Implementing Emissions Reduction Plans in Tantramar: Community Draft-Proofing Work Parties

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Contents

Contents 3
Executive Summary 4
Introduction 5
Goals 6
The draft-proofing project goals for year one were: 6
Methodology: Our Process for Draft-Proofing Success 6
Draft-Proofing Work Parties – Results Year 1 7
Summary of Workshop Evaluations 12
Challenges and Recommendations Going Forward 13
Components of the Larger Project 14
Summary and Next Steps 20
Appendix 1 – Draft-Proofing Party Application Form Year 1 22
Appendix 2 – Draft-Proofing Party Evaluation Form Year 1 24
Appendix 3 – Draft-Proofing Book Mark 25
Appendix 4 – Party Results Database, Year 1 26
Appendix 5 - Selected Media Coverage 27

Executive Summary

In summary, year one of our draft-proofing project was successful. Fourteen draft-proofing parties were completed including 12 residential parties and 2 non-profit parties. We were able to decrease drafts during the parties by an average of 13% and one home reduced their drafts by 37%! We also saved a total of 28.7 metric tonnes (annual reduction). An average of 2.05 metric tonnes of emissions were reduced per party (annual reduction). We had a total of 101 volunteers at the draft-proofing parties. Everyone who filled out an evaluation form rated the overall experience of each party as 4/5 or 5/5. More than 80% of party goers rated the parties and 8, 9, or 10 out of 10 for importance. Thirty-nine people said they were more likely to draft-proof their own homes as a result of attending a work party.

This past year over 1500 people participated in additional emission reduction activities including a sustainable living event series, bulk purchases of compost bins and reusable food wrap, and educational opportunities for adults and youth. We estimate that direct emissions reduction from these activities resulted in more than 7.5 metric tonnes of emissions being reduced and an estimated potential additional 31 metric tonnes by project participants implementing changes at home.

Our next steps involve reconnecting with our homeowners and party guests to see how additional draft-proofing efforts are going. We will improve our application and evaluation forms to make them simpler for our clientele. Finally, we will begin promoting the program for year 2.

Introduction

EOS Eco-Energy helps communities in the Tantramar region of NB implement their emissions reduction action plans to help combat climate change. A large proportion of emissions comes from residential buildings. Draft-proofing, or sealing air leaks, is a cost effective and simple way to reduce home energy needs thereby reducing emissions and improving energy efficiency.

Emissions inventories done in Sackville, Port Elgin and Dorchester in 2011 by EOS showed that emissions from residential buildings were 29%, 27% and 42% of total community emissions, respectively. These amounts represent the largest proportions of emissions in Port Elgin and Dorchester and the second highest in Sackville (after commercial/institutional emissions). These communities are members of the Partners for Climate Protection program that seeks to reduce local emissions in 5 steps. These Tantramar communities set reduction targets between 6 and 10% for community sources and between 10 and 20% for municipal operations (all below 2011 levels by 2021).

Draft-proofing a house to reduce air leakage is often the least expensive way of achieving significant savings on heating bills. Approximately 60% of our annual residential energy use goes towards heating our homes. Much of that energy can be saved though. According to Enercheck Solutions (home energy advisors), air leakage can account for 30% or even 50% of a heating/cooling bill. Even minor gaps can add up and have a major cost over time. Draft-proofing should happen before any other home reno projects, like adding insulation, upgrading heating system, or installing renewable energy. It is also one of the least expensive ways to begin reducing a building's emissions and helping to fight climate change.

EOS applied to Environment and Climate Change Canada's Eco Action program to conduct a community-wide draft-proofing project in the Dorchester, Sackville and Port Elgin areas of southeast New Brunswick, known as the Tantramar region. The project builds on a successful small pilot project and commits to draft-proofing 27 homes and 3 community buildings between summer 2018 and spring 2021. At draft-proofing work parties, a homeowner or building owner invites friends and neighbours to help them draft-proof their home or building. Everyone learns how to seal leaks from a certified energy advisor and then works together to draft-proof the building. Guests learn the skills to then draft-proof their own homes and help others. This innovative project is reducing emissions, building skills and capacity while also building community and a sense of inclusion in finding viable solutions to help fight climate change. The project gives priority to those currently underserved by government programs including low-income residents and non-profits.

This project is part of a larger project to reduce emissions in Tantramar including educational workshops on sustainable living, community outreach, and bulk purchases of energy saving items. This report provides results from year one of the draft-proofing work parties and a short summary of the larger project.

Goals

The draft-proofing project goals for year one were:

1) Increase public awareness and understanding of energy efficiency and draft-proofing in the face of climate change.
2) Increase energy efficiency of 9 homes in Tantramar.
3) Draft proof 1 community buildings.
4) Build community and increase inclusion of a wider segment of our local population in taking actions to fight climate change.
5) Help low-income homeowners and renters, as well as non-profits save money on energy costs.
6) Reduce emissions.

