**Sooria Narsiah:** Hello everyone. Good morning or good afternoon again. I'm also joining from Calgary, actually. And thank you for tuning in and, thank you Efficiency Canada for giving us this opportunity. We are very happy to share our experiences and lessons learned from several air ceiling pilot projects across the country.

And, as we go through quick, overview of the agenda, we'll talk about Summer Hill with who we are quickly and our experience in air sealing. Some key takeaways and lessons learned and how we address some barriers to a standalone, residential performance-based air sealing program. And, introducing our calculator for that, which actually addressed some of those major barriers.

Summer Hill. So we would be proudly celebrating our 30th year, actually 30th anniversary this year, founded in 1993. We are a hundred percent Canadian owned and operated energy efficiency, energy services company. We are involved in program design and implementation with our utility and government clients from coast to coast.

We actually currently have presence in nine provinces and three territories across the country. We deliver a full suite of program implementation services for commercial and residential sectors, which could range from direct install programs through commercial and residential energy audits through contact center.

And we also do, incentive disbursement. So jumping onto air sealing pilots. So we'll introduce, what we have done so far. Over the past few years, essentially from 2021 to late, 2022, we have been exploring air sealing as a standalone measure. And the approaches to which we could deliver this through the rebate programs and as, we would've seen most of the time air sealing is offered as part of other incentive, but we have been exploring that as a standalone one.

And, so we have conducted, two residential air sealing pilots and one commercial, over the past two years. So the first one was with Enbridge, where we recruited 97 homes in the GTA. And this one we tested a performance based, air sealing program using blower door testing. So the idea here was to compensate the contractor for the amount of air sealing work that they have done.

So the more tightening they got the house to. The more we provided, the incentive amount, and this is where the calculator was developed to assist, into and like assessment of the energy savings. And we are gonna talk about the calculator a little bit further in the presentation.

The second pilot was with the city of Vancouver. Where we recruited 24 homes, and this particular objective was to test, three different measure types, essentially aerobarrier spray foam and basic air sealing. And each of those 24 homes got one of those measures. And the way we evaluated the savings for that one was to conduct a full Energuide audit before and after the air sealing work was conducted.

The third pilot is on commercial buildings, this one was a project that was co-funded by Efficiency Manitoba and, STDC, Sustainable Technology Development Canada, where we tested, 10 buildings and the process over there involved, infrared thermography. So we had, Cameras mounted on drones that flew over the buildings, took thousands of pictures, and that those pictures were analyzed.

We could identify the locations of the leaks and also quantify the losses through that. I'm, just listing out the different sponsors for the different programs, for which we are very grateful for those, for giving us the opportunity there.

**Sooria Narsiah:** So what were the key takeaways and the lessons learned from those programs?

On the residential side, first observation was the aerobarrier process is, quite financially demanding. It's about 20 half times when we compare that with basic air, sealing, or even spray foam. Spray foam or basic air sealing was averaging around $3,500 per house, while the aerobarrier was about 8,500 per house.

But that said the amount of reduction in air changes per hour was quite significant. With aerobarrier, we were looking at about 57 per cent on average. Compared to the maximum of 13 per cent with spray foam or basic air sealing. Now, that said, obviously might look like, okay, one measure's better than the other one.

But essentially what happens is depending on the house, depending on the condition. It may be the house may be suitable for just basic air sealing. Not every house needs an aerobarrier measure. Similarly, not every house needs a spray foam. So the assessment has to be done for, a case-to-case basis.

But comparing the two, these three measures on the long run, it appears that aerobarrier could be a more cost effective if we would factor GHD emissions and the cost of carbon and all that. The other observations were that penetrations were the most popular measure. So as you can see in this, graphic here, leaks are always happening in the house.

There are always gaps, when the roof is joining the top concrete floor or the basement or penetrations like these where pipes are entering the building or a conduit for electrical panels, flue gases, piping, all that. This is a lot of penetrations and we observed that penetrations were the most popular thing.

So this could give some idea how we want to tackle, air sealing as we process. Another interesting observation was that the houses that were built in the 1990s and later appeared to have the most savings potential. That seems to be quite counterintuitive, when we think that older houses would be more leaky.

So one explanation for that could be that these older houses would have probably like a house older than 30 years would have already done some retrofits. Maybe they have changed their roof already and windows and other renovations. So in that process, we have fixed most of the leaks. So that's one explanation for that.

