

Haul Revere Village

Millbury, Massachusetts

Wood Pellet Stoves:

Green Heat - good for the environment and your wallet

With the costs of energy going up at what sometimes seems like exponential rates many PRV members are looking for ways to reduce on their energy bills. This is especially true during the cold winter heating months.

Since most PRV members heat their townhouses with electric heat they bear the burden of the high electric costs in Massachusetts. According to official energy statistics published by the Energy Information Administration, Massachusetts has the fourth highest average residential electric rates.¹

One way to mitigate the costs of heating your townhome may be through the installation of a wood pellet stove or wood pellet fireplace insert. Wood pellet stoves burn pellets of wood formed by compressing sawdust under great pressure. They look something like rabbit food pellets. The pellets are cylinders roughly 1/4 inch in diameter by about 3/4 inch long. The sawdust the pellets are made from is usually the waste product of some other woodworking process such as the creation of furniture or wood flooring. Wood pellets generally come

packaged in 40 lb. plastic bags with 50 bags on a pallet making up one ton of pellets.

Wood pellet heat can be thought of as nearly carbon neutral since the CO₂ released during the burning of the pellets is no greater than if the sawdust had decomposed naturally. There is only a small amount of additional CO₂ generated from the manufacture and shipping of the pellets.

The burning of the wood pellets in a good pellet stove is generally about 80-85% efficient. This compares well with more common oil furnace or gas boiler heating methods.

Wood pellet stoves come in two general types: freestanding and inserts. The insert type is made to fit within the firebox of an existing fireplace. The freestanding are complete stoves that are made to be used outside of a firebox though they still need to be placed on a noncombustible hearth. The function of the freestanding or insert will be similar, but the freestanding stoves usually have a larger hopper capacity as well as a larger ash receptacle. This can mean fewer trips to the stove to add pellets or remove ashes.

(continued on p.2)

In this Issue:

- Wood Pellet Stoves- pp. 1-3
- Decks - p. 4
- FiOS Update - p. 4
- Writers Wanted - p. 4
- Pest Control - p. 4
- Yard Sale/Trash Day - p. 4
- Purgatory Chasm - p. 4
- Recipe - p. 6
- Monthly Minute - p. 6
- Word Search - p. 6

Dates of Note:

- Ant Treatment - Aug 5-6th
- Mosquito Spraying - Aug 5th



Recycling for August:

- Paper - Aug 6, 20
- Recyclables - Aug 13, 27



1. <http://www.eia.doe.gov/neic/rankings/stateelectricityprice.htm>

WOOD PELLET STOVES - CONTINUED FROM PAGE ONE

The inner mechanics of wood pellet stoves are fairly simple. The stove has a hopper which holds the wood pellets. Then there is an auger which transports pellets from the hopper and drops them into the fire pot. It is inside the fire pot where the action happens. The pellets burn while being force fed air from a blower motor to accelerate combustion and create a very hot flame. The hot air from this combustion heats a series of heat exchanger tubes through which a second blower motor pushes air. This air, after passing through the heat exchangers, is blown out the front of the stove and into your living area.



All pellet stoves use electricity to power the auger and the blower motors. If you lose power your stove will not run unless you have installed a battery backup system. You can obtain these from the supplier of your stove.

You'll find that some stoves differ slightly in design as they don't use a fire pot, but instead have a burn shelf. These stoves, such as those made by Harman, have an auger that pushes the pellets up onto a burn shelf instead of dropping them into a fire pot. The leading edge of the pellet pile on the shelf burns and as new pellets are pushed onto the shelf by the auger it pushes the remaining ash off the shelf. You'll find fierce defenders of both the top auger (fire pot) and bottom auger (burn shelf) technologies. Do some reading and decide for yourself which is best before you buy.

You'll discover that in addition to a battery backup there are other nice

features you may want to have with your stove. Some stoves are capable of self ignition which means that they can start a fire in the fire pot without the use of any fire starting materials. This is convenient, especially when coupled with a thermostat control. When the temperature in the room drops the thermostat starts up the stove. Auto-ignition and thermostat control are must have features in my opinion.

I have used a wood pellet stove here at PRV since 2003. Mine is a Lopi Pioneer model which is a free standing stove. It sits in front of my fireplace atop a custom hearth that simply lays on the existing carpet. The exhaust gases are vented through 4 inch diameter flex-piping running up through the existing fireplace chimney. I also have a custom cut piece of painted sheet steel which closes the opening of the fireplace behind the stove to help reduce heat loss up the chimney and improve the appearance of the installation. See the picture below which was taken shortly following installation before the sheet steel enclosure was added to the fireplace.