Methodology: Our Process for Draft-Proofing Success

The process consisted of six parts:

(1) **Research and preparation** – We updated our application form (from our pilot project), researched and purchased new/better tools, better materials (using recommendations and findings from our pilot project), created bilingual project webpages on our website (https://eosecoenergy.com/en/party/ and https://eosecoenergy.com/fr/parties/), created bilingual promotional materials, etc. We also contacted various energy evaluators to provide expertise at the parties. We partnered with Joe Waugh of Joe Waugh Construction Ltd in Corn Hill, NB and with Lauren Lipka with the NB Home Builders Association in Fredericton.

(2) **Promote the program** – We used social and traditional media to let the public know about the program. We also visited local food banks and community centres to contact lower income people specifically. Please see Appendix 3 for a brochure about draft-proofing we used to promote the program and the benefits of sealing air leaks and Appendix 5 for selected media coverage.

(3) **Accept applications** – Applications were available on our website, at local town hall offices and at the EOS office. People could also call the office and fill in a form over the phone. We began accepting applications in fall 2017. They were reviewed to make sure they met the qualifications (in need, and with priority given to lower income residents and those with non-electric heat sources. See Appendix 1 for a copy of the application form.

(4) **Coordination of the parties** – EOS staff coordinated each party, finding dates that worked for the homeowner, their guests and an energy evaluator. EOS brought party snacks, tools and materials to each 3 hour party. The energy evaluator brought a blower door unit to measure air flow before, during and after each party and a variety of additional tools. At the parties, we looked for air leaks (which were evident with the blower door which pulled air through the house), learned which ones were most important and easiest to seal, and worked together during the 3 hour party to seal them. We also enjoyed a healthy snack break which helped to build community and inclusion.

Party hosts and guests also filled in evaluation forms to measure knowledge and likelihood of particular actions before and after the party.

(5) Calculating emissions savings – After the parties the energy evaluators used Hot2000 software to calculate the reduction in air flow and emissions. The calculations included air flow readings from the blower door, size of the house, and heating source(s). Results were communicated with EOS we then forwarded them to the homeowners as well as a list of additional improvements if needed.

(6) Follow up - In the spring we will also begin following up with party guests and homeowners from year one to find out what impacts the parties had on their energy bills, comfort levels, etc. and what additional draft-proofing work was done after the parties. We will continue promoting the program and accepting more applications. As per our proposal we will create a Youtube video summarizing the project by year 3.

Draft-Proofing Work Parties – Results Year 1

Fourteen draft-proofing parties were completed in year one including 12 residential parties and 2 non-profit parties. We surpassed our original number of parties for year 1 due to funding from WA Action. Parties took place in Port Elgin, Point de Bute, Sackville, and Dorchester this year. The houses ranged in size from 457 sq ft to 3396 sq ft for residential. The non-profit buildings were larger at about 6000 sq ft each. Eleven of the 12 homes were heated by non-electric means (oil, wood, propane, natural gas). The remaining home was heated by mini-splits but was a low-income home which gave them priority as well. Both non-profit buildings were heated with mini-split heat pumps. People listed a variety of reasons why they felt they needed a draft-proofing work party in their applicatsions including:

- *We are both working artists and seniors with very low income and any help we can get to lower our heating costs would be most appreciated.*
- *It is very drafty and I feel it could be improved. I feel it wasteful for money and oil.*
- *Heat is our biggest expense, which is hard for a non-profit and it is irresponsible to the environment and we can teach the public something exciting.*
- *We're dedicated to trying to improve our home, cut down on our heating and make it more eco-friendly. We don't have a lot of experience working on our house ourselves, but like learning new skills.*
- *We've done some work but the sheer size and age of the house makes some of the draft-proofing improvements a challenge.*
- *When it is windy you can feel it inside, particularly when it is windy. Our home is lovely but old and it's economical/environmentally responsible.*

We were able to decrease drafts during the parties by an average of 13% and one home reduced their drafts by 37%! We also saved a total of 28.7 metric tonnes (annual reduction). An average of 2.05 metric tonnes of emissions were reduced per party (annual reduction). We had a total of 101 volunteers at the draft-proofing parties. Selected photos from the parties are on the following pages. For the full database of results per party, please see Appendix 4.

Selected Photos from 2017-2018 Draft-Proofing Work Parties
All photos credit to A. Marlin

Energy evaluator teaches about the blower door.

Party guest seals air leak in cupboard.

Searching for air leaks in a basement.

Caulking an air leak in a heated porch.

Installing weather stripping on a front door.

EOS staff getting ready to use spray foam to seal air leaks.

Party volunteers caulk drafts in a basement.

Pedvac draft-proofing party goers get ready to put foam gaskets behind wall sockets and switches.

Blower door unit measures air leakage while party guests seal drafts with caulking at Pedvac.

Party guests enjoy some snacks at the Pedvac draft-proofing party.

