WEBVTT

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00:00:33.530 --> 00:00:37.360
Laura Feinstein (SPUR): Hi, everybody! We're just waiting for everyone to trickle in. Then we'll get started.

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00:01:04.860 --> 00:01:07.870
Laura Feinstein (SPUR): Jackson, Can you go ahead and go to the next slide

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00:01:23.870 --> 00:01:35.290
Laura Feinstein (SPUR): great. So thanks everybody for joining us today. Welcome to today's event where we're going to be talking about eliminating pollution from gas appliances in the Bay area.

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00:01:35.550 --> 00:01:58.460
Laura Feinstein (SPUR): My name is Laura Feinstein, and I am Spurs director of sustainability and resilience. Many of you here today are spur members, and if you are, thank you so much for your support. If you're not a member, I encourage you to join to support spurs, ongoing work and using education, policy, analysis, and advocacy to make our cities and region more prosperous, sustainable, and equitable places to live.

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00:01:58.500 --> 00:02:10.250
Laura Feinstein (SPUR): Your financial support enables us to continue our work, including the hosting of programs like today's, and you can find more information about spur membership online at Spur org slash. Join

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00:02:11.360 --> 00:02:22.340
Laura Feinstein (SPUR): our next digital discourse is scheduled for March ninth at 1,230. It's a conversation with Senator Josh Becker on climate Change, Equity and California's sustainable future.

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00:02:22.470 --> 00:02:30.450
Laura Feinstein (SPUR): So join us next Thursday to hear from State Senator Josh Becker on his ideas for an more environmentally conscious and equitable future.

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00:02:32.370 --> 00:02:36.720
Laura Feinstein (SPUR): Today we have a fantastic lineup of speakers for you.

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00:02:36.910 --> 00:02:44.060
Laura Feinstein (SPUR): We are all part of a coalition known as Bay Area clean air, which we'll be hearing more about during today's presentation.

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00:02:44.190 --> 00:02:54.200
Laura Feinstein (SPUR): First, I just want to introduce our panelists. We have Melissa you here with us. She is the energy campaigns, organizers for Sierra Club, San Francisco Bay.

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00:02:54.310 --> 00:03:03.910
Laura Feinstein (SPUR): Her work focuses on transitioning away from fossil fuel to clean, renewable energy by advocating for policies and programs that advance local, clean energy projects.

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00:03:04.710 --> 00:03:20.000
Laura Feinstein (SPUR): Megan Leary is here from Emerald City's collaborative. She is the community engagement and policy manager for their bay area chapter, and she focuses on engagement efforts for building electrification across the 9 Bay area counties.

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00:03:20.060 --> 00:03:29.390
Laura Feinstein (SPUR): Emerald city's, collaborative works nationally and locally to ensure that frontline communities receive environmental health and economic benefits of the clean energy transition.

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00:03:31.500 --> 00:03:35.140
Laura Feinstein (SPUR): And last, not but not least, Leah Lewis.

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00:03:36.100 --> 00:03:39.140
Laura Feinstein (SPUR): Yeah, I realized i'd never said your last name out loud.

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00:03:39.280 --> 00:04:02.860
Laura Feinstein (SPUR): You got it, Lewis Prescott, Leah Lewis Prescott. I know Lia very well, and I realized I've never had to say her last name out loud until today. She is a manager on Rmi's carbon-free buildings team where she works to eliminate fossil fuel use and buildings she specializes in appliance policies that reduce pollution and deliver air, quality, health and climate benefits to communities across the United States.

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00:04:02.860 --> 00:04:13.660

Laura Feinstein (SPUR): Rmi is an independent nonpartisan nonprofit transforming the global energy system to secure a clean, prosperous 0 carbon feature for all. So welcome to all of you.

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00:04:14.900 --> 00:04:33.330
Laura Feinstein (SPUR): We also want to let the audience know that we want this to be an interactive conversation, and we plan to spend as much time as possible engaging with all of you. So please use the chat box to share your thoughts with each other and the speakers. But if you have a question that you'd like asked during the Q. A. Period at the end.

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00:04:33.330 --> 00:04:47.640
Laura Feinstein (SPUR): Please look for that. Q. And a panel button. It should be at the bottom of your screen, or if you're on a mobile app, it will be at the top. Please submit your questions there, and we will address as many of them as we can at the end of the event.

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00:04:47.940 --> 00:04:55.670
Laura Feinstein (SPUR): and within the next few days we will be sharing a copy of the recording, a transcript and the chat with everyone who registered

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00:04:57.820 --> 00:05:00.860
Laura Feinstein (SPUR): Jackson. Can you go ahead and advance to the next slide.

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00:05:04.770 --> 00:05:10.350
Laura Feinstein (SPUR): So i'm going to give you a quick overview of why we've gathered here today, and what we're going to be talking about.

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00:05:10.350 --> 00:05:27.850
Laura Feinstein (SPUR): and before turning it over to our speakers. So today's event is eliminating pollution from gas appliances in the bay area, and as many of you may have heard the Bay area air quality management district is considering amendments to 2 rules that will improve regional air, quality and health.

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00:05:28.030 --> 00:05:39.340
Laura Feinstein (SPUR): These rules specifically, would phase in a requirement that only 0 nitrogen, oxide emitting furnaces and water heaters could be sold or installed in the bay area.

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00:05:39.350 --> 00:05:45.040
Laura Feinstein (SPUR): So furnaces and water heaters are the 2 biggest gas users in people's homes.

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00:05:45.080 --> 00:05:55.920
and requiring that these appliances be near 0 nitrogen. Oxide would have huge benefits for air, quality, and public health, and it has massive climate, co benefits as well.

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00:05:56.120 --> 00:06:07.540
Laura Feinstein (SPUR): These first in the nation rules would be transformational, because they would be scaling up the heat pump market and signaling that it is that we are

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00:06:07.600 --> 00:06:08.310
Laura Feinstein (SPUR): at

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00:06:08.500 --> 00:06:12.190
Laura Feinstein (SPUR): on schedule for a transition to an electric economy.

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00:06:15.750 --> 00:06:17.870
Laura Feinstein (SPUR): Oh, Jackson, you go to the next slide

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00:06:18.280 --> 00:06:32.080
Laura Feinstein (SPUR): mit Ctl. And I reflexively think that I can advance them. So everybody here speaking today is from bay area, clean air, although there are more members of our coalition, and we welcome you to take a look at our website and join us 101,

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00:06:32.080 --> 00:06:39.210
Laura Feinstein (SPUR): and we are a coalition of advocates that it's working to reduce harmful air pollution from gas appliances which harm public health.

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00:06:39.410 --> 00:06:48.340
Laura Feinstein (SPUR): We support strong standards to equitably and affordably transition bay area homes and buildings to pollution-free electric appliances for heating.

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00:06:49.580 --> 00:06:53.920
Laura Feinstein (SPUR): and with that i'm going to go ahead and turn it over to our first speaker. Leah.

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00:06:57.340 --> 00:07:05.720

Leah Louis-Prescott / RMI: Thank you. Thanks so much for having us spur and thanks for the intro, Laura. If you could advance the slide, Jackson.

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00:07:05.880 --> 00:07:23.890
Leah Louis-Prescott / RMI: Yeah. So i'll kick us off by just giving an overview of the rules. Why are they important, and what the heck are they? And then i'll pass it to Megan to talk more about equitable implementation, and and Laura and Melissa will wrap up next slide, please.

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00:07:25.640 --> 00:07:36.880
Leah Louis-Prescott / RMI: Great. So just before we get into the actual policy, it's important to level set on. Why this policy is being pursued. Why does this even matter so next slide, please?