So, you may be asking yourself how much is a wood pellet stove and how much can I expect to save on heating costs? I think it best to speak from my own experience here. When I purchased my stove in 2003 it was \$2170. The custom hearth the stove sits on was \$400. Delivery, parts and labor was an additional \$1065. Remember, these were 2003 prices and the demand for wood pellet stoves has since increased so expect to

(continued on p.3)

WOOD PELLET STOVES - CONTINUED FROM PAGE TWO

pay more than I did back in 2003.

OK, now that you've had the sticker shock here are the savings. One ton of premium wood pellets retails for about \$220-280 during the summer months. The secret is to buy what you need during the spring / summer and save as the prices only tend to go up during the winter months.

I use about two tons of pellets each year in order to maintain about a 68-70 °F temperature on the two living areas. Using a pellet price of \$250/ton and about \$40 additional for delivery I am spending about \$540 to heat my townhouse for the entire winter. Contrast this the 2300 kWhs of electricity I was using each month to heat my townhouse. At today's rates that would cost me roughly \$390/month. Needless to say I was not keeping my room temperatures anywhere near 68-70 °F when I was heating with electric; 60 - 62 °F was more like it. So, by using pellet heat my wife and I are warmer and spending less each month on heating costs.

Maintenance of a pellet stove is fairly simple. Each stove is different, but in general you'll need to allow your stove to shutdown so you can clean the fire pot, heat exchangers and glass about twice each week. This takes about 15 minutes. Depending on the size of your ash pan expect to empty the ashes about 3 - 4 times each winter. It is amazing how little ash is left after the burning of one ton of pellets. An investment in an ash vacuum is

suggested as a regular vacuum isn't suited for vacuuming fine ash that may contain a hot ember lurking within. Play it safe and empty your ash into a noncombustible container with a cover. Annually, you'll need to clean the blowers and the chimney pipe. Every couple of years you'll want to replace the fireproof door gasket. Consult the stove's owners manual for specific requirements.

Depending on the outside temperature and the temperature you like to maintain inside you'll go through about 2 bags of pellets/day. My stove has a large hopper and can hold an entire 40 lb. bag of pellets. I simply cut the top off the bag and dump them into the hopper. Other stoves, especially the inserts, have smaller hoppers so you may need to dump the bag of pellets into a bucket and then scoop the pellets from the bucket into the stove's hopper. I've included a link to an ingenious pellet pail which not only will hold your bag of pellets, but will open the bag for you as you drop it into the pail.

I'd be more than happy to entertain any questions you may have about wood pellet stoves. You can reach me via:
webmaster@paulreverevillage.com

- Jeffrey Grinnell, Webmaster - PRV

A Consumer's Guide to Pellet Stoves: <http://www.woodpelletstoves.net/>
Pellet Stoves Guide: <http://www.pelletstovesguide.com/>
Pellet Stove Review: <http://www.pellet-stove-review.com/>
Pellet Fuels Institute: <http://www.pelletheat.org>
The Pellet Pail: <http://www.pelletpail.com/>

Pellet Stove Tips:
<http://www.hometips.com/cs-protected/guides/pellet.html>

Here are a few manufactures of pellet stoves to give you an idea as to what is available -

Lopi Stoves: <http://www.lopistoves.com/>
Harman Stoves: <http://www.harmanstoves.com/>
Quadra-Fire: <http://www.quadrafire.com/>

(see the PRV website at <http://www.paulreverevillage.com> for additional links)

DECKS -UPDATE

This year, we are letting all of our homeowners know that the PRV board will provide everything one would need in order to stain their respective deck themselves.

If you wish to stain your own deck email the PRV Board: board@paulreverevillage.com

Steve DiVirgilio will then assess your deck to determine which boards should be ripped up and replaced by maintenance prior to staining. After the boards have been replaced, Steve will then provide everything you need to stain the deck yourself including deck wash, brushes, rollers, stain, etc. at no cost to you as a homeowner.

There will be some delay in the replacement of the bad deck boards as the person performing this work is recovering from an accident. Please inquire with the board for an updated timeline if you are in the process of renovating your deck.