Summary of Workshop Evaluations

Evaluations received have all been extremely positive with everyone who filled out an evaluation form rating the overall experience of each party as 4/5 or 5/5. More than 80% of participants rated the parties and 8, 9, or 10 out of 10 for importance. There is a big need for such work because there are so many century homes in our region in need of repair. People were appreciative of learning where to look for leaks and how to seal them. Participants also really liked learning about the blower door and seeing it in action and being able to feel drafts easily with its use. People were very happy to learn life-long home improvement skills and come together as a community to help each other, similar to old fashioned barn raisings. Participants also loved working together and making new friends. Some participants were surprised to learn how much a difference filling small cracks can make and many appreciated learning how to caulk and use spray foam properly. The Commons and Pedvac were also very happy to have a to do list for further improvements and to know where their problem areas are. The blower door unit is an invaluable tool for saving energy.

Thirty-nine people said they were more likely to draft-proof their own homes as a result of attending a work party. Follow-up phone calls and emails will be made this spring to see how additional work is going and how party guests have made out with air sealing at their own homes. We know already that some homeowners were getting to work on additional air sealing as we were leaving and guests talked about working on their own homes and how grateful they were for having learned how to properly use caulking. One homeowner contacted us recently to tell us he did some of the additional work recommended (sealing holes in basement where spray foam was missed by professional company) and he even did an additional blower door test and provided us the updated emission savings results which we included in our summary table in Appendix 4.

Through the draft-proofing work parties, we are not only building capacity to reduce emissions, making more comfortable homes and saving people energy and money, but also building community and sense of inclusion as we tackle climate challenges together.

Challenges and Recommendations Going Forward

The project in year 1 went very well and was successful. We did encounter a few challenges along the way and have figured out solutions:

Challenge	Solution
Enercheck and many other energy evaluators were extremely busy this year due to new NB Power contracts and could not partner with us.	It was difficult to find an energy evaluator so we had to go further afield and found one in Corn Hill and one in Fredericton, NB (1 to 2 hours away). I am also interested in energy evaluator training myself (blower door and hot2000 training at least) and am looking into this for the future as there is a lack of energy evaluators at the moment in our area.
Winter weather caused many parties to be rescheduled. We had a winter filled with storms and freezing rain. Because our energy evaluators came from a distance, it meant the weather was an even bigger problem (the weather may have been okay for everyone in Sackville but not in Corn Hill).	We tried to schedule parties as early as possible in the year and gave time for rescheduling. We made sure to have contact information for party hosts so we could cancel if the weather ended up getting bad. We still got all parties completed for year 1 as per our Eco Action proposal so we managed this challenged well. Everyone was understanding about the weather and no one wanted anyone driving in icy conditions.
The program only got busy in January. Despite advertising the program beginning in early fall it perhaps took the first high heating bills of the season to get people interested in draft-proofing. We also had a very warm fall that lasted into December so people were not ready to close windows or think about cold drafts.	There may not be much we can do to change this human nature but we will continue to advertise the program year-round and hope for more interest earlier in the year (which would also avoid stormier weather later in the winter).
Low-income residents may not be able to read or may not be that connected to their community and thus may not find out about our program.	Despite going to the food bank and having local family resource centres/community centres help to promote our program the uptake was a bit slow (although we did meet your goals for the year). We will continue to reach out to groups who may have better connections with this population. Word of mouth over time will help as well.
Some people are slow to try new things.	We are hoping that with a year of draft parties

	complete that more people will hear about them and become familiar enough with the idea to sign up in the future.
Some low-income residents also lack the literacy skills to read and write or deal with the application form and/or evaluation form.	We offered for people to call the office and we could fill in their application form for them. We did this for one party host. We only advertised this option part way through the year when we realized uptake was slow so we will advertise this earlier in the coming years. For the evaluation forms, not everyone filled one out and that is okay since they are voluntary and we tried not make anyone feel uncomfortable if they didn't want to fill one out. We no longer assume everyone can read, or at an adult level. We will also work to further simplify our application and evaluation forms so they are easier and quicker to understand.
Average emissions reduction a bit lower than estimated.	We estimated an average of 3 tonnes per home but saw 2.05 tonnes on average this year. We are not concerned about this though as we still have two more years and have done more parties than originally estimated. Each house is very different in terms of its condition, construction style, etc. so each year may be quite different.
Hard to get volunteers, friends, etc. for parties	Parties took place during weekdays (due to availability of energy evaluators and EOS work hours) which made it a bit hard for homeowners to get friends to attend and for EOS to find volunteers but we did manage to get enough for the work needed. We have recently become part of a volunteer database so we have a wider pool of volunteers to pull from now. It is interesting to note also that most volunteers have been women and they have loved getting to learn more about tools and home improvements.

Components of the Larger Project

Our work to help draft-proof homes and non-profit buildings forms part of a larger project to reduce emissions, and increase sustainability and resiliency in the face of climate change. It included research into community-based social marketing, a sustainably living event series, bulk purchases of emissions reducing products, and educational opportunities for adults and youth. This past year over 1500

people participated in these additional events and activities. Further, we estimate that direct emissions reduction from these activities resulted in more than 7.5 metric tonnes of emissions being reduced and an estimated potential additional 31 metric tonnes by project participants implementing changes at home.

