

- Taeya: Okay, so to begin, and all of these questions, I should be able to just kind of continue and refund them and feel like you're answering them to their fullest extent, whatever you feel comfortable with. But first we just have a few demographic questions. So, could you describe your current living situation? So, how many people you live with, what area you're in, a city, rural? What type of building? That sort of thing.
- Speaker 2: I live in west Philadelphia. I live near [blocked]. I live in a two-bedroom apartment by myself. Well, I have a cat.
- Taeya: Yeah. And would you mind sharing your current age and employment status or situation, rather?
- Speaker 2: I'm 39 years old and I work for... I have a full-time job. And I'm working from home.
- Taeya: Okay, yes. And now for something a bit more open-ended. What pops into your head when you hear the word energy? And this can be anything.
- Speaker 2: What pops into my head when I hear the word energy? Money. A bill of some sort. Necessity, the word necessity, just knowing that this is something that... well, it's a human basic need. And then, energy allows me to do a lot of things.
- Taeya: Yeah, for sure. Yeah. There's some really, really nuanced answers. I appreciate those a lot. Could you tell me about your earliest memory of learning about energy?
- Speaker 2: My earliest memory of learning about energy. Wow. That's a good question. I guess just learning about energy in school, like energy as in what's needed to do work, and the fuel that allows you to do work. And then also just growing up and hearing our parents talk about paying for bills, and paying for lights and paying for gas and electricity. This is energy, but you have to pay for it, it's not free.
- Taeya: Yeah. And could you tell me a bit about what you know regarding renewable energy?
- Speaker 2: Renewable energy? Renewable energy, I feel that, well, obviously it's necessary. I feel that renewable energy is cleaner. It has less harmful impacts on the environment. It doesn't require fossil fuels, or at the same demand of fossil fuels. I feel that renewable energy would be cheaper. However, I feel that the powers that be are so invested in profit that any attempt to, I guess, make renewable energy, just the standard would be just eliminated, like by lobbying, or just finding other legal methods so that just to eliminate that as a possibility.
- Taeya: And kind of going back to your previous statement around how you conceptualize energy, was there ever a point in time where your idea of energy was separated from cost? Was there a time that energy existed by itself, or has it always been something with cost associated?
- Speaker 2: It's always been something cost associated.

Taeya: Yeah. We're going to get into that a little bit later in the interview around the question of whether energy should be something that one has to pay for at all. But for right now, how have you learned about renewable energy?

Speaker 2: I've learned about renewable energy just through, I guess school. When I was a kid I wanted to be an environmentalist. Well, I want to either be a marine biologist or an environmentalist, and it seems like when I was in school in the '90s, the environmental movement had just gained strength and become more mainstream as far as recycling and promoting recycling, not using aerosol spray because they had CFCs.

What else? And then also, just the idea of solar energy, you're not just using the sun to pretty much, for lack of a better expression, to fuel everything. You wouldn't have to have someone charge you for just using the sun's energy in order to power the electricity in your house. And also, we had these little calculators that were solar powered and we would cover up, I guess the panel, and it would stop working. So, yeah, just seeing something that's powered by the sun, powered by solar energy and not needing a battery just seemed really cool to me.

Taeya: Yeah. And I feel like you've said that you find this energy transition, transitioning to renewable energy is something that's pretty urgent, or an urgent need. Would you say that the era you were brought up in has impacted that a lot? Because I didn't really know that the '90s was this kind of big revival period for environmentalism, personally.

Speaker 2: Oh, yeah. Yeah, yeah, yeah. I would definitely say the era that I grew up in had an impact on just my ideology as far as having a sense of stewardship or responsibility as far as not polluting, or not destroying the ozone layer. I think the whole thing with not using aerosol sprays is because again, it had CFCs, the aerosol spray, up until the '90s, had CFCs in it. And so, CFCs, when they're emitted, when you spray them into the air, they compromise the ozone layer. So, yeah. So, I think renewable energy as a necessity, but also life-sustaining. Yeah, that idea was planted in my head as a kid.

Taeya: Yeah, that's great. And so, on your own kind of scale or measure of importance, how urgent do you think the issue of energy transition is?

Speaker 2: Oh, very, very urgent. It's an emergency.

Taeya: Yeah. And what do you feel prevents you currently from purchasing renewable energy?

Speaker 2: Well, currently I'm renting, so I don't know how that would work. I guess I would have to talk to my landlord about it. But I have heard of people installing solar panels on their roof and somehow they're able to, I think, charge people for using their solar panel as a source of electricity. Again, I don't understand how that works. If I were to buy a home... I would like to buy a home if I'm able to buy a home, I would like to install solar panels on my roof.

