

Guilty Greenie: Season 1, Episode 9

Not all Apples are Green

Cait Bagby: Hello, and welcome to Guilty Greenie live on fireside from the Climate Collab auditorium. We are your imperfect hosts: I'm Cait Bagby.

Sarah Ferris: And I'm Sarah Ferris. And we are tired of perfectionism in trying to live more sustainably. Personally becoming greener can feel overwhelming, especially if you don't know your carbon footprint from your tennis elbow.

So let's get real for a minute and focus on what we can achieve, because I want to know that the changes I'm making daily are actually impacting my entire carbon footprint, not just my carbon big toe. So join us as we bare all, we'll share our own guilt, share our own journeys and just add some levity in our attempts and fails to be more eco-friendly but in the real world.

Cait Bagby: We will be sharing our own journeys, the good, the bad, the laughable and today we are talking about green tech and the fact that not all apples are green.

Sarah Ferris: Yeah and this week's topic, it's kind of riding off the back of last week's challenge that you issued me, Cait, which is burned into my memory, but for the listeners that they might need a little refresher, tell them what grade A torment you inflicted on my house this week.

Cait Bagby: I have a feeling this may have been the toughest challenge yet. Is that right?

Sarah Ferris: Yeah, I think it definitely was. I'm not going to give too much.

Cait Bagby: The challenge for anybody who didn't catch last week's show, it did evolve throughout the conversation. Originally, I had put forth no streaming music for a week. However, after talking to Sarah a little bit, I realized she doesn't really stream music all that often. So then I thought, okay, well, if we're in the vein of streaming, let's talk about no streaming TV or movies to which, what was your response to that, Sarah?

Sarah Ferris: Uh, hell no, that's something along those lines.

Cait Bagby: She informed me that, um, I believe the day after they had a new TV arriving and in order to keep her marriage sane, that wasn't going to be possible. So eventually we landed on no streaming of podcasts, which is something you do quite frequently, both for work, but also for pleasure.

Sarah Ferris: I know, so definitely was tough. And what I didn't remember, because you've only just refreshed my memory now is that we had settled on podcasts. I think when I went to talk to my family to issue the challenge to them, it was later in the day and I told them that it was, uh, both all music and podcasts. So that's the landing point that we ended up with for our

challenge in the house. But you'll have to hang around to see what happens at the end. I've got my usual little audio clip of, uh, I want to call it the backlash audio this week. Probably.

Cait Bagby: If they didn't like me going into this. I'm pretty sure last week did no favors for my reputation in that household.

Sarah Ferris: You will not be getting a Christmas card. I'm just saying that much.

Cait Bagby: We will get to the challenge.

Sarah Ferris: Yes.

Cait Bagby: But in the meantime, I know you had some questions about tech and so where do you want to take that?

Sarah Ferris: Well, I think the interesting thing about the challenge last week is it raised a lot of questions in the household about the impact of tech on our carbon footprint and the reality came really strongly through that we can't live without it. And, you know, as the title suggests, not all apples are green, we are so addicted to our, you know, iPads, AirPods, all tech TVs, the works. We do realized this week, how dependent we are on them. And I'm coming to understand that there is often, a really complex matrix around the carbon footprint. There's the production footprint, the usage footprint, the disposal footprint. Am I understand ing that correctly, or have I completely missed the point for the last nine episodes?

Cait Bagby: No, you're, you're completely correct. On the Guilty Greenie we talk about individual impact, where we as individuals can play a role, but that doesn't mean we should at any point overlook just how complex these systems are. Bringing about change is incredibly important, but in order to do that, we need to understand the different parts of that. So as you pointed out in tech, in particular, that's everything from mining of the raw materials, to production, manufacturing, transportation, storage, consumer usage, disposal. Each one of those steps are incredibly intricate and complex and sometimes the answers aren't always straightforward. That being said, I understand that we want direct answers, right? We want easy solution so as not to feel overwhelmed by the scale of the issue at play.

Sarah Ferris: Yeah and I also think it's nice to have like a helicopter view of it. For some people, knowing the ins and outs is really important to them, but other people like myself just want to be given the cheat sheet, I guess,

Cait Bagby: Yeah, well, you need a starting place and if you start by digging into all those little things, it can come very quickly overwhelming. So yes, cheat sheet. That's why I'm here for. I know my role in your life. I'm okay with that.

Sarah Ferris: Cait's my hack, my life hack. Um, so tech, as you've said, it does cover a huge spectrum and just when you were talking about disposal, then I remembered how many devices I've had that have come to the end of their use because they couldn't be upgraded. Or there was a phone that came in and got upgraded so the other one got put away in a drawer.

So I'm really interested to know like about disposal of those kinds of things. What's the right way to go about it. But all of that can't be covered in one episode.

Cait Bagby: No.

Sarah Ferris: So what kinds of tech can we focus on today?

Cait Bagby: I will touch on some of those stats, but in an overview, like you said, a helicopter view. Um, but we put up resources for people who want to know more and we're always open to show suggestions. So if that's something that everyone is interested in learning more about, let us know, um, you can reach out to us on Instagram at Guilty Greenie or you can go to by what does it buy me a coffee,

Sarah Ferris: buy me a coffee on me, a coffee. And I think it's dot com forward slash Guilty Greenie.

Cait Bagby: Yes. And we appreciate your support and we love hearing from you, but back to the topic at hand. Yes, tech enormous topic, there is a lot of sub sects of that and tech, as you pointed out, touches every part of our life, right? So it's from banking to shopping, research, connecting with others, which we've seen a lot over COVID, work, cleaning weather reports. And...

Sarah Ferris: true

Cait Bagby: ...something that happened over the pandemic and I am sure I'm not alone on this, was my streaming usage of music, TV and movies went through the roof. I am not ashamed to say I binged a lot of TV.