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00:07:37.050 --> 00:08:08.960
Leah Louis-Prescott / RMI: As Laura mentioned. Most homes and businesses in the bay area do use gas for heating and water heating, and all of these fuel burning appliances are releasing pollution. It's fairly well understood in the bay area that fossil fuel appliances are emitting greenhouse gases and contributing to our global climate crisis. But they're also a mitig of a bunch of other alarming plants that we tend to hear less about. So just to name a few. There's carbon monoxide which can be deadly and poisonous.

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00:08:09.250 --> 00:08:26.980
Leah Louis-Prescott / RMI: There's nitrogen, oxide, or knocks that create smog, and make our UN air unsafe to breathe and knocks also forms fine particulate matter. Pm. 2.5, which is also released directly from fuel burning appliances.

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00:08:26.980 --> 00:08:45.540
Leah Louis-Prescott / RMI: These are tiny particles that get lodged in our lungs in our bloodstream, and lead to respiratory illnesses like asthma, even cause premature deaths. So all of these are coming from our gas furnaces and water heaters Unfortunately, next slide, please.

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00:08:46.590 --> 00:09:00.160
Leah Louis-Prescott / RMI: The best way to avoid this pollution is to install a clean non-polluting appliance. And we have electric appliances available today that do not admit these pollutants.

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00:09:00.160 --> 00:09:10.440
Leah Louis-Prescott / RMI: So if all the new appliance sales in the bay area were electric and non polluting. the expected benefits are laid out on this slide.

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00:09:10.930 --> 00:09:15.820
Leah Louis-Prescott / RMI: 85 lives could be saved each year from the avoided pollution.

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00:09:15.890 --> 00:09:20.590
Leah Louis-Prescott / RMI: 15,000 avoided asthma incidents each year.

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00:09:21.240 --> 00:09:34.910
Leah Louis-Prescott / RMI: and a 73% reduction in climate pollution by 2,046 and 88% reduction in Knox pollution by 2,046 to put into perspective the next pollution component

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00:09:35.100 --> 00:09:43.220
Leah Louis-Prescott / RMI: gas appliances across the bay area emit more knocks than all of our region's passenger cars.

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00:09:43.250 --> 00:09:51.340
Leah Louis-Prescott / RMI: So a big opportunity here to improve our air quality by addressing appliance. Pollution next slide, please.

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00:09:52.800 --> 00:10:00.690
Leah Louis-Prescott / RMI: and these impacts are not fell equally here. In California people of color are exposed to 32%

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00:10:00.780 --> 00:10:08.810
Leah Louis-Prescott / RMI: more household gas appliance, pollution than white communities. You can see on this graph the different disparities

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00:10:08.820 --> 00:10:23.060
Leah Louis-Prescott / RMI: in California, so not only must we reduce appliance, pollution, but also we must make sure that pollution reduction benefits are accessible to people and communities of color.

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00:10:23.370 --> 00:10:24.760
Leah Louis-Prescott / RMI: Next slide, please.

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00:10:26.940 --> 00:10:35.460

Leah Louis-Prescott / RMI: So let's talk about the solution being pursued here in the Bay area. It's called a 0 emission appliance standard next slide.

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00:10:37.400 --> 00:10:50.020
Leah Louis-Prescott / RMI: So what is that? An appliance, a mission standard or an Appliance Pollution standard is a regulation that sets a limit on the amount of pollution that an appliance can emit.

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00:10:50.210 --> 00:11:10.140
Leah Louis-Prescott / RMI: So this type of standard could come from the Federal state or local government. It'll typically come from an air agency that's responsible for improving air quality and reducing pollution. That's why we're seeing it here in the bay area come from our air district and air regulators. The Bay Area air quality management district.

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00:11:10.410 --> 00:11:18.420
Leah Louis-Prescott / RMI: so they can set any limit as a low knocks. Ultra alone acts. But here in the bay area. They're moving all the way to 0,

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00:11:18.790 --> 00:11:33.570
Leah Louis-Prescott / RMI: and the proposal is targeting nitrogen, oxide pollution, so targeting that knocks so that it can drive down ozone, pollution and smog, and avoid that particulate matter that harms our health.

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00:11:34.450 --> 00:11:49.250
Leah Louis-Prescott / RMI: And this regulation applies to new appliance sales, so that means it applies to both new and existing buildings, and it applies at the time of replacement. So this has no impact on your working appliance.

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00:11:49.250 --> 00:12:09.110
Leah Louis-Prescott / RMI: but it will capture that very important decision point when an appliance breaks, and a resident or a building owner has to purchase a new one. What this policy does is make sure that residents and business owners are buying a clean appliance instead of locking in another 10 or 20 years of pollution.

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00:12:09.720 --> 00:12:21.570
Leah Louis-Prescott / RMI: So it's applying at that point of replacement, and finally, because it's it's applying it replacement, and only about 5 appliances. 5 of appliances will break in a given year.

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00:12:21.570 --> 00:12:32.580
Leah Louis-Prescott / RMI: This means that the transition is not happening overnight, but it's going to be gradual, and it's going to be decades long that's why it's important for us to start as soon as possible

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Leah Louis-Prescott / RMI: next slide, please.

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00:12:36.520 --> 00:12:51.760
Leah Louis-Prescott / RMI: Notably these aren't, new appliance, pollution standards have a existed for decades, including here in the bay area. This chart is a snapshot of policies across California that have limited the Knox pollution from furnaces and water heaters.

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00:12:51.760 --> 00:13:12.410
Leah Louis-Prescott / RMI: What is new is the move to go all the way to 0 emissions? So our regulators are recognizing that electric heat pump technology is non- polluting it's highly efficient and it's widely available today to replace our gas furnaces and water heaters and they're helping to make sure that transition begins

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Leah Louis-Prescott / RMI: next slide, please.

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00:13:15.790 --> 00:13:27.840
Leah Louis-Prescott / RMI: and the bay area is not alone in its pursuit of 0 emission standards. The Air Resources Board has also committed to pursue 0 emission appliance standards that would take effect in 2,030.

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00:13:27.840 --> 00:13:35.830
Leah Louis-Prescott / RMI: So this is just one of many of these types of policies that that we expect to see, and

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Leah Louis-Prescott / RMI: at the State level. This commitment is one of many that's building momentum for an electric appliance feature across California. So the bay area has an exciting opportunity to be the first ones to take this action and set an example, not only for carb and other air districts here in California, but also for other states, it across the country that are looking to reduce air pollution from their appliances.

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00:14:03.620 --> 00:14:05.140
Leah Louis-Prescott / RMI: Next slide, please

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00:14:07.800 --> 00:14:16.930
Leah Louis-Prescott / RMI: all right. Let's look at what the bay area is actually proposing. So the air district has different implementation dates for different appliances.

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Leah Louis-Prescott / RMI: They're looking at 2027 to require 0 emission. Small water heaters, residential water heaters, 2029 for residential furnaces, and 2031 for a larger typically commercial and multi family water heaters.

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00:14:35.370 --> 00:14:51.700
Leah Louis-Prescott / RMI: So by requiring the 0 emission furnace and water heater sales, the policy is really going to directly eliminate appliance, pollution, and pave the way for a wide scale transition to healthier and pollution. Free homes.

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00:14:51.830 --> 00:14:53.330
Leah Louis-Prescott / RMI: Next slide, please.

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00:14:54.590 --> 00:15:02.170
Leah Louis-Prescott / RMI: Oh, you can click through these. I think I've covered all that in my last slide, so i'll just keep us moving on. So

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00:15:02.770 --> 00:15:19.850
Leah Louis-Prescott / RMI: absolutely essential here is that the transition happens equitably, and the good news is that the district has given deep thought to the equity components, and they've included a couple of key elements into the policy design to help ensure the transition is equitable.