Taeya: And what would you say, or what do you believe is more urgent, creating access to energy around the world or transitioning to renewable energy systems?

Speaker 2: What was the first way that...

Taeya: Yeah. The first one is creating access to energy worldwide.

Speaker 2: Hmm. Wow, this is tough. Well, yeah, accessibility is a huge issue, and yeah, not everybody has access to energy because of cost, because of their socioeconomic status or income and things like that. So, I do think that having access to energy should be primary, but also I think just having... But I think at the end of the day, everyone should have access to renewable energy.

Taeya: Yeah. I definitely see that. I feel it kind of echoing with what you were saying earlier in the interview, that these sort of energies in many ways, kind of something needed for human survival. And so, why not kind of tweak that to save renewable energy needed for human survival since, as you said, it's renewable energy sources are life-sustaining. Yeah. Super cool. A bit into the more nitty-gritty literal of how energy affects you, could you tell me about your home heating system?

Speaker 2: I use gas to heat my home. I pay PGW a considerable amount of money to stay warm in the winter. And I don't necessarily think that's fair. I live in a house that was converted to apartments. It's three stories, on each story there's a two-bedroom apartment, and I live on the first floor. I don't know what year this house was built, but it's at the very least 50 years old, maybe a little older. And so, it isn't quite energy efficient, and sometimes it's... I don't know, sometimes I feel like in the winter, I just feel like I'm outside, it's so cold. The issue, I believe is that it's just poorly insulated. And so, that just causes me to... you have to consistently run the heat.

So, I got some weatherization kits from ACHIEVEability and I've used those, and they're helpful. And then also in my living room, I have these curtains that are pretty thick and their purpose is to provide some sort of insulation during the winter, and they're helpful. But I think again, the issue is... Yeah, I don't know. Well, there are a lot of issues, just the house being old, just where I live, just being an older home and just not having the same, the amenities as far as insulation that the newer homes, or a home that's been recently renovated. And then, just the cost of gas and the cost to heat a home is [inaudible 00:11:49] it's criminal, is what it is.

I have a two-bedroom apartment. Working from home, I'm mostly either in my living room or I'm in my bedroom. But more than likely I spend most of the day in my living room. I have two windows in my living room, and then I also have, I don't even know what to call them. I have a front door and then I have this little vestibule area and then another set of glass doors. And that area between the front door and those glass doors, during the winter it's just, oh my God, you might as well be in the Arctic Circle, it's just so cold.

Taeya: Oh, wow.

Speaker 2: Yeah. And then, because of just the infrastructure issues, I'm going to have to run the heat and it's [inaudible 00:12:51] to just stay warm.

Taeya: Yeah. But that is something we hear a lot in these interviews, especially with older homes, that it's a struggle to find a way to heat in a way that is kind of not astronomically high. Could you tell me where your heater is and what kind of thermostat you have?

Speaker 2: I have a digital thermostat. There is a furnace in the basement, whatever. I've never been to the basement, and honestly, the vents in my floor, I can [inaudible 00:13:31] my floor. Well, on some of the vents, there's a space between the vent and the actual floor so I can see into the basement, and it looks like a scary place to be. And so, yeah, what's down there? I don't know. I'm not really interested in going down there because I don't know... There's probably trolls living down there or whatever.

Yeah, so I have vents on the floor throughout the house. And so, the way my heat works is that normally I would place it on an auto setting, meaning it'll turn on and turn off, or whatever. And I actually have it running for a while in order for it to heat up my house to a comfortable temperature. So, in this auto function or this auto feature, it turns on and turns off, but the period between, or the amount of time between it turning off and turning on, isn't as frequent as I think it should be. Or it isn't as frequent as I need it to be. Well, as I needed to see last winter working from home, when I guess in 2019, I didn't really [inaudible 00:14:56] I'm only home [inaudible 00:14:58] just leaving out of the house at work for the majority of the day.

Taeya: Yeah. That makes a lot of sense. And now, kind of switching from heat but to AC, do you have AC?

Speaker 2: I don't have central air. I have a window unit in my bedroom, I just hang out in my bedroom. I hang out in my bedroom all day. Well, not when I'm working, but once I'm done with work, I hang out in my bedroom because now that we're going through this heat wave, and it's just a [inaudible 00:15:39], I have to have the air conditioning on while I'm in my room, because I'll just be sweating profusely.