Sarah Ferris: Oh me too.

Cait Bagby: So today that's what we're going to be focusing on. We're going to be focusing on streaming content, mainly music and movies.

Sarah Ferris: It's so funny when you talk about COVID I think every month in the first, well with the first year was probably I could go, well, that was the Tiger King month. That was the blah, blah, blah, blah, blah, blah, blah.

Loved it. Uh, okay. So biggest question I want to ask and understand after the challenge last week is not to stream or download, which one's worse and why.

Cait Bagby: Before, I get to that there was a data point I wanted to throw out there, speaking of, uh COVID and pandemic, the global digital entertainment industry went up from 48% in 2019 to 76% in 2020. So people were in their homes absorbing all the content they could get.

Sarah Ferris: Do you think that's cause also the cinemas were shut as well, which is that counted in global digital entertainment?

Cait Bagby: Because the cinemas were shut a lot of the production companies, instead of releasing t theaters released direct to different streaming platforms, such as HBO, such as Disney, or apple. So it was a shift in, um, . Oh my gosh.

Sarah Ferris: Delivery?

Cait Bagby: Delivery. Thank you. The shift in delivery. So yes, it was included in streaming content because it was not in the theaters. Back to the impossible question of today. This is a really tough answer to give. There is not a black and white answer for this one.

Sarah Ferris: Can we start then by just answering this question? Is streaming worse than downloading?

Cait Bagby: No.

Sarah Ferris: No? Okay.

Cait Bagby: I'm trying to think of where I want to start with this. So I don't expect anybody is really going to go back to vinyl or to CDs, but I do want to just do a cursory look at those two formats because I know some people still love vinyl records.

And when we're talking about the environmental impact of streaming formats, we do need to put it into perspective as to where our music has come from. So originally records, they were made from a natural resin, which was collected in India, it's shellac and it comes from the Asian Lac beetle. Those types of records are biodegradable. However, the working conditions were often horrific, such as forced labor, sweat shops, and it was expensive to produce. What ultimately ended up happening, and the reason we saw a massive decline, almost completely phased out in shellac records, was during the 1940s WWII shellac was needed for the coating of artillery shells and in the use of explosives manufacturing. So because shellac was needed for the war efforts the record production side of things were cut and this is where we saw the rise of what we now know or imagine a record to be.

Those are made from poly vinyl chloride. Polyvinyl chloride is made from petrochemicals. They have an incredibly long life. If they are stored correctly, you can play them over and over and over again. However, when the time comes to dispose of them, it is very, very difficult to do and often very toxic.

Sarah Ferris: Right? On that topic, I've got friends that are hitting the fifties and it's a very popular gift to give the retro record player and people are collecting vinyl again. It's almost like we're going backwards with that one.

Cait Bagby: Yeah. And I would say, if something is already on the market, whether it's clothing and you're thrifting, whether it's dishes that you're getting from your local salvation store or reuse store, or it's even a toaster that you can get repaired. Anything that's currently on the market is better than buying new. If you're giving the gift of records, I would say, go for it but I would look for vinyls that have already been created, not that are created, moving forward. Does that makes sense?

Sarah Ferris: Definitely. No, it does make sense. Yeah.

Cait Bagby: So then the next evolution were CDs. I remember growing up with massive collections of CDs.

Sarah Ferris: I feel like you've missed out the, um, very important tape.

Cait Bagby: No, I'm not, I'm just not doing it. The tape, the tape is like all of these as we progress, they get more complicated in their manufacturing because instead of using a very small number of materials, it gets more complex in how they are created. And we know this from previously talking, which is the more mixed plastics or petrochemicals that you have the more difficult it is to recycle because the, um, investments have not been made in the technology and they have not been scaled. It does not make economic sense to spend the time trying to pull those different, uh, plastics apart. That being said, I know, I'm sorry, I'm skipping over tapes.

Sarah Ferris: I just thought maybe you didn't know that they existed because you're younger than me and I thought maybe this is just like, the tape was not even, you've heard of the vinyl because it's making a comeback and then you just skip to CDs cause you'd never even heard of the tape.

Cait Bagby: I'm not that young. My first music came on tapes and actually as you're saying that I, I, we grew up at one point with a rotary phone. So, yeah, I'm not that young.

Sarah Ferris: I grew up with one of those, uh, Thomas Edison numbers or whatever there were. Just a cup on a string. That's what I grew up with.

Cait Bagby: Someone gave her a tin cans, strung it through the neighborhood and said have fun.

So CDs going back to them, they are made from polycarbonate with is still a plastic, but it is not as toxic as polyvinyl chloride, but because it is also a mixed material, it becomes very difficult to dispose, but not as difficult as vinyl.

The newer CDs that were created were not as strong as the original CDs. Earlier CDs had a much longer shelf life. They could be played over and over and over again. Newer CDs when they were exposed to sunlight or improper temperatures, or even just a small scratch on it could completely ruin it. So there was a massive influx of, uh, CDs that were tossed because they just weren't usable. They weren't strong enough.

Which brings us to the topic of the day streaming cause everybody's streams music. Well, maybe not you as we learned from last week show.

Sarah Ferris: Well, yeah, we'll come to that. Can I tell you just, I'm going to tell a little story about my streaming. When you gave me the challenge it was when Spotify wrapped came out that very day. Do you get Spotify wrapped where everybody looks at what they've been listening to?

Cait Bagby: I know what it is, but I don't use Spotify.

Sarah Ferris: Okay. Well, it tells you what you've been listening to the most and your favorite artists. And it turns out that my most favorite artist was calm music for dogs, because I play it to my dog when she barks at night and in the lounge. I was like, that's tragic.