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00:15:19.970 --> 00:15:34.240
Leah Louis-Prescott / RMI: First and foremost, the policy is going to be voted on in 2 weeks, but it will not take effect for 4 to 8 years. So by committing now the district is sending a signal to the market actors to say.

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00:15:34.240 --> 00:15:52.680

Leah Louis-Prescott / RMI: Hey, there will be demand coming for 0 emission technology. So let's ramp up supply. Let's increase innovation. Let's increase investments in funding and enact equity policies to support this move. So it's giving the region that lead time to act.

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00:15:53.840 --> 00:16:07.820
Leah Louis-Prescott / RMI: Also the district has baked in a safety net to make sure that these rules will only be enacted when and if the conditions are right, to make sure that it's equitable and affordable for residents.

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00:16:07.820 --> 00:16:21.460
Leah Louis-Prescott / RMI: So they've included a commitment to evaluate the market 2 years prior to each of the implementation dates, and determine whether or not to move forward with the plan dates. So they have this off-ramp if needed.

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00:16:21.770 --> 00:16:29.690
Leah Louis-Prescott / RMI: and they've taken action to avoid meeting to use that off-ramp the district is putting together, and has already

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00:16:29.690 --> 00:16:57.820
Leah Louis-Prescott / RMI: convened an implementation working group with diverse stakeholders from across the region to help identify necessary equity protections and make sure those protections are in place before the rules take effect. So the district has put in the time and thought into protecting our residents. In moving forward with these rules, in addition to making sure we are as residents of the Bay area, breathing cleaner air.

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Leah Louis-Prescott / RMI: So now i'll pass it over to Megan to get even deeper into the equity implementation.

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00:17:05.510 --> 00:17:25.450
Megan Leary / Emerald Cities: Thank you, Leah. Hello, Everyone so like Leah mentioned Equitable implementation has been of the utmost importance in the design of this policy. So now we're gonna get into how that policy design addresses equity concerns, and what some of the equity concerns are. And then.

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00:17:25.450 --> 00:17:35.220
later on, Laura is gonna get into some of the mechanisms and tools available to address them in addition to the implementation process next slide, please.

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00:17:36.220 --> 00:17:55.640
Megan Leary / Emerald Cities: So one of the things Bay area clean air did in gearing up. For this process was, we convened a group of community based organizations from across the bay area to really work on and tease out some of the key equity considerations that may come up with these rules.

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00:17:55.670 --> 00:18:05.880
Megan Leary / Emerald Cities: and that is what we have listed here. Wanna say, up front. The the piece of these rules that applies to new construction.

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Megan Leary / Emerald Cities: We have not heard from anyone across the Board from any field that they have concerns about these rules applying to new construction.

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Megan Leary / Emerald Cities: Almost everyone that I've ever talked to at all about this feels that in implementing these rules for new construction is critical to health equity in the Bay area.

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Megan Leary / Emerald Cities: That being said, a lot of the concerns that have come up are around affordability, affordability concerns for the uprop cost to re, to retrofit existing buildings. Specifically.

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00:18:39.210 --> 00:18:52.260
Megan Leary / Emerald Cities: this applies to clean electric appliances themselves, the actual cost, and how ready our homes and small businesses are for electrification.

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00:18:52.470 --> 00:19:03.600
Megan Leary / Emerald Cities: Those 2 sectors have been identified as the most vulnerable. In addition, there has been some concern around utility bills, and how these new appliances would affect them.

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Megan Leary / Emerald Cities: They would increase your electric electric usage.

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00:19:10.820 --> 00:19:13.510
Megan Leary / Emerald Cities: However, by eliminating your gas bill

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Megan Leary / Emerald Cities: you won't see a gas increasing gas cost. But so there's concern around those particular pieces. Another piece that is of concern to a lot of community groups is what this means for tenants, and if the upgrades necessary

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00:19:30.330 --> 00:19:38.300
Megan Leary / Emerald Cities: to electrify a home, if those costs can be passed through to tenants. How how much, at what rate, etc.,

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00:19:38.720 --> 00:19:46.470
Megan Leary / Emerald Cities: these concerns have been voiced to the air district and have been factored into the implementation process that they've designed.

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00:19:46.480 --> 00:19:51.050
Megan Leary / Emerald Cities: and we really feel that the process

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00:19:51.140 --> 00:19:56.190
Megan Leary / Emerald Cities: is going to facilitate important critical discussions around some of these points

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00:19:56.310 --> 00:19:58.220
Megan Leary / Emerald Cities: next slide, please.

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00:19:59.770 --> 00:20:17.370
Megan Leary / Emerald Cities: So how does back month, implementation, process, address, equity, likelihood mentioned, they have appointed an employ and convened an implementation working group. The diversity of this implementation working group covers not only geographic diversity, but diversity of interest.

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00:20:17.370 --> 00:20:31.240
Megan Leary / Emerald Cities: Environmental justice, community be community based organizations affordable housing, tenants, rights, groups are all included in the implementation working group as well as representatives of labor, manufacturing

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Megan Leary / Emerald Cities: and sustainability advocates generally. The long lead time is critical here.

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00:20:38.980 --> 00:20:50.850
Megan Leary / Emerald Cities: The the district is building into this process. the time to have the critical and important conversations and the difficult conversations they have convened the right people.

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00:20:50.860 --> 00:21:04.660
Megan Leary / Emerald Cities: and they are allowing those people to work on the issues, so the process will be fruitful. We feel that that implement that long lead time will allow for the discussions and the solutions to present themselves.

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00:21:04.760 --> 00:21:16.760
Megan Leary / Emerald Cities: In addition, the implementation process pro presents opportunities for the public to engage. All of the implementation. Working group meetings are going to be open to the public.

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Megan Leary / Emerald Cities: and they have. The district has planned to have listening sessions across the bay area to get feedback. As the discussions around the rules progress.

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00:21:26.620 --> 00:21:36.380
Megan Leary / Emerald Cities: The conditional implementation is also a critical piece of this again, like you mentioned this: the 2 year the Air district plans

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00:21:36.480 --> 00:21:56.220
Megan Leary / Emerald Cities: the staff. Sorry. 2 years prior to the compliance states of 2 years prior to 2,027. The staff plan to write a report on the market readiness, and how equity considerations are being addressed. There is an off ramp. Here we we don't want to use it. We want this to move forward.

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00:21:56.220 --> 00:22:02.340
Megan Leary / Emerald Cities: However, the conditional implementation piece and that report that they plan to assemble

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Megan Leary / Emerald Cities: is going to be crucial in

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00:22:05.750 --> 00:22:16.010
Megan Leary / Emerald Cities: getting us all ready to do this. We really feel the air just to show good faith on committing to an equitable implementation process. They have convened the right people.

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00:22:16.040 --> 00:22:27.770
Megan Leary / Emerald Cities: and they have created a platform for these issues to be addressed. And it is through this implementation process that affordability and equity concerns can be addressed.

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00:22:27.940 --> 00:22:33.510
Megan Leary / Emerald Cities: And with that I am going to pass to Laura to talk about other ways that this could be addressed.

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00:22:33.650 --> 00:22:34.970
Laura Feinstein (SPUR): Thanks, Megan.

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00:22:35.170 --> 00:22:53.440
Laura Feinstein (SPUR): So, as you've heard there, these rules have a long lead. In time we have 4 to 4 to 8 years, until the Compliance States actually kick in. So we have this really critical window during which to get the implementation process right.

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Laura Feinstein (SPUR): and address some of the concerns that Megan raised in her presentation.

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Laura Feinstein (SPUR): and we don't have a lot of time to talk about the many different policy avenues to explore for preparing the bay area for the transition.

