

WEBVTT

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00:00:05.480 --> 00:00:21.450

Sarah Atkinson: Great. Hello, everyone! My name is Sarah Atkinson. and I'm Spurs earthquake, Resilience policy manager and I'm. Also a board member for the Earthquake Engineering Research Institute's, Northern California Chapter.

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00:00:21.710 --> 00:00:33.150

Sarah Atkinson: Thank you so much for joining this digital discourse day. Many of you here are Spur members. So thank you for your support. If you are not a member, I encourage you to join us for.

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00:00:33.280 --> 00:00:43.330

Sarah Atkinson: but to join to support for his ongoing work and using education, policy, analysis, and advocacy to make our cities and region more prosperous, sustainable, and equitable.

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00:00:43.640 --> 00:00:54.630

Sarah Atkinson: Your financial support enables us to continue our work, including the hosting of programs like today's, and you can find more information about membership online@spur.org slash. Join

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00:00:55.280 --> 00:01:02.210

Sarah Atkinson: today's digital discourse is expanding access State grant programs for seismic retrofits

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00:01:02.570 --> 00:01:18.050

Sarah Atkinson: and in the week of devast the devastating earthquakes in Turkey and Syria that killed over 50,000 people and destroyed or damaged over 160,000 buildings. It's important that we reflect on our state and region seismic safety and resilience efforts.

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Sarah Atkinson: Earthquakes in California can result in catastrophic damage in the event of a 7 magnitude earthquake. On the Hayward faults. The Us. Geological Survey estimates that building damage from shaking alone could displace 77,000 households.

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00:01:33.360 --> 00:01:46.810

Sarah Atkinson: But this number could rise to over 150,000 households. When considering other factors, such as utility, outages, and fire in Turkey and Syria, millions of residents have been displaced by the earthquakes, and are now living in tents on the street.

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Sarah Atkinson: As for we work to advance with mitigation policies to protect the bay area during and after the next major earthquake. One important pathway toward making our built environment and communities more resilient is to retrofit older at-risk buildings that are vulnerable to collapse.

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Sarah Atkinson: Some cities like San Francisco, Oakland, and Berkeley already have mandatory retrofit ordinances for multi-family soft story buildings and these buildings, are woodframe buildings where the ground floor has large openings, usually to accommodate parking or commercial storefronts.

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00:02:19.120 --> 00:02:24.930

Sarah Atkinson: but soft story buildings. Aren't our only at risk building type, and as our speaker Today we'll discuss.

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00:02:25.070 --> 00:02:36.630

Sarah Atkinson: and retrofits can be costly for property owners, especially low income homeowners. This is why it is crucial that the State player role in supporting retrofits through grant programs which we'll talk about today.

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Sarah Atkinson: The California earthquake authority, also known as Cea, provides financial incentives for code compliant retrofits of single family dwellings through the earthquake brace and bolt program and the new earthquake software program which was announced in the last month.

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Sarah Atkinson: Today we will hear from Geniel Muffet chief mitigation officer at Ca. On how these programs reduce barriers to advancing seismic safety in California. Hi, Janelle, Thank you for joining us.

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Janiele Maffei / CEA: Sarah. Thank you so much.

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Sarah Atkinson: I will read a little bio, for to Neil, while she brings up a presentation. Janelle Muffay is licensed as both a civil engineer and structural engineer in California, with 45 years of consulting

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00:03:21.360 --> 00:03:40.310

Sarah Atkinson: structural engineering experience in 2,011, she joined the California earthquake authority as its mitigation officer, chief mitigation officer in this capacity she serves as the executive director of the California Residential mitigation program overseeing the earthquake brace and bolt and earthquake software seismic retrofit Grant programs

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00:03:40.370 --> 00:03:49.120

Sarah Atkinson: before I pass it off to Gene for her presentation. I just wanted to let let all of our listeners know that after the presentation we will have a Q. A.

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Sarah Atkinson: I will pose some questions to Janelle, and then we will go to questions from the audience. So, as you think of your questions, please enter them into the Q. A. Box at the bottom of your screen, and we're excited to have a conversation with you all.

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00:04:03.970 --> 00:04:05.970

Sarah Atkinson: With that i'll turn it over to Janelle.

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00:04:06.360 --> 00:04:17.750

Janiele Maffei / CEA: Thank you, Sarah, and of course, huge. Thank you to spur an an amazing organization that we're. We're so so privileged to have in the the San Francisco Bay area expanding access.

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00:04:17.760 --> 00:04:31.020

Janiele Maffei / CEA: You know seismic retrofit abilities and the the the codes, the standards, a lot of information, Certainly the materials and the expertise have been around for a long time, but really not

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00:04:31.020 --> 00:04:57.200

Janiele Maffei / CEA: accessible to a lot of people. And so we're really. I'm very proud to be working for an organization that's been able to provide this incentive program for retrofits on a kind of a large scale. I'm gonna tell you about the Grant program. I am a structural engineer. I remember, after one of my very first interviews with Media, my mom, who was an English

major, said she, she said, you nailed it. What? Why, where, who, when? So we're going to do a little bit of that? Who we are?

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Janiele Maffei / CEA: It's very important that you know who the Ceas, and why we're doing what we're doing. We found when we rolled out our incentive programs that people didn't know us didn't trust us. And of course, in order to be part of their their road to resilience. They they do need to trust us so we'll start with the what, the what who we are. Pardon me.

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Janiele Maffei / CEA: the Ca is a. Not for profit residential earthquake insurance. It's very unique instrumentality of the State.

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00:05:21.800 --> 00:05:37.060

Janiele Maffei / CEA: and to understand why we were created to go back to 1984. When the Mac first rolled out. The State of California wanted earthquake insurance to be available to Californians, however, at the urging of the insurance industry. They separated it, and it it's a separate policy.

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00:05:37.060 --> 00:05:57.330

Janiele Maffei / CEA: And they stated, though in this mandatory offer law, that it must be offered with an insurance policy. So so when it a company writes the homeowners policy in California, they must offer that separate earthquake insurance policy. The homeowner is not obligated to purchase. It so it's called the mandatory offer law with that in place earthquake

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00:05:57.380 --> 00:06:15.340

Janiele Maffei / CEA: uptake in California, for single-family residents. This was actually quite high in the of the late eighties and the early nineties. But along came the northwards earthquake, 40 billiondollars in damaged half of that residential half of that insured and modeling was at its infancy. So these companies really didn't understand

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00:06:15.340 --> 00:06:19.880

their risk at the time exactly what their their total pay out

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00:06:19.880 --> 00:06:36.840

Janiele Maffei / CEA: responsibilities would be, and they lost their shirts. And so with that mandatory offer in place, they were going to stop writing insurance policies in the State of California, a crisis for the insurance industry and the lending industry. So the State Legislature stepped in to create the California earthquake authority

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00:06:36.840 --> 00:06:42.490

Janiele Maffei / CEA: very unique. We're not an agency, but an instrumentality of the state, and publicly

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00:06:42.560 --> 00:07:09.460

Janiele Maffei / CEA: managed privately, finance so publicly managed. There's our the top 3 elected officials have designees who serve on our board of directors as well as a representative on behalf of the Assembly Speaker and the Senate rules chair so publicly managed. We actually do most things like an agency in terms of publicly noticed meetings. Everything that we that we look for in terms of vendors will be doing a an Rfp process so very similar to an agency, but privately

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00:07:09.820 --> 00:07:29.600

Janiele Maffei / CEA: fund it. And so that's very important. We're not part of the state budget. We can't tap into their funds after an earthquake. They can't tap into our funds in the event of a bad year. So the insurance companies that join us to sell our insurance policy up breaks some money when they join us, and then, of course, the policy holders every year with premiums are contributing to our financial

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00:07:29.820 --> 00:07:44.540

Janiele Maffei / CEA: stability. Our mission from day one included mitigation. It was to educate, mitigate and ensure educate homeowners, need to residents of California frankly need to be able to make informed decisions about their risk and what to do about it

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00:07:44.540 --> 00:08:01.860

Janiele Maffei / CEA: mitigate from day. One, they said, let's not just transfer risk through insurance, but rather let's try and reduce it as well, and they wanted us to from day one have a program that was out reaching to all Californians, not just policy holders in terms of mitigation, and then, of course, ensures our our primary

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00:08:02.280 --> 00:08:26.170

Janiele Maffei / CEA: business. We don't sell our policy, our participating insurers. Do you might see your company here if you bought a Ce policy by it through your Homeowners Policy company. In the event of an earthquake you call them. They'll send an adjuster to adjust the claim if you, in fact, are getting a pay out for that claim the money would come from the CEO. So this unique instrumentality of the State.

