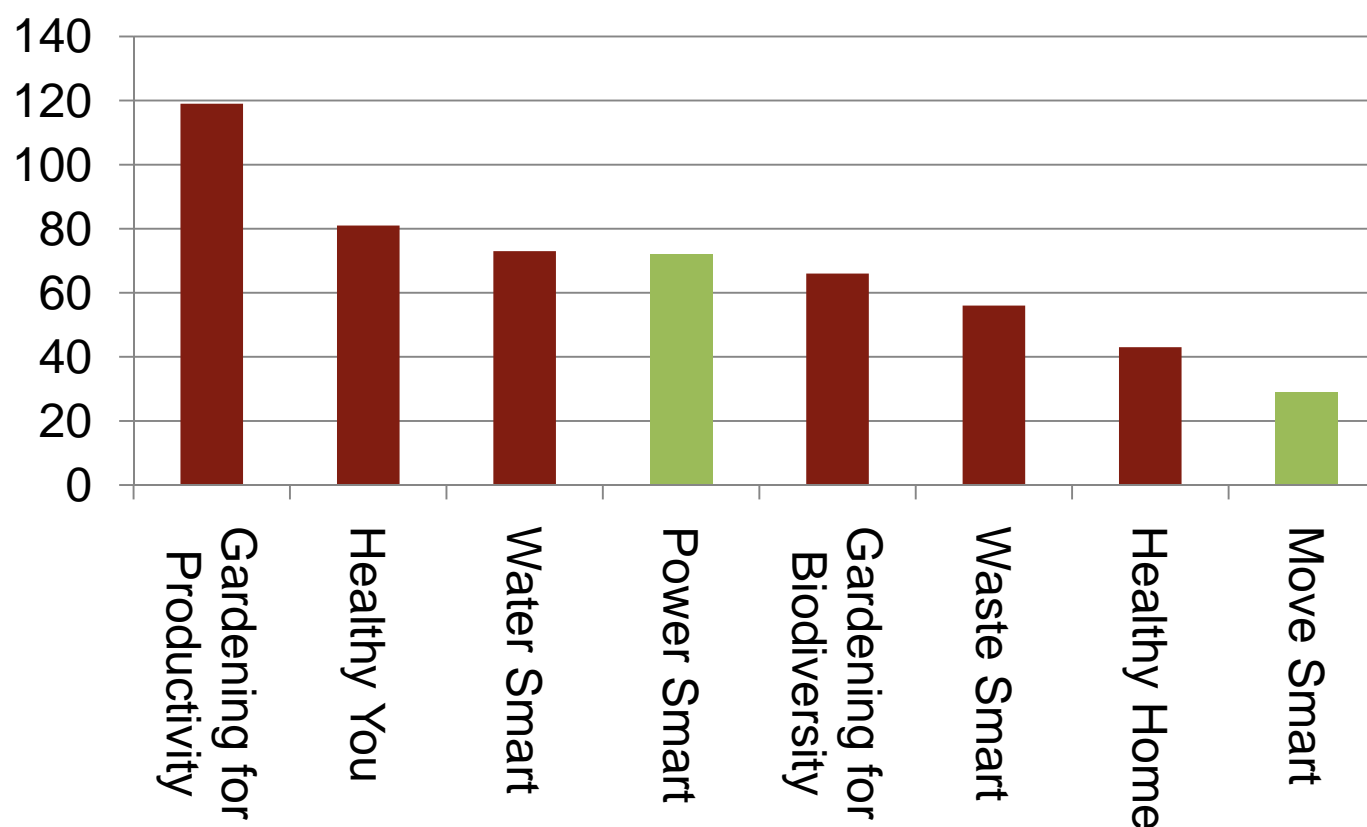




Welcome to Power Smart

Analysis of your Interests



RPH Course Outline



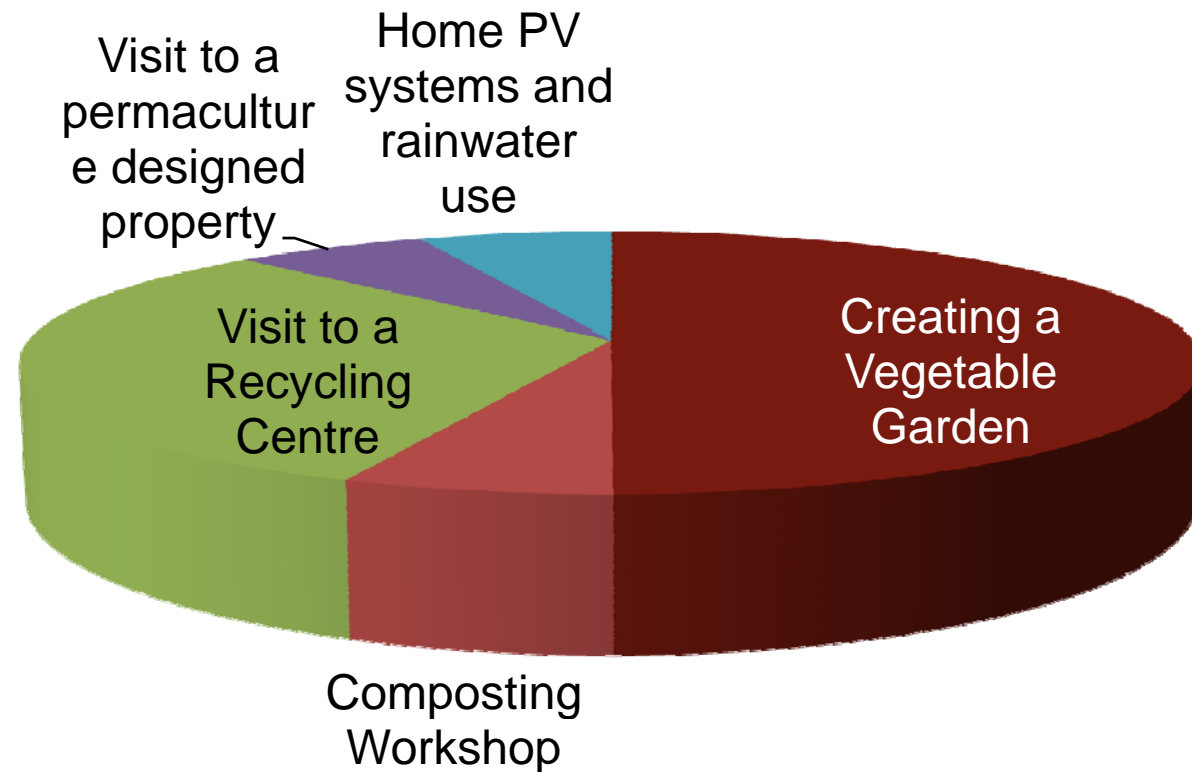
<i>Wk1: 3/3</i>	<i>Thinking Smart, Climate Change</i>
Wk 2: 10/3	Power Smart Move Smart
Wk 3: 17/3	Healthy You Waste Smart
Wk 4: 24/3	Water Smart Gardening for Biodiversity
Wk 5: 31/3	Healthy Home Community Smart Living Simply
Field Trip: Sat 28/3	Gardening for Productivity 9:30am to 11:30am

