

Transcript of the Meeting of Concerned Citizens with the CEO of Hughes Energy and the Warren Washington Industrial Development Agency about the 465-ton per day garbage autoclave project that Hughes wants to build in Fort Edward at the dewatering plant site on the Champlain Canal.

Organized by Clean Air Action Network of Glens Falls.
Held Virtually on November 11, 2021.

[The recording](http://www.cleanairactionnetwork.org) of the meeting can be viewed at www.cleanairactionnetwork.org and on YouTube. [Follow-up questions](#) that the citizens' delegation submitted to the Hughes Energy CEO on Nov. 22 have not been answered. They are also available at www.cleanairactionnetwork.org.

Meeting Participants

Tracy Frisch, Founder, Clean Air Action Network of Glens Falls (TF)
Judith Enck, Former EPA Regional Administrator (JE)
Dane McSpedon, Hughes Energy CEO (DM)
Dave O'Brien, Chair, Warren Washington Industrial Development Agency (DO)
Kathy Roome, Esq., Greenwich resident (KH)
Katie DeGroot, Fort Edward resident (KD)
Nancy Crosby, Fort Miller resident (Town of Greenwich) (NC)
Jim Thompson, Government Relations consultant, Hughes Energy (JT)
Michael Ostrander, Executive Director, Warren Washington IDA (MO)
Michael Bittel, Secretary and Treasurer, Warren Washington IDA (MB)
Alie Weaver, Office Administrator, Warren Washington IDA (AW)

TF: I'm Tracy Frisch and I want to thank you, Dave, for coming up with the idea for this meeting. I really appreciate it. We have many questions and we're looking forward to getting answers. And greetings – we have not met.

TF: So, I'm Tracy Frisch. I'm a long time environmental activist. I've started a number of groups. I'm a good organizer and my first venture into the area – the Hudson River corridor from Fort Edward to the Glens Falls area – was in 2011 when I was informed that Lehigh Cement, [now] one of the two cement plants in the state, wanted to burn a mixture of paper and plastic. There was a dioxin spike in their air tests and I organized from scratch and in 2 weeks, we got a lot of comments in [to the NYS DEC]. I had a TV interview on the news and after that, DEC made an astonishing decision to not allow Lehigh to burn the stuff until they did more air tests. Lehigh gave up interest in this particular material and they did not burn any alternative fuels for a number of years.

I'm currently the leader of a zero-waste group which has gotten Warren County to make some changes in their Solid Waste Management Plan and I'm connected with the state and National organizations.

Judith, would you like to introduce yourself?

JE: Sure. Hi, everyone. Someone is making a smoothie in my kitchen. I hope it's not too loud.

DM: Are you going to share [the smoothie]?

JE: We have a bumper crop of kale so we're putting it into everything we can find.

Very nice to meet you, Mr. McSpedon and Mr. O'Brien. Thank you for taking the time.

I'm Judith Enck. I've been doing environmental advocacy work for about 40 years, including working really hard to get PCBs out of the Hudson River. I worked for eight years as the NYS Attorney General's Environmental Policy Advisor. I served as Deputy Secretary for the Environment, serving two governors in the governor's office. I was appointed by President Obama to serve as EPA Region 2 Regional Administrator.

I consider the Hudson Valley my home. I know a lot about solid waste issues. I've been supporting community groups in opposing the Bio Hi Tech facility on the river in Rensselaer, and I have very serious concerns about this proposal and intend to be actively involved with the community to block it, so that's my introduction.

TF: So, before we go on I see two people, I see three people. So, I was invited to a personal meeting I guess with Dane McSpedon. I expressed interest in bringing several colleagues. I see three other people in the waiting room. Could you explain who they are, Dave?

DO: The waiting room?

TF: Yeah for this meeting.

DO': I don't see names.

TF: Yea, yeah, okay, okay. Mike Bittel. Jim, who, oh, Ali, who I guess is the office manager?

DO: Correct. You talked to her.

TF: Right. Mike Bittel, I know he's on the IDA board, is that right?

DO: Yes, that's correct.

TF: And Jim Thompson?

DO: Jim works with Dane McSpedon. He's a consultant with him.

TF: And Michael Ostrander?

DO: Mike Ostrander is the Executive Director for the IDA.

TF: Okay, I've admitted all of them. Great. Thank you. Kathy, do you want to introduce yourself? Oh, you're muted.

KH: I'm Kathy Roome and I'm an attorney and as it happens about 7 or 8 years ago and as it happens, about seven or eight years ago, I wrote a history of the burn plant that initially was going to be put in Greenwich and eventually ended up in Hudson Falls.

TF: And Kathy is also on the Board of Directors of the Grasslands and [sic] Bird Trust which protects, conserves a lot of land in the town of Fort Edward.

KH: Yes

TF: Katie, would you like to introduce yourself?

KD: Hi, I'm Katie DeGroot. I'm an artist and until recently we raised grass fed beef on my great-grandparents farm [in Fort Edward]. We are right next to the Hudson River and my interest in this project is – I have multiple interests. I have a lot of concerns because I feel that the IDA should be supporting the agricultural community more. I also have concerns about the Hudson River and obviously any kind of garbage or trash-to energy plant. That's all.

TF: Thank you. Nancy, I think you're next?

N: Hi, I'm Nancy Ellet Crosby. I live in Fort Miller just a half mile or so from the town of Fort Edward. I have been a witness to the dredging of PCBs out our window here over the course of several years. I'm an early, beginning member of the Sort Trash And Recycle Together group of citizens that aggregated our recyclables in Greenwich prior to the building of our [county] transfer stations, which are now privately held but were publicly held for a long time. I'm a member of Clean Air Action Network and take a great concern about the air quality in Warren and Washington counties and the zero waste group of Warren County. I am opposed to this proposal and feel our IDA could do very well by looking for a more sustainable endeavor and I think that there's an awfully lot of the use of "green language" in this proposal that may not really pan out to be sustainable.

TF: So, [let's] have introductions from the others here? And I should note that I've lived in the town of Argyle adjacent to Fort Edward, the town is adjacent, for the last 16 years. So, Dave, you want to go next?

DO: Sure, one second. Can you activate the videos for Mike Biddle and the others please?

TF: Oh, they should be able to do it themselves. I don't have anything unactivated. Everyone activated their own video, correct?

JE: Yeah, it's the bottom left. They just need to - where it says mute, they need to deactivate mute and they activate the video, they do it. Tell him to look in the bottom left for the square.

TF: Yeah, if they're on a computer or um device like that, otherwise sometimes there's something in their meeting preferences, I really don't know, but...

(O'Brien is speaking on the phone to Mike) Yeah, Mike?

JE: They can probably hear us. It's next to where it says mute. There's a little thing that says stop video. Just click on that.

DO: Tracy?

TF: Yeah?

DO: Mike says that he gets the message that he can't activate it because the host has deactivated him.

TF: No. No, I haven't done anything. I haven't deactivated any videos.

DO: (unintelligible) haven't activated I guess.

TF: . . . I've been treating everyone the same. I admitted them and that was it, um -- let's see, ask to start video. Okay, I'm going to ask Ali to start videos.

DO: (talking on the phone) she's asking to start videos.

TF: I'm going to ask you so that's all I can see.

DO: There's Ali.

TF: Does that work?

DO: That works. (Talking on the phone) that works. Not you yet. She did Ali.

TF: Okay, I'm just going down. Ask to start mic. That is really weird. Oops. Ask to start video. Okay. Slowly but surely...

(Jim Thompson name appears on the screen)

NC: Never had that happen before.

TF: Me neither . . . I've just asked to start videos. So I've done that with Mike several times, but . . .

DO: (on phone): She says she's done it with you several times.

TF: And Jim, ask to start videos.

DO: Mike says he's going to go out and come back in.

TF: Okay, well, that's really interesting. And you have control over your own microphones. Okay, so Dave, you want to start introductions from the IDA folks?

DO: Sure.

TF: And Mike is just coming back, so who knows? Okay, you're on.