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00:08:26.240 --> 00:08:39.370

Janiele Maffei / CEA: the funding of an insurance company very interesting to join this this insurance Company. I've learned so much about the financial institutions, but the most important part to our mitigation program. This is a our financial Tower

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00:08:39.510 --> 00:09:01.580

Janiele Maffei / CEA: Insurance companies have a certain amount of capital for us. It's 5.7 billionWe have reinsurance, which is insurance for insurance companies, and then some other financing opportunities. And our modelers tell us what we need to have in terms of total claim paying capacity, and that is just over 19 billiondollars. But to the Medication department. What's important are those capital reserves?

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Janiele Maffei / CEA: Because the legislation back in the nineties stated that our mitigation program will be funded through a lost mitigation fund, and that will receive 5% of investment income annually up to 5 million dollars. So that 5.7 is invested. That that income that we get 5% of it goes into the Medication Lost Mitigation Fund, and that's what we use as our C funding for our mitigation program.

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Janiele Maffei / CEA: So, as I, as I talk about our program just 3 categories here that that affect everything that we're looking at in terms of mitigation, and that is essentially risk. Earthquake risk is hazard plus vulnerability plus exposure. So hazard, location, vulnerability, the house kind of health of that house, the age of that house

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00:09:46.770 --> 00:09:52.320

Janiele Maffei / CEA: exposure, the exposure that we're interested in at the Ca. Is the State of California.

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00:09:52.570 --> 00:10:07.220

Janiele Maffei / CEA: But of course, to the individual owner it is typically it's their house that one house sing its largest, single largest investment they'll make in their life in most cases. But hazard, hazard, hazard, location, location, surface faulting.

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00:10:07.270 --> 00:10:17.420

Janiele Maffei / CEA: Last thing you want to do is buy a house. That's right on the fault ground, shaking very, very important, because so much of California is in high high risk areas.

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00:10:17.420 --> 00:10:33.470

Janiele Maffei / CEA: land, side liquefaction all mapped tectonic deformation. Tsunamis. Obviously, along the coast we do have some some dynamic tsunami issues, but hazard is about the earthquake itself and the the the types of physical things that happen that could cause damage.

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Janiele Maffei / CEA: But what I tell people is, you know that the most important thing you need to know to be educated on Your risk is that California is home to 2 thirds of our nation's earthquake risk.

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00:10:44.260 --> 00:10:55.260

Janiele Maffei / CEA: Now Alaska has more earthquakes significantly more earthquakes. We have more people, and they are strategically placed along the San Andreas fault zone. I think 85% of our population is living there along the coast

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00:10:55.360 --> 00:11:20.610

Janiele Maffei / CEA: there that dark red blaze that runs up through the State. There, on that map is the standard race fault zone, and it's not just one fault. Of course it's false either side of that Santa Cruz fault that that plate boundary. And then we're where it takes a turn there at Los Angeles. Of course we have this fault system that that that relieves that turn stress that we get there, and heads over to the East. And then we do have a kind of a system that runs up the Sierra Nevada.

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Janiele Maffei / CEA: but you could see, with the majority of our population in this area, with with just nothing but earthquake fault, it's best to to recognize that most Californians live within 30 miles of an active fault, and that we just live in an earthquake country, and we accept that.

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00:11:37.160 --> 00:11:56.270

Janiele Maffei / CEA: And then we? We we know that's our risk, and then we're going to do. Look to see what we can do about it, and so the why of of eventually. Why we want to mitigate is that there are seismic vulnerabilities and older homes have known vulnerabilities to earthquake damage in California. Now, Sarah.

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Janiele Maffei / CEA: very right. We started our program talking about the the the catastrophic earthquakes that happened in Turkey and Syria.

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00:12:03.690 --> 00:12:22.410

Janiele Maffei / CEA: and the the question that was asked of of earthquake professionals, like myself and many of you in the room is, could it happen here? Well, with the sand? Andres called, is absolutely capable of producing large earthquakes like that? And recently we've come to the realization that we could have back to back large earthquakes.

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00:12:22.530 --> 00:12:31.480

Janiele Maffei / CEA: Our Our housing construction is different. That's not to say. We don't have concrete buildings that that could put us at risk. But today we're going to talk about

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00:12:31.520 --> 00:12:42.240

Janiele Maffei / CEA: vulnerabilities, that are to wood-framed houses. Now some of them are quite dangerous, but you know we had access to wood. We have a moderate climate, and so the majority of our residential construction

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00:12:42.350 --> 00:12:57.880

Janiele Maffei / CEA: is wood framed, and that is what we're going to talk about today. That's not to say that we once again that we don't have concrete issues. But let's talk about some known seismic vulnerabilities. There's kind of the top 4 of the single family dwelling in California that crawl space house

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Janiele Maffei / CEA: not properly anchored to its foundation living space over garage or soft story. But now we're talking about the single family self story. Hillside houses per predominantly. What we're looking at. There are the poll houses that just really have no ability to stay over their foundation. And then, of course, the ubiquitous on reinforced May Street chimney. These are kind of the the top 4 here, and and the what the CEO is using as kind of the roadmap for developing mitigation programs. These were identified

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Janiele Maffei / CEA: through a project we did jointly with Fema, and it's printed as a a report as Fema P. 100, and of course, when you drive around the San Francisco Bay area, it is very easy to find these vulnerabilities very common in the Bay area. When you think about our history, you think about the growth that we had particularly around the time of the world wars because of our ports.

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00:13:49.420 --> 00:14:06.790

Janiele Maffei / CEA: You know that the housing stock is, in fact aging, and we have many of these vulnerabilities, not because construction was, you know, ripe with defects, and and people were not following the rules, but rather the the design and construction happened before our codes really recognized

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00:14:06.790 --> 00:14:18.320

Janiele Maffei / CEA: seismic performance, and the kind of of structure that will perform well in an earthquake. So it's really based on age, and these older codes to which our houses are constructed.

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Janiele Maffei / CEA: So, looking at that those 4 vulnerabilities, we started with the one on the left that crawl space because it very simple for people to identify.

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00:14:26.500 --> 00:14:38.950

Janiele Maffei / CEA: and it's very easy to use age as a proxy. Because if you have a pre 1980 house, you might have this crawl space problem. If you have a pre 1940 house, you do have this cross space vulnerability.

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00:14:38.950 --> 00:14:58.880

Janiele Maffei / CEA: And so earthquake, pretty simple, was rolled out in a pilot program in 2,014. We're actually closing in on 20,000 retrofits right now, and recently received 80 million dollars from Fema, and not quite going to double that 19,000. But come close to that very excited about that. The program earthquake, pretty simple.

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00:14:58.880 --> 00:15:18.810

Janiele Maffei / CEA: provides up to \$3,000 in a grant. And currently we're requiring owner-occupied. We identified Zip Codes to start the program we started in 4 zip codes in California. We're now in over 571, I believe I just wanted to mention very quickly people question me about why we just didn't open it up to the entire state

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00:15:19.060 --> 00:15:29.060

Janiele Maffei / CEA: we realized early on the best way to dissuade somebody from coming back is to put them on a waiting list year after year after year. The way we've done it by growing incrementally

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Janiele Maffei / CEA: starting in areas of highest hazard with the largest numbers of pre 1,940 buildings, we have been able to exhaust our waiting list. We've had enough money every year, so we never left a person on a waiting list. I don't know that we can do that in perpetuity, but growing like we did, has allowed us to do that, and we.

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Janiele Maffei / CEA: I believe, that it was a better management of expectations

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Janiele Maffei / CEA: so very excited. And of course, with 19,000 houses comes data. And so people always wonder. Well, how much does that \$3,000 pay for? And it's important to note that, for in many, many cases, particularly in Southern California, that \$3,000 comes very close to paying for the whole retrofit

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00:16:15.070 --> 00:16:31.880

Janiele Maffei / CEA: and the cost differential between the bay area and the rest of the State, I think, will not surprise all of you. It's come down, though, so we've had the ability by bringing in some funding by increasing the number of retrofits. I think there's been some kind of normalization of the prices

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00:16:31.880 --> 00:16:44.720

Janiele Maffei / CEA: in the San Francisco bay area. But you can see here that 77% of the retrofits have been less than \$7,000 at the Median. My face here is covering the median here. Yes, just over 5,000.

