diverse clean energy projects, including geothermal direct use. These projects will serve the local communities and also serve as models that can be replicated in current and former mining communities across the country.
			Also in March, DOE's Energy Transitions Initiative Partnership Project, or ETIPP, released its fiscal year 2023 report. GTO is one of several DOE offices that help fund ETIPP, which provides planning support, system design, energy education, and expertise to remote and island communities looking for resilient solutions to climate threats and concerns, such as more intense weather events. The FY2023 report outlines the ETIPP's team direct technical assistance to communities as well as program improvements like work to help communities catalyze clean energy demonstration and deployment.
			In April, EERE announced its intent to issue multiple funding opportunities—totaling more than \$100 million—for field demonstrations and other research to support better planning and operation of the electric grid. Goals for these opportunities include better planning and operation of distributed energy systems, and optimizing systems with grid-connected buildings and vehicles powered by clean, distributed energy—confirming that these technologies are ready to support the nation's energy future. The funding opportunities include Connected Communities 2.0, which GTO is a collaborator on.

			Connected Communities projects look to advance solutions for the grid edge — where electricity distribution transitions between the utility and the customer — at community scale. We encourage you to sign up for EERE's Weekly Jolt to get updates; the next slide will tell you how to do that. Ok, just two more quick highlights here before we move on. First is \$5 million in EERE funding to help two minority-serving universities equip students for clean energy careers. With this funding, Tennessee State University and the University of Texas at El Paso will create STEM training and workforce development, increase students' understanding of clean energy careers, and create mentorship and entrepreneurship opportunities. And second is selection of the second cohort of communities selected for the Communities Local Energy Action Program, known as Communities LEAP, which is a technical assistance initiative that helps disadvantaged communities and those with historical ties to fossil fuel industries move toward a clean energy future.
1:36	DOE/EERE Contact Info	Jen	Slide 4: The DOE and EERE stories we included here are just a sampling of all that's happening—so we encourage you to stay informed about all the news and funding opportunities by signing up for EERE's Weekly Jolt and following Secretary Granholm, DOE, and EERE on social media using the information shown here. And be sure to use GTO's hashtag, Geothermal Everywhere, when you post your news so that we can
1:36–1:37	GTO Updates: Upcoming Events	Jen	Slide 5: Ok, moving on to updates from GTO, starting with several upcoming events. GTO's schedule has been busy through this midyear and we hope to see you at these and other events soon! In June, GTO will be attending and speaking at the International District Energy Association Annual Conference in Orlando, FL, and at the American Rock Mechanics Association Symposium in Golden, CO. Then, in July, we'll join EUCI for an online conference about recent advances in geothermal heat pumps and the impacts their increased use can have. Oak Ridge National Laboratory will also share an update during the EUCI event about a newly developed technoeconomic screening tool for GHPs. And, of course, it's not too early to mention that this year's Geothermal Rising conference is scheduled for the end of October on the island of Hawaii.

	GTO Updates: Recent Events	Jen	Slide 6: Now on to highlights of recent events that GTO and DOE have attended. I won't go through all of these, but I think it goes without saying that we've had a lot going on.
			In March, Secretary Jennifer Granholm announced the Next-Generation Geothermal Liftoff Report at CERAWeek in Houston. This "Super Bowl of Energy" has historically been known for an oil and gas presence, but in recent years—including 2024—geothermal has made a big splash at the event. Not only did Secretary Granholm talk about the report and the potential for next-generation geothermal in her keynote, there were multiple other geothermal events.
			Our director Lauren Boyd attended CERAWeek, along with Sean Porse and Jason Braden from GTO. Lauren participated in multiple panels at the event, including one to discuss the full potential of geothermal energy to become a major player in the nation's energy future, and joined Jigar Shah from the Loan Programs Office for a media roundtable table about the Liftoff report. All in all, CERAWeek was indicative of the growing interest in geothermal energy and we were pleased to be part of it. We've published a success story on GTO's website with more details about the event; it's linked to the words CERAWeek on this slide.
1:37–1:39			We were also excited to welcome Deputy Secretary David Turk to our Frontier Observatory for Research in Geothermal Energy in April. The Deputy Secretary was able to see the site in active stimulation operations, which we'll share more about later. He also met with members of the GTO team and representatives from oil and gas companies interested in geothermal energy, then toured Fervo Energy's nearby site and drilling rig. We always enjoy hosting DOE leadership at FORGE and our other R&D sites so they can see firsthand how we're moving the needle on geothermal energy.
			In addition to CERAWeek, Lauren has been out and about talking about GTO's research and the future of geothermal energy. She attended and gave remarks at Geothermal Rising's Thermal Energy Network Symposium in Rochester, Minnesota, taking the opportunity to highlight the many innovations and opportunities GTO is working on in community geothermal and other networked applications. Lauren also presented at the National Renewables Cooperative Organization Board Meeting, where she dug into details about next-gen technologies like enhanced geothermal systems and closed-loop geothermal.
			She also joined a fireside chat with Reed College's Troy Cross at the Bitcoin Policy Summit in April, during a session focused on bitcoin's energy use and environmental impact. Lauren highlighted the unique characteristics of geothermal power generation and the promise of next-generation geothermal, as well as the energy savings and grid benefits available from geothermal heat pumps. It