VERIZON FIOS -UPDATE

Verizon FiOS internet service and VoIP phone service is now available.

The Verizon FiOS package is being presented to the Town of Millbury on **September 8th** for approval. This means we will likely not see Verizon television service until late September or early October.

Please see Verizon's website for more information about FiOS.



FiOS Internet

<http://www.verizon.com/fios>

WRITE AND HELP YOUR NEIGHBORS

If anyone would like to share their ways of saving energy feel free to write something up for inclusion in the next issue of the newsletter as well as on the PRV website.

I know that as well as wood pellet stoves, such as in my article, some PRV members have similar stoves that run on bottled liquified propane. If anyone would like to share their experiences with this method of heating please contact me and I'll add it to the newsletter and website.



Also, we do have a forum on the website for you to share information with your fellow PRV members too.

ANTS !



Worcester Pest Control will be treating Paul Revere Village for ants on or around the dates of **August 5th** and **6th** if the weather is permitting. This is the second of three applications; the third will be in the fall.

MOSQUITOS TOO !

There will be spraying for mosquitos on **August 5th at 9 pm**. The rain date for the spraying is August 12th. Please close your windows and keep your pets inside during the application of the spray.

COMMUNITY YARD SALE AND FREE TRASH PICKUP DAY

Contact the board if you have any interest in participating in a September community yard sale. We need at least 4 PRV members to make it worth scheduling the community yard sale this fall.

Also, if you wish to participate in another free trash pickup day in September where you can get rid of junk, hazardous materials, furniture and appliances contact the board.

board@paulreverevillage.com



PURGATORY CHASM STATE PARK - AUGUST 2008 PROGRAMS

All Programs are free and open to the public. An adult must accompany children. Reasonable accommodations available upon request. For more information call Diane at (508) 234-9610.

Thursday

Aug 7, 14, 21, 28

Kidleidescope Kids Story Hour, 1-2 PM

Meet at the Purgatory Pavilion

Kidleidescope Kids is a reading-based program suited for youth from 3-6 year olds. The program features a story, a short walk and a craft that focuses on nature.

Parents/Caregivers are asked to accompany their child/children to this program.

Friday

Aug 1, 8, 15, 22, 29

Junior Rangers (ages 9-14), 1 - 3 PM

Kids, become a Massachusetts Junior Ranger! Attend five sessions on Fridays in August to learn the importance of our natural resources and the ways to protect and preserve them. The program is FREE, but space is limited. Call 508-234-9610

Saturday

Aug 2, 23

Going Bats!, 2- 3 PM

Meet at the Visitor Center

Explore the myths and misconceptions about bats. Find out about how these shy, intelligent creatures live and why they play an important role in our ecosystem.

Participate in a theme related activity. We promise lots of family fun that won't drive you batty!

Saturday

Aug 9

Scavenger Hunt, 2 - 3 PM

Meet in the Visitor Center

Participants are given a list of natural items found at the park. They will then join the Park Interpreter on a walk to locate and discuss their "finds". Suitable for kids of all ages.

Saturday

Aug 16

Rock Detectives, 2 - 3 PM

Meet in the Visitor Center

Find out about the different rocks found at Purgatory Chasm and take the "rock detective" test. Accompany the Park Interpreter on a short hike to find examples. The activity is appropriate for anyone, and the hike is suitable for anyone who is physically able to withstand a short, fairly strenuous hike. Sturdy footwear with non-slip soles recommended.

Sunday

Aug 3, 17, 31

Chasm Tour, 2 – 3:15 PM

Meet at the Purgatory Pavilion

Learn about the mysteries of Purgatory Chasm, both geologic and historic. How was the chasm formed? Why do chasm features have names like "Lover's Leap" and "Devil's Pulpit"? The tour is suitable for anyone who is physically able to withstand a fairly strenuous hike. Sturdy footwear with non-slip soles recommended.

Sunday

Aug 10, 24

Hike to Purgatory Brook, 2 – 3:30 PM

Meet at the Purgatory Pavilion

Join our park interpreter for an introductory hike along the new Purgatory Brook trail. We'll discuss the flora and the fauna and look for geologic evidence of the ice age. The hike is suitable for anyone who is able to withstand a moderately strenuous hike. Sturdy footwear with non-slip soles recommended.

Purgatory Chasm State Park is located off Route 146, Exit 6, on Purgatory Road in Sutton, MA 01590. Tel. (508) 234-9610 or 508-234-3733.