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00:16:44.830 --> 00:17:01.890

Janiele Maffei / CEA: There's some really outrageously expensive ones, particularly maybe, of a complicated house, a house that has quite a bit of maintenance or needs a new foundation. Obviously that's going to skew averages, but but very important to note this 77 or less than 7,000.

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00:17:02.790 --> 00:17:21.260

Janiele Maffei / CEA: So the \$3,000 is really a good tipping point. But in terms of my my initial slide that talked about accessibility of retrofits. We knew from day one that the \$3,000 was not going to meet the needs of all Californians; that we had a low to moderate income homeowners. That that we're going to need is additional help.

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Janiele Maffei / CEA: And so we did introduce some supplementary grant that i'll that i'll talk about. But I was very excited to find

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Janiele Maffei / CEA: that this study that was done by Professor Henry Burton at at Ucla, done before we introduced supplementary grants for low to moderate income actually found increases

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00:17:42.530 --> 00:17:54.140

Janiele Maffei / CEA: in neighborhoods with the highest representation of black hispanic, and low-income households. And so what he looked at was kind of pre 2,013 before ebb and after ebb retrofits

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00:17:54.140 --> 00:18:12.580

Janiele Maffei / CEA: in areas with like large concentrations of black hispanic and low income households, and found that the numbers grew more than than areas where ebb was was not in place. So in other words, we we were making a difference, not to say that that alone that that was sufficient.

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00:18:12.580 --> 00:18:28.010

Janiele Maffei / CEA: I'm very happy. We've been able to add these supplementary grants, and there's certainly lots more work to do. So. The supplementary grant is a grant on top of that \$3,000. You have to be income qualifying household income of \$72,080 or less.

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00:18:28.010 --> 00:18:45.820

Janiele Maffei / CEA: And of course you need to be in one of our zip codes and select it into the program. We we just started it last year, and it is we are finding it to be successful. We also provide funding upfront. They don't have to wait till the end of the program if they have an outlay, for example, for a contractors inspection or for permit.

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00:18:46.330 --> 00:18:57.470

Janiele Maffei / CEA: So i'm very excited to go back to you ceiling and work with Professor Burton to do some studies on going, as we introduce the supplementary grant to see how we we are making additional in roads.

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00:18:57.470 --> 00:19:17.070

Janiele Maffei / CEA: Additionally, I mentioned, you must be owner occupied. We recognize as well that we don't meet the needs of large populations of low income. Californians because they are renters little bit different, though it a little bit different incentive for somebody retrofitting a house that is essentially a commercial property.

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00:19:17.070 --> 00:19:33.700

Janiele Maffei / CEA: You know it's it about Roi. Is there altruism? So we are interested in, and once again we'll start with a pilot in opening up to maybe maybe people with small portfolios yet you have to own 5 houses or less. We don't want to be giving this to these great big giant co corporations.

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Janiele Maffei / CEA: but certainly want to get into affording renters the same kind of resilience that we're affording others. This is the retro. It very simple, takes about 2 to 3 days to do

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00:19:45.760 --> 00:19:55.980

Janiele Maffei / CEA: as you saw that meeting about 5,200 plywood on the walls, anchor bolts, or foundation plates, anchoring the wood to the concrete and framing clips at the top.

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00:19:56.070 --> 00:20:06.780

Janiele Maffei / CEA: Do it yourself first can do it, and absolutely we have some who do it, and they certainly do it for less than \$3,000, really a very, very basic retrofit. It can be done

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00:20:06.890 --> 00:20:30.380

Janiele Maffei / CEA: for the most part the majority. Ours are being done on a prescriptive basic prescribed basis, and that it means that they can use a plan set that's pre-engineered so they don't have to bring in an engineer. There's there's already. An engineer plan set that they they they read off the table. What kind of what? The size and spacing of all of those elements that I just showed you in the picture which really helps with the keep the cost down.

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00:20:30.800 --> 00:20:45.300

Janiele Maffei / CEA: and it works. We have seen pictures, I I I took these this picture. This was not the morning after the Napa earthquake, but I found these houses the morning after the Napa earthquake in 2,014. The owner of the Blue House walked out.

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00:20:45.540 --> 00:20:58.620

Janiele Maffei / CEA: and I asked him if he had done any retrofit, and he actually didn't know what I was talking about. I had to describe, you know, ply with nails in the crawl space, he said, oh, yeah, I done. I done some of that. After the 2,000 Yankee earthquake his house

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00:20:58.630 --> 00:21:09.900

Janiele Maffei / CEA: was not yellow or red tag. The house on the left, virtually identical with the exception of that porch, came off of its foundation, and we sat and we watched the 2 houses. The Blue house had damage.

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00:21:09.940 --> 00:21:28.040

Janiele Maffei / CEA: Earthquake retrofitting is not earthquake proofing, but they were able to shelter in place, and they were able to take care of all those repairs while still using their house. 2

and a half years later the Yellow House, not yet re-occupied. And unfortunately i'm going to find this kind of an example in every earthquake. Here we are in Ferndale.

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00:21:28.040 --> 00:21:44.010

Janiele Maffei / CEA: A few weeks ago, House on the left, not retrofitted house on the right retrofitted red tag, green tag, absolutely damaged to the retrofitted house. but the kind of damage that is prepareable, and once again they were not compelled to move out

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00:21:44.610 --> 00:22:11.080

Janiele Maffei / CEA: additionally, in addition to that that displacement that 2 years of living somewhere else all the while paying your mortgage, we did a project with the Pacific Earthquake Engineering Research Institute, and essentially asked them, how much are we reducing the damage for the retrofitted house? And here's an example of a scenario earthquake in San Francisco Magnitude 7, the worst producing house. This 2 story woods-sided house is the worst performing. House. Pardon me.

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00:22:11.220 --> 00:22:22.190

Janiele Maffei / CEA: does the worst in a an earthquake, you know. Pardon me, the best performing house is a stuckle. One story, you know. The savings were 60,000

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00:22:22.440 --> 00:22:29.160

Janiele Maffei / CEA: with the study, and in the worst performing house, this two-story wood, framing as much as 200,000.

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00:22:29.370 --> 00:22:31.440

Janiele Maffei / CEA: I feel like I can say. But wait

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00:22:31.530 --> 00:22:43.730

Janiele Maffei / CEA: now. It was for a \$200 per square foot. Replacement cost is what the report used. This is off by a factor of 2 to 3 in the city of San Francisco. We're talking about half a 1 million dollars in savings for this worst performing house.

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00:22:43.860 --> 00:23:05.160

Janiele Maffei / CEA: and hundreds of thousands of dollars in savings for the best performing has, so it absolutely the cost. Benefit is very, very easy to see Now, with that in under our belt and success we put in an application to received enough money for a pilot program for a new vulnerability. A new program. Earthquake. Soft story. E. Ss.

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00:23:05.160 --> 00:23:35.090

Janiele Maffei / CEA: So soft story sounds familiar. There are ordinances being adopted throughout the State of California, San Francisco, of course, at the forefront of that Los Angeles. Now, many cities in San Francisco bay area have these mandatory or voluntary ordinances for multi-family. So for 5 units or more. But this vulnerability exists in the single family house as well and i'm going to give you a typical i'm not condemning these houses on the right the beautiful painted ladies. But there's a picture of them the day after the 1,906 earthquake, and you can see that they did not collect.

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00:23:35.090 --> 00:23:35.760

Yes.

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00:23:35.820 --> 00:23:38.470

Janiele Maffei / CEA: however, in the 19 twenties

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00:23:38.830 --> 00:24:08.790

Janiele Maffei / CEA: they were modified. Garages were put in on the ground floor, garage doors taking out the elements that resist earthquake forces which are walls. That's not to say that that these houses have not been retrofitted. I do not know this. It's like a a doctor. I'm not condemning these houses or these patients without having seen them, but just an example of the introduction of the automobile that that essentially that the wide openness of that ground floor is very similar to the Multi family. It's tuck under parking you've taken out the elements that resist earthquake forces.

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00:24:08.970 --> 00:24:09.990

Janiele Maffei / CEA: and

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00:24:11.000 --> 00:24:20.550

Janiele Maffei / CEA: while the houses in the cripple wall, ebb scenario will come off the foundation. These houses are, if they come off their foundation, are toppling.

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00:24:20.600 --> 00:24:22.920

Janiele Maffei / CEA: you know 7 8 9 feet.

