**Sustainability Series: Warm Your Neighbors and Yourselves with WindowDressers Insulating Window Inserts**

Wednesday, March 24 - 5:30pm - 7:00pm

45-60 minute presentation

45-30 minute Q & A

**Slide #1**

**Introductions**

* Good evening everyone, my name is Jessica Williams and I am a volunteer coordinator for the South Portland WindowDressers Community Build.

Laura Seaton, Executive Director of Window Dressers

Taylor Strubell, Co-Local Coordinator for South Portland Window Dressers

* We’d like to thank Aaron Rosenblum of the Portland Public Library and Jessica Burton of the [Southern Maine Conservation Collaborative](https://southernmaineconservation.org/) for hosting this event and inviting WindowDressers to be a part of Portland’s Sustainability Series.
* Thank you to all of you for joining us this evening to learn more about window dressers.

**Overview of presentation**

* We are going to start by showing you a short video about Window Dressers, then we will talk a little bit more about how the inserts work and their benefits;
* Taylor and I will talk about our experiences as volunteer coordinators.
* We’ll also talk about the different opportunities to get involved with Window Dressers;
* At the end we’ll have about 30-45 minutes for your questions.

**Slide #2**

**PechaKucha Video**

* The short video we’re going to show you is a PechaKucha presentation that Laura gave in 2018.
* PechaKucha is a storytelling format where a presenter shows 20 slides and has 20 seconds to talk about each slide.
* It’s about 7 minutes long and will serve as a great introduction and overview of The Window Dressers organization.
* That video provides a comprehensive overview of the program and how the organization got started and has expanded over time.
* Taylor and I are going to talk a more about how the inserts work and why we think they and the program in general is so great.

**Slide #3 – Infrared Photo**

* Why insulate your windows?
* Well this could be your house.
* This image was taken from the outside with an infrared camera and is a good illustration of the fact that, according to the Department of Energy, heat loss through windows is responsible for 25%–30% of residential heating energy use.
* Just to be clear, if you’re not familiar an image like this, the red represents warm areas and the blues and greens represent cooler areas.
* So the outside air around the windows and doors is warmer than the outside air around the rest of the house, indicating that the warm air from the house is leaking to the outside.

**Slide #4 – Heat Loss Through Windows**

There are several reasons why windows are a source of heat loss in the home. Here we have an illustration which shows the different ways that heat loss can occur and why it might be too cold to sit next to a window in the winter time– **Air Leakage, Conduction, Radiation and Convection.**

* The pink bendy arrows show air leakage. This can occur around the frame of the window and around the moving parts of the window.
* The big orange dashed arrow represents radiant heat loss. This is due to the phenomenon known as thermal radiation, which dictates that heat flows constantly from warmer things to cooler things. What this means is that during the winter, the warmth in your home is constantly trying to escape to the cold environment outside.
* The two smaller orange arrows show heat loss through conduction where heat moves through the material surrounding the window – so the vinyl, metal or wood, heat is conducted through those materials to the outside.
* The dark red arrow shows convective heat loss inside the room. How that works is that as warm air inside a building comes in contact with a cold window, the warm air cools and sinks, creating a convection current of air near the window. So it’s cooling the inside air and can also add to the feeling of a draft.

**Slide #5- Money out the Window – Options?**

* As you can see, each winter, some of your heating cost dollars are simply going out the window.
* What are your options?
* Replacing your windows is one option but it’s very costly and even if you are getting new, high-quality double-paned windows you will still have some heat loss through the window.
* I have new Anderson windows in one part of my house, but on a cold day the window will feel cold. I now have inserts on most of those windows.

**Slide #6 – Plastic Film**

You could also do something like this; put a single layer of plastic film over your windows, using one of the various kits that are available on the market.

**Slide #7 – Insulated Shades**

* Another option would be to install insulating window shades like these.
* The ones with a honeycomb structure and ones that are quilted do an ok job BUT
* They can be expensive and the fact is,
* None of these 3 options will give you a tightly sealed, double layer of insulation AND let in the light and views.

**Slide #8 – Why Window Dressers?**

* Why do we think that WindowDressers inserts are a better solution than all of these that I’ve mentioned?
* Broadly speaking, when you purchase WD inserts, you will not only be receiving a high-quality, low-cost and effective product, but by participating in the actual construction of inserts in a collective effort you will supporting others in your community and helping save money, make homes more comfortable and reduce carbon emissions not only for yourself, but for others in your community as well.
* So now let’s look at some of the details of what I mean by this.

