

# Energy Matters

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*..if you are not doing anything on Sunday 12th September, drop in and have a look....*

## Sustainable House Day

For the last 9 years ATA has been organising the Home Sustainability Day where home owners open their homes to the public to show what they have done to reduce their Carbon Footprint.

This year, I have decided to open my home so you all get a chance to tramp through my house, rather than me tramping through your house!

While there are some expensive items in my house (solar panels, solar hot water, zoned gas heating) most of the changes have been small and relatively inexpensive, such as draught restriction, clothes line cover

and plastic pelmets. In addition you can have a look at my DIY double glazing.

So if you are not doing anything on Sunday 12th September, drop in at 251 Old Eltham Rd, Lower Plenty and have a look, between 10:00 am and 4:00 pm.

You can also visit a house at 23a Wilson Ave Montmorency. This house was designed to be efficient and is really great.

The web site for more info is:

<http://www.sustainablehouseday.com>

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#### Disclaimer

The views in this newsletter are those of the author and not necessarily those of the Green Loans program

## The Elections

Sick of the elections yet? I think I am just about over it. Make a decision and get on with it!

Having said that, I have been most impressed with the independents, especially Rob Oakeshott. Personally I would make him prime minister.

I saw him on an interview on Lateline and I thought "this is a politician I like". He answered every question he was asked, he didn't try scoring points on the opposition and he didn't have a "slogan for the night" that he repeated at every opportunity.

More importantly, he actually made real sense when talking about Climate change. He effectively said "our best

scientists in the world have said there is a problem. We got our best economist Professor Garnaut to provide an economic solution to the problem and then once our politicians got involved, it all went to mush".

It would be great if the independents could get all of the politicians to look at it rationally, ignore the political spin on it and have a "conscious" vote and get a consensus to do something.

The only problem is that Bob Catter is dead against it!

## How Much Heating Do You Need?

*..If there are  
5 people in  
the house,  
... you will  
heat it  
slightly  
more..*

My apologies if this gets too confusing, but bear with me, the final results are interesting.

How do you work out what temperature to run your heater (or cooler)?

Although you don't realise it, you do a cost benefit analysis. You look at the cost of running the heater and the value you receive from it and decide whether it is worth running.

It is actually quite complex, because running the heater for 10 minutes now, actually gives you benefit for the next 4 hours as the heat you added slowly dissipates. So your cost is proportional to "the amount of heat" you add, while the benefit is the "comfort you feel for the next 4 hours"

If you increase the target temperature from 14 degrees to 15 degrees, the cost increases approximately 15%. The additional comfort is quite significant, so it is worth doing. However, when moving from 18 to 19 degrees, the additional cost is still 10%, but the additional benefit is now quite small. Eventually the increase is not worth it and most people would stop heating their house at 20 degrees.

If you only consider the dollar cost, you would stop at 20 degrees, but if you add in the environmental cost (i.e Climate Change) the cost increases, so you may stop at 18 degrees.

The first thing that this suggests is that the target temperature will depend on the number of people in the house. If there are 5 people in the house, the benefit is 5 times the benefit if 1 person is in the house and so you will heat it slightly more. Of course when there is no one in the house, there is no

benefit, so you should turn the heater off.

Because the benefit is spread over the 4 hours after heating the house, if you are leaving the house in 1 hour, you will get minimal benefit from the heat, so turn the heater off 1 hour before leaving.

The benefit received depends on what you are doing. For instance when in bed, there is minimal benefit from heating the house over 14 degrees. So turn the temperature down at night. Once again, turn it down an hour before going to bed, since you only get 1 hours benefit, not 4.

If you are sitting watching TV a comfortable temperature may be 20 degrees. If you are active, 18 degrees is comfortable. So adjust the target temperature based on what you are doing.

Some rooms are very low usage, so there is little benefit in heating them. So close of the ducts in unused rooms. This is where a "Zoned" heating system helps. These systems have baffles in the ducts so you can program the time of day that each room is heated. This can make an enormous difference.

The final thing I would mention is what happens if you improve the insulation of your house or do double glazing. Effectively the heat stays in the house longer, so instead of benefiting for 4 hours, you now benefit for 6 hours. Its now worth while heating the house slightly more. So while insulation and double glazing reduces heating costs, you also get a more comfortable house.