102

00:24:22.920 --> 00:24:51.400

Janiele Maffei / CEA: with all the furniture flying around. This can be very, very dangerous, very dangerous damage, partial or full collapse. We certainly saw examples of single family in in the 1,989 Loma Pri to earthquake and of course, exacerbated on areas of soft soil like the Marina

district. We've seen it (718) 994-2014. It's important to note that I mentioned 1,980 and 1,940. When I talked about the Crawl Space House.

103

00:24:51.400 --> 00:24:58.740

Janiele Maffei / CEA: the benchmark for this house. The Es house is 2,000; that unfortunately the codes in the nineties

104

00:24:59.060 --> 00:25:10.910

Janiele Maffei / CEA: eighties and nineties really didn't mitigate this particular problem. And so it's a pre 2,000 house that will qualify for our new E Ss or earthquake. Soft story program.

105

00:25:11.510 --> 00:25:24.390

Janiele Maffei / CEA: one lasting on that registration for Ess is opening on a limited basis, and we are in San Francisco, Oakland and Berkeley, Los Angeles and Pasadena and Southern California. We're opening April 20, fifth.

106

00:25:24.390 --> 00:25:39.130

Janiele Maffei / CEA: We're gonna be able to do just over 300 houses. It's a pilot. Program. These are much more expensive. They're more on the 14 to 27,000, plus the grants will be a maximum of 75% of the retrofit up to 13,000,

107

00:25:39.130 --> 00:25:52.750

Janiele Maffei / CEA: but we're going to give it a try. We're going to see if in fact, this we can have success with this vulnerability as well. I would love to stand up this program attract additional theme of funding, and be able to offer supplementary grants at some date as well

108

00:25:53.410 --> 00:25:54.720

Janiele Maffei / CEA: and then finally.

109

00:25:55.020 --> 00:26:14.000

Janiele Maffei / CEA: multi-family. So we kind of entered into this with knowing that you know these are catastrophic failures. These are deadly failures, and that once again this many, many cities in California have taken steps to go down the road to to become more resilient within within these structures, to earthquake damage.

110

00:26:14.000 --> 00:26:32.290

Janiele Maffei / CEA: And so our contributions have been at at this point a brick applications. So this is the new fema brick grants we've put in a 20 million dollar request for funding in 2122 and 23. We are in fema review for the 2,021 program have not heard yet

111

00:26:32.290 --> 00:26:43.940

Janiele Maffei / CEA: really hope that we get this one so that once again. We can stand up a program that will attract additional funds. Many of you know about Sb. 189, the 250 milliondollars.

112

00:26:44.190 --> 00:27:02.230

Janiele Maffei / CEA: There's 3. As it was, it was approved for appropriation, for allocation or allocation for appropriation, and I I apologize to those of you. You. Policymakers are rolling their eyes at me. I I cannot keep those last. You, essentially my what I know is it wasn't included in the budget. So not happening at this time.

113

00:27:02.560 --> 00:27:25.800

Janiele Maffei / CEA: I hope that we can get the fema brick Grants create a program. Stand it up, and then it'll be. It'll be sitting there waiting for fema and State funding, because this is important, and these large cities that have that have been able to implement voluntary or mandatory programs have led the way. There are many, many small cities in California that we can certainly assist with to step in with some grant funding.

114

00:27:25.880 --> 00:27:32.800

Janiele Maffei / CEA: not to say that we won't. Go into those large cities. But there's an extra need for these smaller cities, and then find the exposure

115

00:27:33.010 --> 00:27:53.870

Janiele Maffei / CEA: I mentioned. We can use age as a proxy, and Certainly we can point out to people. Do you have that living space over garage? You know they can kind of understand their individual house, but it's important to note that private structures are typically privately owned. They're privately owned. I I mentioned the single largest investment they'll make, and less than 13,000 California homes are ensured for earthquakes.

116

00:27:53.870 --> 00:27:58.400

Janiele Maffei / CEA: so that the the need to assist in this resilience to to

117

00:27:58.430 --> 00:28:07.490

Janiele Maffei / CEA: elevate the educational level people in an earthquake risk and resilience because it in an earthquake.

118

00:28:07.490 --> 00:28:26.160

Janiele Maffei / CEA: you know Forndale didn't trigger a presidential declaration. The the county is, is struggling to find funding to assist particularly low to moderate income homeowners whose houses are now damaged, and they they've had to move out of their houses. This this is exposure.

119

00:28:26.210 --> 00:28:37.030

Janiele Maffei / CEA: If I say it's one house sounds like a small problem, but to an individual family and homeowner it is a huge life changing problem, and we recognize that.

120

00:28:37.210 --> 00:29:05.550

Janiele Maffei / CEA: And then, finally, when we are not open for registration. People get a little discouraged when they go to our websites, and so we created strength in my house.com. It has the information, minus the funding information, so they don't get to the end of it and go. Oh, you had a program I can't register in, but rather it's a place to go and to become educated, to become part of the the resilience educated Californian that can, you know, be moving forward with trying to reduce damage

121

00:29:05.550 --> 00:29:06.740

in California.

122

00:29:07.410 --> 00:29:18.790

Janiele Maffei / CEA: And with that i'm delighted to stop sharing and answer questions from a list from Elizabeth, from Sarah. Sorry. I was just talking to someone named Elizabeth.

123

00:29:18.920 --> 00:29:21.630

Janiele Maffei / CEA: and and from our audience

124

00:29:21.970 --> 00:29:32.020

Sarah Atkinson: great. Thank you so much, Shield. That was a great presentation. I have seen you speak a few times, and I feel like. I learned something new, and I learned something new from you every time. So thank you so much.

125

00:29:32.100 --> 00:29:45.400

Sarah Atkinson: We will now move on to our question as an answer section of the event. I've prepared a few questions, but I want this to be an interactive conversation, and I I really want to answer questions from the audience.

126

00:29:45.450 --> 00:29:55.780

Sarah Atkinson: So again I encourage you to use the chat box to share thoughts with each other and with the speakers, and then I encourage you to submit your questions in the Q. A. Panel.

127

00:29:55.830 --> 00:30:01.890

Sarah Atkinson: This should appear as a button at on the bottom of your screen, or the top of your screen. If you're on the mobile app.

128

00:30:02.090 --> 00:30:19.010

Sarah Atkinson: And within the next few days I saw a question in the chat about this we'll also be sharing our recording of the event a transcript. And you know, if there's any conversation in the chat, you'll get to see that and general. I assume it's okay that we also share your presentation.

129

00:30:19.070 --> 00:30:21.410

Sarah Atkinson: Absolutely great. Great.

130

00:30:21.560 --> 00:30:25.280

Sarah Atkinson: Yeah. So i'll start with my first question.

131

00:30:27.190 --> 00:30:43.180

Sarah Atkinson: We, you know, both of us mentioned the Turkey earthquakes. How do how have you seen in in response to these earthquakes, and the and the devastation that happened there? How have you seen? Ca, or the State kind of

132

00:30:43.220 --> 00:30:56.420

Janiele Maffei / CEA: change their way of thinking about seismic safety.

133

00:30:56.470 --> 00:31:11.160

Janiele Maffei / CEA: but every earthquake provides us with a a a very small window of attention. On this this very important issue is very high consequence but low probability events. And of course it is heartbreaking to those of us who

134

00:31:11.160 --> 00:31:21.780

Janiele Maffei / CEA: you know to who I've spent my career as a structural engineer, and you know, just to recognize these are These are man-made human-made disasters. and

135

00:31:21.980 --> 00:31:25.950

Janiele Maffei / CEA: it frankly you know we we have solutions. The solutions are

136

00:31:26.170 --> 00:31:32.560

Janiele Maffei / CEA: our excellent building codes and retrofit programs for older older buildings.

137

00:31:33.850 --> 00:31:48.110

Janiele Maffei / CEA: So the Ca is proceeding to work very hard to to get as much funding as much opportunity to to assist with retrofits in California, also keenly aware once again of the low insurance

138

00:31:48.110 --> 00:31:56.950

Janiele Maffei / CEA: earthquake insurance pick up in terms of California. I was very excited to see Los Angeles take a step towards their nonductal concrete. I know that San Francisco has.

139

00:31:57.130 --> 00:32:07.720

Janiele Maffei / CEA: you know, their their 30 year plan, their their caps or decip plan earthquake safety implementation plan that that grew out of the Caps program, and many, many cities, and so

140

00:32:07.820 --> 00:32:12.040

Janiele Maffei / CEA: proud of of cities in the San Francisco Bay area, who, you know.