DO: Okay, I'm Dave O'Brien. I'm Chair of the IDA. We've been working to find good people to come into the IDA park (unintelligible). It's been a tougher job than most would think, um, and ah, so we do have some opportunities here, we're reviewing opportunities, being asked to reach out to meet Tracy after Tracy contacted the IDA so we reached out to Tracy and we're (unintelligible) to see other people here. I think I know at least a couple of you in there. Ali, you want to introduce yourself?

Ali: Can everyone see me and hear me?

TF: Yes, you're fine.

Ali: Okay, I'm Ali Weaver, I'm the office admin of the IDA and my dog wanted to say hi, too. How are you all?

TF: We can have a dog party afterwards. Okay, Jim.

DO: Okay, Jim, go ahead.

JT: Jim Thompson. I am Government Relations for Hughes Energy contracted through (unintelligible) Strategy, um, lifelong resident of Fort Edward, born and raised there. I recently [re-]located in Clifton Park so I know the area well. And I've worked with the County Board of Supervisors on many different projects working with the Assembly and the Senate. I look forward to hearing your um, causes and concerns about the project and we look forward to educating you guys and answering all your questions.

TF: Thanks, Jim. I guess we're on Michael Ostrander?

MO: Good afternoon everybody. Mike Ostrander, Executive Director of the IDA since the end of June. I'm looking forward to hearing everybody's feedback on the project. Thank you.

TF: Thanks, and um, Mike...

MB: Hi, Tracy, Michael Bittel, Secretary and Treasurer of the Warren Washington County IDA and also president and CEO of the Adirondack Regional Chamber of Commerce and, um, long-time resident, as Nancy and many of you know, of beautiful Washington county. Glad to be here. Thank you,

TF: Thanks very much. And uh, okay. I guess Dane, you're on.

DM: Okay, well, I really appreciate you guys coming on um..

TF: I mean for introductions, that's what we're doing.

DM: Yeah, Dane McSpedon. I'm the CEO of Hughes Energy. Um, I'm originally from Yonkers, NY and uh grew up in northern Westchester County. I studied at Colgate University, upstate NY, where my daughter is now, um, studying neuroscience (unintelligible).

And you know I had a chance in my career to travel around the world. I lived in Russia and the Soviet Union for 10 years working for companies like IBM and Honeywell. I also actually did my undergraduate honors paper on you know the ecological disaster that was and is the Soviet Union specifically, a dam project in the Gulf of Finland, which created a lot of blooms and um, deoxygenated water and really a horrible situation.

So you know my personal interest has always been in trying to build and do things that are good for the world um and for individuals that worked under me. And I think I'm very proud that all of my children who are studying undergraduate – are minoring in environmental sciences. My son, who is studying arts and mechanical engineering – he has written some papers on the creation of biofuel from the fiber that we extract from organics recycling and instead of using food-based ethanol, we're using our fiber instead, making a much more sustainable product than utilizing food to make ethanol.

So that's my background. I've lived in the UK for a number of years. I've known Brendan Hughes as an old family friend. Brendan is the owner of Hughes Energy. He is my partner. He's my boss and um again he's known my parents for many, many years. When I lived in the UK, I had a chance to go and see a facility that Brendan invested in in Limerick. Brendan is from northern Ireland. My wife is from County Clare, which is right next to County Limerick, so I was able to combine a personal trip with going down to see it.

When I moved back to the US, Brendan asked me to help evaluate the market here in North America for his organic uh recycling system. At the time we started seeing, thanks to people like you, increased awareness on environmental issues, increased legislation that is in NYS certainly, but throughout the northeast, closing landfills, looking to finding alternatives to putting things in the ground. Three years ago he offered me to come on full time as CEO um, and since then, um we have been meeting with the DEC, meeting with a lot of environmental groups in PA and NJ uh, the regulators in PA and NJ and Minnesota, you know, kind of getting a feel for what each state's goals are, and uh you know building a team up...

TF: Okay, so I think we'd like to start asking questions. That's very interesting. I have some correspondence that indicates that the Limerick um plant was closed after several months [years]. I just want to share that.

So we are aware of the facility that Hughes Energy is proposing in Delaware County on the border with Greene County and that one would be sized to receive 500 tons of garbage per day. What size are you imagining for Fort Edward?

DM: Yeah, I mean, a couple things. First of all, you know, the Limerick facility. Brendan was one of the many investors in that plant. Wilson Bio-Chemical, which was the name of the technology company that Brendan is also owner of in the UK. They and -- their business model historically was providing technology to end-users so you know the first few plants were [at?] landfills in northern England. The Limerick facility was their third plant and they provided and installed two other plants with people, um, in different parts of England.

So the Limerick facility – it operated – it was a commercial demonstration plant so it was always intended to be the show-and-tell, so to speak, of the system. Uh, and those people who bought it – that company – they tried to raise money and build additional facilities and did not, so that facility was closed and sold, but it wasn't after several months, it was after several years.

TF: Okay, so that, that information was from a regulator in Ireland so... (unintelligible) so it created a variety of problems, so I'm skeptical. I'm a very big skeptic of technology to deal with garbage so I will just get my principles out on the table.

We have great opportunities for composting. The first necessity is that the material be clean and not contaminated with anything so that we can actually land-apply it and use it for growing plants. There are stronger and stronger markets now in the US for plastics, for paper, for cardboard, for metals, prices have been quite high in recent months. They tend to track with the price of petroleum and so doing something like that – and I think that these kinds of materials need to go for the highest use and that requires things be kept as pure as possible, with as little contamination, and so downgrading that is a strong concern for me.

So I asked the question about the size and I didn't get an answer about that. What size are you thinking?

DM: I was coming to it, Tracy.

TF: Oh, okay. I'm sorry.

DM: But yeah, I mean the facility in Delaware County is uh, permitted or we're looking for a permit for I think it's 465 tons per day, um, it depends on how many hours we operate.

TF: But you know, I think we got that from um, the division of the total by days per year.

(unintelligible)

DM: Okay, yeah, I don't know how many hours [it would operate?]. . . That size is the standard size that is going to be locating . . .(unintelligible) so it's about 175 thousand tons per year.

TF: Okay. I do want to get to the actual size of the facility but I guess even more important is where would you get the garbage from? What counties and states would be in your catchment area?

DM: Yeah, we're working right now with local providers like Casella, Twin Bridges, others. We do not, you know, we need to identify, uh, you know, if this site is going to make sense for the community – if this site is going to make sense technically. You know, we are hoping and expecting that we will divert – the cost of our waste tipping fee is going to be below what the incinerator is because we're, you know, we understand that this facility is not optimal and that there's a good chance that it will close so we're looking to divert um hopefully waste from them, that's our expectation.

TF: You may be aware – are you aware of other facilities in the area because there is another. There is an alternative right now to Wheelabrator, the incinerator. And that other alternative has a much, a \$15 [per ton] cheaper tipping fee, and that's Green Ridge in Northumberland in Saratoga County. So there is that competition and then there are other landfills as well but that is a pretty close landfill. It's on the border of Warren County. Do you have something? So it appears that right now there is ample capacity for the waste of the surrounding counties. And we believe that it's quite likely that you would have to import waste, which would be a) costly and b) would be very aggressively opposed by most residents of the area. I mean, you already have an incinerator in the next community so the thought of importing waste from beyond the immediate area is – would be highly suspect and we will oppose anything to do with another garbage plant.

DM: Yeah, Tracy, If I can make a couple points based on what you're saying. I think what's very important for people to understand is that we are essentially a non-incinerator. It's important that we – our system, is a steam-based system which will compost organic material.

TF: It's not composting. Judith, would you like to address this question?

NC: Please!

TF: This is not composting.

JE: This is not composting, no, no.

TF: We have national experts that we will bring in if you proceed with this, who are, who are nationally recognized composters who will address this. But Judith, you want to take this?

JE: Well, Mr. McSpedon, why don't you tell us what you intend to do with your end product? Where would it go? Would you intend to compost it on agricultural soil?