		was a wonderful opportunity to introduce geothermal technologies to an audience that may not have previously considered them, and to discuss how geothermal can benefit bitcoin mining—and how bitcoin mining could potentially serve as a heat source in turn. Given rising energy demands from bitcoin, AI, and data centers, this was a great chance to dig into some of the possible synergies for the future of computing. And Lauren is not the only GTOer who has been busy. Many members of our staff have been sharing all that geothermal has to offer—from Alexis McKittrick and Mike Weathers sharing updates about our hydrothermal and low-temperature programs at various events, to Bill Vandermeer discussing synergies between oil and gas and geothermal at the Energy Leaders Series in Colorado, to Alex Prisjatschew highlighting how geothermal can support the domestic critical minerals supply chain. And we know many of our RD&D partners are out sharing their research updates, analysis findings, and innovative ideas. It's been a busy first half of the year and we're sure that trend will continue. We look forward to continuing to see you all out on the geothermal event circuit!
GTO Updates: New Resources	Jen	Slide 7: GTO's communications and stakeholder engagement team is always hard at work to improve access to geothermal information, and we always like to take a moment on these quarterly webinars to highlight a few of these resources. We've updated our community engagement page, which highlights our efforts working directly with communities to help them learn about geothermal energy and empower them in making decisions about local energy needs. The revised website highlights our current work in Hawaii in conjunction with the National Renewable Energy Lab, which Sean Porse will tell you a little more about shortly. We have an updated page detailing tax credits and incentives for geothermal heat pumps, another part of our resources for consumers and others interested in installing GHP systems, and we recently published a summary of the extraordinary interest in geothermal energy at this year's CERAWeek and how GTO participated in the event. Media even republished our story, so lots of opportunities to check that one out. We hope that you'll visit our website using the URL or QR code here to check out these and many other educational resources, updates, and information.

1:40–1:41	Geothermal in the News	Jen	Slide 8: Speaking of media, here's a recap of just some of the places where GTO and geothermal energy have been making headlines lately—including continued interest in the geothermal heat pump impacts report we released back in December and the lithium quantification analysis we released in November! The latter includes a recent interview of EERE's Principal Deputy Assistant Secretary, Jeff Marootian, for Electrify News, where the reporter highlights how lithium extraction from geothermal brines can help support the electrification of America's transportation sector. We've also seen extensive coverage of the Next-Generation Geothermal Liftoff Report and the attention geothermal received at CERAWeek—well over a dozen articles just in the week or so after the event! The media are also continuing to take interest in geothermal heat pumps as a solution for communities nationwide.
			These are just a small sample of the many articles we've seen recently. We encourage you to subscribe to our Drill Down newsletter, which always includes a <i>Geothermal in the News</i> section.
1:41	Transition: to Sean	Jen	Slide 9: Okay, now it's time to find out what our GTO programs are up to. I'll start by turning things over to Sean Porse to kick us off with updates from the Data, Modeling, and Analysis team. Sean to be spotlighted and take talking stick.
1:41–1:42	Liftoff Report	Sean	Slide 10: Thanks, Jen, and thanks everyone for being here. Just a reminder before I dive in that you can enter any questions you have into the Q&A anytime. I'll lead off the DMA updates with the Next-Generation Geothermal Liftoff Report, which Secretary Granholm announced at CERAWeek. GTO authored the report in conjunction with the Loan Programs Office and the Office of Clean Energy Demonstrations, with the objective to highlight pathways to reach the commercial potential of next-generation geothermal—meaning enhanced geothermal systems, or EGS, and closed-loop geothermal. DOE liftoff reports are an ongoing effort to engage directly with energy communities and the private sector across the entire clean energy landscape. For this Report, the objectives were to build foundational understanding of the innovations, value proposition, and business models of next-generation geothermal as well as to outline the actions needed to expand the technologies. The work builds on GTO's prior analyses for the future of geothermal energy, including our <i>GeoVision</i> analysis and Enhanced Geothermal Shot™ analysis, and sets a course for solutions to geothermal's most pressing challenges.