141

00:32:12.110 --> 00:32:17.040

Janiele Maffei / CEA: with whatever resources they can muster, have put together programs.

142

00:32:17.480 --> 00:32:26.200

Janiele Maffei / CEA: and everyone said a little bit of it of a different place, and you know, and using different different techniques. But we have seen movement.

143

00:32:26.280 --> 00:32:38.440

Janiele Maffei / CEA: There was a an informational hearing that was held in the State capital a few weeks ago that I participated in where I and it was both the Assembly and Senate members of the Emergency Management committees.

144

00:32:38.800 --> 00:32:49.020

Janiele Maffei / CEA: and essentially asking, Can it happen here? What should our priorities be so. So that window happened, and we've been speaking to it.

145

00:32:50.210 --> 00:33:09.590

Janiele Maffei / CEA: you know. I think any anyone who's working with public policymakers understand that they, you know they go from a meeting with me where I'm talking about earthquakes, to talk to somebody else about climate change, somebody else about homelessness. It is one of our our many challenges in the State, and once again it's that low probability event. So it is up to us

146

00:33:09.660 --> 00:33:13.220

Janiele Maffei / CEA: in the earthquake professional world to

147

00:33:13.290 --> 00:33:20.890

Janiele Maffei / CEA: to be there at the ready when they, you know, when we can get interest. And and and I think that with the program like ours.

148

00:33:21.100 --> 00:33:24.670

Janiele Maffei / CEA: that we've been able to stand up. We've now been up for 10 years

149

00:33:24.770 --> 00:33:40.370

Janiele Maffei / CEA: to continue to get funding, and sometimes it's the 80 million. Sometimes it's a 2 million dollar grant, and to show that we can, in fact, create ongoing commitment. To resilience, I think, is an important thing, so

150

00:33:41.580 --> 00:33:48.440

Janiele Maffei / CEA: I I I don't think there was anything ground breaking that happens, Sarah. But but that window happened as we expected.

151

00:33:48.530 --> 00:33:50.100

Janiele Maffei / CEA: and

152

00:33:50.820 --> 00:33:57.090

Janiele Maffei / CEA: you know this was a particularly devastating earthquake in terms of life lost and

153

00:33:57.340 --> 00:34:02.330

Janiele Maffei / CEA: and and so I'm: I'm hoping that we're able to maintain the momentum from that.

154

00:34:02.400 --> 00:34:09.460

Sarah Atkinson: Yeah, thank you so much for that. That answer. I I think one thing I've been thinking a lot about is

155

00:34:09.670 --> 00:34:15.350

Sarah Atkinson: how to bring earthquake resilience into, like the

156

00:34:16.060 --> 00:34:30.409

Sarah Atkinson: mindset of people that are not within like the disaster, resilience, space. So how can we get people who are interested in sustainability and climate change to think about? You know, if we have a major disaster like what happened in Turkey.

157

00:34:30.600 --> 00:34:47.760

Sarah Atkinson: We are going to lose a ton of buildings, which means that all of that embodied carbon is going to go to the landfill, and then we are going to have to reconstruct those buildings. And so, even though it's a really unlikely event, you know, thinking about that aspect of it is really important. And then, like you just mentioned.

158

00:34:47.830 --> 00:34:56.830

Sarah Atkinson: we have a housing crisis in California, and if we have all these buildings that are damaged or destroyed, and people can't live in them.

159

00:34:57.090 --> 00:35:06.000

Sarah Atkinson: We're kind of put back on our housing efforts that you know we've been able to make at least some movement on over the last few decades. So

160

00:35:06.020 --> 00:35:10.670

Sarah Atkinson: there's I think there's like these nexis of of

161

00:35:10.920 --> 00:35:20.980

Sarah Atkinson: yeah work that needs to happen, and like conversations that need to happen, so that we're not in these silos about like what the what the problems are and what the

162

00:35:21.080 --> 00:35:23.650

Janiele Maffei / CEA: yeah, I mean, I've always.

163

00:35:23.680 --> 00:35:39.560

Janiele Maffei / CEA: you know, we should we could create a kind of an inter inter silo organization. Essentially this looking at the smart house, you know, and I always tell people when you, when you take off the the wood shakes to put on, you know a a fire resistant roof. That's the time to plywood on your house.

164

00:35:39.560 --> 00:35:55.820

Janiele Maffei / CEA: which which will increase your your resilience and an earthquake when you're under the house putting, you know, plywood around the crawl space. That's the time that you could change the at the match on the vents to you know, to be amber resistant.

165

00:35:55.820 --> 00:36:07.030

Janiele Maffei / CEA: The same with, you know. So it's under your your eve. You know all of these things could be at the forefront of of thought when you're doing remodeling.

166

00:36:07.060 --> 00:36:16.250

Janiele Maffei / CEA: You know 1 one of the interesting things that I think we we always need to talk about with single family dwellings is there are. There's an ex exception in the code where a building official can

167

00:36:16.670 --> 00:36:35.970

Janiele Maffei / CEA: make an exception for a lot of things for a single family dwelling in the interest of affordable housing, and not affordable housing. I don't say that with a kind of a with affordable housing it. It resonates with us. It's a huge problem. But to continue to exempt a make, an exception to a house for something

168

00:36:35.970 --> 00:36:40.160

Janiele Maffei / CEA: that is going to result in, you know, loss of that house in the future, or

169

00:36:40.320 --> 00:36:53.060

Janiele Maffei / CEA: a safety issue for the residents. Obviously, then, then, we have to start looking for for different solutions than just, you know, making that exception. And you know I found that in Ferndale, Ferndale, the Building official.

170

00:36:53.440 --> 00:36:55.490

Janiele Maffei / CEA: the saying I I have.

171

00:36:55.860 --> 00:37:08.450

Janiele Maffei / CEA: you know I can't go back to these these low-income homeowners and tell them what you were on post and peer, which is just a lousy foundation. You have to go in and put in a footing. So we're trying to do is is bring earthquake, brace and bolt up there and go. Well okay. Put it back on this

172

00:37:08.820 --> 00:37:16.960

Janiele Maffei / CEA: horrible little post appears. Let us come in then after, and and build a great foundation around it. So the smart house is really where we want to get.

173

00:37:17.010 --> 00:37:21.850

Sarah Atkinson: Yeah, yeah, thank you. My next question is.

174

00:37:22.000 --> 00:37:33.530

Sarah Atkinson: you know you talked about this as well, but I'm: i'm interested in hearing more from from you about like. Why, you think it's important for the State to provide funding for seismic retro that's of at Risk buildings.

175

00:37:33.570 --> 00:37:46.180

Sarah Atkinson: and I will integrate this with a question from the audience that was about why it has been harder for smaller jurisdictions to actually move forward on retrofit mandates.

176

00:37:46.210 --> 00:38:04.230

Janiele Maffei / CEA: We know I was a consulting engineer for 30 years, and so I was keenly aware of the difference between cities and counties, and you know you go into one city that's, you know, run like a well oiled machine, and seemingly has a lot of resources. Of course they have their challenges as well, but you know particularly the larger cities.

177

00:38:04.230 --> 00:38:20.100

Janiele Maffei / CEA: and then you go into a smaller city where you know essentially their building department is, or consulting firms. You know it's their outsourced, or, in the case of Humble county, you know. Very important building official, you know, was on a part time basis, you know. 4 days a week in this disaster falls into his lab.

178

00:38:20.110 --> 00:38:39.930

Janiele Maffei / CEA: and so they don't have a lot of resources. They don't have a lot of redundancy to just all this and say, okay, Well, we need a chief resilience. Officer here, Joe, you you maybe could add 20 min to your week out of your, you know, endless jobs, and so we have an opportunity when you have an organization like the Ce. To

179

00:38:40.030 --> 00:38:52.610

Janiele Maffei / CEA: to kind of step in, and and what we'll tell building departments when we go to them with earthquake, brace and bold, and we'll do the same with the Ss. Is we? We don't come in and tell you how to run your business, but we will bring you the best practices

180

00:38:52.700 --> 00:39:07.920

Janiele Maffei / CEA: ideas from around the State, because we're now working with. I forget how many hundreds of building departments, and then we can do things for them, you know, kind of upfront, so that they can do it over the counter plan, check and inspection.