DM: No. And obviously and technically you're absolutely correct. We're not composting. We're applying steam and pressure at a low temperature, 166 degrees which is enough to sanitize the material but does not burn or melt any of it. We're not burning or melting anything. The only combustion on site is from the natural gas boilers, which produce steam.

But the waste itself is technically steam-exploded so by applying 70 psi for 45 minutes all the natural organic material basically explodes inside the pressure vessel – breaks down so technically it breaks the ligno-cellulosistic bonds in the organic material to therefore create a

homogenous material that looks the same, no matter if you put grass in there, if you put leaves in there, if you put food in there or cardboard or paper, it all comes out exactly the same. So, you're right. It's not composting – It's high-speed steam explosion technically of the organic material. So in terms of your question about the end use, we have worked for about 10 years on different uses of the fiber. This is with the EU government, the UK government, the Indian government, private companies, etc. and in fact, what's very interesting is that the US Department of Agriculture Research and Development facility has done autoclaving of organic waste for 15 years and has, interestingly, in parallel unbeknownst to each other, basically have achieved the same results.

JE: So we're... (interrupted by DM)

DM: Sorry If I could just finish..

JE: Yes, Sorry.

DM: No, the question is what are we going to use the end product for. There are many uses of it, in upstate NY our expectation is we're going to use it for recycled paper. So we will add the fiber to recycled paper in the mills that are locally situated and that will divert the need for virgin pulp.

JE: Have you spoken to any – I know a lot about recycled paper. This does not sound like a material that, um, a credible paper company would want to accept. Do you have contracts with recycled paper companies?

DM: We're in active discussions with them, Judith, and uh, you know the paper has been made from this fiber for about 10 years now, with paper makers in the United States and in Europe so it's obviously not going to be acceptable for very fine papers. So for example, Finch, it will not be acceptable for them but you know, the best use is definitely cardboard, OCC, CMM, some of the rougher grades um, and you know research and production has shown that we actually allow by adding our fiber into these recycled papers, you're able to recycle them more [times]. Recycled papers can only be recycled about 3 times, between 3 to 4 times, because, sounds like you know, it weakens the fiber. By adding our fiber to 50-50 blend, you're able to recycle up to 2 or 3 more times.

JE: And so, what about if you don't find a paper company that wants to take it? Would you be sending this to cement kilns anywhere?

DM: No. I mean, we could, but that's not what we're going to do. We will not break ground on any project without signed contracts. Um, you know, so this is a very exploratory stage, you know, meeting with you guys because we'd like to meet with the community, understand concerns and see if there's a fit ultimately. But you know, obviously, we will not break ground without signed contracts for our materials and – part of our message and part of our goal is to minimize transportation of the material because obviously the carbon offsets are increased by not having to transport materials.

JE: So for the members of the IDA I just want to point out that in the course of two sentences, Mr. McSpedon started by saying that this is steam composting and when I questioned that, he said that we are not composting, I think that's like a little worrisome out of the gate. I don't think there's actually going to be a likely end market with a recycled paper company for this so I think it's important to get some clarity, um, before gobbling up IDA time. What is the end product? Where is it coming from? We're talking about mixed municipal waste, right?

DM: Yeah, that's the other thing, Judith. I think it's important that people realize that we are not a garbage processing company. We are a company that produces fiber from organics. And you know, The reason why we mention composting is because people can understand it, uh, trying to explain someone technically how steam-exploded ligno-cellulosistic bonds is typically you know a little bit harder for people to get their head around, it's really a very technical issue that we're trying to simplify for people so . . .

JE: I think you'll be surprised at the level of sophistication of local grass roots. We know what composting is.

DM: By saying people don't understand that, but you know, so what I was trying to say is . . .

TF: Excuse me one moment.

DM: If we just had a 100 percent organic material and zero MSW, that's what we're going to do. Agricultural waste, recycled paper, you know, meat packing wastes, milk, milk, dairy plants, they have this, can't remember the name . . . basically the leftover from the milk process..

JE: Whey from the dairy?

DM: Yes.

JE: So you're going to accept agricultural waste, paper, meat packing waste and dairy plant waste only.

DM: Our system can process that and what I'm trying to say is that we're looking for organic material. It's not, um you know, our goal is not to process waste – it's to produce fiber and the best way for us to do that is to get as much organic material as we can. Whatever is locally available we will look to contract for.

KR: Would you commit to a contract to use only 100 percent agricultural waste for the life of the plant?

DM: Uh, well, what we will need to do is see if it's available.

TF: Actually, I would oppose that because agricultural waste should be put on the ground. There is a large demand for compost right now, for good quality compost. There is not a demand for garbage infused, um, steam-exploded fiber from mixed solid waste to go in our paper. If that were to be done, that paper would be potentially contaminated with all kinds of chemical

contaminants and it would make uses – it would create a new problem for paper, including for recycling that paper um and you know, it's just creating a new problem. A lot of ideas for managing garbage or managing any of our environmental (unintelligible) create downstream consequences that no one imagines. I just want to take a break. I admitted someone else into the meeting, and I have no idea who they are so let me just ask this person 518-321-6858 to introduce themselves. You'll have to unmute whoever you are.

MB: That is Jim Thompson.

TF: Oh, okay, no problem. Sorry about that.

JT: That's okay.

JE: Could we just go back, and I'll yield the floor. I'm really interested on where it's coming from and where it's going. So when you mention you're talking to Casella and Twin Bridges and presumably other haulers. Are you talking to them only about accepting their source separated paper and cardboard which they currently have markets for or are you talking to them about taking other portions of the residential and commercial wastes that they have in their region?

DM: Other portions of their . . . Basically, any of their waste that they are looking to dispose of at the tipping fee, uh. You know, there are in any contract we've signed around the world, we tell the waste companies, you know, there's an agreement on what it is they can bring us and what they can't bring us uh, and we're tracking to meet at a minimum, uh, the amount of organics that are, you know, whether it's EPA or DEC or local regional waste characterizations list in the waste stream. So, we're not . . .

JE: So you'll take whatever they're picking up and bring all of the mixed municipal waste to your facility?

DM: If that's what they're going to deliver as long as it has minimum organic content as waste.

JE: And what happens to the non-cardboard and non-papers?

DM: Yup. Great question. Basically we sanitize all of those materials. We clean them uh and we send them to recycle.

JE: Non-recyclables. Let's say you got, you know, number 3 to number 7 plastic or you have plastic film that's all in the mixed municipal waste stream. What do you do with that?

DM: There are recyclers that take that material. It's not worth nearly as much . . .

JE: There's no recycling markets for it. I have to tell you this is a very troubling presentation. Many, many red flags and um, I really think before you eat up the time of local officials and citizens, you've got to have clearer and more honest answers. The fact that you say that this is to compost and then it's not – and then it's to just recycled fibers but you're taking mixed

municipal waste and then you're going to find markets for things that no one else in the world can find markets for is deeply troubling.

DM: Well Judith, what I can say is, uh, there, when you talk about honesty, please qualify that because that I take offense to it. I'm being totally honest with you and totally open. And, you know, I haven't come with a presentation or an army of people to try to railroad you guys or smokescreen you guys. We're being very open. And you know, the fact is we're at early exploratory stages. I can tell you that our intention is literally that everything that can be recycled within the waste stream – that is our business model. So talk about some of the lower value plastics – there are markets for those things. Okay, and so we have markets for those things.

JE: Yeah, it's burning them in cement kilns.

DM: I will not be , we will not be sending any material to be incinerated in any, in any facility whatsoever.

JE: Well, it seems like what you're presenting does not make sense in the world of modern solid waste management.

DM: In what way?

JE: There are some really big details missing here, when you say you just want to . . . well you say you want to um, use fiber to be an input for recycled paper, but you're going to take mixed municipal waste. I mean, just think of what's in everyone's waste stream, uh, a very small under 50 percent is paper and cardboard, so most of what you're going to be accepting is not recyclable.

DM: The waste characterization which is publicly available, uh, shows that approximately 55 percent of the waste stream will (?) be composted. Because you're forgetting about the food, you're forgetting about the food, paper, cardboard grasses, yard trimmings, add up to about 55 percent of the standard EPA reported waste stream.