Community-Based Social Marketing

Community-based social marketing (CBSM) pulls from a wide array of disciplines and attempts to provide guidelines to develop effective and impactful climate change and sustainability programs. Using community-based programs is an excellent way to value local and traditional knowledge while collaborating with those affected by changing climates. CBSM also takes individual motivations and behavioral psychology into account and directs campaigns in ways that will be appealing to a wide array of individuals. EOS already uses many CBSM techniques and will benefit by continuing to do so. CBSM can help with knowing our audience, providing local accessible solutions and mitigation efforts, and communicating information to the community. Collecting information, developing and improving strategies, and continuously re-evaluating progress can all be taken from CBSM and used to improve and expand sustainable programming.

Sustainability Event Series and Tantramar Climate Change Week

The sustainable living event series had eight events. They included a hike and talk about wild edibles and do-it-yourself compost bins in July, how to make a solar food dehydrator in September, zero waste living with Bea Johnson in October (with over 100 people attending), a tour of the Eco360 waste facility in November, a talk on de-lighting the night sky including the benefits of dark sky communities was held in January, and a workshop on climate change was also held in January. The event series culminated with Tantramar Climate Change Week in February and even more events.

Laura DeGrace of Green Eye Co-op constructing a solar food dehydrator. Photo: EOS Eco-Energy

Tantramar Climate Change Week 2018 ran from February 10th to 17th. The week kicked off with a free showing of The Lorax for 25 kids and parents, and also included a nature walk (which was postponed

due to the weather), a talk about climate change and birds which had 30 people attend, art hives using recycled materials, and a re-fashion show in front of 50. It wrapped up with a free community meal by the Mount Allison University student group called Lettuce Eat.

Tantramar Climate Change Week 2018. Design by Royama Design

Art Hive events make art from recycled materials. Photo: S. Wingate

Educational Events and Activities

Numerous educational events and activities were organized for youth and adults throughout the project. These included summer camp sessions, information booths at community events, lesson plan development, a refashion program (where teens upcycled clothing and held a fashion show), sharing feelings about climate change, development of educational materials and social media posts. As a result of a talk on zero waste earlier in the year, we created the Tantramar Zero Waste Living Facebook group. It has more than 120 members and growing. It can be joined at: https://www.facebook.com/groups/338896853280046/?ref=bookmarks.

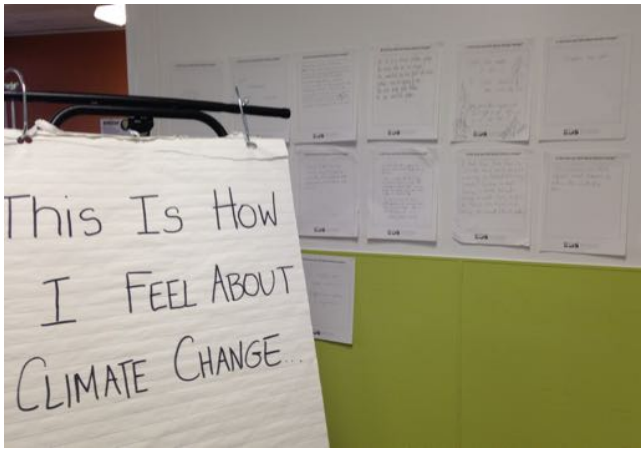
Summer campers place garbage in order of decomposition time. Photo: A. Marlin

Dorchester Sandpiper Festival. Photo: Nic McLellan

Refashion Show. Photo: A. Marlin

This is How I Feel about Climate Change

EOS coordinated a Climate Change community response wall during the above art hive events, where people could write their answer to the question: *How do you feel about climate change?* And post it on a wall for everyone to read. 20 people wrote how they feel and posted to the wall during the Art Hives. It's important to share our feelings and know that we are not alone in our worries and concerns. By sharing feelings, stress can be reduced. This exercise also shows that there is climate change related anxiety in our community. A sample of the comments are below.



Sharing feelings about climate change is one way to deal with climate stress. Photo: A. Marlin

- *"It stresses me out."*
- *"It freaks me out."*
- *"I am distressed that no one seems to be willing to make a stand in our government to make changes."*
- *"I find it scary but I am motivated to take action!"*
- *"Some days I hope mother nature wipes us all out… feels like we deserve it."*

- *"Into the woods I go… to love myself and find my soul. In fifty years there might not be a forest left to get lost in. Is it too late?"*
- *"I don't feel that I am as informed about climate change as I should be…"*
- *"It makes me anxious and I get a weird feeling in my stomach."*
- *"Mad, frustrated, hopeful, worried, inspired, motivated."*
- *"Tragic. A known problem that we collectively don't seem to be concerned about. We must look seven generations forward and do what needs to be done to have a healthy future."*
- *"Although I feel sad that climate change may well be irreversible, I'm confident that Mother Earth and some creatures will survive."*
- *"Encouraged to act!"*
- *"Anxious, scared, worried, hopeful…"*
- *"Sad"*
- *"Yes, it is a serious problem, perhaps more serious than we can imagine. But, humankind has been faced with serious problems since the beginning of time. And we've always found solutions. We will solve this problem!"*
- *"Angry! That most people think climate change is something that will happen and not as something that is happening."*
- "I feel powerless but responsible, pessimistic but responsive. I feel like this is an opportunity to get back to our humanity, the core of ourselves."