181

00:39:08.040 --> 00:39:23.580

Janiele Maffei / CEA: and you know we've kind of taken care of. Everything else about. This is what you should be doing. We're going to help you with the funding, and so we can step in, particularly for some of those those under resourced cities and and building departments to assist

182

00:39:24.670 --> 00:39:31.750

Sarah Atkinson: great. And I I think this was also another question from an audience member. But

183

00:39:31.920 --> 00:39:40.150

Sarah Atkinson: what are the different ways that cities can access? Not just Ca funding for these retrofits. But what other type of funding is available for the yeah.

184

00:39:40.610 --> 00:39:53.730

Janiele Maffei / CEA: Well, I know that in the 10 years we've had Ebb: we have worked with a number of cities. I know that the city of Oakland got some fema Hmgp money and put put a their own earthquake. Reasonable

185

00:39:53.730 --> 00:40:12.230

Janiele Maffei / CEA: city of Hayward had a great program that they did for some of their vulnerable citizens that was in at. They were going to go in and assist them with some modifications that they needed for kind of life, safety, or accessibility, and they brought some retrofitting with that as well. And so there's been kind of unique.

186

00:40:12.320 --> 00:40:16.910

Janiele Maffei / CEA: I think they were using Block Grant. I think

187

00:40:16.930 --> 00:40:18.330

Janiele Maffei / CEA: Block rent funding

188

00:40:18.380 --> 00:40:26.410

Janiele Maffei / CEA: anybody from Hayward if you can type it in if I'm wrong. So they've been some creative ways to use kind of some, you know some of the the funding processes.

189

00:40:26.650 --> 00:40:46.450

Janiele Maffei / CEA: The nice thing that that we were able to bring, that that some cities don't have the ability to bring is that everybody knows that when you go for Federal funding these grants you have to have in kind. There's a 25% minimum in kind. And so at first our lost mitigation fund was able to be that in kind, and then we were able to work with Fema

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00:40:46.770 --> 00:40:55.320

Janiele Maffei / CEA: and the money that our homeowners across the State pay above and beyond the \$3,000 goes towards the in kind. So we were just kind of like this

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00:40:55.410 --> 00:41:14.280

Janiele Maffei / CEA: administrative machine that was able to put that into place. So an individual homeowner didn't have to figure that out and go in for a grant kind of you know. Do all that. So we're able to just kind of step in and be that umbrella group that figures out the rules of Fema and gets this money working and getting out into the community. So those those

192

00:41:14.280 --> 00:41:23.150

Janiele Maffei / CEA: Hmgn grants are available to cities and and other jurisdictions, but it's hard for them once again, particularly for those that are under resourced.

193

00:41:23.380 --> 00:41:38.590

Janiele Maffei / CEA: I know, San Jose, it's got a multi-family program that's going on, and they're using some p of funding, and you know they can tell you that you know it's it's great, but you know it, it's challenging. And

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00:41:40.140 --> 00:41:46.900

Janiele Maffei / CEA: so we got 2 years in a row. We got 3 million dollars from the State of California from the budget.

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00:41:46.920 --> 00:42:05.480

Janiele Maffei / CEA: and then that stopped, and we have not received any state funding since then, so i'm not aware of any. Oh, calories had some great grants that were available. So so they need to to keep track of calories and Fema grant funding, because those

196

00:42:05.480 --> 00:42:13.060

Sarah Atkinson: can be utilized, as I said, by by cities and counties. Great. Thank you.

197

00:42:13.480 --> 00:42:34.390

Sarah Atkinson: Would you? Actually? Yeah. I You know you mentioned Sb: 189, which is the legislation allocated 250 millionfor the seismic retrofitting is such a long name seismic, retrofitting program for soft starting multi-family housing. This is a really important program, because it's kind of the first

198

00:42:34.390 --> 00:42:41.690

Sarah Atkinson: multi story program that will really support renters in being safer in them than real quick.

199

00:42:41.700 --> 00:42:51.620

Sarah Atkinson: you know, spur and coalition with the Earthquake Engineering Research Institute and the Structural Engineers Association of California and Us. Resiliency Council. Among like

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00:42:51.670 --> 00:42:54.770

Sarah Atkinson: many others that are interested in earthquake resilience.

201

00:42:54.830 --> 00:43:01.820

Sarah Atkinson: we've been advocating for this funding to get put back into the Budget

202

00:43:02.110 --> 00:43:22.020

Sarah Atkinson: Assembly. Member Rodriguez put forth emergency legislation to see this funding put back in the budget, which is ab 1 505. So yeah, I'm just interested in hearing more from you about what what this kind of like funding and what this type of program could do for California and seismic safety and resilience.

203

00:43:22.020 --> 00:43:32.120

Janiele Maffei / CEA: Yeah. So it's important to note that that the California residential mitigation program, which is what actually manages earthquake, brace and Bolt and the software. And all this

204

00:43:32.120 --> 00:43:47.440

Janiele Maffei / CEA: is operated through a joint P. E. Joint exercise and Powers agreement, or Jpa with calories. So I do have this other little organization that with a board that sits a kind of above me and manages our programs. It's very important to note that we were not part.

205

00:43:47.530 --> 00:43:49.180

Janiele Maffei / CEA: We were not sponsors in the bill.

206

00:43:49.180 --> 00:44:12.440

Janiele Maffei / CEA: We were not part of the development of the bill other than when asked by the sponsors and and and offers of the bill. We answered questions because they told us we were going to put in it. The Crmp would manage this program, and so we Obviously, we're very happy to provide them with as much information as we could, so that they wrote the bill in a way that you know we could be off and running, if, in fact, it happened.

207

00:44:12.440 --> 00:44:14.710

Janiele Maffei / CEA: and

208

00:44:14.850 --> 00:44:22.370

Janiele Maffei / CEA: there there was nothing in the bill that provided us with it. It was supposed to be available July of 2,023,

209

00:44:22.580 --> 00:44:31.750

Janiele Maffei / CEA: If it was funded. And as we mentioned, it was not. and but there was no funding in it to to happen for that year beforehand.

210

00:44:31.780 --> 00:44:48.160

Janiele Maffei / CEA: So the the only thinking that we've done on multi-family has been related to that brick application we have to take very seriously about how we would stand up a program. So we have that in mind when we are answering questions for assembly over Rodriguez's team, and

211

00:44:48.280 --> 00:45:02.210

Janiele Maffei / CEA: we felt that we absolutely could slip into a management role for grants for that particular issue, because essentially it's it's a construction project it we will. We would have a standard. The code standard

212

00:45:02.240 --> 00:45:06.520

Janiele Maffei / CEA: it it would have to get a permit. It would have to be signed off, and

213

00:45:06.860 --> 00:45:24.630

Janiele Maffei / CEA: you know, and and we that's what we do, and we do it, you know, with thousands of houses on a you know, kind of a a monthly basis. So we absolutely felt that we could stand up that program. If the funding became available, it may be that brick becomes available first.

214

00:45:24.630 --> 00:45:28.130

Janiele Maffei / CEA: There's just a little bit of well. There's a little bit of difference there's a lot of difference

215

00:45:29.120 --> 00:45:35.170

Janiele Maffei / CEA: in terms of what funding requires. Fema funding is Stafford Act it's not taxable

216

00:45:35.630 --> 00:45:43.870

Janiele Maffei / CEA: state funding is taxable. We'd have to issue 1099 at the end. So there's a couple of things about the funding. But in terms of the program itself we we

217

00:45:43.890 --> 00:45:46.530

Janiele Maffei / CEA: we would expect it to be very similar.

218

00:45:46.940 --> 00:45:47.860

Janiele Maffei / CEA: and

219

00:45:49.490 --> 00:46:01.860

Janiele Maffei / CEA: what we knew is that we did not have to to, you know, have a blank whiteboard and an and reinvent the wheel. We have. Thousands of these buildings have been retrofitted in San Francisco and Los Angeles

220

00:46:01.860 --> 00:46:21.780

Janiele Maffei / CEA: and Fremont, and you know cities around the State who have both voluntary and mandatory ordinances. So we intended to learn from those cities what should be in place before the grants before the program starts. How do we work with cities to best bring resources they don't have, and not mess with the resources that they do have.

221

00:46:22.000 --> 00:46:29.680

Janiele Maffei / CEA: How do you stay flexible enough to deal with the large city versus that small city with, you know that 2 person building department.

222

00:46:30.770 --> 00:46:41.400

Janiele Maffei / CEA: We also we're keenly aware that the design requirements on the retrofit itself in Southern California are different than those being implemented in Northern California.