TF: Yard waste often does not go in the garbage. There are many other ways that yard waste can be treated. There's a growing movement to divert food waste . . .

JE: But there's actually a law in NY state . . .

TF: For large generators, and it will ultimately go to smaller generators. So that waste stream will disappear within five or ten years. And we will be working to help disappear that because we believe it's a higher use to compost it.

DM: We agree with you and uh, we have spoken extensively, uh, with the DEC regarding the CLCPA, and they have, uh, they're discussing with us where our system will fit in to that requirement for large generators.

TF: Okay, he's talking about the Climate Leadership [and Community Protection] Act.

DM: Yes, and you know, the January first law coming up that Judith is referencing . . .

TF: No, that's not in that law, that is the food donations and food preps law.

DM: Good. So, you know that as far as that process is, um, our system, we believe and we need to work with the regulators on this, will comply with that goal because we are taking food and turning it into a higher and better use. Um, you know, each of our facilities, according to life cycle analysis which has been approved by the UK and EU governments, we offset 200,000 tons net of CO2 equivalent per year.

TF: Okay, so I think we'd like to see a full carbon life cycle analysis. But the thing that is, of the many things that are totally absent from your plan, is the fact that there are toxic substances thrown in the garbage and they will be in the fiber, they will contaminate the organic fraction as well. There is nothing about your plan that will keep those contaminants out, whether we're talking about PFAS contaminants or other household hazardous wastes or solvents or all kinds of things. And I would, you know, just as I would never want to put any kind of organic material that had been in mixed garbage in my garden or on the land where the food I eat grows. I would never want to use paper that comes from a mélange of stuff of -- we all know that -- you may not be aware of this -- but single stream recycling is far more contaminated than dual stream. Dual stream is the way recycling used to be picked up curbside and some communities are returning to dual stream. I'll call on you in a moment, Nancy. Dual stream has one stream for the fiber, for the paper and the cardboard and one stream for the containers, the metals, plastic and glass, and the contamination rate there is 5 percent. The contamination rate for single stream is 25 to 30 percent. And the contamination rate when you mix it all up is humongous. So it is far more expensive to remove recyclables by category, by commodity, in the single stream sorting facility than in a dual stream. And when it is mixed with garbage it is virtually impossible to get good value.

Before you respond, why don't we just hear from Nancy?

NC: Yes, that very thing that Tracy was referring to, the separation of the compostable material, and looking at your promo video online, waste material can be easily seen and there in the video was a conveyor belt filled with trash all in plastic bags. So the idea that you can pull out the compostable, meaning, you know, the baby diapers and you know, all of the food and mixed trash that is in the single stream as opposed to what Tracy explained with the dual stream, it seems improbable that you could really have a clean product.

KR: Can I add that you've uh, Mr. McSpedon, you've made a number of statements about, uh, where the garbage would be coming from and how you would not take this type of trash or that type of trash and how you would dispose of the waste. Um, I think it would be very naive of, the IDA or anyone else to accept those statements at face value, and I think they would all have to be made part of a contract that would endure for the life of the facility. So, and I find it very hard to believe that you could make any of those commitments for the life of the facility.

TF: Especially, since many of us are working to change the way garbage is managed. And to get many of these materials out of the waste stream entirely so that they go to beneficial uses, such as composting, such as recycling to new paper, to new paper to cardboard and there is much higher value in doing that. It just requires a little bit of sorting to begin with at the waste generator end, at the residential or the business end and then there is good value. But once it's all mixed up, it is all over.

And are you proposing that there are going to be people from Fort Edward working on a conveyor belt, sorting this garbage? And the smell?

DM: No. It's fully automated.

TF: You automate it? How?

DM: No one's handling anything in the facility. So, and again, when everything goes through our autoclave it's fully sanitized and sterilized to CDC standards. We don't process any medical waste. What Tom Wilson was referring to is if you see a tire, if you see, you know, a mattress, those are the things that would be pulled out on the floor, just like they would be in any transfer station. You know, those are not things that are supposed to be in the waste stream, um, and you know, certainly DEC is very good at regulating what material is allowed in what facility, and that's their job, and that's something they monitor and we certainly support.

JE: Would this be the first um – if you were to get IDA approval and DEC and local permits, would this be your first operating facility in the United States?

DM: Uh, well, we're expecting Delaware County will be our first operating one but we would look for this to be the second or third, depending on the timeline and the process.

TF: Do you have any facilities operating in Europe at present?

DM: Yes, we do.

TF: Could you give us any information on how to contact them?

DM: Uh, I cannot. They're under strong NDA [Non Disclosure Agreements] uh, with the customers. You know, really, Tom Wilson and his crew again were contractors who provide technology to those customers and we're not at liberty to release any information about them.

JE: So you have operating facilities in Europe but you can't tell us where they are?

DM: They're in the UK. That I can tell you.

JE: The UK is pretty, pretty big.

DM: It sure is. It sure is. Big country.

JE: Okay, again, I've never heard of this. Usually when you hear from vendors, they are proud of their other facilities, want you to come visit, give you the details. This reminds me a lot of, um, in Rensselaer County many years ago, there were proposals to build co-composting facilities, um. It sounds just like this minus the autoclaving piece. And, not only were all of them abandoned, never built, but the eastern Rensselaer Solid Waste Management Authority was set up to attract this technology, get it constructed. That solid waste authority was abolished and the only thing standing in the end here was millions of dollars of debt. Um, and this sounds – you know, this is not my first rodeo. This sounds remarkably similar plus the autoclave provision. It also sounds a little similar to Bio Hi Tech, which is struggling to get approval in the City of Rensselaer where they're going to import mixed municipal waste, dump the waste in big pits, dry it out, um, and then send it to cement kilns in Pennsylvania. I don't know if it's going to get through permitting, but I think it's important for the IDA to do some research on similar proposals in the region and what their fates were.

TF: Also . . .

DM: I want to point out, Tracy and Judith, is that within the waste sector, and again, organic waste, I would call it, uh, you know, approximately 160 million tons of waste is going to landfills every year. You know, if you look at, you guys are very well aware, you're very sophisticated, as you mentioned, if you look at COP26 and the latest IPCC report, the number one way that we as society can impact greenhouse gas emissions right now is attacking the methane issue. And 16 percent of methane in the world is produced by rotting organic material. Uh, over 58 percent of methane emitted in NYS is from rotting organic material. So, you know, there's a lot of technologies that are coming out right now and you know, you mentioned the Bio Hi Tech, I'm aware of them, you know. Georgia Pacific paper, you know when you say, Judith, you doubt if paper would be made, if you look at a company called Juno online – they use autoclaves of solid waste for Georgia Pacific to produce paper. They have a fully operational plant in Oregon. And they're going through the process of permitting two new facilities in North America and they are making paper out of it.

You know, there's a lot of, as you guys know yourselves, on the composting area, throughout the waste industry. Not just municipal solid waste or organic waste material – there's a lot of stuff going on right now. If you look at the technology, there's, I'm aware of 10 to 15 companies that are attacking the problem in a different way of trying to eliminate this methane-creating waste [going] into the landfills. We all share that goal.

TF: I think it's insane to throw a lot of technology at fossil fuels, because this is a fossil fuel operated plant, correct? You do not autoclave without a strong heat source which creates pressure without (unintelligible)

DM: Yes. We're using natural gas at this facility, propane in Delaware County. You know, when they make boilers that are large enough, we'll use electric generators.

TF: Okay, so let's go back and talk about – I'm really interested in how big the facility would be. Could you provide some dimensions for the actual autoclave vessel?

DM: Sure. The autoclave is (unintelligible) 60' x 10'.

JE: Tracy, go on mute when you move your papers.

TF: Oh, I'm so sorry. Thank you.

JT: Can you go back to the size I didn't hear much of it.

DM: What's that?

JT: You started describing the size. I didn't hear much, so if could you fill it in please?