On the commercial side, we observed that, infiltration losses through buildings could range between five to 17 per cent of the total building and villa losses. And interestingly here, the observation that we had was, most of the leaks, about 67 per cent are happening around window frames for a commercial building.

This obviously is dependent, it's a data set of 10 buildings. But something interesting to keep in mind if we are running more and more pilots like these or scanning more buildings, And, about 20 per cent leaks are happening through the roof. So just these two itself would make about 87 per cent. So if we want to consider an air sealing program for commercial, probably this is indicating that the biggest bang for the buck is probably looking at the roofs and the windows as a starting point.

We had some significant learnings as well from, these projects. One of the main observation was, contractor recruitment is a big issue. There is no actual or hardly any contractor that is specialized in air sealing work in the market. Most of the time we have to go through, either getting renovation contractors or maybe insulation contractors.

So that's difficult to find. The other, challenge was, scheduling, as I mentioned for the city of Vancouver pilot, we had to hire EA energy advisors to conduct a full EnerGuide audit before and after. Plus booking an appointment for, the air sealing involved. So that's three appointments.

And, when you have a short period of time, it becomes challenging to get homeowners to be available for three times, in a short period of time. Project cost was a big challenge, where cost of material went up, cost of labor went up. We actually had to seek for other additional budgets, and thanks a lot to our co, sponsors for those projects. One of the major challenges also is the disruption from requiring homeowners to vacate their homes, so that applies for the measure of aerobarrier. This is a measure where they have to spray the product inside the house, so the process involves removing the furniture, masking the remaining appliances in the house, covering the countertops and all that. And then the homeowners have to vacate their home for about four to five days. And this is a big disruption. It could be, even in some cases the cost also went up for those, as you could imagine, the difference you saw earlier.

Another important point in lessons learned was that the minimum air change requirement is an important one for safety. We had to keep this for 3.5 if the house didn't have mechanical ventilation and we could have done more, air sealing, if the house has mechanical ventilation. How did we address some of the barriers that we saw? The main one here was you could imagine the time and the cost that is involved in conducting a full EnerGuide audit before, and after air sealing work is done. So if we're looking at deploying a standalone measure for air sealing and using EnerGuide audits, it becomes difficult, challenging, costly, time consuming, prohibitive in some cases.

So we have tried to solve this problem by building this, calculator, which is essentially targeting only, energy losses through natural ventilation. And this calculator uses blower door testing and a few local parameters from the site. We have put it in an app so that the contractor, when they go on site, it's easy and can use that right away. So let's explain how the calculator works. Firstly, introducing what is infiltration. How does infiltration happen in the house? The first cause of infiltration is temperature difference. As you can see in this graphic. Let's say it's a winter situation where you're heating the air inside the house.

So hot air will tend to rise, and if there are gaps in the house at the bottom, cold air will enter in because, hot air density is lighter. It goes up, cold air enters the house and then drops the temperature, comfort issues, and so on and so forth.  This movement creates a pressure difference between inside and outside the house, and that is how air flows in and out.

The other cause of air leaks is through the wind. So as wind is blowing over the house and hitting corners and different sections of the building, it creates zones of low pressure and high pressure. And this again, create another difference of pressure between inside and outside the house. Because of that, if there are gaps, leaks occur.

And as air is flowing with the house, it creates some swirls, and this is what actually creates the low pressure. In fact, you can see the pattern of the soils, if you look at snow after some time on the building, on the roof. You could notice the soils and if there are gaps in those corners, yeah, it is going to leak into the house.

So in the calculator, we essentially look at calculating both the stack factor, which is due to temperature and then the wind factor due to the wind. So the first set of data that we have in there is the weather data. It is built in the calculator for the region. It is our data, our temperature, wind speed, dewpoint, temperature, humidity and all that.

And we use this to calculate the stack factor and the wind factor. We also collect other site data for example, the type of house is important. I was talking about stack factor, so the taller the house, the more the effect of this. So a house like this, which is a two-story, single family detached would have a different stack factor as a one like this, which is a one and a half story, or even the bungalow style, which is one or two split levels.

So stack factors will vary. So the app has a six group of selection available as a dropdown menu, and the contractor can select and proceed with the calculation. The reason we have this is that it could be, sensitive to the calculation here.

Choosing one house against another could impact the result by about 6per cent. The other side data we collect is about shielding. So what we mean by here is if you look at a house like this in, in an open field, maybe just trees around and compared to another house in this condition where it's more crowded, the impact of the wind on the house is going to be different in those cases.