Bulk Purchases

EOS conducted two bulk purchases to help Tantramar residents reduce waste and emissions. The first was a compost bin bulk purchase (8 ordered) and the second was Abeego reusable food wrap with 57 packages (three wraps per package) ordered! We estimated that the food wrap bulk purchase is keeping 4800 rolls of plastic wrap out of landfills!

Spinning compost bins made locally by Eco-Container Co. with recycled materials for the bulk purchase. Photo: A. Marlin

Reusable food wrap bulk purchase program. Poster by A. Moore

Summary and Next Steps

In summary, year one of our draft-proofing project was successful. Fourteen draft-proofing parties were completed including 12 residential parties and 2 non-profit parties. We were able to decrease drafts during the parties by an average of 13% and one home reduced their drafts by 37%! We also saved a total of 28.7 metric tonnes (annual reduction). An average of 2.05 metric tonnes of emissions were reduced per party (annual reduction). We had a total of 101 volunteers at the draft-proofing parties. Everyone who filled out an evaluation form rated the overall experience of each party as 4/5 or 5/5. More than 80% of party goers rated the parties and 8, 9, or 10 out of 10 for importance. Thirty-nine people said they were more likely to draft-proof their own homes as a result of attending a work party.

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Our next steps involve reconnecting with our homeowners and party guests to see how additional draft-proofing efforts are going. We will improve our application and evaluation forms to make them simpler for our clientele. Finally, we will begin promoting the program for year 2.

Appendix 1 – Draft-Proofing Party Application Form Year 1

Application to Host a Free EOS Eco-Energy Draft-Proofing Work Party

Background

EOS Eco-Energy is accepting applications from Tantramar area homeowners with lower incomes who would like to host a draft-proofing work party. Draft-proofing work parties allow a homeowner and his/her guests to learn how to seal air leaks and then work together to draft-proof the homeowner's house during a party. Parties are at no cost to the homeowners. EOS will coordinate catering for the party, and cover the cost of materials. EOS is partnering with certified energy advisors who will teach the host and guests about draft-proofing and perform a before and after blower door test to measure the improvements made. EOS has funding for parties for the next three years at least and encourages many applications. EOS Eco-Energy has received funding from Eco Action (Environment and Climate Change Canada), and the Westmorland-Albert Community Inclusion Network. **Please submit your completed application form to EOS** via email (eos@nb.aibn.com), or to the EOS office at 131D Main St. PO Box 6001 Sackville, NB E4L 1G6. If you have questions, contact Amanda at eos@nb.aibn.com or 536-4487.

Application Questions

Part 1 – About you and your House

1. Your name:

2. Your address (you must live in Tantramar):

3. What is your annual household income? (Low income equals $28,500 for one-bedroom or 1 person, $33,500 for two-bedroom or family of 3-4, or $40,000 for a three-bedroom or family of 4 or more). If you are just above these levels, get in touch with EOS. Please provide a copy of your most recent income tax statement or other documentation as proof.

4. Do you own your house? (If not, you must pay the heating bills and provide written permission from your landlord to allow the draft-proofing work.)

5. What is the age of your house?

6. Have you had any renovations or retrofits done over the years (insulation, new windows, etc.)?

7. What are the dimensions of your house (a rough estimate will give us an idea)?

8. How many windows do you have? Do you know their sizes, if so list approx. sizes here:

9. How many switch plates and sockets do you have on exterior walls?

10. How many exterior doors do you have?

11. What is the style of your house (bungalow, Victorian, ranch, split level, farmhouse, etc.)?

12. What heating source(s) do you have (eg. wood, oil, heat pump, baseboards, natural gas, etc.)?

13. What wall covering do you have (eg. gyprock, wood paneling, plaster, etc.)?

Part 2 - Is your home drafty?

14. Is there condensation on the inside of your windows? Are they sweaty or tend to be dry? (not in between the panes but on the inside of your house.) Is there a lot of condensation in your bathroom after a shower or not much?

15. What does it normally cost to heat your home annually (electricity, oil, gas, pellets and/or wood)?

16. Do you have any holes or cracks in the walls, attic and/or foundation? Please explain.

Part 3 – About the Party

17. Would you be able to have about 8 friends (neighbours, family, co-workers, etc.) attend the party to learn and then help draft-proof your home? (If not, please let EOS know and we can gather volunteers to help out.) Are you okay with having friends/volunteers (non-professionals) do work on your home?

18. Is your basement accessible? How many people could fit in it (to learn about draft-proofing basements)?

19. Is your attic accessible? How many people could fit in it (to learn about draft-proofing an attic)?

20. Can EOS take photos at the party? Some may be used is EOS promotional materials and/or on our social media sites.

21. Could your party take place during a weekday between October and January? The party is estimated to take about 3 hours. If not, get in touch with and EOS and we can chose another time.

22. Why would you like to have a draft-proofing work party at your home?

23. What is your phone number and email address (or best way to contact you)?

Thank you! Please submit your answers to EOS Eco-Energy at eos@nb.aibn.com or 131D Main St., PO Box 6001 Sackville, NB E4L 1G6.
The selected homeowners for the year will be notified shortly thereafter.