DM: Sure, it's 60 foot long and 10 feet high, autoclave, um that, um, so basically our buildings are divided into 3 sections. You have the tipping floor area which is where organic materials, MSW [municipal solid waste], are brought in. That entire building, because there's 3 separate buildings that are co-joined. That building is under negative air pressure, uh, with you know, best in class um, odor containment and management systems inside of that, but the building's under negative air pressure.

The size of that building depends on the – ultimately, the way that waste is being brought there. Okay, the maximum size, uh, that DEC would allow is essentially a 3-day potential up to 3-day storage which would be about 40,000 square feet. You know, the expectation is up in Washington County, if that project were to go ahead, but it will be smaller than that because there's no need for 3-day storage. Um, so, uh, that building is approximately 40,000 square foot.

The second building which is the processing building where the you know boilers, steam plant, uh piping, autoclaves, conveyors, uh, are operating, that's about 40,000 square feet as well. And then you have the product building which is the third building where the uh mechanical handling system will separate out all the recyclables, so plastics, any glass, any metals, any cans, those are all separated out, and then the fiber is then prepared for shipping to a client. If it's going to be in fibrous form, it may or may not be dried, um, you know, paper companies like to have a certain moisture level which means we may not have to dry it which we'd be thrilled with -- reduces energy, etc. Or, um, you know – and if they want it in containers or bags or however it is that they want to see this material will be in the product building. So that again is designed approximately 40,000 square feet, so the total is about 120,000 square foot, um, but again I believe the building in Washington County will be smaller.

TF: And how much, um, natural gas would you be using per day or per year?

DM: Yeah, it's a full time load of the facility is about, let me see I think I have it here, um, it's about 30 million BTUs per hour, so I can find the calculation how many CFMs (cu feet per minute), how they calculate natural gas, but it is, you know, it produces, um, 30 million BTUs per hour.

KR: Mr. McSpedon, just to clarify 'cause I'm, uh, you're describing a plant but in fact no such plant has been built yet. Because you're still applying for your permit in uh Delaware County.

DM: Yeah, in North America we have not built one of these facilities. We are introducing it into the marketplace.

KR: Did you build, you know, you won't tell us where the facilities are, did you build the facilities or what, what was your involvement with those facilities?

DM: We provided the steam technology and the autoclave. That's the proprietary technology that we own. Everything else is brought in from other companies, that are, you know, for example, the material handling facilities and the material handling system, the sorting equipment, you know that's installed in over 600 facilities in North America . . . alone (?).

NC: How much new water would you be using for the production of this fiber?

DM: Yup. We, uh, the system uses an average load of 500 gallons per hour and a peak load of 1,000 gallons. Um, so it averages about 500 gallons an hour that's brought in. Within our system, there are two autoclaves in each plant and the autoclaves, because it's called a continuous batch process, so one is operating, so breaking down the organic material while one is loading and unloading so the steam that is generated to breakdown the organic material into fiber, uh, that steam is evacuated and vacuumed out of the autoclave through a water cleaning and condensing system and then it's reused in the next batch. So we're constantly recycling water. Really, the water that is sent to the sewer system is in the EU and the UK, classified as gray water, um, because the water is really from the boiler blown down so some dissolved salts and backwash and reverse osmosis system.

NC: But there is no sewer system there that is adequate, correct?

DM: Right, there would need to be at that site, and there are plans already drawn up for an extension to that facility's sewage system and we'll contribute to, to building that I know there are some funds that have been earmarked federally for that site, um, and we would, we would be contributing to that extension. (unintelligible)

NC: Does that mean, does that mean that you would be requesting to be a beneficiary in the eyes of the IDA to make them eligible for those grants?

JT: Uh, in terms of applying for the grants, there would have to be a beneficiary for that, uh, most EPA (?) applications that provide the funding do require beneficiary applications from those companies for that so the answer is yes.

JE: What are the federal funds to extend the sewer system?

JT: There may be multiple federal funds available um – there are funds available through what was the NDRC or MBRC (?), the second was Northern Borders Regional. There's also potential funds available through economic development agencies.

There are also funds available through what are called, what used to be called earmarks, and the earmarks are back which Senator Schumer's office says has looked at providing for this site. Um, plus, we think we're going to cover all that, we also have what's called a Bridge NY application.

We're looking to replace that bridge, hopefully that bridge was unfortunately a temporary bridge and it's really not a temporary bridge – um has a life cycle of about 15 years but we felt that, while there is no one at the facility to replace that bridge for a more permanent bridge that we would place a part of the funding we were looking at getting from the IDA also to replace that so called bridge. Temporary bridge.

KD: So that brings up my question, Dave, is, what is the public going to be paying for here?

JT: (unintelligible) . . . paying for?

KD: Yes, like, for example, are they going to be offered tax breaks, tax, you know, breaks to build this company? Are we – the public – going to have to put in the sewer and water? Are we going to have to put in roads? What are they offering to do and what are you offering to help them do?

JT: So, first of all, within a development like this, that any water or sewer to serve that development has to be paid for by the developer. That would be the IDA. There are funds available, federal funds, for the infrastructure to help replace those. In terms of roads, um the IDA currently owns the road that is on the way from the [state route] 196 into the facility, so we own the bridge and there will be shared maintenance on that road by the users of the facility and also Canal Corp. We have also looked at, um, other areas and looked at it so you know, right now there is no taxing on that facility. It's tax exempt through (unintelligible).

KD: I'm asking if you're going to be offering an incentive?

*JT: Thank you for using the proper words. So, actually the benefit of this is how it's going to work is because the existing facility will be assessed at current value. When it goes back into private ownership's hands, those are called a base tax so immediately the contribution from taxes from this facility will be immediate and what we call the base. So that's the building that's there, potentially the substation, potentially all the other grounds there will go back on the tax rolls and will bring – and I'm trying to work with your local assessor, trying to determine what that value will be.

What we will be working with them is on financial incentives to come here. Financial incentives will be on the improvements that are in the facility and those would step up as the facility goes forward. Our general terms are 10 years, uh, probably looking for the first five years to be 50 percent of the, not the base – the base is always the same for Fort Edward and Washington County and the school are going to find a big jump in their taxes from that area.

As soon as I talk to Roseanne Lemery [town tax assessor], I'll have a better idea of what that base value will be. So then when she assesses the improvements, when the assessment for the

improvements comes on, that they at 50 percent of the assessment for the first five years, and 25 percent from the second five years and then we'll join. But it would be great to have the contribution for sewer, contribution to get that facility running.

Over the past 4 years, the biggest detriment to that facility was two things: first of all, no one would take ownership of the road. The IDA stepped up at its own cost to take ownership of that road. The issue of what they call oh, I can't remember it now . . . I've said it so many times last year, I can't remember it. Um, Canal Corp and EPA couldn't give a permanent easement to anyone to use that road, so without a permanent easement they couldn't get their title. So when the IDA stepped up and took it now we can give them permanent easement to use that road and the facility.

So uh, there will be a contribution to probably help make that facility a lot more attractive to future, future industries. I will tell you that in the past two years a lot of people looked at that site. All of them dropped out because there is no sewer there. It has been attractive, WL was going to put their own sewer line in for their own use, but as we structure this, we'll be putting a sewer line in for the rest of the facility.

[Two people talking at once]

JT: Let me finish one thing. Out of 83 acres this facility will, um, only use like 10-12 acres down there, leaving the rest open for development within that site.

KD: I have two comments on that. One is, I can't imagine uh, what other businesses would love to share a smelly, garbage-filled site, but secondly the 25 percent off, I mean, of taxes, what's the balance for um, us, putting in sewer and road and um, or, you know, like I'm curious about the amount of money that we give away to these companies who are interested in coming here as incentives when they're million dollar companies and we're Fort Edward. You know what I mean? I don't understand why we give them such a huge incentive to come here? Why not make it 25 percent and then 10 percent, instead of 50 percent and then 25 percent? That's my only comment.

JT: I do want to say, Katie, that we're not asking Fort Edward to step up and pay for the sewer or the water. IDA will take care of that.