Taeya: Yeah. I also have a window unit in my bedroom, so I know what you mean. And so, would you say you find yourself shutting off your heat or AC specifically with the goal of saving on your utility bills?

Speaker 2: Oh, yeah, yeah, yeah. Without a doubt. Yeah.

Taeya: And what can you tell me about your utility company?

Speaker 2: PECO supplies my electricity. For the most part, again, because I'm just only in one room at a time, my electrical, it isn't too bad. However, working from home and being home

for the majority of the day, now being home all day, my electricity bill is more expensive. Same thing with the heat. What I do with my gas bill is, my gas bill, I know that my gas bill is going to be outrageous during the winter, but in the summer, nobody's using heat. My stove is gas, but I'm not cooking all day. So, as the summer allows me to catch up with my balance from the winter, and I'm caught up once it gets cold and it's time to use the heat again.

Taeya: Yeah. That makes sense. That makes sense. And could you tell me, were you aware of the utility moratorium that happened?

Speaker 2: No.

Taeya: Yeah. So, Philadelphia had a utility water moratorium during the hardest hit months of COVID where the utility companies, that being gas, electricity, and water were not allowed to turn off their services because of an inability to pay.

Speaker 2: [crosstalk 00:17:31].

Taeya: Yeah. I believe that gas and electricity have ended, but that water may still be going on. Yeah. And do you know if you're able to switch to renewables with your current utility company?

Speaker 2: I'm not sure. It's definitely something I should look into.

Taeya: Yeah, it's completely all right. And are you aware of the energy assistance programs that your utility company provides?

Speaker 2: I'm aware of LIHEAP. I've applied for that and I've gotten that a couple of years ago. I don't pay for... Well, I do. I don't have an account with the water department because of the winter. What else is there? PECO, again, my electricity isn't bad. It's manageable because it's just me, I'm only in one room at a time. I'm pretty good about turning off the lights and things like that.

Taeya: Yeah, that makes sense. Especially as a single person household. And I know you spoke to this issue a little bit before, but if there's anything else specifically regarding how the pandemic has impacted your home energy usage.

Speaker 2: I would say that, well, even though this is access to the internet isn't necessarily energy, but I feel like having access to the internet should be considered a utility because with the case for going to virtual school, and everyone working from home, and you need a network or you need access to the internet, but you also need a connection that they will support all of these devices. I'd like to see access to the internet or internet providers becoming like a public utility in the future. The way that Comcast and Comcast Horizon, that's the only two major internet service providers, is really telling. It's an obvious monopoly, you know? And these corporations are just making money hand over

fist in poor communities, and I feel like that's criminal. Yeah, I know that's not necessarily the same thing, but...

Taeya: No, I definitely think that relates. And another question regarding impact of the pandemic on utility bills, are you concerned about being able to afford your utilities in the coming year?

Speaker 2: Yeah. I'm concerned that we... PECO and PGW, even though they're not quite public, I'm concerned that they are going to try to recoup their losses and increase the rates. Yeah, that's a major concern for me. I hope that doesn't happen. I hope that there is, I don't know, some organization or just an entity that would advocate for the needs of working class people, the needs of people in general. Yeah. I don't have an account with the water department because I don't own this place, and from what I understand, water rates are fairly reasonable, fairly equitable. So, I'm not worried about that. But electricity and gas, I am. More importantly, gas, because PGW, I just feel like their rates and the way that they are able to increase rates, I think that that needs to be monitored.

Taeya: I hear that.

Speaker 2: And they should be held accountable and have to answer to some governmental authority.

Taeya: Yeah. To some authority that is not already themselves. I agree. And would you say the survey you participated in this past spring informed you about programs you didn't know, like energy assistance programs or shut-off moratoriums?.

Speaker 2: Yeah. Yeah, it did.

Taeya: Yeah, that's great. Have you had any energy service disruptions this past year? So, power outages, loss of heat, loss of AC, loss of internet, water, any of those sorts of things?

Speaker 2: No. I am lucky to have not experienced any of those things.

Taeya: That's great. And so, you spoke a bit to how you think your home isn't super energy efficient, just due to air always getting in, that feeling of sometimes being outside, even when you're indoors. Do you know if your house has ever been weatherized?

Speaker 2: Not to my knowledge. I've lived in this apartment for maybe about seven years, I think. And it hasn't been weatherized as long as I've been here. What I've done is, I just put the caulk, the foam and things like that in the windows. But other than that, it hasn't been weatherized. [crosstalk 00:23:05] weatherized from the landlord.