Cait Bagby: I liked that she has her own little playlist.

Sarah Ferris: Yeah, it works. Anyway. I didn't mean to interrupt this.

Cait Bagby: You're not interrupting. That's why people tune in. They don't actually care about the information. They just want to hear how your life is going on a day to day basis.

Sarah Ferris: It's going great people. It's going great. Hang in there. Alright, digital streaming let's get digital.

Cait Bagby: Digital streaming became overwhelmingly popular in 2011, 2012. That's when it really took off and replaced CDs, records for the most part. Now streaming was out before that. I don't know if you ever used like Napster, Limewire. Are they still around?

Sarah Ferris: I don't know, but I was just thinking oh 2011 that sounds really recent, but it's not. It's a decade.

Cait Bagby: I know. It's incredible to see what has happened in the tech space in just a decade. Just the last year to see what's happened. It's really powerful, I think. Overarching message of today's show because technology moves so quickly it shows us that we can pivot quickly. And if we want to bring about change, because it's so rapid, we can change rapidly. I think that's a good lesson of the day.

Sarah Ferris: I like that lesson.

Cait Bagby: So streaming and I just realized I don't have the data on how much is streamed everyday for music. There was a report put out by Netflix that said for the top 10 shows within the first 28 days after each show was released, it works out to 6 billion hours of watching.

Sarah Ferris: Wow.

Cait Bagby: Which is a lot.

Sarah Ferris: It is a lot.

Cait Bagby: In terms of carbon emissions, that is the equivalent of driving your car from earth to Saturn.

Sarah Ferris: Oh my goodness. That is crazy. Is it the electricity that is used to just play on whatever device is that where the carbon emissions are coming from? Or where is it stored? Is that also causing a footprint?

Cait Bagby: Yes. So this is where as much as I want to give kind of a helicopter view, we do need to understand that there are a lot of components to this. So you have the mining of the actual materials, such as the minerals and the metals to make the hardware, whether that is the servers or your TV, whatever device you're watching on. Then we have the data centers, right? We have the offices, we have the production of the content itself. We have how it's being stored and streamed. So this goes from data centers, to fiber optic cables, to servers, routers, and all of that is even before we get to whatever device you're watching on: computer phone, tablet, or TV.

Sarah Ferris: Wow. I'm going to call you, break it down Bagby from now on. I'm like that.

Cait Bagby: All of that uses energy. Every step of that process requires energy.

Sarah Ferris: Like you say lots of components that go into it, but there's only probably one that we can have an impact on. That's our usage, isn't it? At the user's end.

Cait Bagby: Yeah and there's a couple of things we can do on the users end as well for that, which at the end we'll give some key takeaways.

There was a white paper released in 2020 and in the last two years we've actually seen massive interest from companies like Apple and Netflix to talk about their carbon outputs, in particular, as a result of streaming content. There is an organization called DIMPACT, which is a tool that was formulated by researchers at the University of Bristol. This tool allows different organizations or companies to look into what's called their scope three emissions calculations. Those calculations take into account, both upstream production of the films or content itself and downstream such as delivering the content to the consumer. Now I'm unsure if that also includes data processing and storage. And another thing to be aware of is while DIMPACT is incredibly powerful, we need to be a little bit wary of it because part of DIMPACT is funded by some of the industry players.

Sarah Ferris: So there might be a little bit of something going on in the background. Do you think?

Cait Bagby: We don't know, but we also know throughout history, it's not always transparent.

Sarah Ferris: But I do love their name. I'm just going to put that out there. DIMPACT. It's very catchy.

Cait Bagby: So that white paper that was put out in 2020 found that one hour of watching streaming content releases a hundred grams of CO2 equivalent. That's less than driving the average car quarter of a mile. It doesn't sound like a lot, does it?

Sarah Ferris: No, but you've given me maths again. So one hour of watching TV equals driving a car less than quarter of a mile.

Cait Bagby: yep. It doesn't sound a lot, but then when you start to look at those bigger numbers, such as 6 billion hours of streamed content within the first 28 days of a show being released. That adds up very quickly, hence the earth to Saturn.

Sarah Ferris: Right? Is that just the impact of me watching it one hour. Like it's not all the production behind it. That's just my input of turning the TV on and then streaming it. That's just all me.

Cait Bagby: No, no. That white paper looked at both upstream and downstream.

Sarah Ferris: Okay, so that's everything?

Cait Bagby: Well, that's where we're not sure if that includes data processing and storage.

Sarah Ferris: Okay. Okay.

Cait Bagby: The other thing in 2019, YouTube did their own estimation that came to the conclusion that their annual carbon footprint worked out to around 10 million metric tons of carbon dioxide equivalent emissions. Which is approximately the same output, it's actually a little bit more, than the city of Glasgow.

Sarah Ferris: Wow. Two things that's a lot. And the way you say Glasgow, brilliant.

Cait Bagby: How you say it?

Sarah Ferris: Glasgow..

Cait Bagby: I'm sorry. I apologize to our Scottish listeners.

Sarah Ferris: Listen, I'm not one to be throwing stones with my accent. All right. We're getting through some figures here. Tech is a complete blind spot for me. I didn't know, even about emails being stored on servers was bad, until what we did that episode and you gave me that horrible challenge where I had to delete everything and unsubscribe in my email. Which by the way I'm still doing. It's going to take me years.

Cait Bagby: There's light at the end of the tunnel and you'll feel so much more at peace. I promise.

Sarah Ferris: Oh, I think so. Uh, so what are the hacks that we can implement in the house that will make the most difference with the least effort?

Cait Bagby: I do this to you every show where I'm like, just a few more, just a few more data points.