It's important to select the proper site situation in those cases. So in this particular, aspect, we have five categories of shielding, and, by visual observation, the contractor on site could decide which one to pick. It's important to be, accurate in this as the results could be impacted by about 5per cent.

If you look at the final savings and the last, parameter that we need to collect from the site is about deteriorating condition. So we have eight categories. We have situations where the house could be on a plane, there's no obstructions around, so that the wind effect would be very different as compared to another building, which is surrounded by trees.

Or if a building is closed to the beach, that's a different kind of wind effect as well. And then we have buildings within the city. Tall buildings around them causing impact on the wind. So all of that is very important and we need to capture these from visual observations. This could impact results if we make the wrong selection by about 7.5 per cent.

We did a comparison of the major parameters of the calculator with HOT2000. So the two major parameters are, one is the leakage characteristics. So those who know what 2000 will know about the flow exponent and the flow coefficient. Our calculator matches HOT2000 to a hundred percent.

And the other variable that is used is the equivalent leakage area at 10 pascals. And for that one we were accurate, as close as 99.75 per cent with up 2000. So we'll run a quick demo here. This is the app. This is how it works. So we have a first page where we are collecting, basic information of the site. The weather data, the contractor will take some measurements of temperature, wind speed, and other like eaves heights that are needed for the calculation.

So as you can see here, the dropdown menus are showing up, or which show up in a few seconds, where it's easy for the contractor to just select a dropdown menu. And this is all factored in the calculations and then we run the first blower door test where it's a multiple point blower door test.

We would collect pressure, differential pressure, and CFM for, interval of five, pascals between 25 to 50, and then populate into the calculator. Once this is done, then the contractor goes and finish all the air sealing work and then come back and run another blower door test, a five point or six point test and record the data again in the next page of the calculator.

And, as, the data is entered, just take a few seconds. So that's literally the speed of, how the calculator works. And once the data is entered, we get results right away as we are going to see right now.

So this is a six point test. As you can see the potential incentive in that case was about $1,800. So this is how the contractor immediately knows before leaving the site. He or she knows exactly what is the incentive amount. And we have customer surveys where we collect, customer satisfaction. Right away it goes into our system and that is recorded. So this is essentially what the calculator is doing. It's calculating only, energy losses from infiltration at natural pressure. It's user-friendly it's fast, and efficient as you saw, it's ready to go. We have a few other steps to move on for fine tuning that. And to conclude, essentially, to be able to run a standalone air sealing program, especially a performance-based air sealing program, it's important to have the best balance of incentives, training for contractors, especially finding specialized contractors in air sealing.

And, educating the consumer, making them more aware. These three combined, we definitely can increase the uptick of air sealing for homes and even commercial. What are we looking at next steps? so this app is ready to go. it can be customized to, the different geography, around the country.

And we are working with our various pilot partners to explore the next steps beyond the pilots, full scale rollout opportunities are there. And then further testing, probably get more data and fine tune the model. And for phase two, our commercial air sealing we are working on finalizing some analysis right now and see how we are going to use the information to inform a commercial air sealing program.

So again, another standalone air sealing program for commercial buildings, which is technically, not much existing in the market right now. So that's all I have, for today. thank you very much for your time. Really appreciate your presence today and, we'd be happy to answer any questions.

**Allison Mostowich:** Awesome. Thanks so much. Sooria. That was fantastic. So we do have some questions in the chat and, quite a few questions about the aerobarrier, and I guess maybe some that kind of connect back to some things on the larger scale I'm curious about. First of all, I'm curious to know, the aerobarrier measure. How much of the measures that you were using in the pilot were covered by different incentive programs or potentially greener homes? Specifically, is there any financial incentive to choose one measure over the other?

**Sooria Narsiah:** As far as I know right now, it doesn't really matter. I think for the greener homes not too sure how the program works, but, I believe it is building the business case to make, ensure this potential savings and get the incentives from there.

But in the pilots, we didn't use any incentive as such. These were all funded by the different partners to, test the technology, but essentially, we wanted to find out how the savings compare with others, the cost and the, practicability of the measure, especially getting the right contractors on site and the other challenges as we saw.

So that was the idea, but definitely something to consider looking forward how greener homes could probably have different incentives for different types of exiting measures.

**Allison Mostowich:** Okay, great. So just continuing along with aerobarrier, Joseph had a question about the longevity of the aerobarrier measures. The longevity of those, or really any air sealing, like how many years would that improvement last for.

