- 09:55:31 From Christopher Gray, AEG: Welcome to the AEG Boston & Mass EV 20Q4 Speaker Challenge on Mobility & Transportation: Commercial Fleets! Please:
- 1. Join Slido with your phone or computer to answer the first survey question: https://app.sli.do/event/aa8fx0rq
- 2. Enter your First, Last, and Company Name in your Zoom profile so that we can see who you are.
- 3. Please put your name, company and Linkedin profile in the chat.
- 4. Follow us on Linkedin! (https://www.linkedin.com/company/advanced-energy-group-llc/) and mention the hashtag #AEGBOSTON #MASSEVCHALLENGE

 09:59:37 From Christopher Gray, AEG: Welcome to the AEG Boston & Mass EV 20Q4

 Speaker Challenge on Mobility & Transportation: Commercial Fleets! Please:
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 10:00:30 From Ken Jack Verizon : Good morning everyone. Looking forward to this!

10:00:41 From Yann Kulp : Hello everyone. This is Yann from elQ Mobility... now part of Nextera Energy. https://www.linkedin.com/in/yannkulp/

10:05:20 From Chris Gray, AEG: Welcome to the AEG Boston & Mass EV 20Q4 Speaker Challenge on Mobility & Transportation: Commercial Fleets! Please:

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hashtag #AEGBOSTON #MASSEVCHALLENGE

10:05:31 From Lisa Tornatore, she/her, BU Sustainability: Good morning. Lisa Tornatore from Boston University. I'm excited to be here this morning. https://www.linkedin.com/in/lisa-tornatore-a419712a/

10:06:36 From Ken Jack - Verizon : Good morning everyone - Ken Jack here from Verizon Communications ... https://www.linkedin.com/in/kenneth-jack-0659a710/

10:06:48 From Yann Kulp: Am I the only one to have HG cut off?

10:11:29 From John Erdman : Hello Everyone. John Erdman from FreeWire Technology. https://www.linkedin.com/in/johnerdman/

10:12:19 From Molly Dee: Hello all, Molly Dee-Ramasamy from Jaros Baum & Bolles in NYC and Boston. Looking forward to learning about this topic in more depth today and tomorrow! https://www.linkedin.com/in/molly-ramasamy-pe-cea-cphc-89046532/

10:12:43 From Manuel Fontan, WSP : Good morning everyone. Manuel from WSP: https://www.linkedin.com/in/manuelfontan1/

10:15:30 From james carter: Hi, I'm James Carter, Principal Consultant of Vision Mobility. Great to be here and great info so far. https://www.linkedin.com/in/jamescartertoronto/

10:16:50 From Matthew Futch: Good morning everyone. Matt from NREL, helping direct industry partnerships for the lab. https://www.linkedin.com/in/matthewfutch/

10:19:11 From Julia Gold : Good morning! Julia Gold from National Grid's Clean Transportation team. Looking forward to our conversations today and tomorrow! https://www.linkedin.com/in/julia-gold-4b53961b

10:21:06 From Chris Gray, AEG: https://app.sli.do/event/aa8fx0rq

10:21:14 From Heather Takle : Good morning to all! Heather Takle from PowerOptions, a non-profit energy consortium offering clean transportation options to our 470+ non-profit and public entity members across New England since last year. https://www.linkedin.com/in/heathermarchtakle/

10:21:33 From Chris Gray, AEG: Join Slido with your phone or computer to answer the first survey question: https://app.sli.do/event/aa8fx0rq

10:22:20 From Taco de Vries : Taco from Guidehouse here, progressing mobility... linkedin.com/in/tacobr

10:23:17 From mariasbocanegra : excited to be here! https://www.linkedin.com/in/maria-s-bocanegra-474331172/

10:23:19 From Vartan Badalian : Good morning everyone, Vartan Badalian, EV100 Program Manager, North America. EV100 is a global commitment program for fortune 500 companies and alike to commit to electrification. https://www.linkedin.com/in/vartanbadalian/

10:23:51 From Ariel Horowitz (MassCEC) : Good morning all, Ariel Horowitz from MassCEC! Excited to hear the thoughts on this as we develop related programming (ACTNow II notice of intent: https://files-cdn.masscec.com/basic-page-image/ACTNow%20II%20Notice%20of%20I ntent_Final.pdf) and to connect with stakeholders (https://www.linkedin.com/in/arielhorowitz/)

10:24:04 From Ben Hartford, XL Fleet : Good morning everyone! Ben Hartford from XL

Fleet here. We are a leader in vehicle electrification solutions for commercial and municipal fleets. https://www.linkedin.com/in/benjamin-hartford/

10:25:41 From James Cater: Hello Everyone! Excited to be here! James Cater Program Lead for EV Infrastructure at Eversource Energy. Looking forward to a robust discussion. www.linkedin.com/in/james-cater-753b021