I promise I am going to circle back very soon to the hacks you can implement, but before we get there, couple of different things. When we stream content, it is not just the streaming of content that is requiring energy usage and energy consumption is growing massively because we are constantly, absorbing more content. The other part of that is these streaming platforms are constantly gathering data about you. It's posited as you've listened to this song we think you will also like these songs and then you're giving a thumbs up, thumbs down. They're constantly gathering data on you. One to improve their own algorithms, but also for advertisement placements, you have to keep in mind. A lot of these companies were not profitable for a while because there was questions about advertisements and how that would work out. So it's not just the constant flow of the streaming content itself. It's the constant processing of information, which adds to that emissions calculator.

Sarah Ferris: All right. It's almost like it's double tapping. You're taking the information in and it's triggering to then start processing as well.

Cait Bagby: Yes, which is why, when you asked, is it better to download, in a sense it is. There was a calculation that was done that showed if you listen to a song or an album 27 times or more from an environmental perspective, it makes more sense to download it.

Sarah Ferris: Hm. Okay. So I need to go and download my calm music for dogs immediately.

Cait Bagby: Yes. There you go. I'm sure someone has an old CD long around that you can burn.

Sarah Ferris: Ha! I love that.

Cait Bagby: For anybody who's interested in learning more about the entire process specifically within the streaming music industry as it is today, but also talking about the history of records and tapes and CDs, there's a wonderful book by Kyle Devine, Devine, not sure how you say his last name out of the University of Oslo called *Decomposed: the political ecology of music*. It's a wonderful book. And there's a quote from an article, an interview he gave that reads, "musically we may need to question our expectations of infinite access and infinite storage." And this goes back to the idea of as a society, we have come to expect things to be available immediately.

So whether that is the entire history of music with one touch of the button, or two-day shipping or whatever it is, our demand for immediacy is airing out the gluttonous character of humans, in my opinion.

Sarah Ferris: It's so acutely obvious if you have a teen and then you take away any of their devices, they literally like a salmon flopping around, out of water. They don't know what to do with themselves because they just don't practice being still very often and having to entertain themselves, or being in a quiet space. There's always noise and input that they can access immediately.

Cait Bagby: There was a study done on that about boredom and how individual resiliency is born out of the ability to be bored and know what to do with yourself. And I think, tech has removed a lot of our capabilities to be bored. And I'm not saying tech is bad. I live like everybody else. I rely on it every single day. Heck Sarah and I are doing our show on a streaming platform. So, you know,

Sarah Ferris: We're not trying to say don't use tech but we just trying to make me, I guess my poor family in the wake of it more aware and our listeners of what we can do and if there is an impact, because it's honestly not something I'd thought of before.

Cait Bagby: But that's the thing not everybody streams music, not everybody buys clothing all the time. The point is to look at things differently and look around your life and figure out what could I do that would not only help the environment, but really help shift my thinking. And I think that goes back to being bored. We have to shift our thinking and by value of that shift our actions on certain things. And I think we have to push ourselves. Personal rant. You knew a rant was coming today

Sarah Ferris: What would Guilty Greenie be without a Cait rant? I wouldn't be just dead air. Let's be honest. Um,

Cait Bagby: okay. So what can we do around the house? Right?

Sarah Ferris: I want the hacks.

Cait Bagby: Hacks are 27 times. If you listen to something more than 27 times, download it. The other really good one on that is try to avoid streaming content that includes videos. Now, obviously, if you're watching TV or movies that's not what I'm referring to. I'm referring to music. Try not to listen to it on the different platforms that also include a video. Even if that's an ad video. Because that is an extra layer of emissions.

Sarah Ferris: and also there's another bonus to that is you won't get to see the misogynistic soft porn videos that come with music these days, which I cannot bear just saying.

Cait Bagby: Back in my day...

Sarah Ferris: I just had a rant myself. Sorry. It's a pet peeve of mine. It's just, I can't bear it.

Cait Bagby: I grew up on the heyday of MTV so I very much remember the overly misogynistic, overly sexualization of women.

Sarah Ferris: The Robert Palmer girls in the background just swaying and then...

Cait Bagby: oh, not that far back. Sorry.

Sarah Ferris: Wow. Dial it back. Yeah. Crickey.

Cait Bagby: Okay. So a 27 times, try not to do video with your music, if you can help it, and other things to consider, there's actually quite a few: unplug when you are not using things that is just tech 1 0 1 environmental savings in your home. It also helps save you money and we're going to actually get into why that is. Turn off things immediately after using them. Your TV, your phone, your computer turn them off.

Sarah Ferris: I'm getting sweaty right now.

Cait Bagby: Why?

Sarah Ferris: Because I don't do any of those things. I just realized how bad I am, but it's going to be easy for me to implement because I'm going to be saving some of my carbon footprint right there. Here's a question, your probably can answer this later, but you just going to have to answer it now cause I need to know.

Cait Bagby: Okay.

Sarah Ferris: When you have something plugged in, I thought that if it's fully charged it, doesn't just keep using up the energy. It just stops putting the energy into the laptops.

Cait Bagby: Just said, we're going to talk about that later.

Sarah Ferris: I know but I need to know now cause I'm sitting here with my computer fully charged and now I feel completely guilty like I need to immediately unplug it.

Cait Bagby: It's not so much the device, although that's part of it. It's unplugging it from the wall. Unplugging the charger from the wall.

Sarah Ferris: Oh my God, what does it have to be complicated? All right. You can dive into it later. You're not going to tell me an easy answer. I can feel that now.

Cait Bagby: Another thing I miss about living in London is you always had that second switch where you could turn off your outlets.

Sarah Ferris: What?

Cait Bagby: I loved that. You, you don't have much like on the, on the plugs everywhere I lived, there was a switch so you could turn off the power to that outlet.

Sarah Ferris: What do you mean? Like on the actual plug that goes into the wall there's a switch?