RECIPE - ORIENTAL COLE SLAW

My girlfriend gave this recipe to me during my visit to see her in New Orleans. It's an interesting and tasty salad for parties and cookouts. Enjoy!

Salad Ingredients:

- 2 packages pre-cut coleslaw
 - 2 packages Ramen chicken flavored noodles
 - 1 cup slivered almonds
 - 1/4 cup sunflower seed kernels
 - 1 bunch finely chopped green onions
- Dressing Ingredients:
- 6 Tbsp rice wine vinegar
 - 1 Tbsp ground pepper
 - 2 seasoning packs from the Ramen noodles
 - 1/2 cup sugar
 - 1/2 cup vegetable oil

Whisk together all of the dressing ingredients. Combine all of the ingredients for the salad and the dressing, minus the noodles, in a large microwave safe bowl. Heat 15-30 seconds in the microwave to blend the flavors.

Last minute, break the noodles into small pieces and mix into the coleslaw.

MONTHLY MINUTE WITH MAUREEN

I don't know about you, but I love shopping. This month I want to pass along a few of my favorite stores as well as a few of my favorite websites. When shopping online don't forget to do a search for the particular store's coupon codes. You can off get free shipping or save 10-20%.

Stores:

Marshalls, TJMaxx, The Grafton Country Store, Target (They often have food items at prices far less than the grocery stores.), Trader Joes, Homegoods, and Ocean State Job Lot. (I was able to get our pet stroller for \$40 at Ocean State and it normally retails for \$200 online.)

Websites:

bluenile.com (great online jewelry site. Jeff purchased my engagement ring, after lots of research, from this place as well as our wedding bands. #1 online jewelry retailer)
redenvelope.com (great site for a special gift)
dancingdeer.com (great Massachusetts company for sending yummy baked goods)
amazon.com (take advantage of their free shipping)
junonia.com and ullapoken.com (great plus size clothing sites for women)
zappos.com (free shipping and free returns plus you can often find hard to find sizes)
wow-coupons.com/all-printable-retail-coupons.php (I often search for and print out coupons from this site before I go shopping)



Maureen

AUGUST WORD SEARCH

v b s r e d e r f a d m g u i g f v d r s c f s d m
s j t s x c m n b g f d r e r f h l t o p v f t a w
w a e r t f g d b c m h e g y f i w e a w d d g e r
g d g t m j n k l i o i y y c f b s a d h n e e t r
f s e e r b n m f t y u s f r e l d t r i n t w e y
n a s h d v i o l e t w e f r s a s g f t g h i o y
e g g s h e l l w e g v n m l k c e v a e c t e l p
a x s d e f a h g r t c b r i c k m d t y w v s e k
f t r b x b e m j k g p f g t w o n r w e z a r n m
p n e d s i u h y d s e e b n e l f t k l a q u a r
u b t y h s r v t u s a s b k s p u y j i l k m h t
r n e r n q e g m x g c k m h d o h e s w e f g y b
p i n k m u i u y r t h r g a y j o h a s d v t t r
l t n b f e r r k m j h u f k t b e d r t y l e w o
e t y g n d o y u m m n j e i h u r t b m n a x y w
w e v h y v n m x c b g y w e t t h n j u y v d f n
w b y m i h j k y u i g d f t y b x v y r t e e m w
t y i l o p y e l l o w l m i u y r t g d h n m e w
t y h b r u d r d b l m n h a s z e r r r t d e r m
a z u r e b r u t n i m t d b f e t r e y u e j h g
e r m n h u y y k l v s d c o r a l e e a s r z d b
c b r g t y u i p o e l y n m e v e r n u y n t f d
r e f y t a w e r t h g n m d g e r t y f d d f v s
j d d e g i s d c v n m a s e n a z x v h g i u j l
h o u e r p w e r m n l o p i a t y m n k l i g p a
l l m n e e u i y t m k h j l r l o e r t m n s d e
b m c v s s d e m e l o n u i o e r m n b j k n a t

- | | |
|---------|----------|
| magenta | brown |
| blue | sage |
| pink | black |
| yellow | white |
| green | olive |
| orange | azure |
| red | bisque |
| grey | eggshell |
| teal | lavender |
| fuchsia | ivory |
| aqua | brick |
| purple | coral |
| violet | sepia |
| melon | khaki |
| peach | |
| tan | |