Taeya: Yeah. I hear that. That's the case for a lot of people. Would you say that you practice energy conservation, like specific practices for the purpose of energy conservation?

Speaker 2: Like what specifically?

- Taeya: A lot of people say things like taking shorter showers or having the thermostat set to a specific temperature that might be slightly colder than they would like or slightly hotter than they would like in the summertime, so that you don't use as much energy, keeping it down at the most comfortable turn.
- Speaker 2: Oh, yeah. [crosstalk 00:23:42], definitely.
- Taeya: Yeah. Those sorts of things.
- Speaker 2: Yes. Yeah, I do my best to make sure that the faucets aren't dripping, I turn off all the lights. While I'm in the living room working, I use a little desk lamp. It's a very [inaudible 00:24:05] the lights in the room are just way too bright anyway. And every single light in my house, it's off unless I'm in that room.
- Taeya: Yeah, yeah. That makes sense.
- Speaker 2: And then, what I've started doing with my AC, is instead of running it on high, I run it on medium or low, or I'll just let it run for a bit, close the door, turn it off, and just try to trap that air, so it'll at least be comfortable and I won't get too cold.
- Taeya: Yeah. Those are some good practices. And where did you learn about these sorts of things? You know, was it something that you always did at home or... Oh, yeah. Continue.
- Speaker 2: Oh, I'd learned about those types of practices just by, my parents and things like that, yelling at me about leaving lights on and things like that. Or if the air is running, close the door. I remember my grandma was one of the very few people on the block to have central air. And so, when the central air was on, we had to, there was this massive effort to close every single window in the house to trap the air in. Doing things like not just idling in front of the refrigerator and things like that. I mean, you go in and get what you want and close the refrigerator door. Yeah, a lot of these practices were just a model for me growing up.
- Taeya: Yeah. I think that's the case for a lot of people. And so, a huge thing is with all these energy workshops and surveys is helping to pass on even stronger ways of considering energy conservation, since those people just continue what they know. And that can be really helpful and really hurtful sometimes as well. Are there things that you'd like to be doing in terms of energy conservation that you don't or can't do for some reason?
- Speaker 2: No. Nothing that I can't do. I really want to... is just to have it done. I would like to more regularly and consistently trap rainwater and just use it to wash things. I'll wash things outside, maybe I'll water flowers and things like that, that's just greenery and vegetation that you don't intend to eat. What else? The solar panel thing. But I think I would have to own the house in order to install such. But I could talk to my landlord about it, but I don't know. And then also, maybe using more plants and things like that to just naturally cool your home and improve the air quality. Yeah. That's all I can think of right now.

Taeya: Yeah, and that's all great. And just to say explicitly for the interview purposes, can you say why you practice conservation? So, some people say for financial reasons, for environmental reasons, or just because you're used to it.

Speaker 2: I would say all of the above, for financial reasons, environmental reasons, and then, yeah, it's just something that I've always done.

Taeya: Yeah. Yeah. That makes a lot of sense. And what would you say is the difference, just to go back to the conceptual for a second? What's the difference between energy efficiency and energy conservation?

Speaker 2: Energy efficiency, I believe would be just getting more bang for your buck, meaning, so for instance, what would make my house more energy efficient is sealing these holes and doing other, I guess, insulation best practices or whatever. Conservation is just using less in general, no matter how you feel or how convenient it is.

Taeya: Yeah. I see that. I definitely see that. And so, now into the idea of energy rights and having energy as a right. Do you think people have a right to energy?

Speaker 2: Oh, yeah, without a doubt.

Taeya: And would you say that you think... Well, here's a more open-ended way of saying it. What do you think your rights are surrounding energy?

Speaker 2: My rights surrounding energy is to have access to energy, to have unlimited access under any circumstances, to be charged an equitable rate for energy, and to be given opportunities to negotiate a charge, to create payment plans and things like that if I fall behind. And then also, I think that again, with the moratoriums that were instituted during COVID, I think they should, moratoriums and things like that, should just be a common practice. These institutions, the water department, PECO, PGW, they've been collecting money for 200 years. So, I find it very hard to believe that they're strapped for cash.

Taeya: Yeah. That's a very true thing, these are enormous companies.

Speaker 2: Yeah. I find it very hard to believe that they don't have any cash or they're experiencing any kind of economic hardship.

Taeya: Do you think that people have a right to modern energy services as well?

Speaker 2: Oh, yeah. Yeah.

Taeya: And could you name just a few modern energy services that you believe that right applies to?