Cait Bagby: Yeah.

Sarah Ferris: Well, I'm looking at all the plugs around me right now and I can tell you, oh,

Cait Bagby: Do you see it?

Sarah Ferris: Okay.

Cait Bagby: Wait, did you not know this in your own house? What did you think that was?

Sarah Ferris: But I'm looking at something very specific and very seasonal. I'm looking at the Christmas lights on my tree have got the plug, but I, oh my God. Okay. Aha moment.

Cait Bagby: What else did we find in Sarah's has today? For every house that we've renovated? We actually put two switches in the room, one for the overhead light, and the second switch by the door controls the upper outlet. So our plug sockets have two outlets in them. It controls the top outlet so that if I have anything plugged into the top outlet, I can just flip that switch and it will completely shut off the power to that plug. So anything plugged in on the top half of my outlets will just completely be disconnected.

Sarah Ferris: Very clever. Very clever.

Cait Bagby: Okay. What else? If your device has an eco setting, switch that on a lot of TV, smart TVs. Now come with the energy star eco settings. If you don't have it one of the other things you can do is to dim, on any screen, your computer, your phone, tablet, TV, uh, dim, the screen brightness.

Sarah Ferris: Taking notes, because my screen is literally blinding me right now.

Cait Bagby: When it comes to TVs and computers, instead of putting on screensavers opt instead for sleep mode.

Sarah Ferris: Okay. That's an easy thing to do.

Cait Bagby: Screensavers will draw much more energy than if it just went into sleep mode. Um, I have a couple more. For better optimization, you can put dark mode. It's pretty much the same as dimming screen brightness, and then also close out any apps you're not using. And this is specific to apps that are constantly pinging information, such as location GPS. If you have maps running in the background it can be constantly pinging to update. Anything that update frequently if you're not using it, close it out. Last tip, which I think is probably the most important, but the hardest is take a break. Quite literally, shut down all of your electronics, swap out a 30 minute listening to music or watching TV or reading the news whatever it is that you do on an electronic device, switch it out for going for a walk or sitting quietly with a cup of coffee or whatever your interest is. Go and do that instead, because again, this comes back to changing how we think about things and by virtue of that, shifting our constant need for tech, which again, leads to increased global emissions. So take a break. Streaming services isn't going to stop. It's only going to continue to grow. It's just a matter of, can we do it smartly and data centers make up 2% of the world's greenhouse gas emissions.

That's the equivalent footprint as, or the same as the airline industry which we talked about last week. Streaming platforms are only a percentage of that but when we start to chip away

at that individually, I'm a big proponent of everyone can make a difference. And don't ever feel like you can't because there's no such narrative as I'm just one person. That's self-defeating.

Sarah Ferris: You gave me so much to work with there. But the interesting thing is they're not hard things to put into your daily life. They are simple hacks that will have an impact. But if you really wanted to go for your Greenie halo in this tech space, what is a tougher challenge that would make the most difference?

Cait Bagby: I'm sorry are your kids begging for a more difficult challenge?

Sarah Ferris: No, I'm not saying make it a challenge for the week. I'm just saying is there something that's a little bit even more? Go round and take apart your old computers and separate the parts out before you recycle them or something?

Cait Bagby: Yeah. Okay. Let's actually talk about that for two seconds. You had mentioned e-waste and recycling programs. Right now, around 12% of e-waste is currently recycled and the recycling process as it stands globally is actually quite dangerous. Quite a bit of it is shipped overseas where it's sorted in countries where labor laws are incredibly lax and personal protection gear is notoriously missing.

There is a brilliant documentary on this, which I will have to find the name of and share, that shows exactly what happens when a washing machine or a computer or a phone get sent overseas to some of these countries and in order to separate out a lot of these components they're often burned so then the copper can be stripped out. That is toxic upon, toxic upon, toxic for so many reasons. One, the individuals working there are breathing that in. Oftentimes they don't even, not even don't mask, they don't have shoes on. Then you have the environmental runoff from that, the pollution. I know quite a few companies built in obsolescence. And then there are very powerful marketing campaigns that say, you need this new phone because you can take a cleaner picture, a crisper picture, or you need an apple computer with this type of chip in it in order to use a certain program. Do not trade things out, do not buy new unless you absolutely have to. We have a serious recycling problem.

And then the mining of the minerals and there's three conflict minerals tin, tungsten, and tantalum. Gold is also a part of that. Those are materials that are used in the formation of mobile phones, computers, and they often are mined in places of conflict. They're incredibly toxic in terms of runoff polluting local waterways. Uh, cobalt, which I believe 60% of it comes from the Democratic Republic of Congo, which for 15 years has been going through a conflict. The mining operations actually finance the conflict. There are several reported cases of child labor and child deaths. There was actually a case brought against Apple, I can't remember the other companies. In 2019 parents of children who had either lost their lives or became disabled, as a result from working in the mines, brought a case for the first time to these companies.

And it will be interesting to see where that goes. The cobalt that is mined is used for lithium batteries, which are used in our computers. Anybody who knows me, knows that human rights is my first cause in life. It's something I'm very, very passionate about. I know we talk

about environmental impact a lot, but we also cannot separate individuals from the environment.

When we start to do that, we then lose track of the fact that everything is interconnected.

Sarah Ferris: That's why I love doing these shows with Cait. I just learned so much in that one little paragraph that you've just told us. And what I'm going to take away from that is, you know, I've got those items hanging around my house at the moment the dead phone, the dead laptop, the old, whatever, the old Kindles. Refurb. Give them a new life and get them back out into the community to be used again and not recycled in such a damaging way. Maybe that's the Greenie halo move that somebody out there is listening and they're looking for a way to change the world. Hey, work out how we can responsibly recycle these things.