223

00:46:41.400 --> 00:47:01.460

Janiele Maffei / CEA: And so we were. We were going to convene essentially structural engineers from Eeri and the Structural Engineers Association together to to decide on that. I I always joke that I am not the engineer of record of the State of California. I you know I don't make those magnanimous decisions. There are brilliant people in this state that we can

224

00:47:01.460 --> 00:47:05.500

Janiele Maffei / CEA: bring into a room so that we can do this in the right way.

225

00:47:05.650 --> 00:47:13.770

Janiele Maffei / CEA: So I think that we are. We are qualified to to to stand up a program. We're prepared to do so. If If funding becomes available

226

00:47:14.080 --> 00:47:27.650

Janiele Maffei / CEA: once again. It might mean that the brick program is the one that is, you know, is the seed money, and then we'd be available for any state funding. So with that very link, the answer Did I answer your question?

227

00:47:27.960 --> 00:47:46.640

Sarah Atkinson: Yeah, I I think you answered the question. Yeah, I I mean, you know, we really want to see this funding happen. I think there's it's great that there is a brick grant in process, so that hopefully something will come of this program, and maybe that means there's a pilot program, and then that makes it more

228

00:47:46.640 --> 00:47:55.430

Sarah Atkinson: viable next time this comes up. But yeah, efforts efforts are still under way, we'll see.

229

00:47:57.170 --> 00:48:05.180

Sarah Atkinson: Yeah, my next question, which I'll I'll also integrate some questions from the audience into this one.

230

00:48:05.280 --> 00:48:21.100

Sarah Atkinson: You know. You mentioned this a couple of times this Webinar is called expanding access, and really thinking about how to integrate equity to into these types of retrofit programs. And I was interested to hear from you, you know.

231

00:48:22.190 --> 00:48:30.470

Sarah Atkinson: Maybe maybe i'll. I'll ask first one question, and then when you after you answer, i'll ask the second question, because they're a little different. But

232

00:48:30.710 --> 00:48:43.310

Sarah Atkinson: we have an anonymous attendee asking a question about for the program focused on funding retrofits in certain zip codes. What what happens with enter zip codes with cities.

233

00:48:43.330 --> 00:48:56.180

Janiele Maffei / CEA: other zip codes in cities that also have highly vulnerable populations. And how do you reach those communities?

234

00:48:56.530 --> 00:49:08.840

Janiele Maffei / CEA: Not a lot of money. We had no few of funding at that time we were. We were going to do a pilot program, and so where do you start? Where do you start? Well, we that map that I showed you that is from you, sir. Right? This shows the the

235

00:49:08.840 --> 00:49:31.970

Janiele Maffei / CEA: you know the fault going up. Well, I think the other one. I could have shown that everybody's. Oh, yeah, I've seen that when it's got the bright, you know, pinks and reds and blues is essentially is the seismic map that was created by the California Geological Survey and Usgs Us. Geological Survey. That is essentially showing the the seismicity across the State of California. So Seismicity is pretty darn easy to get, because any map

236

00:49:32.070 --> 00:49:44.260

Janiele Maffei / CEA: has numbers behind it. Right? That's where the colors come from. So so what we were we thought was, let's use zip codes, not cities. And the reason you do that is that somebody goes well. I live in, you know

237

00:49:44.450 --> 00:49:47.100

Janiele Maffei / CEA: Smithville, and you go. No, you don't

238

00:49:47.140 --> 00:50:05.020

Janiele Maffei / CEA: This says you live in Jones, Bill. You know Zip code is a zip code. Everybody's got one number. So that's why we selected Zip code we prioritize the zip codes based on seismicity. And yeah, I mean, the whole top of the of the prioritization list is cities that are very close to each other in terms of seismicity. Right? So there's a whole mess of them.

239

00:50:05.070 --> 00:50:20.820

Janiele Maffei / CEA: So you know, there's in other words, our boat is so small, and the ocean is very large, you know. There, there's like it's a big job out there, but you had to start somewhere, and then the other idea as Well, you know, if we go into a city that's very, very high in terms of

240

00:50:20.950 --> 00:50:21.920

Janiele Maffei / CEA: risk

241

00:50:22.040 --> 00:50:37.690

Janiele Maffei / CEA: or or hazard, but has very few of these vulnerable houses. Essentially that's resources that we're spending on, not a lot of return. And so this is. This is the tough one that was tough to make. But we prioritize, based on number of pre 1,940 houses as well, and we rated those 50, 50

242

00:50:38.370 --> 00:50:39.470

Janiele Maffei / CEA: and the

243

00:50:39.620 --> 00:50:59.820

Janiele Maffei / CEA: and i'm not saying that I purposely did this, but but I found out very, very soon that by doing that we actually had good representation of lower income residents in California, because of the tendency of those residents to live in older houses. So I was very happy that that original decision we make.

244

00:50:59.880 --> 00:51:18.850

Janiele Maffei / CEA: we we could find data that that indicated that we were not waiting these zip codes and going to all the you know, really expensive and and high income areas in the state that actually, that was going to be another way to have good access for low to moderate income homeowners. And then, once we selected that program.

245

00:51:18.950 --> 00:51:29.130

Janiele Maffei / CEA: you know, I would get letters from cities. I get letters from the 70 members, Senate members, and I go. This is how we're doing it. And and then once again I said, we haven't left anyone on a waiting list. We're growing incrementally.

246

00:51:29.220 --> 00:51:39.210

Janiele Maffei / CEA: and it was great because people, when I told them that they thought okay, you know she's, you know. I went to all the zip codes where my cousins with you know I mean I I'm sure they know that

247

00:51:39.370 --> 00:51:41.460

Janiele Maffei / CEA: you know i'm joking there.

248

00:51:41.630 --> 00:52:04.540

Janiele Maffei / CEA: but but we tried to be as as very clean as possible. We didn't use means we didn't use anything other than hazard and vulnerability. and we are now in. Of course, once you get past that painful period where you're not everywhere, we are now very close to being in in most areas of high seismic. We're starting to get into the areas of you know.

249

00:52:04.900 --> 00:52:10.400

Janiele Maffei / CEA: You know, a a little bit less seism which is great. That's where we want to be. We want to bracket that solution.

250

00:52:11.530 --> 00:52:29.840

Sarah Atkinson: Yeah, that's a good point about the Zip code. I actually live in Oakland, but i'm sort of right near Emoryville, and a lot of times My address look is Emeryville, and sometimes it's Oakland. So yeah, that's a that's a good point in terms of like being very clear around.

251

00:52:29.840 --> 00:52:47.320

Janiele Maffei / CEA: and and I advice people who are setting up any kind of a program. What you want to do is you want to set up the rules in the system such that you get You're You're not having to bicker and and and and maneuver with people about stuff that just doesn't matter. We want to get your house for it. It's just there's a zip code. You're in it. You're not.

252

00:52:47.390 --> 00:53:01.380

Janiele Maffei / CEA: and you know what we want you to just come and say this, my house. Call fine, and let's talk about that. Let's make sure you're the you know. This is the right thing for your house and let's get this done. And so it's actually worked out pretty well other than

253

00:53:01.380 --> 00:53:10.330

Janiele Maffei / CEA: having to go to a presentation and have someone say, why are you not in my zip code, and I always have to say we're coming. We're getting there. That was not easy.

254

00:53:10.340 --> 00:53:12.000

Sarah Atkinson: Yeah.

255

00:53:12.050 --> 00:53:40.460

Sarah Atkinson: So expanding upon, you know, maybe another equity issue. We have a question from Thor Madison. he said. They say I assume the costs given are for projects that this year funded. Have you considered that homeowners may stop pursuing a retrofit when they find it too expensive. Unless you are cutting high cost retrofits out of your data set, I find that almost all retrofits I design are far more than \$10,000.

256

00:53:40.460 --> 00:53:45.160

Sarah Atkinson: So for you.

257

00:53:45.830 --> 00:53:53.720

Janiele Maffei / CEA: there are a lot of retrofits out there. As I said, 77% are are that low number? And yes, we do find people

258

00:53:53.850 --> 00:54:00.090

Janiele Maffei / CEA: we. But what we we also find for is that somebody comes in and we have, like a 50% drop out rate

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00:54:00.200 --> 00:54:02.230

Janiele Maffei / CEA: with our registration.