TF: Dave, this is important, this is an important area to discuss further. But something that has been bothering me from the beginning and I've mentioned but I've not gotten an answer is that garbage is full of chemical contaminants, and anything pulled from mixed garbage is going to be bathed in these. Especially when it's heated, it may kill microbes, but it certainly doesn't detoxify chemical pollutants. And the water will eventually go in a wastewater treatment plant and where will that water be released? I don't know where the sewer system in Hudson Falls and Fort Edward, I don't know where that, is that water discharged into the Hudson River? Does anyone know that?

JT: Wherever Fort Edward wastewater goes into, I think it goes into the Hudson River.

KD: It goes into the Hudson River, yes.

TF: Okay, so whatever is in that garbage is not detoxified, there is absolutely no part of this process that removes the chemical pollutants. When you take trash from landfills, there is inevitably going to be PFAS in that because of the PFAS from various commercial and personal care products and all kinds of things. Um, and so that same mixture is going to be in the waste, is going to be in this. And it's going to also be in any fiber that is removed for reprocessing, for being made into paper and that is absolutely not being addressed, and I don't think it can be addressed when you have a mixture of garbage. So that is of incredible concern.

JT: Isn't that the same issue they're finding with composting, too, that the chemicals, PFAS getting into it also?

TF: [Editor's note: It depends on what is being composted. In food waste alone, PFAS has not been identified as a contaminant.] I'm working with the Sierra Club in preventing the composting of sewage sludge for land application. It is a big issue. We are contaminating the future of the human race by putting it on our farmland. We're not making new farmland and so this is just another process that perpetuates that contamination problem and I don't see any notion of addressing that in this. So that is a very serious concern. Does anyone have any additional questions?

NC: My question was about the importation of garbage – where it would come from. How far away are you talking about. How far away would garbage be imported from? I mean, how could we know and control anything?

DM: That's a great question, Nancy, and look, some people have said to me you're not answering the questions and what I can tell you is we are not producing or collecting waste. We're going to contract with people that will bring that to us and I . . . you know there are certain things in a contract I can dictate and certain things I can't dictate. You know, for example, any routes that they take, we can put down which route they need to take, but where they choose to get their garbage from is their business. Now, what I can tell you is, you know, the waste companies uh make or lose money on transportation. Okay, so the more local you can keep the waste not only reduces the carbon footprint, which is very important, but actually decides if they make money or not. So we are looking to source as much of our waste as we can as close as we can to our facility. You know, we're looking to haul things vast distances, which is what they travel now for the most part.

KD: What about the river?

DM: I don't foresee anyone shipping of waste on the river, but uh, that we won't allow.

TF: That's quite naive.

DM: What's that?

TF: I think that's naive. I mean, you know, we have a history here, we have the incinerator which was built far above the capacity, the same capacity as this proposal, 500 tons a day, same capacity. The Warren and Washington IDA got into a contract with them, the taxpayers of Warren and Washington County had to pay through the nose for more than 20 years because there wasn't enough garbage to make, to insure that the incinerator operator was making a profit. I'm not saying that you're doing that same model but I, the mistake is assuming there is more garbage than is required, then is produced. We need to move in the opposite direction and you're placing a bet. You know, we're trying to move toward zero waste where there's more diversion at the source, source-separated materials. You're making a bet that we will have mixed garbage forever because that's the only way this can operate, so you're basically at total odds with the zero waste movement and that is really discouraging. We need to change the way..

DM: Tracy, I disagree with that statement. Reduce, reuse, recycle is the goal. We are looking to divert and eventually eliminate organic waste going to the landfill. That's our goal.

TF: No, no, no, no. It needs to be diverted before it gets contaminated. And it needs to get diverted until you have a very complicated and non-efficient process of removing it. Organics need to go back on the land, they don't need to be . . . you know, I mean, I come from the agricultural perspective.

DM: In as much as that can be done, we totally applaud it. We need to keep in mind that the sheer volume of the problem that we face in this country, okay, and all of these technologies that are coming up are basically looking to divert material away from where it's going now. I do not disagree with you at all that source separation of food, composting of food, you know, there is the issue of methane creation from it, but still, let's use that back on the land. You know, Delaware County has a very, very good composting system -- by the way they can't get rid of their compost, but that's another issue. We may actually use it and help them get it to customers, but you know we're all for that and look, we need to solve this problem of methane generation. You've talked about the other things, I mean, methane, it's going to kill us all.

TF: If you're using natural gas, you're involved with the methane problem because it's fracked, there's a lot of fugitive methane emissions from the fracking process, and from the transportation process, and it basically is methane.

DM: Absolutely. Our plan ultimately has a carbon footprint of about 19,000 thousand tons per year of CO2 but we offset -- our net offset is at least 200,000. The EU uses one method of life cycle analysis, which is much different than the EPA. The EPA says that 2.94 metric tons of CO2 equivalent are offset from every ton that's diverted from landfill. That puts us close to half a million tons a year of carbon offset.

TF: That subject [carbon offsets] is mumbo jumbo hocus-pocus and we will not support it and we will oppose it till the end.

KR: Can I just add that, Mr. McSpedon, you've made a lot of aspirational statements about what you plan to do and what you would do, but there is absolutely no evidence before us that you are capable of doing any of this, and again, I come back to the point that I am quite sure you would

not contractually agree to any of these aspirational representations. So this is, it's pleasant to listen to but it's not meaningful.

DM: If you guys could be more specific about where you think we're not able to execute, I'd be happy to try to help you understand.

TF: You know, the grassroots environmental movement has a very good track record of preventing these new technologies from being applied and built anywhere, both incinerators, pyrolysis, mixed [solid waste] composting, you know, autoclaving, it's only with your project from the Catskills that I ever heard of this kind of approach. It's, you know – garbage does not need to be sterilized. It needs to be separated and you know, we, the way to prevent producing problems from solid waste is to teach people and to incentivize and to promote reuse and do all these things which have been done in a number of places.

We are behind in this region but going in this direction will make us further behind and basically absolve the populace of any responsibility for their garbage and puts it in the hands of a for-profit business that has no track record in the US. And that to me is the most foolish thing that any citizenry could ever do. We've already done that once with incineration and I don't think we will allow it, allow it to go down that road again.

DM: Tracy, I understand and I certainly, you know, there's a lot of things that we share opinions on. I realize that when we're newly introducing this, our autoclaving technology to North America, people are going to want to see it before they believe it.

TF: Well, if you can't show it, show what's going on in Europe, you have not a chance.

DM: And Tracy, I understand but you know autoclaving of MSW was invented in the US in the 1940s. There are a number of companies in the US that are doing this. It's not like you know, we are introducing some – there are some technologies out there that are pretty far out there, way ahead of their time, like plasma arc system, you know, it's never been built on the planet. You know, autoclaving, there are tens of thousands of autoclaves that operate using steam in industry..

TF: For medical waste.

JE: For reuse.

DM: For everything. No, no. If you look at any composite material in the US, let's say wings for the Triple 7, any composite wing for military aircraft has to go through an autoclave in order to be cured.

JE: Right, got it.

DM: And any concrete block . . . and any concrete block in the US...

TF: Okay, Judith, you have your hand up?

JE: I just wanted to make sure that we're leaving, kind of with the same factual understanding, so Mr. McSpedon, you don't know the exact size that you anticipate this will be similar to your proposal to your proposal in Delaware County. Is it 465 tons per day?

DM: Approximately, yes.

JE: Okay, so we're looking at diesel trucks primarily because it sounds like you may be ruling out barge and rail. We're looking at diesel trucks bringing in 465 tons per day of mixed municipal waste to this site, um this company um has steam technology and autoclave uh, so they will run all of the waste that comes in through this steam technology and autoclave. Do I have that right? All of it?

DM: Uh we did not say we're ruling out rail. Rail is a very viable alternative at that location.

JE: Okay, so thank you. I'm just running through this so I have all the facts straight. So this is great – you're fact checking me in real life. So it will come in um, by either, by diesel truck or by rail and then everything that arrives at this site will be autoclaved, is that right?

DM: Yes, that's correct. Except for any items that are pulled out that are clearly not meant to be there.