Cait Bagby: And also I think this is maybe one of the harder challenges, which is learning not to be so dependent on technology. Learning that it's okay to go out and have dinner with your friends while not even bringing your phone out with you. Having a family game night without music playing in the background, or instead of watching a movie play a game. I think just those little things that would be for me the halo moment, but I also understand that is a difficult habit for people to break.

Sarah Ferris: Yeah. I think it's an easy swap though. Like a game night, just don't put the music on because you're right whenever we have game night, music is always on in the background. You don't need it.

Well, gosh, we've really covered a lot today, Cait that is so much information. I honestly feel so much smarter. So thank you.

Cait Bagby: It's a big topic. There's a lot of nuance to it, but being informed helps people choose where they want to start from.

Sarah Ferris: Absolutely. I'm going to go through my little list of takeaways that you've given me today. I reckon it would be helpful to put on the Instagram a little list of those things that you've given us in terms of unplugging, dimming your screen, and all those things. So we'll try and get that up on the Instagram at some stage so that you've got a place that you can reference it.

Cait Bagby: Absolutely. We can do that. In the meantime, what do you want to tackle first? The high points, low points or the challenge?

Sarah Ferris: Oh, you choose.

Cait Bagby: Do you want to stick with last week's challenge because it goes to today's topic?

Sarah Ferris: It does. I think that's probably a good place to go.

Cait Bagby: I'm definitely never being invited to Sarah's house after this. No streaming. How did it go?

Sarah Ferris: Well, I think we've touched on the fact that it was the hardest one yet. That's for sure. You'll hear Gareth first. I'll just play the audio and then we'll take a little deep dive into it and see what we think we've learned from it.

This week's Guilty Greenie challenge is the whole house is not allowed to stream any music.

Sarah's Family: The whole house. It's not going to happen.

Sarah Ferris: The reason I'm videoing this right now is what have you just unboxed?

Sarah's Family: A new pair of headphones.

Sarah Ferris: He was very excited. The first thing he did was turn on his Spotify. So how do you think you'd do with that challenge?

Sarah's Family: Probably quite poorly. Cause I use that for doing my exercise or listen to podcasts. But like, you know, I download them and listen to them on my phone for surely the active downloading is just as bad as streaming.

Sarah Ferris: Will you give it a nudge?

Sarah's Family: Surely Streaming would be worse. Um no.

Sarah Ferris: Not even going to try.

Sarah's Family: I mean, what percentage of is that carbon emissions globally does that contribute? Seems like tiny (laughing) cost is not worth the benefit?

Sarah Ferris: I think this is going to be a very difficult week and I'm going to be the only one that does it.

Sarah's Family: Next it will be netflix.

Sarah Ferris: No, that was the other option. So let's give it a nudge and see how it go. Be conscious of it maybe.

Sarah's Family: Sure.

Sarah Ferris: That was very unconvincing.

Do you want to know what that weeks Guilty Greenie challenge is?

Sarah's Family: Mmhmm.

Sarah Ferris: You're not allowed to stream any music.

Sarah's Family: Can I not pick a different app to not use? Cause I like Spotify.

Sarah Ferris: No,

Sarah's Family: but that's not fair. That's not a thing that's ever gonna happen. How about this? We do that thing where we didn't use a dryer again.

Sarah Ferris: Do you think you can do it? It's a challenge.

Sarah's Family: No I don't think I can do that. I don't even want to do that.

Sarah Ferris: So Bella's verdict on the challenge?

Sarah's Family: It makes no sense whatsoever.

Sarah Ferris: So she's not in. Ava?

Sarah's Family: I'll try but I'll definitely fail.

Sarah Ferris: What did you just tell me?

Sarah's Family: I said I tried it and then an hour later I started playing Christmas music cause I was decorating my room. (MUSIC)

Sarah Ferris: So there you go. The backlash was huge this week.

Cait Bagby: Not every challenge is going to be easy. This one sent them for a loop.

Sarah Ferris: Oh God, but I think it was funny Aviana was straight to trying to actually negotiate her way out of the challenge, but she did give it a crack. Better than anyone else. Bella was just like, no way I'm not touching it. Josh was like, no way I'm not touching it because I think his headphones have grown into a skull now. So it would have been impossible for him to remove them. And Gareth was just like what's the actual carbon footprint that it's gonna save. So now I can go to them and say, well, actually there is a difference that it makes.

Cait Bagby: Again, this is where it gets a little tricky too, because not everything in these white papers is covered so the emissions cost is actually oftentimes quite higher because a lot of these white papers will only look at a very narrow section of an industry.

Sarah Ferris: Yeah. As I said to you earlier, I think the real issue was when I issued that challenge, it was when Spotify wrap came out and the kids was straight into it. And I mean, they failed from the get go on that. But I thought that the interesting part of it is, it was kind of like metaphor for the world. This week's challenge. I became more conscious of it, but there was very low buy up in the rest of the house. So I was improving my carbon footprint just a little bit by being more conscious of going on a dog walk, but not listening to music or

listening to download podcasts that I already had, that I didn't stream. They were already on my phone. I was trying to make a bit of a difference, but it doesn't mean that everybody else is and I think you've said it before, you can only be responsible for yourself. And I felt good that I'd made some changes.

Cait Bagby: I was going to ask you, cause I wasn't going to let you get off the hook, how you found the challenge. Were you able to make it the entire week or no?

Sarah Ferris: I found it really difficult, but to be honest, because I have been really busy working, all the stuff that's been in my ears is my own editing on podcasts. I have to confess though, the dog was barking one night and I did put the old calm dog on overnight for half an hour.

Cait Bagby: To be fair we couldn't actually ask your dog if they wanted to participate. So...