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Laura Feinstein (SPUR): But i'm going to zoom in on some of the policy approaches and solutions on the table for making clean appliances more affordable for everybody. So one of the first big strategies to making clean appliances more affordable is simply to bring down the cost of installation.

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00:23:27.800 --> 00:23:39.120

Laura Feinstein (SPUR): Right now. The typical heat pump installation does cost more upfront than replacing your old gas furnace or your old gas water heater like for like when it breaks.

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Laura Feinstein (SPUR): But that is typical of every new emerging technology and what you typically see as technology scale up and penetrate the market is that the cost to manufacture them and to install them come down over time it's a process referred to as the learning curve.

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00:23:57.360 --> 00:24:07.050
Laura Feinstein (SPUR): So what's critical about what's happening right now is that the air district is signaling with these pending mandates.

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Laura Feinstein (SPUR): as well as all the generous incentives that are on the table for heat pups that there's going to be increased. Demand in this market, and that in turn will scale up the supply chain for both the manufacturers to the distributors, to the contractors, to put them into the buildings.

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00:24:26.800 --> 00:24:37.920
Laura Feinstein (SPUR): and we saw a critical turning point last year. when the sales of heat pumps actually exceeded the sales of gas furnaces in 2,022 for the whole country.

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Laura Feinstein (SPUR): and one study from the national Renewables Energy laboratory, looked at how the scaling up of the production of heat pumps is likely to correspond to decreases in the costs

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Laura Feinstein (SPUR): and predicted that the cost to install a heat pump is likely to come down 20 to 40, as the market grows so we're, looking at a long-term trend towards declining costs for heat pumps.

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00:25:06.150 --> 00:25:18.100
Laura Feinstein (SPUR): There's also a lot of costs associated with putting in a heat pump that aren't just about getting that appliance in your home. It's all of these electrical readiness issues that Megan referred to.

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00:25:18.100 --> 00:25:34.150

Laura Feinstein (SPUR): So, in particular, when when a building owner goes to swap out a gas furnace or gas water heater for a new electric appliance that can increase the electrical demand for that building, and that in turn can trigger.

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00:25:34.150 --> 00:25:44.420
Laura Feinstein (SPUR): needing to upgrade what's called your electrical breaker panel. It's that metal panel in a wall that you go flip a switch in. If you have a little blackout and part of your home.

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00:25:44.710 --> 00:25:57.000
Laura Feinstein (SPUR): and when you upsize that panel at times that can then in turn trigger a need to upgrade the electrical service from your electrical provider to the building.

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00:25:57.080 --> 00:26:06.080
Laura Feinstein (SPUR): and both of those that panel increase and the service increase can carry significant costs and delays in your project.

130
00:26:06.970 --> 00:26:22.470
Laura Feinstein (SPUR): So what are some of the ways to address this. Well, one important emerging area of research is how to convert homes to all electric appliances within their existing electrical service and panel size.

131
00:26:22.560 --> 00:26:44.130
Laura Feinstein (SPUR): and there's a lot of work done by experts in in energy management on this, where they're showing that with more power, efficient choices, and with these new technologies that manage electrical load. Many, if not most homes, can fully electrify all their energy uses

132
00:26:44.130 --> 00:26:52.880
Laura Feinstein (SPUR): without having to go to a panel or service upgrade. So that's one of the biggest mechanisms to start to reduce these electrical readiness costs

133
00:26:53.280 --> 00:27:01.600
Laura Feinstein (SPUR): on top of that. There's also going to be those homes that do need the electrical panel or service upgrades

134
00:27:01.630 --> 00:27:16.440

Laura Feinstein (SPUR): if they're facing a significant delay before they can put in their new new heat pump. There are loner programs available where they can put in a temporary gas appliance to carry them through until that service upgrade is completed.

135
00:27:16.820 --> 00:27:24.550
Laura Feinstein (SPUR): And we're also, seeing that incentive programs increasingly are covering the cost of new panels when necessary.

136
00:27:24.710 --> 00:27:35.560
Laura Feinstein (SPUR): and we're likely going to have to successfully put in place some incentive programs that will help homeowners cover the cost of their service upgrades as well.

137
00:27:36.450 --> 00:27:45.380
Laura Feinstein (SPUR): Another important strategy for bringing down the cost of clean appliances is putting in place direct install and turnkey programs.

138
00:27:45.430 --> 00:28:03.650
Laura Feinstein (SPUR): The idea of this is that a city or another entity actually both purchases, appliances, and contracts with a single large provider to do the installations of clean appliances, and that can bring cost down. By taking advantage of full purchasing power.

139
00:28:03.650 --> 00:28:17.730
Laura Feinstein (SPUR): We saw that in Sacramento municipal utility district they were able to install heat pumps through their direct install program at about 60% of the cost of what the individual homeowners were doing were spending when they did it on their own

140
00:28:18.070 --> 00:28:19.100
Laura Feinstein (SPUR): next slide.

141
00:28:22.230 --> 00:28:36.070
Laura Feinstein (SPUR): There's also these really generous incentive programs right now. So we're simultaneously, working on bringing down the cost of clean appliances, and at the same time there's generous subsidies available that people can take advantage of.

142
00:28:36.100 --> 00:28:48.500

Laura Feinstein (SPUR): The Inflation Reduction Act was passed by the Federal Government last year. It dedicated 50 billiondollars to clean energy, and a number of those programs are specific to home energy retrofits.

143
00:28:48.850 --> 00:29:05.820
Laura Feinstein (SPUR): The State also invested a record. 1.1 billiondollars in last year's budget for building decarbonization, and in the bay area itself they run is a collaboration between the 9 Bay area counties that administers energy incentive programs.

144
00:29:05.900 --> 00:29:24.080
Laura Feinstein (SPUR): And there's also an additional 10 programs offered by individual cities and municipal and clean energy providers in the bay area. So when a building owner stacks all of those incentives on top of each other, they can significantly offset the cost of a new heat pump.

145
00:29:24.080 --> 00:29:42.580
Laura Feinstein (SPUR): and it's also important to recognize that there's a huge diversity in these incentives. There's incentives for homeowners and for landlords. There's a larger incentives, generally for people at the lower end of the income spectrum, but there are also many incentives available for people at any income level.

146
00:29:42.870 --> 00:29:44.370
Laura Feinstein (SPUR): Next slide.

147
00:29:46.370 --> 00:29:59.810
Laura Feinstein (SPUR): I'm just gonna walk you through one example. This would be a case of a low income homeowner who wants to switch from their existing gas furnace, which heats their home to a new heat pump for heating and cooling.

148
00:29:59.840 --> 00:30:11.330
Laura Feinstein (SPUR): and they are low income, so they're able to take advantage of these higher incentives from the Inflation Reduction Act, and they're also able to stack the California

149
00:30:11.380 --> 00:30:17.120
rebates through Tech and the bay area rebates through bay, and which are available at all income levels.

150
00:30:17.520 --> 00:30:25.360

Laura Feinstein (SPUR): So an average cost to install a heat pump for home heating and cooling would be $13,000 in a single family home.

151
00:30:25.430 --> 00:30:31.710
Laura Feinstein (SPUR): But they're saving $6,500 by not buying a new gas furnace to replace their old one.

152
00:30:31.950 --> 00:30:47.930
Laura Feinstein (SPUR): and they're also able to stack $12,000 and incentives from these 3 different sources to offset the cost of the heat pump. So a $13,000 he pump, after all of their rebates end up ends up, costing a $1,000 upfront.

153
00:30:47.950 --> 00:31:02.310
Laura Feinstein (SPUR): and they're actually saving $5,500 compared to replacing their gas furnace like for like. So what we're seeing is that for many homes it can actually be cheaper to convert to a heat pump when your old gas appliance breaks next slide.