Speaker 2: I can't name any specific services. I'm just saying, I just agree ideally, but I guess an example of that would be, for instance, I don't have... well, I have access to a washing machine and dryer, however, you're going to have to pay for that. It's coin-op or whatever. I think just for folks to be able to wash their clothes in their home, like if there were... I know that there are those collapsible washer and dryers exist or whatever, but you risk using an enormous amount of water to wash a load of clothes, which washing clothes takes a lot more water than washing dishes and showering and bathing and things like that. But if these washer dryers or whatever had...

If the water that was provided or whatever pathway that that water's provided, whatever pathway, the gas is provided, or maybe something that's created separately or something, like in an apartment building, maybe just another line or tank or whatever that supplies these things. I think... I don't know. That's the only thing that I can think of as a model source of energy and that's something that's also equitable. I mean, also just solar energy being just a general practice, you know?

Taeya: Yeah.

Speaker 2: But that's all I can think of.

Taeya: The example that comes up a lot in these [inaudible 00:32:44] interviews is the example of internet access.

Speaker 2: Oh, yeah. That too.

Taeya: Yeah. So, that's a definitely yes. That's great. Yeah. And do you think that there are energy services, perhaps the energy services we've discussed are needed to succeed in society?

Speaker 2: Oh, yeah. Excuse me. I've got a cold and I'm always coughing. Oh, yeah. Most definitely. I just, again, don't understand how this country is one of the most wealthy countries in the world. We can send missiles at a blink of an eye to bomb whatever country, billionaires are just taking field trips to outer space, but people don't have access to clean water, or have access to running water, and have access to the internet. They don't have access to electricity, don't have access to hot water and things like that. Yeah. Just these things being provided universally would tremendously improve the quality of life all over this country.

Taeya: Yeah. No, I think that distinction between what we seem to do is like an international player versus how citizens seem to live domestically is a bit jarring.

Speaker 2: Yeah, yeah, yeah, absolutely.

Taeya: Yeah. So, kind of moving to the reflective part of this interview, has this interview made you think differently about energy in any way?

Speaker 2: Yeah. It has. It's made me more cognizant of just conserving energy, and it's made me just reflect on ways that I can conserve energy, as it concerns my house being too hot or whatever. Again, I live on the first floor and I feel like I'm surrounded by concrete and just... I live on the first floor. I live in a typical Philadelphia row home where on the first floor, there's a porch, but there's also an awning. So, meaning that the breeze that... I don't get the same breeze that my neighbor on the third floor gets because she doesn't have an awning. I guess, what's it, the physics, aerodynamics, science, whatever, she gets a better breeze than I do. So, instead of me being cooped up in the house all day, what I could do, oftentimes, it's more comfortable outside because I'm going to get a better breeze just sitting out on my porch.

So, just again, taking time to just go outside, kind of do my best to just trap as much cool air in my bedroom as I can. And then, also being cognizant of how long that I'm running my air conditioning, and then also just running it at a less intense setting. And then just again, just trapping all of that cool air and just keeping the door closed instead of just letting all that cool air run out or whatever and then you end up having to turn the air conditioner on again.

Taeya: Yeah. I definitely hear you. And finally, do you have any questions or concern about energy that you did not have before this interview?

Speaker 2: I do not.

Taeya: Yeah. And of course there's always space if you have any more thoughts you'd like to share, you can definitely do that right now.

Speaker 2: Yeah. I think this is research that you all are doing is great, and I'm hoping that it leads essentially back to [inaudible 00:36:55] change in the way that utility providers provide energy. And again, to just make sure that that everyone has access and that the accessibility is also equitable and folks aren't being charged hundreds of thousands of dollars for gas. I've known people that have had \$500 gas bills in the dead of winter.

Taeya: Wow.

Speaker 2: Yeah. It takes a lot to warm, and I feel again, if I owned this entire house, if I had all three floors, my gas bill in the winter would just be astronomical, at least \$400 a month to keep this place warm. And in a city that is the poorest major city, and there's so many folks living below the poverty line, they shouldn't be held accountable for that. There's no way in the world that someone should pay \$400 a month to stay warm.

Taeya: Yeah, that's true. That's a lot. That's so true. Well, thanks so much for participating in this interview. I too hope that this research project leads to the transformative change. That's at least why I'm here, and I'm really glad you took the time to do this, and you should get a followup with your \$25 gift card.

Speaker 2: Oh, good.

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Taeya: And once again, a transcription once it's ready, of our conversation.

Speaker 2: Okay. Cool. Thanks so much.

Taeya: Alrighty. Well, thank you so much. Have a great rest of your day.

Speaker 2: All right. Take care.