10:27:52 From Sejal Shah : Good Morning everyone, Sejal Shah, Senior Program Manager with National Grid. Looking forward to the discussion today. www.linkedin.com/in/sejal-shah-aa4203

10:28:15 From Kevin Boughan (Eversource): Kevin Boughan, Manager Clean Energy Strategy - EVs at Eversource Energy, working with James Cater, Brian Morris and Sean Tully to advance EVs throughout MA, CT and NH.https://www.linkedin.com/in/kevin-boughan-849a3b3/

10:29:01 From Staci Rubin (she/her), CLF: It is good to be here with you. Staci Rubin, Senior Attorney, Conservation Law Foundation, Boston Office

10:29:06 From Brian : Good morning everybody. Brian Morris here, EV Strategy & Policy at Eversource. Nice to meet you all virtually. https://www.linkedin.com/in/brian-morris-b8368418/

10:30:01 From Graham Dickson (Guidehouse): Good morning, Graham Dickson from Guidehouse. Former employee of a German utility, helping design EV strategy; now based in Boston supporting utilities and technology majors with electrification. https://www.linkedin.com/in/grahamdickson/

10:30:05 From Jacob Glickel: Good Morning! Jacob Glickel from Northeastern University here. https://www.linkedin.com/in/jacob-glickel-8298993/

10:31:07 From Sara Forni: The Corporate Electric Vehicle Alliance (CEVA), led by Ceres, is working on demand aggregation for EVs across all vehicle segments! Check out our work

https://www.ceres.org/our-work/transportation/corporate-electric-vehicle-alliance. National Grid is a member.

10:32:56 From Sara Forni: You can reach out to forni@ceres.org for more information on how CEVA is working to define common specs and EV needs across industry partners to engage with auto and truck OEMs.

10:34:03 From Ken Jack - Verizon: Thanks Sara! We should talk.

10:35:46 From Vartan Badalian: In conjunction with CEVA (a close partner of ours), EV100 is a global commitment program run by the Climate Group for major companies to commit to source EVs for their fleet by 2030. Currently 4.8 million vehicles committed to electrify by 2030 in vehicle ranges of 0-7,000 lbs and 7,000-14,000 lbs. Can learn more here: https://www.theclimategroup.org/ev100 Major companies such as Ikea, HP, Genentech, Lyft, etc.

10:37:35 From Shawn Jones : Greetings all, Shawn Jones here from Center for Sustainable Energy (CSE) - https://www.linkedin.com/in/shawn50mileenergy/

10:46:26 From Cynthia Maves, Lordstown Motors: We are interested in meeting with large fleets and consortiums of fleets to hear their needs and determine if we can build a configuration of the Endurance or other vehicle to meet those needs. Cynthia.Maves@lordstownmotors.com

10:49:46 From Daniel Shanahan: Hello everyone, Dan Shanahan EVSE LLC (www.evsellc.com), a CT and MA manufacturer of EV charging stations. Thank you for these detailed view of EV fleet landscape, opportunities and challenges. https://www.linkedin.com/in/daniel-shanahan-8b849542/

10:51:21 From Phil Jonat, WSP: Hello everyone, I'm Phil Jonat, an engineer working in fleet electrification and utility interconnection for WSP USA. Happy to connect with all. https://www.linkedin.com/in/philip-jonat-pe-cem-pmp-33018511/

10:53:14 From Macky McCleary: Hi Everyone, Macky McCleary, a Director in the Energy, Sustainability and Infrastructure practice at Guidehouse. https://www.linkedin.com/in/macky-mccleary-a01357/

10:53:21 From Jordan Stutt, Acadia Center: Hi all, I'm Jordan Stutt with Acadia Center. We're committed to advancing equitable transportation electrification across the Northeast. https://www.linkedin.com/in/jordan-stutt-907b195/

11:03:06 From james carter: I do consulting work for a Boston based company called Powerhydrant who are doing autonomous robotic charging. https://powerhydrant.com/ Through this I have visibility to the Megawatt Charging Standard development supported by most heavy duty OEMs (Daimler, Tesla, Volvo, etc), with charging capability 3MW+ for class 8 trucks and other heavy duty vehicles. https://www.nrel.gov/news/program/2020/nrel-hosted-event-supports-industry-develop ment-megawatt-charging-system-connectors.html

11:03:52 From Daniel Shanahan: Re: issues with residential / urban center charging challenges, EVSE LLC just posted our Utility / Light pole mounted EV charger which can, with power on the pole, eliminate 70% of installation costs and serves those with no off street parking and challenged communities. We are piloting this unit with National Grid, and large installs now in LA.