JE: Yeah, right, like tires or refrigerators or something. So all of this is autoclaved and then the fiber, so the food waste, the ag waste, the cardboard, the paper is somehow separated from all of the other mixed municipal waste?

DM: Yes.

JE: How does that happen?

DM: It's a mechanical handling system that's used throughout the waste industry. So uh, you know, there's equipment that will sort plastic, glass, metal, cans.

JE: So is it like a conveyer belt that (unintelligible)

DM: Yes. A conveyor belt system with some sensors..

JE: So let me just keep going so I can understand this. So you're pulling out the fiber that is going to go to a paper company, presumably to be made into recycled paper. Let's put a big pin on that. I'm skeptical. The rest of the waste, which is the majority of what will come here was autoclaved mixed municipal waste that we think is going to be sent to recycling markets. I'd put a pin on that because there are not markets for most of that and this company has never done this before and they have patented technology in the UK ,but we are not able to know where.

KR: We don't know if it's patented, I would just add.

JE: Okay so the technology, but we don't know where, and I'm going to not go into the IDA financing stuff, but I know you'll dispute the two things I'm putting pins in, but do I have that right?

DM: Generally correct. Um, you know, in terms of we've never installed this system, we have.

JE: In the United States?

DM: No, not in the United States.

JE: Okay. All right.

DM: I would also disagree with you in terms of there's no use for the materials. Look, that's something we need to contract, so I'm not just speaking hypothetically, I'm speaking factually.

JE: Okay, so I just want to say for the IDA folks here if you were looking to market this as an environmentally sound um project that's good for the environment in beautiful Washington County, you can't do that because that's not what this project is. Um . . .

DM: Sorry, Judith, based on what?

JE: Based on what I just walked you through. Most of what's arriving here is not going to be turned into recycled paper so I'm not against technological innovation and, and progress but if you really want to do paper recycling, what you should do is contract with the haulers and just take the paper and the cardboard. Keep it source-separated. You don't need to autoclave it and send it to a paper mill. If you want to do composting, you keep the yard waste and the food waste source separated and you compost it and you would have an end market. But I think what's going on here is we have a company with a franchise to sell a steam technology and autoclave, something that does not happen anywhere else in the country, because there's no need.

DM: Judith, that's not true. It's happening..

JE: But with mixed municipal waste. There's no other place.

DM: There is, absolutely. There's more than enough places. I just mentioned to you to look up Juno Technologies. They're doing exactly..

JE: They take mixed municipal waste?

DM: Yes, they do.

JE: They use your steam technology and your autoclave?

DM: No. They use their own steam technology, but it's using [an] autoclave.

JE: Okay, all right so there may be one paper company that's using their own steam technology and autoclave so let me amend this. In 99 percent.

DM: There are others.

JE: In 99 percent of the mixed municipal waste stream, there is not a steam technology and autoclave component to it.

DM: Because it's a new market, Judith. I just want to make sure that we're being factually correct.

JE: Yeah, me, too.

DM: Okay so there are companies doing it, uh. You know, one thing I would like to continually add is that we have factual basis, not hypothetical, on the lifecycle analysis for carbon offset.

TF: Okay, so . . .

DM: Number one . . . let me finish. Excuse me..

TF: I just want to say I'll give you my email. I'd love to get this information.

DM: Yeah, so we have uh, life cycle analysis that's been confirmed by the UK government. We have a carbon offset significantly, even by EPA standards: 2.94 metric tons of CO2 offsetting per ton that's not sent to landfill. I think, uh you know, my personal belief system, because we're all talking about our personal belief systems – I think landfills are an abomination and we need to stop landfilling stuff. I mean it's just so obvious..

TF: We need to stop contaminating stuff, too.

DM: Well, yes I don't disagree with that. I like, I love composting. I do it myself. I mean, it's great. It does emit a lot of methane as well but you know let's start with the macro problem, which is yes, reduce reuse recycle but the more we can divert from landfill, you know it's an abomination to say, you know what? We should just dump it in landfill because it's somewhere else.

TF: None of us are saying that.

DM: Oh, I know, but a lot of people, do they say, well, just, I don't want it here. Um, and, uh, you know, put it somewhere else, um and uh you know ultimately we have landfill space in the area. Well, you know what? We need to continue to close landfills and put in landfills only things that can't be used anywhere else. That's my personal belief.

TF: Yes, okay, and what we would really like from the IDA is to partner with the IDA with our Zero Waste Warren County group to create an aggregation site for recyclables. That's what would be in the public interest. Not a new technology looking for a problem, I mean, you know,

there's no good fit between the technology and the problem and I don't think you could convince me of that because the basic beginning needs to be source separation, not taking mixed garbage and trying to create a consumer product out of it. That is also an abomination.

JE: That's a really good point. So, I'm sorry I forgot this, so if the haulers um already have markets for their, you know, our source separated cardboard and our paper, um, are you looking to take that from?

DM: No, they wouldn't bring it to us 'cause they make money off it.

JE: So how are you going to get enough fiber to send to a recycled paper company if you're not getting the cardboard and the paper?

DM: So the statistics as they exist – and you know all this is searchable online – EPA, DEC, various waste characterization studies that have been done, that which is diverted, thank god, and reused elsewhere, will continue to be diverted. Within the current waste stream, which is municipal mixed solid waste which, by the way, and again I know everyone kind of focuses on this but as I said, we are an organics recycling system. We want organic material, I want crop waste, uh bio solids [the regulatory term for sewage sludge, also used for paper sludge], uh any waste that right now . . .

JE: Oh, bio solids...

TF: You are not going to do anything with sewage sludge. Over my dead body, Dave, so just stop talking about it.

DM: I am mentioning organic waste streams that are in the environment right now. We are not looking to process any sludge. It's too wet. I'm saying there are organic waste streams that exist that really, other than as you said, agricultural waste needs to be put on the land, a lot of these things have no home. Okay, so . . . What I'm saying is this material exists. It is not – the current statistics on waste show that there's enough mixed paper and cardboard that's in there that we can generate fiber out of. I mean that's our business.

JE: I don't think the national numbers apply to New York because we have mandatory source separation of paper and cardboard and there are pretty good markets for that. And Twin Bridges just built a very expensive multi million dollar MRF [materials recovery facility] so I'm still stuck on how you're going . . . at your particular facility, you're going to then rely on agricultural waste to be your fiber source that you're going to send to a paper mill to make paper? Because you're not going to get much cardboard and newsprint.

DM: So, we will get the organics that are in the waste stream. Okay, and we will add . . .

JE: Why? Which is what?

DM: No and look, Judith, I agree with you that waste characterization analysis is different depending on the location. There are ones that have been done in Albany Country, that have been

done in Greene County and those are the ones that we pull the numbers from and you'd be surprised. Despite everyone's best efforts and best attempts, the waste characterizations that have been done by EPA, DEC, Albany, New York City, Connecticut, they're basically all the same. They are. And those are trends that change over time but generally speaking the organic content of the waste is actually going up because the plastics are being diverted earlier.

JE: No, no. If you talk to any sanitation department because we're all reading our newspapers online, um, paper is actually down. There is an uptick lately with cardboard from online commerce, so, though, unfortunately a lot of it is arriving in plastic. I just, I just want to conclude um, by saying this just doesn't make a whole lot of sense to me, so could we send you some written questions because we're running short on time. And then at your leisure could you answer, I mean, I've got like twelve other questions that we're not going to get to. Could we, you know, have one document . . .

TF: We'll compile it and send it to you, yeah.

JE: . . . compile it and send you our questions and ask you to respond?

DM: Judith, you can definitely uh, compile your questions, send them to me and we will look through them and answer everything that we can so, yeah.

KDG: I just looked up Juno online and they have a different . . . it says they have a proprietary process that starts by sanitizing waste in a specialized heated chamber. I'm assuming that's the autoclave.

DM: Yes.

KDG: Then they separate the valuable materials: paper, fibers, plastic, and metals and they are suitable for recycling. And then, lastly we convert the organic material into biogas, which is not something you mentioned at all.