Sarah Ferris: She was a hard no. She was like screaming, going, I need my Spotify wrapped number one playlist, please. Mum.

Cait Bagby: I was thinking about the challenge. I stream a lot of music during the day. I love to listen to music when I'm researching. But like you, I haven't been listening to a lot lately because I've been doing audio editing so that's, what's been in my ear. So I thought I want to participate in this challenge as well. What can I do knowing that I'm not listening to music at the moment. So I gave myself the week of no TV or movies, no streaming movies.

Sarah Ferris: How'd that go?

Cait Bagby: It went well. I made it through the week. Uh, I also do feel like I may have been preparing my entire life for this moment because I did not grow up watching TV. That did not really exist in my life. And we also used to have, these challenges every year at school, where you had to not watch TV and if you didn't watch it that day, your parents had to sign a little piece of paper. If you didn't watch it that day, you got a sticker and once your button was filled up, you went to this pizza place and you got a free pizza.

Sarah Ferris: Oh my God. I would have been all up for that. I would have had stickers everywhere.

Cait Bagby: That being said my husband and I watch a series. He was a little bit bummed that I didn't want to watch it. The other thing is yesterday, we were in the car and he was streaming music. And I said do you mind if I change this?

And he said, no, go ahead. And I just turned it off. The look on his face. He's like, Mmm, that's not what I thought you were going with that. I realized...

Sarah Ferris: that's not changing it, that's killing it.

Cait Bagby: But I had this moment of realization cause I was thinking about the challenge and I thought, yes, I like to listen to music myself but when I'm in the company of other people, I'm actually now finding it very distracting during conversation. I want to focus completely on you and what you're saying, and I don't want any background noise.

Sarah Ferris: Aw. Well, that's a nice realization. Isn't it?

Cait Bagby: Don't tell my husband that he'll get ideas in his head.

Sarah Ferris: It'd be like really giving you some pearls of wisdom that you're concentrating so hard on. He's going to have to live up to the fact that he's got no backing soundtrack to distract you. Um, well, yeah, it was an interesting challenge. We have the Guilty Greenie we don't claim to be able to get it right. And this last challenge I can claim to have not got it right. We can not live without our streaming. We are guilty. And I think we're staying that way, but going forward, I'm going to be more conscious of it. I will be downloading. I won't be streaming. That's one easy tip.

Cait Bagby: What I found really interesting is the other challenge that Aviana railed against was the lack of dryer for the week.

Sarah Ferris: Oh yeah. She was like bring that one back.

Cait Bagby: Yeah. She's like, I'll do anything. Just bring, bring, let me stream my music. It's fine.

Sarah Ferris: I know. She's the queen of negotiation, that child. She would have negotiated her way out of anything.

Cait Bagby: I do wonder if it changes her perspective on how easy or difficult things are then when you first hear about them?

Sarah Ferris: And do you know what's really interesting is that we always always have a conversation about our challenge every week around the dinner table and it sparks debate. Whether it's, yeah I think you are crazy mum, which is often the case or, oh, no, actually, like the composting one, Josh actually had a whole lot of knowledge that we didn't realize he knew about why we needed to compost and stuff like that. We're a lot more conscious now and I love the fact that it's bringing these conversations to light in our household.

Cait Bagby: Let's touch on the low points of the week. What was yours?

Sarah Ferris: Ah, what was my low points? Oh, that's a good one, this one. Okay. So I've got two. I think I always have two low points. So I rejoined the gym because I was rolling around and realized that COVID had not been my friend but now they've got all these disinfectant rules that I had to use these horrible plastic-y throwaway towels to disinfect, and you had to do it on all the equipment. So I kind of felt really guilty about that, but at the same time I was exercising so I thought maybe I'll live longer so that could balance it out. But this

is the kicker. So I've been a vegetarian for about two years and not a drop of meat has passed these lips in that time.

Cait Bagby: Two years?

Sarah Ferris: For two years. The other night I went out for dinner and there was a really limited vegetarian menu and in my head, I was just thinking, God, I feel like I just need a little bit of oomph, a little bit of iron. And there was a steak on the menu. Order ordered the steak.

Cait Bagby: I was, I have so many thoughts on this. How do you feel about it though? Do you feel ...let's take sustainability out of this for a moment. How are you feeling about this?

Sarah Ferris: I didn't feel any guilt to be honest and I thought one steak in two years is okay. I cook meat in the house for the others. Uh, we've really lowered it, but the reason that I don't eat meat is not necessarily for anything other than I had cancer and I was just trying to really put just as many vegetables and minerals into myself naturally as I could. And then once you get used to doing that, it was really hard to.... to the sentience being kind of feeling. I didn't really want to eat something that was walking. That became part of it as well and it all got tangled up, but I'm clearly, I'm not that attached to the cow cause that steak was fricking divine.

Cait Bagby: Do you think that moving forward then you would adopt more of flexitarian diet?

Sarah Ferris: No, it hasn't popped the seal. It was really like, I just needed like an iron hit, job done, and I don't have any desire to go back and do that again, but also I don't feel guilty that I have done it.

Cait Bagby: Yeah, then I don't think that's a low point. That's not a low point then.

Sarah Ferris: No, I know but what is hilarious was everybody else's reaction. All the meat-eaters that I've told that to the gasps of shock from my husband were like, I had eaten half of his arm or something. He was so affronted by the fact that I'd eaten the steak.

Cait Bagby: It's just surprise not in, not in your actions. It's just one of those didn't see that one coming.

Sarah Ferris: Neither did the cow.

Cait Bagby: Just going to say that.

Sarah Ferris: Oh my well, we are so wrong. Anyway, so that was my lows. What about you?