154
00:31:04.820 --> 00:31:20.260
Laura Feinstein (SPUR): And of course there's big questions about how to limit the impacts of of building upgrades to renters. One of the important things to realize is that most of the incentive programs I've mentioned are available to landlords

155
00:31:20.260 --> 00:31:26.140
Laura Feinstein (SPUR): and there are specific programs targeted towards affordable housing and multi-family property owners

156
00:31:27.770 --> 00:31:37.940
Laura Feinstein (SPUR): that so in many, if not in many cases, the landlords will be able, to significantly offset the cost of switching to clean appliances

157
00:31:37.990 --> 00:31:48.080
Laura Feinstein (SPUR): so ideally we won't be seeing the landlords having to put out a huge amount of additional money in order to to convert to clean appliances.

158
00:31:48.090 --> 00:32:05.140
Laura Feinstein (SPUR): But even so there still can be options to limit the extent to which any costs get passed on to tenants. One important mechanism is that in those cities that do have rent control. The amount of costs for any capital investment

159
00:32:05.140 --> 00:32:11.320
Laura Feinstein (SPUR): can be. The amount that is passed on to tenets can be limited by the Local Rent Control board.

160
00:32:11.680 --> 00:32:21.720
Laura Feinstein (SPUR): and for those apartments that are not rent stabilized. One of the best function, Best functioning programs we've seen to limit how costs are passed on to tenants

161
00:32:21.780 --> 00:32:32.670
Laura Feinstein (SPUR): is to offer those incentives to landlords for converting to clean appliances as loans initially, and then, after a period of time.

162
00:32:32.690 --> 00:32:41.440
Laura Feinstein (SPUR): typically about 10 years. If the landlord's, able to show that their rent increases, were in line with cost of living increases in that area.

163
00:32:41.540 --> 00:33:00.810
Laura Feinstein (SPUR): then the provider of the loan converts the loan into a grant. So there's essentially incentives to offset the upfront costs, and then, if the landlord is able to show they didn't pass on cost in the form of rent. They're able to take it. They're able to convert that into an even greater benefit

164
00:33:01.870 --> 00:33:03.000
Laura Feinstein (SPUR): next slide.

165
00:33:04.370 --> 00:33:12.620
Laura Feinstein (SPUR): So with that i'm going to turn it over to Melissa. Who's going to tell you how you can get engaged with passing these rules and the implementation process.

166
00:33:13.220 --> 00:33:14.620
Melissa Yu / Sierra Club: Thanks, Laura.

167
00:33:14.640 --> 00:33:35.090
Melissa Yu / Sierra Club: So now, with all of that information. I'm sure you all are wondering. What can I do? And how can I take action? So i'm going to talk about that in the next slide,

please, Jackson. Thank you. And then, after this we will very shortly get into Q. And a. Because i'm sure many of you are very anxious to ask questions after that great presentation. So

168
00:33:35.090 --> 00:33:51.450
Melissa Yu / Sierra Club: so what is our ask today? We are really needing folks to come and join us at the Air district meeting on March fifteenth. The meeting will start at 9 am. And from we we're we're.

169
00:33:51.450 --> 00:34:20.940
Melissa Yu / Sierra Club: We are really wanting to turn people out to come in person to San Francisco. It's going to be at, I believe it's 3 7 5 deal street, and that information is all in the Rscp. Link up top. So that's the tiny url.com slash, March fifteenth, Rsvp. Link, and there's also a. QR. Code. If you want to scan that on your phone to sign up as well, and for folks who sign up, and our Svp. Will be sending you all of the information that you need.

170
00:34:20.940 --> 00:34:34.770
Melissa Yu / Sierra Club: You'll be getting like talking points to to prepare for your comment for the day of You'll be getting some fact sheets, and then you'll also.

171
00:34:35.449 --> 00:34:43.760
Melissa Yu / Sierra Club: if if you sign up through the Rsvp. You'll also be able to sign up to get text messages on the day of because the while the meeting does start at

172
00:34:43.760 --> 00:35:04.230
Melissa Yu / Sierra Club: 9 am. We're not sure where it will be on the agenda yet, so you can get a text message, and you can. If If you plan to virtually attend, then you'll know to be able to hop on at a very a certain time. So please go our scp on that link. We but we do

173
00:35:04.230 --> 00:35:34.220
Melissa Yu / Sierra Club: really really highly encourage you to to come in person, if you can, to San Francisco we'll be there. We'll have some cute buttons, some cute support buttons. So we really hope we all can come out. And then the second thing is you after you've Rspp. Please also take some time to check out the the second link, the tiny url.com slash, march, fifteenth phone script so on that link it's kind of like a how to guide a

174
00:35:34.220 --> 00:35:48.710
Melissa Yu / Sierra Club: how you can further support. After you've Rcp: you can please call your board members. There is a phone script in there. You'll most likely be leaving voice mails.

175
00:35:48.880 --> 00:36:15.040
Melissa Yu / Sierra Club: so do as many of those as you can, and then, after that, or if you're not comfortable making a phone call, you can also at the bottom of the how to guide. You can also write comments and submit them to the clerk of the Board. Marcy. So feel free to do that as well. If you can do all of them, all of these different actions. That would be really really wonderful and really really great.

176
00:36:15.040 --> 00:36:21.810
Melissa Yu / Sierra Club: And with that I am going to pass it back to Laura to moderate the Q. And a. Session.

177
00:36:23.810 --> 00:36:29.160
Laura Feinstein (SPUR): Thank you, Melissa. So we're seeing a lot of good questions coming in to the Q. And a.

178
00:36:30.790 --> 00:36:33.480
Laura Feinstein (SPUR): I'm. Going to go ahead and

179
00:36:33.500 --> 00:36:46.230
Laura Feinstein (SPUR): take this first one. Which is why is the focus of these rules on nitrogen oxide? If 0 nox, not appliances, became available. That's still emitted substantial carbon dioxide.

180
00:36:46.240 --> 00:36:54.880
Laura Feinstein (SPUR): We wouldn't want those either. Is back meant allowed to regulate greenhouse gas emissions. This is a good question. Who would like to take this one.

181
00:36:55.230 --> 00:37:12.890
Leah Louis-Prescott / RMI: I can jump in there. So so the clear legal authority for back mid is over knocks. So that's that's their authority. But the technology that meet 0 knocks is also 0. Greenhouse gas electric is going to

182
00:37:13.340 --> 00:37:30.620
Leah Louis-Prescott / RMI: The electric appliances are me are non-polluting. Both knocks greenhouse gases as well as carbon, monoxide and other plutants that we you know, Aren't Aren't focusing on here. So while the district is targeting knocks to achieve those

183
00:37:31.250 --> 00:37:43.060

Leah Louis-Prescott / RMI: health harming pollution reductions and ozone smog reductions will also get the benefits. Co. Benefits of avoiding greenhouse gases.

184
00:37:45.010 --> 00:37:55.210
Laura Feinstein (SPUR): Right? So you may have heard, you know the terms building decarbonization and building electrification. And then, all of a sudden, you're hearing us talk about 0 Knox appliances

185
00:37:55.210 --> 00:38:12.550
Laura Feinstein (SPUR): and sort of the critical thing to realize is that there's one technology that addresses all of those problems, and it's electric appliances and really, specifically electric heat pumps, which are the most efficient way at this point to deliver heat for your home and for heating water.

186
00:38:15.000 --> 00:38:27.430
Laura Feinstein (SPUR): So we also have questions about electrical readiness. For example, Gerald Posky says, when I tried to get a heat pump as a water heater. I was told that my

187
00:38:27.430 --> 00:38:36.990
Laura Feinstein (SPUR): that my building would need a $20,000 electrical service upgrade from Pg. And E. How do we make these changes possible for people with older homes?