	Liftoff Report	Sean	Slide 11: The Liftoff report notes that full-scale deployment of next-generation technologies will go
	·		through two phases, one to reach market readiness and another to fully scale. The report also
			describes key market and community enablers that will support commercial-scale production by 2030.
			In the first phase, we'll need next-generation geothermal developers to prove out the market
			opportunity to <i>reach commercial liftoff</i> by 2030. Getting to that goal will require overall deployment
			of about 2 to 5 GW across up to a half-dozen states, with a total investment of \$20B–25B.
			To enable reaching liftoff, the report highlights a few enablers to target, including:
			 Using technology improvements and RD&D to achieve cost reductions to a national average
			levelized cost of electricity of \$60–70/MWh by 2030.
			 Multiple large-scale demonstration projects—on the order of 30 MW or more—to help
			improve technologies and techniques in various geological settings
1:42–1:44			Power purchase agreements that accurately reflect the value of clean, firm, flexible power on
:42-			the grid
1			And early and ongoing community engagement to make sure we understand the needs and
			concerns of communities and use geothermal as part of a just and equitable energy transition.
			Once we've reached liftoff in the first phase, the industry can <i>achieve scale</i> by expanding the viability
			of resources in competitive regions—like the U.S. West—and then expand across the United States.
			We anticipate an additional \$225B–250B investment in this phase to help deploy next-generation
			geothermal technology to its full potential, with an expansion of up to 125 GW.
			A key takeaway from the report is the idea that achieving scale will rely on a "snowball" effect: As we
			validate and deploy more resources, costs and risks will decline, investment interest will grow from
			those who may have previously remained on the sidelines, and industry will be able to leverage
			economies of scale and an experienced workforce.
	Liftoff Report	Sean	Slide 12: Ultimately the goal is to better leverage the 5 terawatts of heat resources available in the
1:44			U.S.—which, as you can see on this map, is distributed across the country. We already know that next-
1:			generation technologies can expand geothermal power by more than a factor of 20, and this report
			provides pathways to help get there.

1:44–1:45	GCC Winners' Event	Sean	Slide 13: Okay, shifting gears now to our Geothermal Collegiate Competition and the fall 2023 technical track winners at the University of Oklahoma. The team designed a system of geothermal wells in Pawhuska, Oklahoma, to heat and cool the Osage Nation's 40,000-square-foot greenhouse, supporting efforts for native food sovereignty. Through a geothermal resources assessment, the team found there is enough energy at about 2,000 feet below the surface to directly heat and cool the greenhouse as well as a nearby fish farm. The proposed system would help the Tribe maintain a constant year-round growing temperature in the greenhouse—particularly important in the area, which is especially important because the area is recognized as a food desert. As part of their first-place winnings, the team received a cash prize plus additional funding to host a community event. They held this event in May, taking the opportunity to showcase their innovative design and talk with local residents about geothermal energy. As the slide notes, the event included a networking session, presentations, and a tour at the school. We really enjoy seeing students host these community events and look forward to the 2023 policy track winners holding theirs later this month.
1:45–1:46	GCC Soft Launch	Sean	Slide 14: And here's a perfect way to segue into my next update: A photo of the OU winners receiving their certificate at the stakeholder engagement event—which is also announcing that we are getting ready to launch the 2024 competition!