Tonight's Program

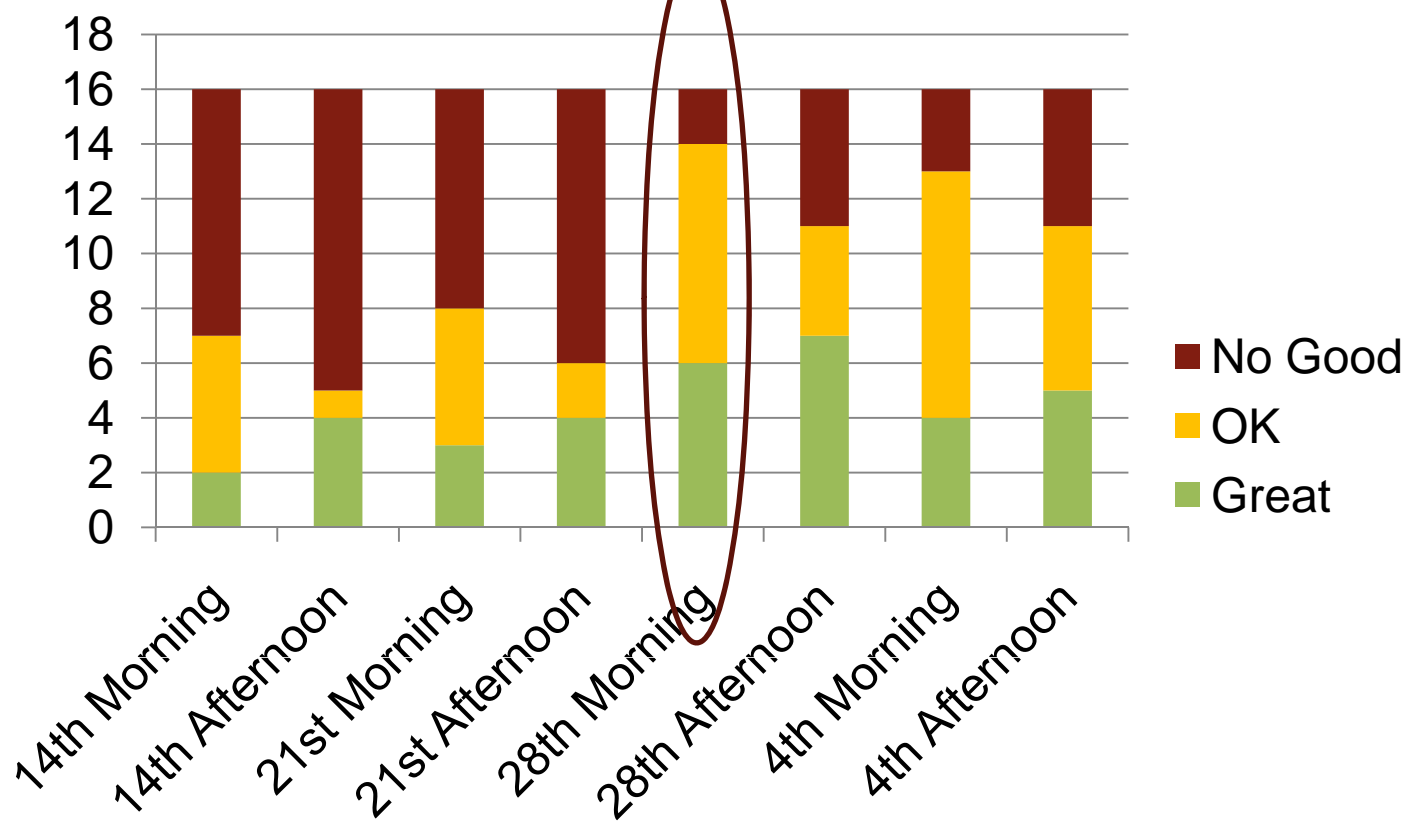


5:00-5:15	Start-up, review goal achievement
5:15-6:00	Power Smart – reducing your electricity usage
6:00-6:15	<i>Break</i>
6:15-6:45	Power Smart – generating your own electricity using Solar PV
6:45-7:15	Move Smart
7:15-7:30	Goal Setting

Your field trip preferences



Your Preferred Field Trip Dates



A Quick Survey

How likely would you have been to pay the following amounts as course fees:

Fee	Very Likely 1	Likely 2	Not Sure 3	Unlikely 4	Very Unlikely 5
A \$75		X			
B \$100		X			
C \$150			X		
D \$200				X	
E \$250					X