188
00:38:37.260 --> 00:38:42.310
Laura Feinstein (SPUR): Does anybody want to talk a bit about the the issue of electrical service upgrades.

189
00:38:46.920 --> 00:39:05.040
Laura Feinstein (SPUR): or seeing that I can chime in if you want it. Leah, did you want to take that? I mean, Laura, you should go ahead. I feel like you. You've You've literally written this. So so, Gerald, this is something that we sympathize with. It comes up many times over and over.

190
00:39:05.080 --> 00:39:16.370
Laura Feinstein (SPUR): There's I think, a lot of different avenues that people are thinking about to try to solve this problem. So one of them is what I mentioned already in the presentation

191
00:39:16.370 --> 00:39:25.570
Laura Feinstein (SPUR): which is developing approaches for electrifying buildings that don't require a panel or electrical service upgrade.

192
00:39:25.590 --> 00:39:37.280
Laura Feinstein (SPUR): And so, for example, you could take a look at things like the Redwood energy. What diet, calculator, or the San Mateo County office of sustainability recently did a study on this

193
00:39:37.390 --> 00:39:45.350
Laura Feinstein (SPUR): and what they're laying out are design choices, selection of appliances that tend to draw less power.

194
00:39:45.370 --> 00:40:01.690
Laura Feinstein (SPUR): and therefore don't require a larger panel Couple that couple that also with technologies that are known as load management things that can can decrease the flow of electricity to appliance or

195
00:40:01.690 --> 00:40:13.630
Laura Feinstein (SPUR): switch off, between which appliances are receiving electricity at a given time. These are relatively inexpensive technologies, and again can prevent that need for a panel upgrade.

196
00:40:13.780 --> 00:40:16.890
Laura Feinstein (SPUR): And then on top of that.

197
00:40:17.320 --> 00:40:36.840
Laura Feinstein (SPUR): there's also a lot of work going into how to upgrade the electrical grid across the board. So, rather than it being simply a case by case response to each individual building. Instead, there will be a planning process put in place and electrical service upgrades happening

198
00:40:36.840 --> 00:40:53.920
Laura Feinstein (SPUR): prior to people the moment when people need them. And last, but not least, i'll mention that there is some legislation moving this year. That would limit that amount of time that it takes to get the electrical service upgrade, because we hear you that they often take too long

199
00:40:54.630 --> 00:40:58.980
Laura Feinstein (SPUR): Did anybody else want to chime in on this on the service upgrade issue.

200
00:41:00.280 --> 00:41:03.230
Laura Feinstein (SPUR): Megan? I know you heard a lot about it in your discussions.

201
00:41:04.430 --> 00:41:08.590
Megan Leary / Emerald Cities: Yeah, we? We did talk about it a lot.

202
00:41:10.140 --> 00:41:15.700
Megan Leary / Emerald Cities: and, like Laura said, we hear you about the yeah. I think that

203
00:41:17.320 --> 00:41:23.110
Megan Leary / Emerald Cities: case by case audits are one of the things that also has come up around this issue.

204
00:41:23.120 --> 00:41:25.490
and

205
00:41:26.150 --> 00:41:38.370
Megan Leary / Emerald Cities: we never. Our group never reached a consensus. The only thing I I think i'll add, is that Pg. And E. Is in support of these rules. So

206
00:41:38.580 --> 00:41:45.170
Megan Leary / Emerald Cities: from a policy standpoint, I think we have a little bit of leverage, because they're on the record as supporting them. So

207
00:41:45.180 --> 00:41:55.220
Megan Leary / Emerald Cities: I think, I, Laura, you said everything that that needed to be said on the technical aspect, but in terms of encouraging Pg. And E to streamline some of their processes from.

208
00:41:55.230 --> 00:41:58.920
Megan Leary / Emerald Cities: You know a bureaucratic standpoint on that

209
00:41:59.290 --> 00:42:00.480
Megan Leary / Emerald Cities: they're in support.

210

00:42:01.860 --> 00:42:05.970
Megan Leary / Emerald Cities: so I don't know how helpful that it how reassuring, that is, but they are

211
00:42:07.510 --> 00:42:22.180
Laura Feinstein (SPUR): so. We have a question Here are multiple incentives from different organizations effective. Most people are not energy hobbyists. Yes, that is true, and may not have time to research and analyze the rules of multiple programs and how to stack them.

212
00:42:22.180 --> 00:42:32.950
Laura Feinstein (SPUR): Does anybody want to talk about that issue of how to making sure, making sure that people are aware of incentives, and Don't have to spend umpteen hours filling out the paperwork for them.

213
00:42:34.040 --> 00:42:36.070
Leah Louis-Prescott / RMI: Go ahead, Laura Melissa.

214
00:42:36.430 --> 00:42:54.600
Melissa Yu / Sierra Club: So that is definitely a huge concern that we've heard. And so one thing that we're really excited about is that there are a lot of Ccas, which are community choice aggregation programs that are actually implementing that are working with cities to implement like

215
00:42:54.620 --> 00:43:10.900
Melissa Yu / Sierra Club: one stop shop services, not necessarily only even with with the Cca programs. But cities themselves are working on this to consolidate a lot of the different funding streams and the different, like the different fine

216
00:43:10.900 --> 00:43:29.250
Melissa Yu / Sierra Club: finances that are available into one single point of entry, so that businesses and homeowners can really be able to find all of that in one place like very specifically. I know that in Santao County there is Peninsula scene energies

217
00:43:29.250 --> 00:43:47.850
Melissa Yu / Sierra Club: home upgrade program, and they have a one stop shop there, so folks can look into that, and also San Jose and Memo Park also are working with walk power to create a one top shop service. So a a lot more of these

218

00:43:47.960 --> 00:43:57.260
Melissa Yu / Sierra Club: facilities and resources are are coming together because we do. We do realize that it is. There are a lot of different incentives and rebates in many different places.

219
00:43:59.070 --> 00:44:01.700
Melissa Yu / Sierra Club: I don't know if anyone else wants to add anything else to that.

220
00:44:04.690 --> 00:44:18.030
Laura Feinstein (SPUR): I'll just mention that I think a number of cities are putting in place sort of one stop shops that people can go to to get all the information about incentives, and I believe emerald cities is actively working on this in San Francisco. Right, Megan.

221
00:44:21.600 --> 00:44:26.650
Megan Leary / Emerald Cities: Yes, that is being worked on the

222
00:44:27.110 --> 00:44:35.040
Megan Leary / Emerald Cities: I don't. I don't have a ton of details about it. But yes, it is. There's multiple places that are working on it. I also think that there are

223
00:44:35.780 --> 00:44:39.560
Megan Leary / Emerald Cities: some expansion of current

224
00:44:39.880 --> 00:44:40.770
Megan Leary / Emerald Cities: current

225
00:44:40.860 --> 00:44:53.420
Megan Leary / Emerald Cities: programs planned that will be like, be a little more inclusive and hopefully more accessible. I think I just want to reiterate like the lead. Time is also in these rules, is also

226
00:44:53.880 --> 00:45:07.740
Megan Leary / Emerald Cities: critical to this piece. developing outreach and engagement and informational education around. sort of the one stop shop and getting those up and running and advertised. And and that is something that the implementation working group

227
00:45:08.490 --> 00:45:12.220
Megan Leary / Emerald Cities: is heavily focused on. I would say

228
00:45:13.750 --> 00:45:28.880
Laura Feinstein (SPUR): A. We have a question given the huge political backlash against the moves to retire Gas cooking stoves. Do you anticipate a similar reaction against these initiatives? And if so, how would you counter

229
00:45:28.940 --> 00:45:32.940
Laura Feinstein (SPUR): and those protests somebody want to talk about

230
00:45:34.840 --> 00:45:44.690
Laura Feinstein (SPUR): First of all, kind of how how you counter kind of the this, the scare, tactic, scare, tactics, or the the most alarmist perspectives on the rules.