Cait Bagby: My low. Yeah. I went on an Amazon spending spree. I generally try to avoid Amazon. I can't speak for everyone in my house. I debated whether or not to give the reason for it, because I think sometimes people hear acts that were not sustainable and think if you provide the reason for it, you're justifying it. But I also, you know, when wrestling with this realize shit happens.

Sarah Ferris: Yeah.

Cait Bagby: You shouldn't feel guilty about that, but the reason, and to your point about the steak too, the reason they are in our quote, guilty low points is because it was not the most sustainable behavior.

Sarah Ferris: No.

Cait Bagby: Not that you're a bad person for doing it. So when I say I went on an Amazon spending spree, I bought three pillows, a neck brace, a neck hammock, and a bunch of like head wraps that are cooling.

Sarah Ferris: I'm feeling a real theme and like a need for immediate neck and back relief here. That's what's driving this I can tell, right? You weren't in your right mind, you were driven by pain.

Cait Bagby: That was the thing. For anybody who's been listening to our shows live here on Fireside I'm sure you've seen that every once in a while last minute, we've had to cancel a show. The reason for that is I get migraines, but I also get cervicogenic migraines, which is a disc issue. And I had a five day migraine to the point where I couldn't see, I couldn't walk, the pain was excruciating. I spent most of my days just lying on the floor crying, praying for anything, anything. The pain would get worse at night and I finally said enough, I'm going to buy every therapeutic pillow. I can get my hands on to find a solution.

Sarah Ferris: And did you find one?

Cait Bagby: Yes. And I haven't had one since.

Sarah Ferris: There you go. Now you're a functioning human again. You can do much better in the world. Think of it like that.

Cait Bagby: Yes. Alright. What was your high point?

Sarah Ferris: Okay. I ordered eco pens. Didn't know they existed, but now anytime that I go to buy a product, I always put sustainable or eco in the front and I'm so surprised at the stuff that just pops up. So these little cardboard pens that, you know, probably not waterproofing, won't be using those outside, but they're great. They seem like they're doing the job. I can write with them.

Cait Bagby: I'm curious, I'd imagine the inner casing is still plastic, right? Do they say how to dispose of them?

Sarah Ferris: Oh, good point. I'll have a look on the box and get back to you on that one. I didn't read that far. I just was excited about the outer bit. I'm easily pleased Cait, you might've noticed. The second win that I had was something that I was resisting is we had an energy meter put in by our utility provider. Now I can see how much electricity we're using, and it was quite horrifying. So we were like, what's causing that spike? Is it the coffee machine? Is it the dryer? Is it the heaters? I have to say, I really like it. I've been going around turning off all the lights. Interesting.

Cait Bagby: That is interesting. I'm curious if two things, one, if that's going to create this kind of game around the house to see how low you can get it, or just what's causing the most draw.

Sarah Ferris: I think it's going to do both of those things. Right now it's the mystery of what is causing the most energy consumption.

Cait Bagby: And, are your washer and dryer electric or gas?

Sarah Ferris: They're electric. But I mean, we played, we've had this conversation, Sarah. It's like, well, the dryer's not going, but that's still spiking. So yeah, endless fun with a meter. Get involved. People don't be resistant. You won't look back.

Cait Bagby: Anybody gen Z listening, if you think adulthood is boring, we've just proven you wrong.

Sarah Ferris: Yeah. There is not one episode that we don't talk about the laundry so come join the fun.

Cait Bagby: That's right. That always comes up. I like that I think that's a great high.

Sarah Ferris: Thank you and what was yours?

Cait Bagby: My high of the week actually is going into your challenge for next week. You had asked about energy usage in the house in terms of drawing electric. There's something called Phantom energy or passive energy. There's a couple of different names for it. Phantom energy is the drawing of electric, even when things are not being used just by virtue of it being plugged into the wall.

Sarah Ferris: Ah, this is when I was talking about the laptop. Should I am plugged?

Cait Bagby: Yes.

Sarah Ferris: Okay. Cause I thought that when the better is full, it doesn't keep sucking energy.

Cait Bagby: Anything plugged in will continue to draw unless it has different settings on it, which most things don't. Um, there is a study that came out of Canada that estimated that 10% of electrical consumption in the home came from passive or Phantom energy.

Sarah Ferris: 10%. That's a whacking great number, like, for doing nothing. That's going to be my challenge. .

Cait Bagby: Your challenge is twofold. go around and count without altering anything. Just take an account of how many things are plugged in that are not used.

Sarah Ferris: Okay.

Cait Bagby: And the second part of that is to then go around and unplug things and see

Sarah Ferris: I'll be able to see on the meter.

Cait Bagby: Yeah. Part two give us the percentage of drops by.

Sarah Ferris: Okay cause we do know that I love numbers. Perfect Cait. I love that you've worked that in there. Laundry, and numbers. It's just like death and taxes. Get it all here on the Guilty Greenie. Um, okay so I've got to go around and count how many things are plugged in and not being used and it's 10%. So now I can go back when everybody goes to make dinner, like breakfast in the morning and they're looking and they're going in the eyes, you unplug the coffee machine mum or the toaster mum or whatever I go, yes, but I'm saving 10% Phantom energy. Cause I can throw a number back at them.

Cait Bagby: There you go.

Sarah Ferris: Boom. Argue with that kids.

Cait Bagby: Yeah. Just turn around and be like I'm saving energy and you can blame Cait.

Sarah Ferris: It's my default. Excellent, good challenge Cait.

Cait Bagby: Thank you all for joining us this week. Join us next week to see if Sarah accomplished her challenge for more, the good, the bad, and the laughable.

As we tackle our own sustainability journeys, exclusively on Fireside in the Climate Collab Auditorium. Thank you for joining us on this week's episode of Guilty Greenie.

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Sarah Ferris: Bye-bye.