Appendix 2 – Draft-Proofing Party Evaluation Form Year 1

EOS Eco-Energy Event Evaluation Form
Draft-proofing Work Party

1. Please rate the following from 1 to 5.

	Did not like				Liked a lot
	1	2	3	4	5
Content of the talks (concepts, ideas, material covered, etc.)					
Speaker/facilitator(s)					
Refreshments					
Date/time					
Price					
The overall event experience					
Other:					

2. Answer the questions below from 1 to 5 (1 being not at all and 5 being a lot).

	Not at all				A lot
	1	2	3	4	5
How much did you know about draft-proofing before today?					
How much do you feel you know now?					
How likely were to draft-proof your home before today?					
How likely are you now?					

3. What had the biggest impact on you today? Why?

4. What was the most useful part of today's workshop for you? How?

5. How important is this free draft-proofing work party program to you?

Not important Very important

1 2 3 4 5 6 7 8 9 10

6. What else do you need to help increase the energy efficiency of your home?

[ ] More knowledge about what to do
[ ] Help with the costs
[ ] Home energy audit
[ ] Insulation
[ ] Faucet aerator
[ ] Better windows
[ ] Energy Star appliances
[ ] Low flow toilets
[ ] Programmable thermostat
[ ] Home improvement skills
[ ] Clothes line
[ ] Hot water tank and pipe wrap
[ ] Led lights, low flow shower head
[ ] Other:

7. What else would you like to see EOS Eco-Energy offer?

8. Please leave any other comments or questions you may have:

(Optional) Your name: _____ Tel or Email: _____

Appendix 3 – Draft-Proofing Book Mark

EOS Draft-Proofing Work Parties

Get some friends together and get ready to draft-proof your house. You can save money, energy and enjoy a cozier home this winter!

EOS draft-proofing parties bring friends together to learn how to seal air leaks from a certified energy advisor. Work together to draft-proof your home during a FREE 3-hour party! This program is for low-income* households in the Tantramar, with priority given to those with non-electric heat.

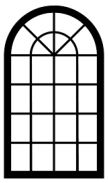
Find the application form at www.eosecoenergy.com/en/party

Program runs from Fall 2017 to Winter 2020

*Low income is defined as $28,500 for one-bedroom (1 person), $33,500 for two-bedroom (3-4 people), or $40,000 for a three-bedroom (4 or more family members).

For more information, contact us at:
eos@nb.aibn.com
506-536-4487

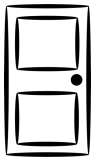
Can't host a draft-proofing party but still want to draft-proof your home? Try some of these suggestions to save energy around your house!



Check the windows in your house and be sure to replace any broken or cracked panes. You can use caulking to fill in gaps around the frame. If you'd like to further weatherize your windows, tape a piece of plastic to the inside of your windows to help insulate them.

Examine the baseboards and skirting boards in your home. If there are gaps where heat is escaping, use a spray filler to block holes and seams.

If you have a fireplace or flue that is not in use, it's possible this is a major source of drafts. Consider using a fireplace draft-excluder to help reduce escaping heat.



Check your door frame for gaps or drafts. A door sweep can be easily installed to help reduce drafts under the door and weatherstripping can be place around the frame to close gaps.

ECO-ENERGY ÉCO-ÉNERGIE INC.

WA ACTION

Ensemble pour vaincre la pauvreté
Overcoming Poverty Together

This project was undertaken with the financial support of:
Ce projet a été réalisé avec l'appui financier de :

Environment and Climate Change Canada
Environnement et Changement climatique Canada