231
00:45:44.850 --> 00:45:51.390
Laura Feinstein (SPUR): as well as to what extent we how we're sort of hoping to make sure that 2 weeks from now

232
00:45:51.530 --> 00:45:54.420
Laura Feinstein (SPUR): the rules are able to pass.

233
00:45:56.270 --> 00:46:03.270
Leah Louis-Prescott / RMI: Sure I can kick off. so i'd say, You know.

234
00:46:03.980 --> 00:46:23.800
Leah Louis-Prescott / RMI: we've outlined in the presentation all of the benefits to the rules that I think alarmists are pretty much ignoring or overlooking like we're. Really, these rules are really driving us toward health benefits, air, quality, benefits, spring, climate, Co. Benefits.

235
00:46:23.800 --> 00:46:43.110
Leah Louis-Prescott / RMI: and, as mentioned, the rules are designed in such a way that they won't take effect, if not, if if not able to be done equitably and affordably so. The safety that is in place and and the protections are in place to help protect residents with this implementation working group

236
00:46:44.400 --> 00:47:01.940

Leah Louis-Prescott / RMI: to help us continue to to move in a better direction. So just I think the I think that there is some alarm from folks, though I generally, I think that's coming from folks who have an interest in fossil fuel, the fossil fuel industry

237
00:47:02.210 --> 00:47:08.720
Leah Louis-Prescott / RMI: and have an interest financially in in the continued sales gas appliances.

238
00:47:09.310 --> 00:47:10.700
Leah Louis-Prescott / RMI: But

239
00:47:11.470 --> 00:47:29.850
Leah Louis-Prescott / RMI: I think furnaces and water heaters. I I mean like to to quote Amory Levin, he famously said once upon a time that people want hot hot showers and cold beer right like we want the end products of having hot water and having a warm home.

240
00:47:29.850 --> 00:47:34.610
Leah Louis-Prescott / RMI: and folks don't really tend to think too much about what's

241
00:47:34.980 --> 00:47:41.910
Leah Louis-Prescott / RMI: fueling their furnace or their water here. So from that perspective I I you know, I think, generally

242
00:47:42.100 --> 00:47:44.440
Leah Louis-Prescott / RMI: less contentious

243
00:47:44.790 --> 00:47:47.620
Leah Louis-Prescott / RMI: than perhaps a stove.

244
00:47:48.040 --> 00:47:50.690
Leah Louis-Prescott / RMI: What was the other part of your question, Lauren?

245
00:47:50.860 --> 00:47:52.630
Leah Louis-Prescott / RMI: There's a

246
00:47:52.690 --> 00:47:56.490

Laura Feinstein (SPUR): how people can support in 2 weeks.

247
00:47:57.400 --> 00:48:09.860
Leah Louis-Prescott / RMI: Yeah, mostly it out some great things, but I think showing up to comment on the day of the vote. If you're in the Bay area showing up in person

248
00:48:09.860 --> 00:48:18.450
Leah Louis-Prescott / RMI: as well as tuning in via Zoom, if you're not able to attend in person, can also call your

249
00:48:18.660 --> 00:48:25.100
Leah Louis-Prescott / RMI: all the Local Board members. You can also submit comments directly with the Board members.

250
00:48:25.100 --> 00:48:39.260
Megan Leary / Emerald Cities: So there's a number of ways to voice your support. I think Megan was gonna add something to, so I want to pass it to you. Yeah, I just want to respond to the part of the question that was on the fear mongering piece. I think something that gets that has

251
00:48:39.370 --> 00:48:43.820
Megan Leary / Emerald Cities: gotten lost in the gas stove.

252
00:48:44.550 --> 00:48:48.780
Megan Leary / Emerald Cities: I don't know what the word should be is

253
00:48:48.810 --> 00:48:55.090
Megan Leary / Emerald Cities: with these. With these rules we're not talking about immediately. Every single home has to undergo

254
00:48:55.500 --> 00:48:59.900
Megan Leary / Emerald Cities: retrofits and replacements. These are replacements on burnout

255
00:49:00.160 --> 00:49:04.410
Megan Leary / Emerald Cities: and the reality like what we're really talking about.

256
00:49:05.350 --> 00:49:15.730

Megan Leary / Emerald Cities: I I know they're different for each one. But we're talking about 10 years, right? 10 to 20 years to replace these items. So, Leah, was it your

257
00:49:15.810 --> 00:49:29.960
Megan Leary / Emerald Cities: You had the stat like 5% of apply of these appliances break a year, right? So the difference that the fear mongering that has gone with the gast of discussion has been really like. They're coming into your home, and they're ripping them out, and

258
00:49:30.550 --> 00:49:51.800
Megan Leary / Emerald Cities: that's not this that's not happening, anyway. But that's also not happening with these these are you know, upon burn out, and this is not something that's going to affect everybody on January first, 2,027. It's. It's, you know I just want to reiterate in terms of the the fear or the sentiment of the the sort of

259
00:49:51.840 --> 00:49:58.870
Megan Leary / Emerald Cities: emotional reaction. And I think I saw someone in the chat say, like people, tend not to be emotionally attached to their water heater.

260
00:50:01.660 --> 00:50:06.450
Megan Leary / Emerald Cities: So you know it's not. It's not something you're going to look at every day.

261
00:50:06.530 --> 00:50:19.460
Megan Leary / Emerald Cities: It's not. You know all of that stuff. So the separate discussion on how much you like induction cook cooked up. That's but this is something that we're talking about like this Really, every 10 to 20 years this might come up

262
00:50:19.680 --> 00:50:25.320
Megan Leary / Emerald Cities: for somebody. So I just wanted to reiterate and like how you talk to somebody who is afraid of it.

263
00:50:29.310 --> 00:50:38.190
Laura Feinstein (SPUR): We have some good questions here about how to speed up the permitting process. We actually have a

264
00:50:38.260 --> 00:50:44.550
Laura Feinstein (SPUR): harper here who knows the most about I have permitting. But I won't. Put her on the spot right now.

265
00:50:44.620 --> 00:51:00.260
Laura Feinstein (SPUR): But you know there there are times when when it can be more time consuming and costly to get a permit for a heat pump. Then it would be simply to replace your old gas appliance like, for like.

266
00:51:00.350 --> 00:51:05.480
Laura Feinstein (SPUR): And we have seen those challenges in part because

267
00:51:05.570 --> 00:51:24.150
Laura Feinstein (SPUR): this process of swapping from gas to a heat pump hasn't been sort of the routine process in the past. And so these days, many of the cities are kind of sending people to multiple, for for multiple D to are requiring many different types of permits just to do that one switch

268
00:51:24.170 --> 00:51:35.910
Laura Feinstein (SPUR): to a heat pump. So one of the things that we've been working on at spur is talking is sorting out how there can potentially be a single code for fuel switching

269
00:51:35.940 --> 00:51:50.320
Laura Feinstein (SPUR): that would allow people to to fill out, Apply for and get one permit when they're converting a gas water heater, or a gas furnace to a heat pump rather than having to seek many different permits from the city.

270
00:51:50.590 --> 00:51:55.660
Laura Feinstein (SPUR): So that's sort of our our main focus right now on speeding up that permit process.

271
00:51:55.990 --> 00:52:06.750
Laura Feinstein (SPUR): I also have a good question here about how do you make it? A fast turnaround replacement process when gas appliances fail.