A2
B2
C3
D4
E5

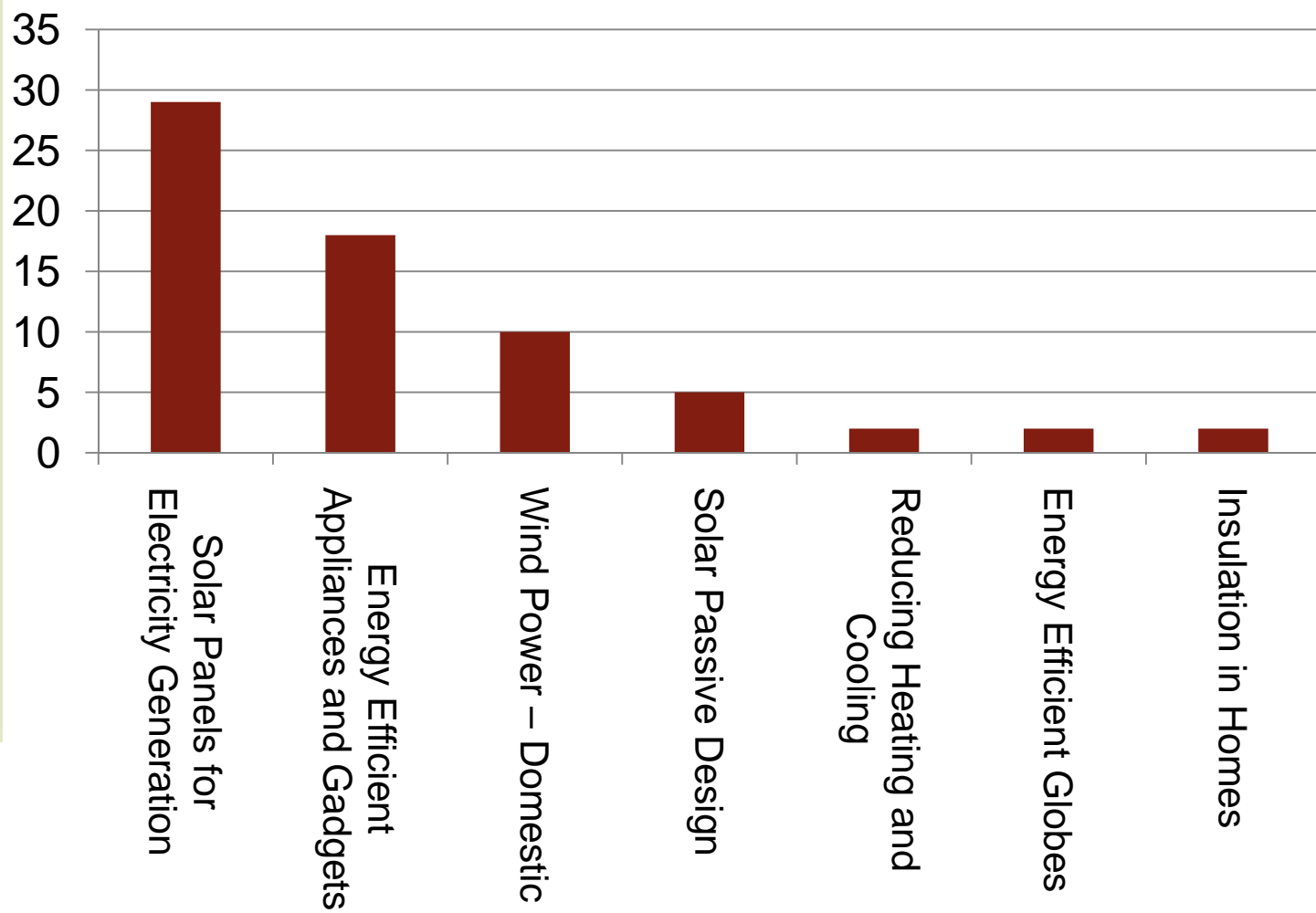
Which of these factors would have made it more likely for you to pay a higher amount?



- A. More information on potential \$ savings;
- B. More information on course content
- C. More information on nature of course (balance of presentations, group work etc)
- D. More information on prizes available;
- E. A longer course;
- F. Nothing would have made a difference
- G. Other (please specify)

B
D
G
(more info on
field trip)

Power Smart Topics



What Have You Done Since Last Week?