1:46-1:47	GCC Soft Launch	Sean	Slide 15: Registration for the 2024 GCC will open in August. The competition welcomes teams of three or more collegiate students at any level or in any major, and we hope you'll register to compete or share the info with a student you know. This year's event will again feature two tracks—technical and policy—and we'll have additional cash prizes for third place and a bonus award. We have two information sessions coming up in July and September. Go to the links shown here and sign up for the Drill Down and GCC updates to register as well as be notified when the competition launches. We'll also need mentors to help students design their 2024 projects, so consider this an early call for geothermal professionals to get involved. Students in the 2023 competition found mentor inputs invaluable not only in their project work but also in understanding geothermal energy and the industry better. At the same time, mentors told us they found the experience of rewarding and inspiring. Information on how to become a mentor will be available when the competition opens, so anyone interested should also sign up for the Drill Down and GCC updates. The GCC is an important part of efforts to build tomorrow's geothermal workforce and we really encourage anyone who's interested to get involved.
1.47–1.48	State Outreach	Sean	Slide 16: As Jen mentioned earlier, we have an updated community and stakeholder engagement page on our website. The site and this slide detail a particularly important project we're working on in this space, working with Hawaiian communities. Despite high energy costs and known geothermal resources, Hawai'i currently has just one geothermal power plant, and residents generally have limited or incomplete understanding of geothermal energy broadly. In order to help residents feel informed and empowered on geothermal energy, we're funding the National Renewable Energy Laboratory to engage with the community directly and develop resources to support their needs. As the slide notes, the NREL team has established a Community Council with members from utilities and industry, community organizations, academia, state agencies, and nonprofits. The Council is helping to guide our efforts there, including in planning and carrying out listening sessions on various islands. These listening sessions have already proven helpful in gaining insight into local needs and concerns, and have created a Hawaii-specific fact sheet in response. We're learning a lot and look forward to continuing to work with the Hawaiian community. Stay on slide 16 until Jen is spotlighted.

1:48	Transition: to Jen	Sean	STAY ON SLIDE 16: Okay, my final DMA update is one we have been waiting to share and are very excited about: A new funding opportunity, built on our program objectives to use data and analysis to tackle barriers and open new pathways for geothermal deployment. Jen played a key role in leading this funding opportunity, so I'm going to turn it back to her to share more. Take it away, Jen. Jen to be spotlighted and take talking stick.
1:48–1:49	GTO GRID FOA	Jen	Slide 17: Thanks, Sean. As Sean mentioned, I'm excited to be able to share with everyone that DMA has released its first funding opportunity announcement, called the GTO GRID FOA—short for Geothermal Resources' Value in Implementing Decarbonization. As the slide notes, we know geothermal electricity generation offers a unique value proposition to support decarbonization. Through its traditional role as a clean, firm power resource or through differing operational configurations such as flexibility or coupling with storage, geothermal power can contribute to an equitable transition to a future decarbonized grid. The challenge is that we have an incomplete understanding of that value, so we can't maximize those opportunities for geothermal.
1:49–1:50	GTO GRID FOA	Jen	Slide 18: The GTO GRID FOA is intended to help us address that gap by funding regional grid modeling studies to quantify the potential contribution of geothermal power in supporting an equitable transition to a future decarbonized grid and economy. Up to \$7 million is available under the funding opportunity and we've made a teaming partner list available to express interest in partnering, find project partners and assemble new teams, and search and recruit for team needs. Some key upcoming dates for the FOA are listed here. Because this is an open funding opportunity, we can't respond to any questions about it on today's webinar, but you can send questions to the email address on this slide. This valuation work is essential for geothermal energy as well as the nation's grid, and we hope that you'll check out the GTO funding opportunities page and attend the informational webinar on June 26 to learn more.
1:50	Transition: Kevin	Jen	Slide 19: And now I'll hand the virtual mike over to Kevin Jones, our Acting Enhanced Geothermal Systems Program Manager. Kevin to be spotlighted and take talking stick.