**Sooria Narsiah:** Usually based on industry standards and what has been also published in a lot of technical manuals, the lifetime of air sealing measure is typically 15 years.

That's what they claim to have. And I think it's safe enough when utilities are doing their calculations of, lifetime GHD equivalent savings and doing the metrics for incentives, 15 years is typically what is being used for this measure.

**Allison Mostowich:** Okay. Interesting. That's decent for a payback period too. Cause I know I harassed you with that question many times when we were working together.

**Sooria Narsiah:** Yeah, that's what I was think. You can see that it's upfront very expensive, but if you look at over 15 years, it's a different financial scenario. Yeah.

**Allison Mostowich:** Especially with the cost of electricity the way it is right now.

**Sooria Narsiah:** Correct.

**Allison Mostowich:** Okay. Pierre wants to know what is the proportion of energy loss in residential building caused by infiltration?

**Sooria Narsiah:** What we have observed is also between 10 to 15per cent. But in some rare cases, we have seen 30 40per cent that could be, in, very leaky homes.

And based on the data set that we had from the first pilot with Enbridge, we have had situations where ACH reduction has been in the range of 60 to 70per cent in some very old, houses and typically, sitting as a, percentage of loss from the billing envelope is about 15per cent on average. Okay.

We had better visibility in the case of the commercial pilot where we use infrared. That showed us, again, the same range from, it can be anywhere from five to 17 per cent. So for the house it'll be almost about the same as well.

**Allison Mostowich:** Okay. And this might be a bit too specific, but there's a question about the proportion of filtration due to extractor fans. Did you get any data on that?

**Sooria Narsiah:** So this is actually taken care in HOT2000 where, extractor fans would be, if it is not running. Obviously it is going to be natural infiltration, but if it is running, depending on the length of time, that could be significant.

So if you have an extractor fan that's running 24 hours in a house, the air leaks to that will be significant and we can model that. Definitely. In this model, we didn't consider mechanical ventilation, like extractor fans as, part of that. But it can be definitely modeled. And we do have that, like if somebody's using HOT2000 for that, we can see the extent, I think HOT2000 uses about, five or six hours of runtime of extractor fans in the model.

So if you change that, we could see the impact.

**Allison Mostowich:** Okay. Thank you. So the next question is about, clean air. So how do you secure clean, fresh air circulation in sealed interiors?

**Sooria Narsiah:** Mechanical ventilation. Something which is very common in the market now, all new homes are being equipped by HRVs, heat, recovery, ventilators. Or energy recovery ventilators. So this is mounted in or just around the furnace in the house where it takes in fresh air from outside and that fresh air gets pre-cooled or preheated with the exhaust from the house. And then so you have fresh air with oxygen, 20 per cent going inside the house and feeding, this.

It's actually a building code. If you're tightening the house below 3.5 ACH, you need mechanical ventilation. Something like an ERB or HRV.

**Allison Mostowich:** I believe you. I'm not a technical person, so that sounded. Sounded right.

**Sooria Narsiah:** That's right.

**Allison Mostowich:** You're, I know, you're right. Okay, so a couple questions about, hopefully you know what this is. I don't. H2K. So we have a couple people just noting that they're seeing some similarities with, the H2K tool. And, just wondering how this product differs, how the app you've built and the calculator you've built is different or is better than H2K.

**Sooria Narsiah:** Yeah, that's good question. And I didn't mention that before cause I was waiting for the question.

In fact, so H2K is HOT2000, so it's abbreviated H2K. The calculator actually is, using this exactly the same principle that is used in HOT2000. This is based on the Alberta air infiltration method. It's the same formula, it's the same thing, which is used in HOT2000. So this is essentially an extraction of HOT2000.

But only for air sealing natural ventilation. That's why we see there are similarities, closed are very, we tested against this, industry accepted tool so that, we know we are on the right track. It uses the same technique, same formula as used in HOT2000.

**Allison Mostowich:** Okay. I should have known that. Okay. Thank you. This is a really good question. Has Enercan shown any interest in potentially using this technology for their energy advisors, for the Greener Homes program?

**Sooria Narsiah:** This processes are on our list to approach them and have this conversation to see what procedures and process for them to validate the tool. And then take it to market. So that's definitely on our bucket list for next steps.