272
00:52:06.910 --> 00:52:08.680
Laura Feinstein (SPUR): Does anybody want to take that one?

273
00:52:12.010 --> 00:52:26.450

Leah Louis-Prescott / RMI: Yeah. So a couple of thoughts here, I mean, in an ideal world we're able to to take action proactively, but I think the reality is that is not always going to be the case. They're going to be emergency replacement.

274
00:52:26.450 --> 00:52:37.140
Leah Louis-Prescott / RMI: So innovative technologies like the 120 volume of water heater that can plug into a standard outlet are really exciting for this reason, because the thought is, then

275
00:52:37.270 --> 00:52:48.830
Leah Louis-Prescott / RMI: Perhaps perhaps you choose the 1 20 will heap up water heater as your replacement and boom like you're plugging it in and getting pretty quick. Emergency service.

276
00:52:48.830 --> 00:53:04.640
Leah Louis-Prescott / RMI: Or maybe you want a different model than the 1 20 volt, but you can use the 1 20 volt temporarily, while other actions are being taken to install a more permanent solution. So those types of

277
00:53:05.210 --> 00:53:22.710
Leah Louis-Prescott / RMI: i'd say, like loner programs for for replacements are being piloted already in the State, and I think those solutions will be continue to the those will continue to expand and and ideally scale, particularly

278
00:53:22.710 --> 00:53:39.220
Leah Louis-Prescott / RMI: coming out of this implementation working group where we're going to be asking a lot of the same questions that I'm seeing populate the Q. A. And and talking through what is already possible today, and what gaps need to be filled, how to fill them and get it done before these dates

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00:53:42.690 --> 00:53:52.260
Laura Feinstein (SPUR): absolutely. And I think one of the more interesting ideas that's been emerging as well on how to speed up the replacement process is that

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00:53:52.260 --> 00:54:09.780
Laura Feinstein (SPUR): building owners should all have an electrification readiness plan available, so they're not doing the design. The moment that an old appliance breaks. And so that's something where, when we're talking about having city run or regionally run

281

00:54:09.780 --> 00:54:25.890
Laura Feinstein (SPUR): programs that are offering people all the information in one place that's one key component is being able to offer plans for people. So they know the course of action to take. The moment that old appliance breaks, and it's not a sudden surprise.

282
00:54:26.840 --> 00:54:31.960
This is also a question that we often hear is the electrical grid ready

283
00:54:32.360 --> 00:54:38.170
Laura Feinstein (SPUR): for electric appliances? And what are we going to do about the planned power outages?

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00:54:40.190 --> 00:54:45.540
Leah Louis-Prescott / RMI: Yeah. So i'm that to be there's 2 questions here. So is the grid ready?

285
00:54:45.760 --> 00:55:15.460
Leah Louis-Prescott / RMI: This is not the this rule is not gonna like break our grid. We're to like right now in California the the peak of our electricity happens in the summer. A lot of this load is actually gonna come from the furnaces that are going to be used during the winter and a little bit in the summer for the cooling aspects, because you get that dual component, but they're also highly efficient, so they're not using as much electricity as maybe a can. A

286
00:55:15.710 --> 00:55:17.970
Leah Louis-Prescott / RMI: traditional

287
00:55:18.180 --> 00:55:24.410
Leah Louis-Prescott / RMI: air conditioner would, or a different electric appliance. And so.

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00:55:24.960 --> 00:55:43.050
Leah Louis-Prescott / RMI: in addition, we have. We are talking about pretty small load editions for the grid, and in one regional part of our grid right. If all of the furnaces, gas furnaces, and fossil furnaces in California

289
00:55:43.070 --> 00:55:54.670
Leah Louis-Prescott / RMI: were to be electrified today, I think it's like 88% of census tracks across California would be like fine with the replacements. Today.

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00:55:54.810 --> 00:55:59.240
Leah Louis-Prescott / RMI: Again, we are talking about a transition that is going to be

291
00:55:59.350 --> 00:56:01.820
Leah Louis-Prescott / RMI: decades long.

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00:56:01.820 --> 00:56:23.390
Leah Louis-Prescott / RMI: and in one portion right now of California's grid. But even when we do this at the State level because of that slow pace of appliance, turnover, and that gradual transition. Our utilities are planning ahead like they know what's coming up in the pipeline. They're already forecasting 20 years out. Pg: and he's already thinking about

293
00:56:23.440 --> 00:56:37.810
Leah Louis-Prescott / RMI: what the grid impacts from this rule are going to be, and Pg. Needs submitted a letter of support that essentially to me is like Pg. Needs, confident that the grid is going to be able to handle this added load.

294
00:56:37.810 --> 00:56:53.880
Leah Louis-Prescott / RMI: The second part of this is what happens during the outages I mean. Honestly, the outages is a bigger question. It that, like we do need to work on as a state, not having as many outages. But the reality with these rules

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00:56:53.880 --> 00:56:59.620
Leah Louis-Prescott / RMI: is because they apply to newly installed newly purchased appliances.

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00:57:00.270 --> 00:57:09.290
Leah Louis-Prescott / RMI: They're actually not gonna have much impact on your appliances during an outage, because if you were to purchase a modern furnace.

297
00:57:09.940 --> 00:57:15.830
Leah Louis-Prescott / RMI: It's not going to work in an outage because it needs electricity to start. It has electrical components.

298
00:57:15.830 --> 00:57:34.570
Leah Louis-Prescott / RMI: The same is true for most not all. But most water heaters that are gas have some components that require electricity to start. So those gas appliances not gonna work in an outage. Electric appliances not gonna work in an outage again. We need to do a better job as a state to reduce the outages.

299
00:57:34.570 --> 00:57:51.700
Leah Louis-Prescott / RMI: But but this rule is not putting you at at at more risk. In fact, it's giving you electric appliances that provide greater climate resiliency in the long run because of the way that they can interact with

300
00:57:51.700 --> 00:57:54.930
potentially greater interactive capabilities.

301
00:57:54.930 --> 00:58:14.070
Leah Louis-Prescott / RMI: You can add solar and storage. You're getting cooling with your heater. So you have a little bit more protection from heat waves. In the climate, climate, extreme heat events so overall the move to electric appliances is team us up for more resiliency in the future.

302
00:58:16.260 --> 00:58:33.630
Laura Feinstein (SPUR): I think that's a great way to wrap this up. I wanted to mention also. There's been so many really good, very technical questions about how to execute this successfully on a building by building basis that I don't feel like we could really dive into in this event.

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00:58:33.700 --> 00:58:36.510
Laura Feinstein (SPUR): But I do just want to say

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00:58:36.580 --> 00:58:53.360
Laura Feinstein (SPUR): quickly a ton of questions about electrification, readiness, and costs some things I would refer people to. There's a great Nv. 5 report on electrical Service upgrades, and how the utilities can improve that process that has a number of policy recommendations in it.

305
00:58:53.570 --> 00:59:11.460
Laura Feinstein (SPUR): There's a great study from the San Mateo county office of sustainability on costs and single-family homes. It talks a lot about electrification, readiness. and redwood energy pocket guides to multi-family and single-family retrofits similarly have those kind of technical questions answered in there.

306
00:59:11.660 --> 00:59:23.880

Laura Feinstein (SPUR): and with that I just want to thank everybody so much for joining us, and mentioned one last time that the vote will be coming up on March fifteenth. The meeting kicks off at 9 am.

307
00:59:23.880 --> 00:59:32.170
Laura Feinstein (SPUR): We hope that all of you can be there, either in person or join via Zoom to make public comments. Your voices need to be heard.

308
00:59:32.410 --> 00:59:37.660
Laura Feinstein (SPUR): and with that, thank you, everybody. And thanks to all our panelists for joining us today.