11:04:42 From Alexis: Hi Everyone, Alexis Schayowitz from ICF here. I'm based in Cambridge and working on transportation electrification issues for local and national clients. Looking forward to the discussion. https://www.linkedin.com/in/alexis-schayowitz-pmp-774a474/

11:05:49 From james carter: This is primarily to enable long haul over the road trucking. Question for all - Are fleets, energy companies, utilities, and others on the call thinking about how to provide the infrastructure for this type of power levels? What are the best practices for this consideration?

11:10:22 From Chris Gray, AEG: Please use your phone or computer to vote on Slido: https://app.sli.do/event/aa8fx0rq

11:13:26 From ajohnston: Hi All, I'm Drew Johnston from the Mobility Solutions team at Guidehouse, https://www.linkedin.com/in/andrew-h-johnston/ I'm working with City of Denver on micromobility and equity challenges. Also with Dominion Energy on the Smart Charge Infrastructure Pilot program (www.dominionenergy.com/scip)

11:13:50 From Ken Jack - Verizon : Good question James. If I understand the question, it comes down to WHICH fleets are converting WHICH vehicles and their primary use-case (trucking, commuting, delivery, service, etc.) and therefore where we need charging.

11:16:46 From ajohnston: Suggest that everyone interested in Commercial Fleet rates

- to look at Austin Energy's commercial fleet EV rate on page 36 https://www.austintexas.gov/edims/document.cfm?id=344719
- 11:17:57 From ajohnston: Ceres, Amazon and California Trucking Association commissioned Guidehouse Insights to produce this report w/ several useful recommendations for fleet electrification:

https://www.ceres.org/resources/reports/road-fleet-electrification

- 11:19:13 From Sara Forni: Two thumbs up, Drew! Thanks for flagging the report
- 11:20:48 From ajohnston: Ceres has been an incredible resource for many of our clients keep up the great leadership!
- 11:21:00 From james carter: @Ken Jack Agreed, many different use cases. For heavy duty fast charge though, 2MW would be a starting point to go up from.
- 11:21:57 From Chris Gray, AEG: If you have not done so already please use your phone or computer to vote on Slido: https://app.sli.do/event/aa8fx0rq
- 11:23:48 From Richard Teebay : 1. You need to explain to those with control of the purse HOW to electrify the Fleet. Once there is a Roadmap
- 11:24:56 From Richard Teebay : 2. Meet with the Utility/utilities the Account reps will be the Fleet Manager's new BF.
- 11:25:31 From ajohnston: +1 to Richard Teebay's comment it all HINGES on utility KAMs
- 11:25:47 From ajohnston : KAM = key account managers
- 11:28:03 From Richard Teebay: Larger fleets meet regularly with OEMs reps. They need to develop the same type of relationships with the Utility Acct Reps KAM.
- 11:28:39 From Richard Teebay : FINANCING will be Key. How does the org fund what needs to be done
- 11:29:29 From ajohnston: You are nailing it Richard! Utility KAMs know a lot about their customers but they don't know about their *customer fleets*
- 11:31:00 From Manuel Fontan, WSP: Thank you!
- 11:31:16 From Richard Teebay: THANK YOU ALL!!!
- 11:31:17 From Shawn Jones: Excellent as always, HG!
- 11:32:08 From Richard Teebay: Thanks HG! EXCELLENT!!!
- 11:32:35 From ajohnston: Getting a Voice of Customer series of interviews w/ commercial fleets would be good (targeting use cases that make the most sense). That can inform a survey that utility members can distribute to their relevant KAMs would be highly effective
- 11:32:42 From Sara Forni : Great call! Thanks, everyone
- 11:33:38 From ajohnston: Yann is right really do need a "single source of truth"
- 11:39:43 From Vartan Badalian: On that point some more, this is kind of why we have seen Tesla do what they did with their network and why Rivian just came out yesterday saying they can rely on third party charging providers and have to deploy their own network to control uptime, cost, experience to provide top of line service to drivers
- 11:40:01 From Vartan Badalian : can't* rely
- 11:40:13 From Ken Jack Verizon : Exactly @vartan ...
- 11:42:28 From HG Chissell : https://docs.google.com/document/d/1rkKCC0Jbg36UYTOJfYzNIrNA52tLsQN_wJt7UB

OWvK4/edit?usp=sharing

11:43:16 From Ken Jack - Verizon : I think some of these startups are trying to balance the quality of that initial experience with the long-term strategy of a standardized charging infrastructure.

11:48:59 From ajohnston: NWAs for Fleet electrification

11:49:11 From ajohnston: starts with studying the grid (at circuit level) to make the case!

11:50:24 From ajohnston: wherever the utility has planned grid constraints by 2030 - they should target the fleets in those areas to offer these incentives and collaborations to entice fleets to pull trigger and electrify

11:50:33 From james carter: Thanks everyone, excellent discussion!

11:50:39 From ajohnston: this would be a slam dunk for shareholder owned companies

11:51:23 From Maria Bocaneggra : what if there was something like this https://www.nrel.gov/transportation/hive.html