DM: Yeah, personal . . . what they're doing is taking a portion of their material and using it for biogas, I guess. I can't speak for someone else's technology. But they're making paper out of it. If you look through the materials a little bit more, you'll see and you know, feel free, they're very good people, you know they're owned by Georgia Pacific because they want to make paper out of not using trees. Okay, the trees, the forest.

KD: All right, I will look further. Thank you.

TF: And I just want to say one source of and this is going to be gross and I'm sorry but one source of fiber and one source of material that is in the garbage are, um, baby feces and pet feces. And I'm just wondering what happens to those things in your process?

DM: Uh, all the organic materials are converted into fiber.

TF: Okay. So, could you put your email in the chat, would that be a good way so we can communicate?

DM: No problem.

TF: Thanks. And thanks for taking the time. I mean, it's..

NC: Yes, thank you very much. I appreciate you taking the time.

DM: I appreciate you guys for taking the time..

DO: (starts to speak, is interrupted by DM)

DM: Sorry, go ahead, Dave, I'm typing.

DO: No, Dane, this is, just, sorry, I've been muted and stuff like that, nobody's fault, uh just technology getting the better of me. Can you just talk about what – when your fiber is done and that the testing processes that go into, you know, after the fiber is processed because you're talking about a certain mix of because you don't want, you know you don't want a like a moist situation with municipal solid waste or organics. Can you just talk about that testing process and what you test for because I think that could alleviate concerns because there is actually a testing process after the fiber is created, correct?

DM: Yeah, you know, we've been testing fiber and by the way the USDA has also been testing the fiber they've made from autoclaving various waste streams, organics, and it's very well documented what the chemical composition is, the heating value, the carbon nitrogen, all of the different elements that are in there. So, you know, that's something absolutely that we test. And then for any client that buys fiber, they have certain requirements so we're regularly evaluating, loads, so that we can report on the fiber compositions.

TF: Okay, because you still have not mentioned anything about chemical testing, chemical contaminants, chemical pollutants, which will stay in the material.

DO: Wouldn't that show up in the testing though, Dane?

DM: Yeah, that's part of the testing, absolutely.

TF: There are a myriad of chemicals, for example PFAS testing there are 6000 PFAS compounds on the market. The common test, which is not cheap, is for 30 of those compounds. Um, so you know, that's not a testing process that anyone uses when they're testing for the composition of something like that. That is a specialized test and you have not addressed these concerns.

DO: But nobody's going to address PFAS because nobody has any solution for PFAS because it's everywhere and it's been done by uh, bad actors in the uh, in the private sector community because PFAS is everywhere.

TF: No, PFAS is not everywhere. You can keep it out, it's kind of like throwing up your hands and say PCBs are everywhere so we give up.

DO: But I grew up in Fort Edward. I glow at night too. I was right down the road from the river when all that stuff was going on. So I get exactly what you're talking about. The fact is, is that, I'm not throwing my hands up about PFAS, what I'm saying is, that it's not our creation. It's our problem. And when Dane takes there and tests the material, he's going to test for everything that he possibly can before it is submitted to a client. If you have any other tests that you guys would like to suggest and any other chemicals because his product is going to be as pristine as possible when it gets sent to a client that is going to be in contract with them, preferably the paper companies that are in abundance in the northeast community.

KDG: And industry has such a great record of being completely open and honest about their materials, as we look at the now defunct GE plant in Fort Edward.

DO: I'm not going to stick up for Fort Edward, that's not – that is now in Clearwater, Florida and all the jobs and all the family members that used to work there work in Florida and we don't have the jobs, but we got all the pollution. I totally, totally understand exactly where you're coming from, but what I'm saying is that we are also a different kind of company in the sense that we're talking to you on the beginning of our applications, not after the end of the applications. We're talking at the beginning. We're taking your questions. We're taking hostility. But the fact of the matter is, if you have any suggestions on any testing of what the fiber should be, please share them so that we can be a good steward of the environment moving forward.

(Nancy and Tracy talking over each other.)

NC: Some of us are a little um, not trusting when we hear DEC will test that, given the amount of testing um and sharing of the test results with Wheelabrator.

DO: You're talking about . . . Dane, correct me if I'm wrong, we're talking about the company testing the fiber as it goes, before it goes out the door. Is that correct?

DM: Yeah, I mean, we, the customers that use fiber will, you know, require and do require in Europe that we have, testing done on a regular basis, on a sampling basis.

TF: Okay, I will just say it's a logical impossibility that the fiber will not be contaminated. I think that the best, you know, prevention is the name of the game. And the whole process involves contamination because you're basically absolving the waste generators, and I put myself and every other resident in that category, as well as businesses and institutions, the public sector.

You're absolving everyone of the responsibility of diversion because you're saying you're just going to take mixed garbage. So you are, in fact, perpetuating the problem and that is what happened with Wheelabrator, which was called something else over the course of its history, the incinerator. [Several different corporations operated it and later owned it after the IDA sold it in the 2010s, as required by its original contract.]

Um, there is a problem when there are companies saying we're going to solve the problem by taking mixed garbage. That IS the problem. You know, if you were saying, we will take food waste, that might be a different story. I don't think so personally, but it's going to be a whole lot different than taking garbage.

DM: And Tracy, just so you know, our system is scalable downwards so um we have smaller systems that we are in discussion in the state of New York to put in just for food waste to meet the law taking effect January 1st, so . . .

TF: You know, there are all sorts of, I'm sorry, but I think, you know this is a current, real concern for me. The highest use of food waste is to keep it pure and then put it back in the soil because our soils are the biggest source of carbon in the atmosphere. We've lost many percentages of organic material from soil and we have a hard time, we're basically growing crops with chemical fertilizer because [of that], and we don't have the weather holding capacity because we lost so much soil organic matter. And we're down to one percent in many cases and that is not a great, good way to grow food and feed the planet. And it also is a, it contributes to the climate problem, not just through the release of carbon from the soil but in that you don't have the water holding capacity, and you don't have the crop or plant production capacity. So we need to not be taking crop waste and putting them through some process and then sending them to a paper mill. We need to be encouraging the use of the crop waste on the land through composting or if the soils are vital with, with a lot of soil biology, things break down really fast, you do not have a problem with crop residues. So we are going about this all wrong and I guess that's all I have to say. I think that the logic of this system is not something that makes much sense. So we'll be sending you some questions and you know, maybe we can find some mutually acceptable solution, but I strongly doubt it, and I think most of us here are going to be opposing this vigorously and um I guess that's all.

DO: Tracy, I want to thank you for setting this up, and thank you for getting the information. We've certainly covered a lot of ground here and there are certainly a lot of questions that need to be explored. And I'm pretty sure that...

TF: I thank you and the IDA folks for attending and hearing the kinds of questions that you will be hearing more about if you pursue this. And I certainly would like to talk with you about an aggregation facility because we're in talks with Warren County towns about the need for such a site for recyclables from their transfer stations.

DO: I think that's going to be more and more looked at because NYS is going to force more of the separation and force more of the disposal biosolids in different ways than is currently being handled.

TF: Well, yeah, that's currently being incinerated and [or] applied to farmlands to contaminate future generations, uh the food of our current and future generations so . . .

DO: We share one goal, is we share, we need to limit the use of incineration, especially in our area.

TF: Yes, yes, we agree with that but we think the solution is to reduce the amount of waste that needs to be disposed of by using the best practices that we all know, are aware of. So . . .

NC: Who would have thought a year ago that we would not be having plastic bags to take our groceries home? People said it couldn't be done.

TF: Yes, yes, so we have come a long way and we thank Judith and Beyond Plastics for helping with that.

Group response: Yes, well done.

TF: So thank you, and um, I'm sure we will talk again. I hope so.

DO: Just one thing on the plastic bags. I remember getting paper bags way back when, when groceries were about a tenth of the cost they are now and the bags were free. Now we've got to pay for the bags.

NC: And to cover our books for school!

TF: Well, now you can use your cloth bag and then you don't have to worry about paper or plastic. So . . .

DO: I have paper bags in my car and I always forget them when I go in. Thank you for your time.

TF: Okay, thank you. Have a good day.