Appendix 4 – Party Results Database, Year 1

EOS Draft Proofing Parties 2017-2018 Results Summary

Party #1	Address	Building size (sq ft)	Age /type of House	Heating source(s) (priority for non electric)	Air changes per hr before party at 50 pa	After party	% decrease in drafts	Annual emissions before party (annual tonnes)	Annual emissions after party	Annual emissions reduction (annual tonnes)	Number of people at party	Work done	Reasons for wanting a party
1	Sackville	989	~60 years old story and a half	Oil furnace and some electric that they don't use	10	9	10.00	18.71	18.38	0.333	9	Foam gaskets, installed plastic on one window, caulked in second floor closets, spray foam and caulking in cracks in basement.	We are both working artists and seniors with very low income and any help we can get to lower our heating costs would be most appreciated.
2	Dorchester	1362	80 years story and a half	forced air oil furnace	13.76	12.19	11.40	25.99	23.49	2.5	7	Closed a window, foam gaskets, closed door on flue, spray foam around basement door, spray foam around windows and holes in foundation, caulking around ceiling at porch, spray foam around hole in porch ceiling, sealed hole in porch wall.	(She is low income, lives alone in an older drafty home, a senior, and has mobility challenges.)
3	Point de Bute	457	shack on posts	wood stove only	18.61	11.79	36.65	11.82	11.18	0.64	8	sealed 18x16 inch hole under sink, foam gaskets, caulked around windows and floor in bedroom, could not install weather stripping on door (would not close), could not seal all air leaks due to carpeting, trim, things in the way, water pipes, etc.	(His house was drafty, heated with wood and he has lower income.)
4	Sackville	1700	50 year old bungalow	propane furnace, heat pump, baseboards,	5.31	4.92	7.34	13.09	12.19	0.9	7	Installed foam gaskets, cleaned out dryer vent (was stuck open). Could not close bathroom vent's exterior hatch (too high and may be damaged?).	Because I am finding it cold near the windows)
5	Point de Bute	2062	100+ year old farm house	wood furnace	11.04	9.78	11.41	53.75	46.27	7.48	6	Foam gaskets, holes in attic chimneys, holes in foundations (spray foam), removable caulking on windows on second floor, left window kits and more spray foam. ~150 year old very large house. Fire wood piled in basement didn't allow us to get to all leaks; some windows not sealed so they could be open.	Yes (She also has cancer and is unable to do the work needed on her very large and old family home.)
6	Sackville	1700	55 yr story and a half	oil and electric	10.04	8.98	10.56	23.4	21.2	2.2	5	Foam gaskets on light switches, etc. Caulking and foam in all upstairs closets, plugged hole in laundry room in basement, weather stripping on door, weather stripping on two upstairs windows, two attic hatches sealed with pealable caulking.	We know that our house isn't well-insulated and it will be nice to save money on heat. This sounds like a great initiative.
7	Sackville	3,396	120+ yr Victorian	oil and some electric space heaters	11.56	10.84	6.29	26.7	24.7	2	5	Caulking around window frames, windows themselves were okay. Caulking around water pipes by washer, caliking along base boards and around fire places. This was a very large house with two apartments. Showed homeowner additional work to do in stone basement including sealing old windows with rigid foam board and spray foam, also suggested a new basement hatch door and insulation. Also suggested sealing up old grates that allow cold basement air to come up into house. And weather stripping for door to back unheated shed and basement door. Could also seal chimney(s) from the attic if it were accessible.	It is very drafty and I feel it could be improved. I feel it wasteful for money and oil.
8	Sackville	6000 (but this includes fire station portion)	40 year old former RCMP building	minisplits	11.77	10.91	7.31	50.18	45.97	4.21	5	Numbers listed are assuming the garage door weather stripping will be fixed shortly. This building has major air leakage locations. There is no effective air barrier at the ceiling allowing air leakage in to the attic area and then on to the outside. All exterior doors require an upgrade of the commercial type door weather-stripping. Work done during the party included gaskets behind external wall sockets, caulking by one window.	Heat is our biggest expense, which is hard for a non-profit and it is irresponsible to the environment and we can teach the public something exciting.
9	Sackville	1200	69 years old story and a half	wood stove and electric baseboards	5.22	4.64	11.11	13.72	13.52	0.2	8	This house is relatively well sealed. Leakage was detected at the second floor header area below the tub which seems to include leakage behind the tub enclosure. The air tightness of this area can be improved when the homeowner renovates the second floor bathroom. Work done during the party included gaskets behind sockets, caulking around window frames, filling a hold by kitchen door, sealing the attic hatch.	We're dedicated to trying to improve our home, cut down on our heating and make it more eco-friendly. We don't have a lot of experience working on our house ourselves, but like learning new skills.
10	Port Elgin	6000	former school, 67 years old	1 heat pump, 1 minisplit	3.06	2.49	18.62	32.78	29.28	3.6	12	This building was relatively well sealed due to recent upgrades. Leakage was noted at the weatherstripping of the front door and the double side doors. Building manager is aware of these locations and what can be done to reduce air leakage in these areas. We caulked cracks by back door and around some window frames, holes in furnace room basement windows were sealed and around pipes, gaskets were installed behind exterior wall sockets, two holes (about 12x12 inches each) were patched in upstairs closets which had significant drafts.	I think there is still more we could do to make our building more airtight. Both sets of double doors have spaces you can see right through, the attic hole needs to be filled, and sometimes outside plants grow in through a couple of the basement windows.
11	Sackville	5000	160 year old Victorian	natural gas furnace connected to hot water radiators	6.29	5.77	8.27	25.96	25.27	0.59	7	Pretty much all identified leakage areas were sealed during the visit. We used foam gaskets, caulked around windows, sealed fire place with pink foam board, spray foam in cracks in basement foundation, spray foam around sky lights.	We've done some work but the sheer size and age of the house makes some of the draft-proofing improvements a challenge.
12	Dorchester	1664	100+ farm house	wood furnace, wood fire, baseboards; heat pump	6.78	5.11	24.60	31.8	31.36	0.44	8	This house was unique in that we were able to identify a number of large leakage areas which will require more intensive work to improve while only a few smaller air leakage locations were identified and improved during the visit. Areas of significant air leakage: Basement - A number of floor joist pockets were discovered to have gaps in the polyurethane spray foam air seal/insulation; Leakage behind the polyurethane spray foam air seal/insulation and stonework was suspected in the floor joist pockets. Second floor - Major leakage in the floor system originating at the floor header or rim joist area was identified. Air leakage around the brick flue into the attic was suspected. The homeowner has the skills to work on these areas that were identified and after the visit the homeowner air sealed a number of the basement floor joist pockets. Another air tightness test was then conducted which confirmed some improvement and these are the numbers included here.	To try to save on heating expenses and make it more comfortable
13	Sackville	1700	late 1800s house	oil	7.29	6.69	8.23	22.3	21.3	1	5	No air leakage locations where found that could not be sealed during visit. Areas sealed: joint between foundation and first floor sills, replaced back door weather stripping, installed foam gaskets on exterior switches and plugs. Caulked minor wall and window trim cracks.	Cool air is perceptible – particularly when going upstairs – even when heat is on.
14	Sackville	~1000	100+ year old house that had been rolled down the hill	minisplit	11.47	9.91	13.60	18.92	16.35	2.57	9	Foam gaskets installed, caulked cracks in walls, around windows, and identified three larger areas that the homeowners said they would tackle after the party including a cold cupboard in kitchen, sump pump drain in basement, and hole in attic.	When it is windy you can feel it inside, particularly when it is windy. Our home is lovely but old and it's economical/environmentally responsible.
TOTALS								**369.12**	**340.46**	**28.663**	**101**		