**Allison Mostowich:** Yeah, that would be amazing. I know that Enercan's actually quietly doing a review at greener homes right now. I would just encourage anybody that's on the call right now to, if you do have feedback and so many of us do have feedback about greener homes. Now would be a really good time to send it to Enercan. They are doing sort of a quiet review of the greener homes program. Okay, so another question about mechanical ventilation. So what scope is there for adding mechanical ventilation to remove the minimum air change limit in older homes without air exchangers?

**Sooria Narsiah:** Well, the house needs to breathe, which is basic thing about that. So other alternative without, mechanical ventilation is to obviously make sure the house has, an air changes per hour, which is not less than 3.5. Exhaust fans are definitely, other mechanical means of ventilation.

Probably timing the extractor fans in such a way so that there is continuous, removal of, air and get fresh air through the building. But the energy losses associated with that is significant as we could imagine. So the, the idea here is definitely, I think at this point, And this is what the building code is also recommending, having a fresh air fans that supply air into the house.

That way you can make it tighter. That answers the question.

**Allison Mostowich:** Okay. Thank you. if not, you're, to follow up. yeah. To the person that asked that question, if it didn't quite answer it, Sooria's emails on the screen right there. Yeah. So go ahead and contact him.

**Sooria Narsiah:** Be happy to follow up. Yeah.

**Allison Mostowich:** Okay, great. So Carol, I'm gonna ask this question and hopefully I get it right, but if not, again, just check in with Sooria. So Sooria, could you give some examples of unexpected results from some of the pilots? Just mentioning that it's helpful to see the variation on a few project examples.

**Sooria Narsiah:** That's a great question.

In fact, one of the pilots where we were testing, one of the measures, spray foam in particular, we had about 15, I think about 10 homes. What happened was, This was a kind of a long process because we did the first audit and then booked the second equipment, get the spray foam contractor in.

What happened in between, the homeowners, there were two of them. They decided to do other renovations in the house in that timeframe. So this, was an opportunity for us. Look we are doing this air ceiling work, so why not fix other things in the house? And when we did the EnerGuide audit after.

Compared the results we saw, there was actually no savings. It was negative savings. So we wondered what could have happened there and when. That was an after fact where we inquired and found out that they actually did some renovations. But why did the savings went down was the question.

So we tried to dig into that and potential explanations, could be like when, you're fixing certain places, other places. Like fixing certain gaps, other gaps could open up, like contractors used to call that the whack a mole effect. So when you are, fixing a gap at some point it, other gaps open. Which was not noticed. And when blower door test was done, and the model was verified, we saw that there was no actual savings. So these are kind of unusual results, that we saw in the pilot.

**Allison Mostowich:** Fantastic. Thank you. So I'm gonna ask this question. I'm not sure. It sounds like it's a bit tricky to answer live. So Joe's asking, can you share the distribution of homes assessed based on construction year? Were there recently constructed homes, so like 12 years old, less than 12 years old, that showed significant air leakage issues, and were the homes randomly selected or based on homeowners volunteering to participate in the study?

**Sooria Narsiah:** That's interesting. Perhaps I have a slide that I don't mind sharing here. So here's something I probably could answer this question. So we could see here on the X axis, we have homes which are, from the 18, late 1800 to 20 2005, 2006. Interesting enough, the opportunity for getting, Savings from air sealing is from the houses built in 1990s and later.

And, this could be, various reasons for that, obviously. Somebody who has, lived in the house for 30 years and we won't do much of big renovation within that point. We'll wait for the time when the roof start, flying away, then we'll probably then okay, start doing the roof and then at the same time, we have some equity on the house and then do other stuff.

But that's where the opportunities there. But the houses which are 30 years or older, they would have done all of those. So this statistics actually show what could have been like, the potential is definitely houses which are newer. That answers the question.

**Allison Mostowich:** I think that's exactly the slide that was looking for.

**Sooria Narsiah:** I kept it. Yeah. Maybe the question could come.

**Allison Mostowich:** Yeah. Joe, I'd certainly reach out to, Sooria if you want that or a copy of the slides. Really hard to verbally describe a distribution. So Ken is wondering, just noting that you were using drones for the industrial buildings, I'm wondering if anyone has used drone studies by flying over residential areas, looking for houses losing the most heat to target that work?

**Sooria Narsiah:** Yeah. I actually have done it myself and in our house that's some few years back. It's not a, what’s the technology available? It is a question of deciding who wants to do it and, what sort of data we want to collect. But what I've observed from my own experience was the scan did produce similar results has been solved for the commercial buildings, obviously on a smaller scale, and it did pinpoint, areas where you could see where leaks are happening in the house.