	FORGE	Kevin	Slide 20: Thanks, Jen. Great news for the DMA team, and for geothermal energy—definitely encourage
			everyone to take a look at that opportunity.
			In EGS, we've been busy moving the needle on innovation through research and demonstrations. Our FORGE site in Utah has been particularly busy racking up successes in those areas. As Jen mentioned earlier, Deputy Secretary Turk visited the Utah FORGE site back in April to observe stimulation operations. The team completed stimulation operations that month on both the 16A (the injection well) and 16B (the production well), with the goal to develop interwell connectivity through a humanmade fracture system.
1:50–1:52			You might recall that FORGE drilled the 16A injection well in 2020 and performed an initial stimulation in 2022, which was used to help determine the ideal location for the 16B production well. When the 16B drillwell was executed in 2023, it was designed to intersect the fracture cloud that was produced by that 2022 stimulation. The injection and production wells are parallel, with lateral sections inclined at about 65 degrees with respect to vertical and spaced apart vertically by 300 feet. After drilling the 16B well last year, the team performed a small-scale injection test that proved connectivity.
			This time around, the FORGE team successfully stimulated both wells (16A and 16B) at commercial scale and then did a 9-hour circulation test. The results proved fluid flow and energy transfer from an EGS reservoir in hot, dry granite—which is a major breakthrough—and confirmed the potential of EGS energy production. The team used fiber-optic systems to locate fracture hits and to monitor stimulation activity and carefully monitored microseismic data throughout the stimulation—all while collecting vast amounts of data. Those data are or will soon be publicly available and will be used along with the circulation test results to plan additional fieldwork, including a 30-day circulation test scheduled for later this summer.
			In addition, the Utah FORGE team recently completed negotiations with the majority of selectees from their most recent solicitation and those teams will be starting their impactful research soon, on topics ranging from seismicity monitoring to high-temperature proppants. You can get the latest on FORGE through our newsletter as well as FORGE's website and most recent update webinar, which is linked

on this slide.

1:52–1:53	Geophone Prize	Kevin	Slide 21: Next up, we wanted to highlight the selection of five finalists in the \$3.65 million Geothermal Geophone Prize. This prize is focused on the development of high-temperature seismic sensors known as geophones that collect real-time data for EGS and help us "hear" what is occurring in the subsurface. The innovations we're seeing in this prize are vital, because geothermal environments require more rugged sensors, particularly as we get into deeper and hot subsurface environments. We selected the five finalists shown here from a pool of 12 competitors in Phase 2 of the prize. The finalists are now working to fabricate and test their geophone prototypes in the final phase of the prize. We look forward to seeing their results and selecting winners in 2025.
1:53	Wellbore Construction Funding Opportunity Announcement	Kevin	Slide 22: Before I turn it over to Sudeep Kanungo for updates on our hydrothermal and low-temperature programs, I wanted to briefly mention that applications for our recent combined wellbore construction and reservoir thermal energy storage FOA are in review. We encourage you to sign up for GTO's newsletter and emails so you can be notified when we have selections.
1:53	Transition: Sudeep	Kevin	Slide 23: With that, happy to hand things over to Sudeep. Sudeep to be spotlighted and take talking stick.
1:53–1:54	GEODE	Sudeep	Slide 24: Thanks, Kevin. I'm pleased to be here filling in for our hydrothermal and low-temperature program manager Alexis McKittrick. And it seems appropriate to start with our combined hydrothermal and EGS initiative GEODE, short for Geothermal Energy from Oil and Gas Demonstrated Engineering, which focuses on expanding domestic geothermal by leveraging key learnings from the oil and gas industry. The first step in this initiative was selecting an administrator that will establish a consortium to develop a roadmap and outline a plan for RD&D in the space. Last year, GTO selected a team made up of Project Innerspace, the Society of Petroleum Engineers, and Geothermal Rising as the
			administrators. Now we've completed negotiations and the project is getting underway. Next steps for the team will be to convene the consortium and identify technology and knowledge needs in the space. Pending appropriations, GTO will then use that roadmap to fund research to address those needs and advance domestic geothermal.