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00:54:02.420 --> 00:54:13.920

Janiele Maffei / CEA: And but we have data now where we can watch that person, and they come back the next year, and then they come back to next year, and maybe by the third year they

they thought, okay, this is something I need to do. I have a sense now. I had somebody come in and give me a cost.

261

00:54:13.920 --> 00:54:41.060

Janiele Maffei / CEA: you know, and it's like it wasn't a decision I could make in that 30 year, 30 day registration period. So the idea here is to normalize the thought that your house might have a vulnerability, and that you should be looking at that and the normalize the thought that if there is a vulnerability that there there is a solution, and there may be assistance for all the impediments that you thought there were. I don't know what to do. Well, we have the code that you need to use. Okay? Well, I I don't know where to find a contractor. We have a directory.

262

00:54:41.060 --> 00:54:57.290

Janiele Maffei / CEA: I can't afford it. Well, okay, we've got \$3,000. What's your household income? This, you know, this supplementary grant may work. I know that between that \$72,080 and some other number is another group of people that the \$3,000 doesn't work for I know that

263

00:54:57.380 --> 00:54:59.540

Janiele Maffei / CEA: I I am. We are not

264

00:54:59.550 --> 00:55:05.400

Janiele Maffei / CEA: everything to all people. We always want to be moving in that direction, and

265

00:55:07.200 --> 00:55:16.510

Janiele Maffei / CEA: you know, and I will tell you that the costs in San Francisco Bay area are just outright, more expensive than they are in the rest, particularly East B: it's very interesting.

266

00:55:17.390 --> 00:55:20.610

Sarah Atkinson: Yeah, that is definitely true.

267

00:55:21.020 --> 00:55:30.080

Sarah Atkinson: So we have another question from a audience member, Abraham Chaco, Chalko. I don't know if i'm saying that correctly, I apologize.

268

00:55:30.080 --> 00:55:45.850

Sarah Atkinson: They are asking. Would you recommend voluntary or mandatory ordinances for cities for retrofits, and why I have. I? I have feelings about this question, but i'm interested to hear your answer.

269

00:55:46.460 --> 00:55:57.150

Janiele Maffei / CEA: That's let's just let's distinguish between commercial buildings and single family residences, because in the night, late 1,900 eighty's legislation was passed, and you know the Aquestral Act

270

00:55:57.270 --> 00:55:59.600

Janiele Maffei / CEA: did amazing things for California in terms of

271

00:55:59.670 --> 00:56:13.920

Janiele Maffei / CEA: When you sell a single family dwelling, you must notify the the buyer, if they're in a a hazard zone, the perfection landslide fault, rupture, and for about \$100 is the companies out there that do that for you.

272

00:56:13.940 --> 00:56:16.750

Janiele Maffei / CEA: I think a lot of people that you know they're not reading it, but

273

00:56:17.020 --> 00:56:37.290

Janiele Maffei / CEA: that is there. The the Homeowner's guide to Se. Safety by this California, Seizing Safety Commission must be handed to the buyer. If it's a pre 1,960 house, and then they had in the legislation, and if there's a known vulnerability, you know you have to bolt and brace the house like that X by the governor. So they got very, very close they got close.

274

00:56:37.290 --> 00:56:45.960

Janiele Maffei / CEA: The other thing that happened is that with that checklist they said, we don't want somebody to have to go out and hire an engineer to tell them if there's a vulnerability so you can check a box that says I, don't know.

275

00:56:46.690 --> 00:56:52.730

Janiele Maffei / CEA: so got so close, so, but I think that that is the state of single-family residential. Once again, in the interest of

276

00:56:52.790 --> 00:57:00.700

Janiele Maffei / CEA: you know, not pricing people kind of being able to sell their house or buy a house. Those decisions were made, so I I i'm going to leave that at

277

00:57:00.830 --> 00:57:08.750

Janiele Maffei / CEA: to change it to anything mandatory for single family dwellings, I think, would be an extremely difficult political and public policy. Step

278

00:57:09.350 --> 00:57:18.220

Janiele Maffei / CEA: now in terms of multi-family. You're finding a lot of cities adopting the vault, the mandatory. some like San Francisco just you know

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00:57:18.670 --> 00:57:25.370

Janiele Maffei / CEA: they They spent a long time that that didn't happen overnight. They were. They were meetings with building owners.

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00:57:25.680 --> 00:57:29.340

Janiele Maffei / CEA: I'm not going to give you my personal opinion, but rather say that

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00:57:29.720 --> 00:57:42.200

Janiele Maffei / CEA: at a minimum, at a minimum the the the the things I used to here in the eighties and nineties were. Well, maybe if I don't know it, I I can plead that. I didn't know. I mean that that's nonsense, you know, in California you can't please ignorance.

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00:57:43.500 --> 00:57:47.700

Janiele Maffei / CEA: You know, officer, I didn't know. That was the law. You know that that doesn't work

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00:57:47.790 --> 00:57:57.250

Janiele Maffei / CEA: so cities needed at a minimum to to scrape together what they can to create, to to really look carefully at their

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00:57:57.430 --> 00:58:11.380

Janiele Maffei / CEA: their local hazard mitigation plan to make sure that they have their city, or, you know, or their jurisdictions, local hazard, mitigation plan, and to do it properly. I I live in the i'm tell you I live in the city of Piedmont in the nineties. They hired a company that wrote

285

00:58:11.460 --> 00:58:12.580

Janiele Maffei / CEA: in my

286

00:58:12.720 --> 00:58:21.450

Janiele Maffei / CEA: community. They wrote the city. Piedmont is prominently on bedrock and won't see a lot of damage, and I I read that. And I thought, who are these people?

287

00:58:21.580 --> 00:58:34.280

Janiele Maffei / CEA: They hired somebody who doesn't know anything about earthquakes. and you know. And here's the city that's hired a consultant who's represented that they can write a you know, a a general plan, and it was garbage.

288

00:58:34.290 --> 00:58:52.350

Janiele Maffei / CEA: So a city a city needs to to take the time to look carefully at what their vulnerabilities are, and then to make plans and to take baby steps. And some cities are. Their steps are going to be 10 feet. Some PE cities. The steps are going to have to be 6 inches, but they need to be moving in that direction, and they need to be informed first

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00:58:52.410 --> 00:58:59.770

Janiele Maffei / CEA: and not be afraid to be informed because you need to be. You know you need to start the clock as somebody said, start the clock.

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00:59:00.480 --> 00:59:12.770

Sarah Atkinson: Yeah, I think that's a great point like the most important thing right now. If a city doesn't have an ordinance is figuring out how many of these at-risk buildings they have, and just being educated about it, doing inventories.

291

00:59:12.810 --> 00:59:16.230

I can definitely say what I think which is that in terms of

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00:59:16.530 --> 00:59:33.790

Sarah Atkinson: getting more of these buildings retrofitted before an earthquake happens. I I think mandatory ordinances are the way that we need to go, but they need to be done in a way that is not, For example, going to displace renters because of like pass through costs.

293

00:59:33.790 --> 00:59:45.980

Sarah Atkinson: There needs to be programs like the one you are the the different programs you're working on that provide funding to homeowners and property owners so that they can do these retrofits.

294

00:59:46.160 --> 01:00:02.010

Sarah Atkinson: And yeah, it needs to be supported well by the cities. So yeah, that is the end of our time. Thank you again. So much for joining us to Neil. It was really good to hear about your work, and just to see you and chat with you a little bit.

295

01:00:02.170 --> 01:00:18.900

Sarah Atkinson: And I also wanted to say thank you to our senior associate for public engagement, Jackson, who has been managing all of the but behind the scenes, aspects of this event, and also to our public programming team in general who puts on all of these great programs.

296

01:00:18.980 --> 01:00:46.740

Sarah Atkinson: and I also wanted to say, thanks to all of our attendees for joining, for posing, engaging questions, I. I apologize for not being able to get to all of the questions. Please feel free to email me if you would like any of your questions, answered Jennil, as well, and just one to share that. Our next public program, public programming event is tomorrow evening at 6 Pm. And it's on the future of Sb. 9 building small scale housing in California which is

297

01:00:46.740 --> 01:00:49.280

related to Edu Laws.

298

01:00:49.330 --> 01:00:54.070

Sarah Atkinson: And yeah. Great to see you, genealog. I hope everyone has a great day.

299

01:00:54.240 --> 01:00:56.820

Janiele Maffei / CEA: Thanks, Jackson Serensper. Thank you so much.

300

01:00:56.930 --> 01:00:58.000

Sarah Atkinson: Back soon.