Appendix 5 - Selected Media Coverage

Tribune Post Sept 27, 2017

EOS accepting applications from local homeowners for free draft-proofing work parties

SOVEREIGN

Fall is the time of year to think about sealing air leaks in a home and preparing for the cold winter months. One of the most cost-effective ways to save energy and money is with draft-proofing.

EOS Eco-Energy is now accepting applications from Taiga Rise area homeowners who would like to host a draft-proofing work party in their homes.

"Draft-proofing work parties allow a homeowner and his/her guests to learn how to seal leaks and then work together to draft-proof the homeowner's house during the three hour party," explains EOS executive director Amanda Martin.

Parties are at no cost to the homeowner. EOS will co-ordinate catering for the party and cover the cost of materials. EOS is partnering with certified energy advisors who will teach the hosts and their guests how to seal air leaks and perform a before and after blower door test to measure changes in airflow.

Last fall and winter EOS tested the idea of draft-proofing work parties at three homes and the results were impressive. At the end of the parties, an average of a 17 per cent reduction in drafts was achieved. The three homes are now saving between three and seven tonnes of emissions per year.

"One family, who lived in a very old home in need of many repairs, was paying $1,800 a month on their power bills. After the work party, they saved $300/month last winter," says Martin.

One of the homeowners wrote to EOS and said, "Thank you so much for the draft proofing party. I noticed a difference immediately – The bathroom used to be unbearable in the cold but feels like a normal room now. We couldn't get our living room higher than 14 degrees C before the work but now we are seeing 18-19, which is much more comfortable – It was nice to meet all of you. I personally feel a renewed energy thanks to your support and generosity."

The parties have been described as similar to old-fashioned barn-raisings where the community gets together to help those in need.

"They are also a great way to not only build community, but to build life long skills in home improvement and resiliency," notes Martin.

Participants in the parties last year said they really liked learning how to do the work for themselves.

Parties will be on a first-come, first-serve basis as long as certain criteria are met such as income level, draftiness of the home, heat source, and location within the Taiga Rise region of New Brunswick. To find out more about the program and to apply, visit http://eosecoenergy.com/en/party/. Applications will be accepted on an ongoing basis from now until early winter 2018. Homeowners are encouraged to apply early each fall as the quantity of parties is limited to about 10 to 15 each year.

The three-year project is being funded by Environment and Climate Change Canada's Eco-Action grant and the Westmorland-Albert Community Inclusion Network. For more information contact EOS at 506-536-4487 or ecoinclusion@gmail.com. Corporate businesses interested in sponsoring a party are encouraged to get in touch with EOS as well.

Ad in Sackville Tribune-Post appeared 4 times in December and January.

CONSERVATION

EOS looking for community buildings that want free draft-proofing

PHOTO SUBMITTED

EOS Eco-Energy is offering free draft-proofing work parties this winter for municipal buildings, churches, schools, libraries, community centres, non-profit organizations, etc.

SACKVILLE, N.B.

EOS Eco-Energy is looking for non-profit community buildings in the Tantramar area that could benefit from a free draft-proofing work party this winter.

Community buildings could by municipal buildings, churches, schools, libraries, community centres, non-profit organizations, etc., that own their building.

Interested building owners can contact EOS at eos@nb.aibn.com or 536-4487 to obtain a short application form.

The parties are free and EOS provides materials, tools and party food, as well as a certified home energy advisor who will teach everyone where and how to seal air leaks. EOS can also gather volunteers to help out.

Work party participants, the energy advisor and EOS staff all work together during the three-hour party to draft proof the building.

This program is being funded by the NB Environmental Trust Fund. Residential draft-proofing parties are still available and more information can be found at: https://eosecoenergy.com/en/party/.

For more information, contact EOS at 536-4487 or eos@nb.aibn.com. Corporate businesses interested in sponsoring a party are encouraged to get in touch with EOS, as well.

Sackville Tribune Post, fall 2017