1:54–1:55	Critical Minerals Lab Call	Sudeep	Slide 25: As many of you may know, we recently released a call for national laboratory research in critical minerals. The call is part of our continued efforts to provide value-added opportunities for geothermal and bolster the U.S. critical minerals supply chain. We're looking to do this work in the three topic areas as shown on the slide, including Topic Area 3 in partnership with DOE's Office of Fossil Energy and Carbon Management and the Advanced Materials and Manufacturing Technologies Office. Outcomes we hope to reach with this lab call include things like a database of geochemical and thermodynamic properties of rocks in the Salton Sea Known Geothermal Resource Area—which can help us understand how mineral host rocks within a typical geothermal reservoir can be chemically or thermally altered to breakdown and release lithium and other critical minerals—as well as analyses of novel drilling technology improvements and understanding of lithium and other critical minerals beyond the Salton Sea region. Applications were due at the end of May and we're currently reviewing them—you can stay tuned for updates by signing up for the Drill Down and checking our website regularly.
1:55	Transition: Low- Temp, no speaker change	Sudeep	Slide 26: Okay, now I'll change gears for updates from our low-temperature program.
1:55–1:56	FedGeo	Sudeep	Slide 27: Many of you may be familiar with our Federal Geothermal Partnerships program, or FedGeo, which we've talked about on previous quarterly webinars. This initiative helps the federal government lead by example in the clean energy space, with technical assistance and analysis focused on the use of low-temperature geothermal at federal facilities. Last year, we announced two U.S. Department of Defense installations to be the first to receive technical assistance under FedGeo: the U.S. Military Academy at West Point in New York and the U.S.
1:56	FedGeo	Sudeep	Army's Garrison Detroit Arsenal in Michigan. Slide 28: Both sites have been making progress, and the U.S. Army just released an update that they've completed drilling of their geothermal test well at Detroit Arsenal. They are now proceeding to collecting data from that well using fiber optic cables installed during drilling. We're pleased to see these two projects proceed and looking forward to more updates from them both in the coming months.
1:56	RTES Funding Opportunity Announcement	Sudeep	Slide 29: And a quick reminder on our recent reservoir thermal energy storage FOA, which was combined with the wellbore construction funding opportunity Kevin mentioned earlier. As he noted, applications are under review and we encourage you to sign up for the newsletter and stay tuned for selections.

1:56–1:57	Affordable Home Energy Shot™	Sudeep	Slide 30: Before we wrap up, I wanted to highlight GTO's participation in the Affordable Home Energy Shot™, the eighth of DOE's Energy Earthshots™. The Affordable Home Energy Shot™ focuses on decarbonizing residential buildings, with a target to reduce the upfront cost of upgrading a home by at least 50% while reducing energy bills by 20% within a decade. In particular, the Shot seeks to address persistent burdens faced by low-income households and communities of color and ensure that households in the greatest need benefit from decarbonization solutions related to: ■ Building upgrades ■ Efficient electrification ■ And smart controls. GTO is excited to be participating on the effort with multiple DOE offices and programs, including the Building Technologies Office, Weatherization Assistance Program, State and Community Energy Programs, and Office of Energy Justice and Equity. The team hosted a summit last week that we were pleased to be part of, and we're certain there's much more to come from this Shot in the future.
1:57	Transition: Jen	Sudeep	Slide 31: Okay, let's go back to Jen to tell us a little about GTO outreach and lead us into Q&A. Jen to be spotlighted and take talking stick. Keep slide 31 up.
1:58	GTO Outreach Tools	Jen	Slide 31: Thanks, Sudeep, and thanks to all of the program managers for the terrific updates. Before we turn to Q&A, I'll offer one more plug to check out GTO's website regularly for all the latest resources and tools!
1:58–1:59	Q&A	Jen	Slide 32: Now we'll move on to the Q&A portion of the agenda. If you haven't already, enter any questions you have in the Q&A box. While you do that, I'll remind you to sign up for the Drill Down to make sure you get all the latest on GTO. We also encourage you to send us your resume or CV at the email listed here if you're interested in being a merit reviewer for GTO research proposals. We collect information for reviewers on a rolling basis and hope you'll join us to help shape the future of geothermal research! Keep slide 32 up. (Questions with answers will be populated in the Q&A document when ready to be answered. Program manager assignments will be highlighted. Last question to be taken no later than 2:28 p.m. ET.)

2:30 or when questions run out	Dismissal	Jen	Slide 33: Ok, we are out of time today. Thank you all again for attending. We'll distribute today's slides and transcript soon.
			If you have any follow-up questions, or if we didn't get to your question today, please email doe.geothermal@ee.doe.gov . Have a great rest of your day!