**Slide #9 – High Quality**

* You are going to get a high quality double-paned insert that is custom built to fit snuggly inside your existing window.
* With inserts like this in your windows, you end up with three sealed air spaces that will provide insulation against the cold.
* The first sealed air space is your double paned window.
* The second is the air space between the two layers of plastic of the insert.
* The third lies between the window and the insert.
* On a cold day, if you put your hand on your double-paned window without an insert, it will feel cold. With an insert in place, the surface of the insert will feel room temperature. So you won’t be losing heat in all of the ways described earlier and you won’t feel the “draft” created by convection.
* Another benefit of the inserts is that they can help reduce or eliminate condensation on your windows. Again, that can occur when the warm air on the inside hits the cold surface of a window pane.
* By eliminating condensation, you are reducing the possibility of mold & mildew and rot issues that can occur as a result of the moisture.

**Slide #10 – Low Cost**

* Another reason why WD inserts are a great option is the low cost relative to other options.
* We keep our insert-prices exceptionally low (50%-75% less expensive than commercial products) through our non-profit model of cooperative insert-building.
* This means that customers contribute their time to help build inserts at our local Community Builds.
* As you can see here, the average cost of an insert is considerably less than some other options.

**Slide #11 – Save Money**

* WD inserts will also help you save money on your heating bill.
* Savings will vary depending on many factors, including the type of fuel you use and the quality of your existing windows.
* Our research shows that, in a typical house, 10 inserts save an average of 105 gallons of heating fuel every year for an estimated savings of $270 per year, so that’s approximately $27/insert/year.
* Again, looking at the average cost of our inserts of either $39 or $50 per insert, they generally pay for themselves in less than two heating seasons.

**Slide #12 – Cozy & Comfortable**

* If you are losing less heat through your windows, your heating system doesn’t have to work as hard to keep you home at a cozy and comfortable temperature.
* With inserts in place you can now sit by a window that otherwise would have been too drafty to sit by and you can enjoy the winter view.

**Slide #13 – Lower Emissions**

* If we are using less fuel to keep our homes warm, our carbon footprint will be lower and that is one small thing that we as individuals can do to help mitigate climate change.

**Slide #14 - Reusable**

* The inserts are reusable and if stored with care can last about 10 years.
* Once you’ve removed them in the spring when it’s warm enough to open your windows, you can stack them either vertically or flat.
* We recommend using pieces of cardboard between inserts when you stack them and around the outside as well.
* Then you should store them somewhere where they won’t get damaged – behind a bureau, in a closet or under a bed.
* If one of your inserts does get damaged, for example if the plastic gets a tear in it, you can simply bring it to a community build to have it rewrapped for $10.

**Slide #15 – Infrared w/o inserts**

* So here’s your house again in all its infra-red glory, as it will look if you do nothing for your windows after having heard about our fabulous inserts.

**Slide #16 – Window With & Without Insert**

* This shows you what an insert might look like in one of your windows. In this picture we have a white insert just to illustrate what they look like.
* If you have pine or natural wood windows and frame you would likely choose a pine insert, and it would blend in nicely with the existing window.

**Slide #17 – Infrared With Inserts**

* With the WindowDressers Inserts in place, this is what your home will look like in infra-red light. Look at the cooler windows. The doorway is new, with better insulation.
* You will be cozier inside, you will burn less fuel for heat, and you can lower your carbon footprint.

*“I LOVE my inserts!  The infrared thermometer is pretty impressive in looking at temperatures of windows with and without inserts. Being cozy warm is so nice!”*

**Slide #18 – Low Income Program**

* An important part of the WindowDressers mission is to provide between 25%-35% of inserts, organization wide, to low income households.
* If someone wants inserts but can’t afford to pay full price, they can receive up to 10 pine inserts for free or for whatever amount they are able to contribute.
* Heating fuel is expensive and this helps low income households stretch their energy dollars and helps them stay more comfortable during the winter months.
* For me this aspect of the WD mission really resonates and is one of the many reasons I love working with WindowDressers.
* It’s not just about selling a product, we are working hard to make this accessible to as many people as possible, helping people in need while also reducing emissions and making homes more comfortable for less money.
* For us in South Portland, at our first build 11% of our inserts went to low income households and for our second build 23% went to low income households.
* We would like to continue to reach more low income households and have struggled a bit with finding the best ways to do that.
* But we are going to build on some of the things we’ve done in the past and try to increase those numbers.
* Funding for the low income program is supported by grants and by donations from people like you, so if volunteering isn’t your thing, please consider donating so that we can continue to offer free inserts to low income households.