Where there's a lack of insulation, for example, also, like in my case, was showing me that I didn't have enough, attic insulation. So this technology that we use actually gave us a, the U value of the insulation at different areas. So based on the U value, that is how they assess the energy flow through the building envelope.

You can quantify the gigajoules of energy you're losing across the envelope. So once you have the U values and it makes it even more attractive. And that's why we always recommend. In fact, when we are doing a, let's say an air sealing program, if you would combine this with a, a thermal imaging together, you'll get the best solution because then you'll know where the leaks are happening.

And you can start fixing from the use an 80 20 rule and start fixing the house from where the gaps are bigger. This is the technique of, guided, air sealing actually. So you fix the leaks, which are more prominent, and then run the blower door test. Check the results.

If you have achieved, let's say 80 per cent savings, probably, you don't need to go any further. So you can optimize the cost of retrofit in that aspect if you're combining thermal imaging with the blower door test. That would be the ideal way,

**Allison Mostowich:** Right. Yeah. And I think, on the macro level too, this is triggering. I think this is what my heat does. So there's My Heat is a technology company in Canada that has worked with quite a few municipalities to do thermal imaging of neighborhoods. So they can see in what areas in the communities have the most heat loss based on the thermal image imaging.

So if you're interested, you can go to my Heat's website and check out some of the work they've done. If I understand the question correctly anyways, Ken, okay. So just a couple more questions. So Joseph's wondering, about using feedback from the tool for contractors. So he says there are other methods to measure improvement while conducting a blower door. The gauge will directly produce the air changes per hour if the house volume is entered. Is that feedback that's being provided to the contractor right now or why or why not?

**Sooria Narsiah:** Yeah, it is. It has been definitely. And it's part of the tool itself. We haven't shown it here, but the tool also shows the initial air changes per hour.

And then the final one, so this has been, this is one has been the typical practice of assessing air tightness of buildings. We would look at, initially it changes per about 50 pascals and then look. Afterwards, the changes, but the challenge, but the issue before, it's okay, we do the per hour, but how does that equate to dollars?

How much energy losses have we fixed, in that? And that's the reason why this calculator came up where we would use the change in there, it changes per hour at 50 Pascals, but then we have to convert 50 pascals to natural infiltration because the house is not always at 50 pascals, the house is probably seven 10 pascals in general.

So we have to do it conversion, and that's what the calculator is actually doing. It's, kind of converting or normalizing changes per hour at 50 pascals to natural infiltration, which is the normal condition, and that gives you the equivalent energy savings and cubic meter of natural gas or kilowatt hour of electricity or dollar value.

And obviously you get to see the change in ACH at 50 pascals also.

**Allison Mostowich:** Okay. Thank you. So we just have time for one more question and, I apologize if we didn't get to your question in the question and answers again, please reach out to Sooria. Maybe I missed this in the presentation, but where do you find this, if you're gonna search for the app, where is it?

Is it on Summer Hills website? Where do people find this?

**Sooria Narsiah:** Yeah, and there's a good question. It's not yet there. What we have done is the first testing. It's a beta version. we are doing some fine tuning on that but definitely to, to learn more about the app.

Feel free to reach out. We are very happy to discuss further. And essentially, there is some customization opportunities out there. It'll be customized to the weather data of the region, customized to the types of houses that we have, and Also, we customize the screen in terms of what you want to see.

If you want to see percentage change in air changes per hour, you want to see dollar value. You want to see electricity or natural gas, it can be customized to that extent. We are very happy to discuss further on that. Please do reach out and, continue that conversation.

**Allison Mostowich:** Fantastic. Thank you so much Sooria for attending today and for that great presentation. This is a really neat tool and I hope it gets rolled out across many jurisdictions. Yes, as always, I am amazed with your depth of knowledge and humbled to have you here, so thank you.

**Sooria Narsiah:** Thank you so much.

**Allison Mostowich:** And thank you to everybody for joining us today. So we have the discoverEE sessions, we moved them to every two weeks. You probably noticed this, so we'll be refreshing our page in a few days here with some of the upcoming topics. I actually don't have a speaker for the next one yet, so if you are interested in becoming an ally of Efficiency Canada and presenting on discoverEE, then I would be happy to chat with you.

Reach out to me. If you have any questions, reach out to Sorria. Thank you everybody and have a wonderful weekend. Happy Friday.