**Slide #19 – Community Building**

* Community is really at the heart of what WD does.
* Community Builds equal Building Community and we really see this during the week long effort to get all of the inserts built.
* We rely not only on our customers to participate in this effort but also on the many volunteers who sign up for a shift just to help out.
* Local businesses have donated delicious food for our volunteers and some businesses have sent teams of employees to help build inserts as well.
* We also partnered with other local organizations that conducted outreach to their networks for us and were a source of both customers and volunteers.
* So we get a lot of great support for our work from throughout the community.
* A quick overview of what a typical day at a Community Build might look like.
* We have 2, 4-hour shifts each day, with approximately 12 volunteers for each shift.
* Each shift typically runs from 8am – noon, then we break for lunch, and then another 4 hour shift from 1pm-5pm.
* And the build runs for about 5 days.
* The first day or two we will be assembling the frames of the inserts, so gluing and screwing the precut pieces of wood together.
* After we start getting frames assembled, we start applying the first layer of double sided tape in preparation for the first layer of plastic.
* Once all of the frames are assembled, our production line starts to shift to the task of applying the two layers of plastic, the double sided tape, shrinking the plastic and finally applying the foam gasket.
* With a team of about 12 volunteers for each 4 hour shift, we can finish approximately 80 frames in a day on average.
* We ask customers to participate in one 4 hour shift for each 3-5 inserts you are receiving.
* Taylor, is there anything you’d like to add about how the builds work?

**Slide #20 – Updated Stats**

* Updated stats: To date, we have built 42,567 inserts which have collectively saved an estimated 3.4 million gallons of heating fuel from being burned since 2010!
* Looking ahead, we’re planning 47 Community Builds across Maine, Vermont, and NH in 2021 and plan to build 9,400 inserts this year.

**Slide #21 – Let in Views & Light With and Insert**

**Slide #22 – Contact Us**

**Brief History of South Portland WD Community Build**

* A little background for how Talyor and I got involved with WD:
* In 2018 we were both members of the South Portland Energy & Recycling Committee.
* I was Chair of the committee and we were in the process of looking for an energy-related project or policy that we could work on that would benefit our community and that was doable for us as a small volunteer committee.
* After lots of discussion about different options, one of our members suggested WD which I had heard of but didn’t know a lot about.
* We all liked the sound of it and agreed that it could be a good fit for our goals.
* I had a conversation with Laura and we decided to go ahead with coordinating a build for South Portland.
* We began the work of planning our first build, which honestly, felt a little daunting, but with the incredible support of WD Staff and their network of mentors, at the beginning of January 2019 we led a successful Community Build where we built 315 inserts over the course of 6 days.
* Throughout the process, we received training and support to learn how to measure windows and use the associated software.
* Window Dresser provided resources to help with outreach and advertising and again,
* I really can’t say enough about the incredible mentors who helped train us, provided guidance about how to run a successful build and also held our hands during the first couple of days of our first Community Build which gave us the confidence to go forward on our own.
* We held our second Community Build in January 2020, where we built 250 inserts.
* Once we’re up and running with our Builds, it’s so great to see all of the customers, whose windows we had measured throughout the summer and fall, and each person brings a unique set of skills to the build.
* We’ve had customers who were worried or skeptical about whether they had the skills necessary to be able to build something or do any of the tasks involved in building an insert, but they inevitably leave at the end of their shift feeling more confident and empowered saying things like, wow, that was amazing and fun, I learned something new, I met someone new, I had no idea this would be so great.
* We’ve had customers with physical limitations who were also worried about how they could best help out and there is always something for just about everybody.
* If for some reason someone is unable to attend the Community Build, we ask if there might be a relative or friend or neighbor who could participate in their place, or could they donate food or help out in some other way. So there’s always a way to participate in the build.
* You often have two people working in pairs on a task and they get to talking and I love walking around the room hearing these conversations, hearing that people have shared interests or might live near each other or be connected in some other way. So this really shows how we are strengthening the ties of our community with these efforts.
* And for me, that is one of the most satisfying aspects of the build week. It’s a lot of work and it’s tiring, but it’s the people and their enthusiasm for the process as well as the finished product that is so inspiring and makes me want to keep doing this work.

**Looking Ahead**

* We are gearing up for our third Community Build to be held sometime this fall and we are looking forward to continuing to provide this service to residents of South Portland and surrounding communities.
* We’ve actually done inserts for residents of Portland, Cape Elizabeth, Scarborough, and Saco.
* Taylor and I are also looking to expand our leadership team and to recruit more volunteer measurers.
* In the past we’ve pretty much done it all by ourselves and we are looking for some help this year.
* It’s a lot of fun, you get to meet a lot of different people and you can expect to spend a 20-30 hours total spread over 2-4 months. Not a huge commitment and it would be a big help.

**Demo inserting and removing insert**

* We hope through this presentation that you have a better understanding of how the inserts work and why the organization is so terrific especially in terms of building community by bringing neighbors together for a common purpose.
* Again, there are a variety of ways to get involved; you don’t necessarily have to get inserts.
* You could make a donation to support our low income program.
* You could volunteer during a community build, or
* Become part of an organizing or measuring team of a local build and of course if you get some inserts for your home or business we’ll see you at a community build.

**Thank you for listening, we hope you learned something new about WindowDressers and we look forward to your questions.**