- In Table Teams:
 - Discuss what you have done since last week;
 - Select the person/household that has achieved the most;
 - Prepare to report back to main group;
- Time: 5 minutes

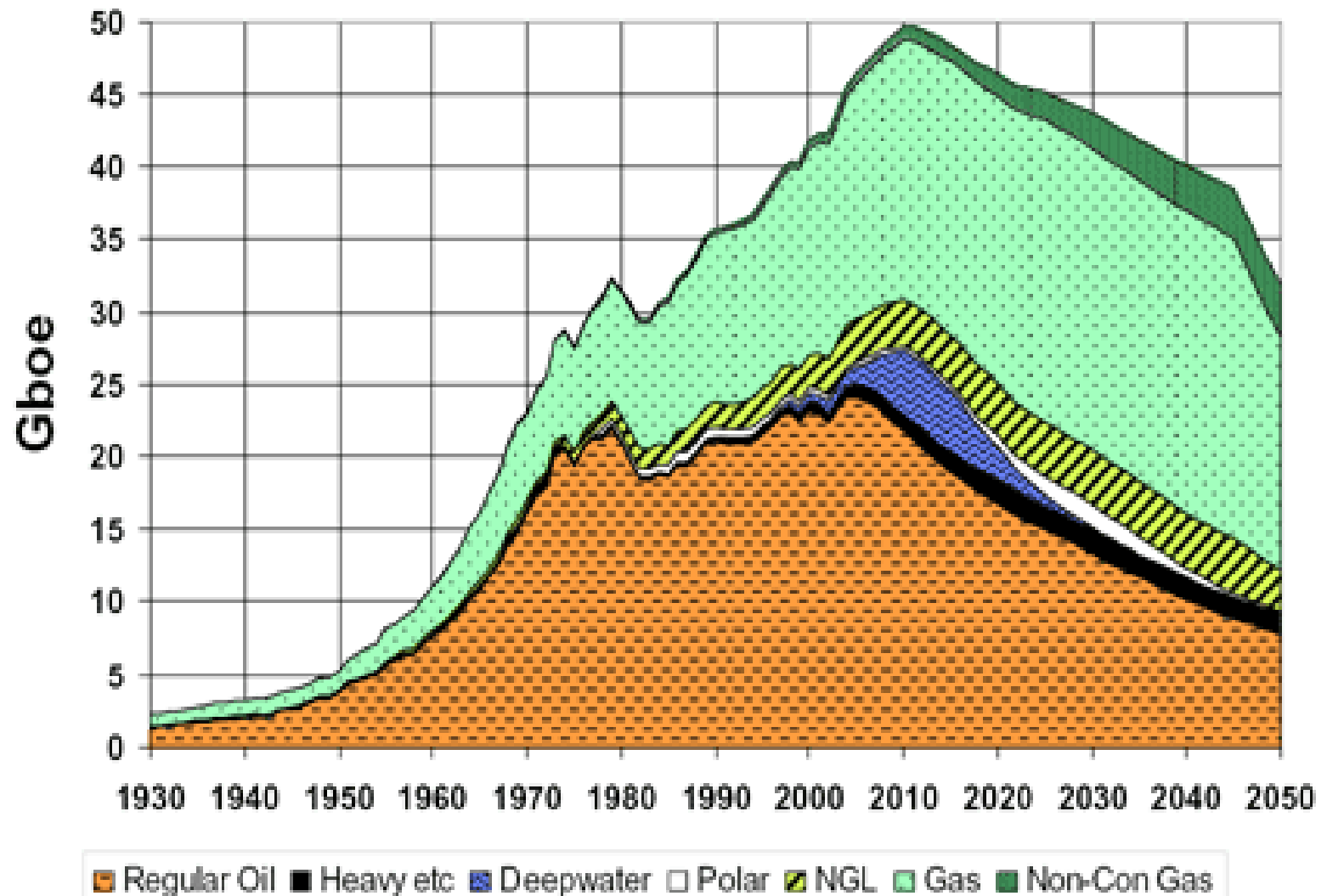
Power Smart

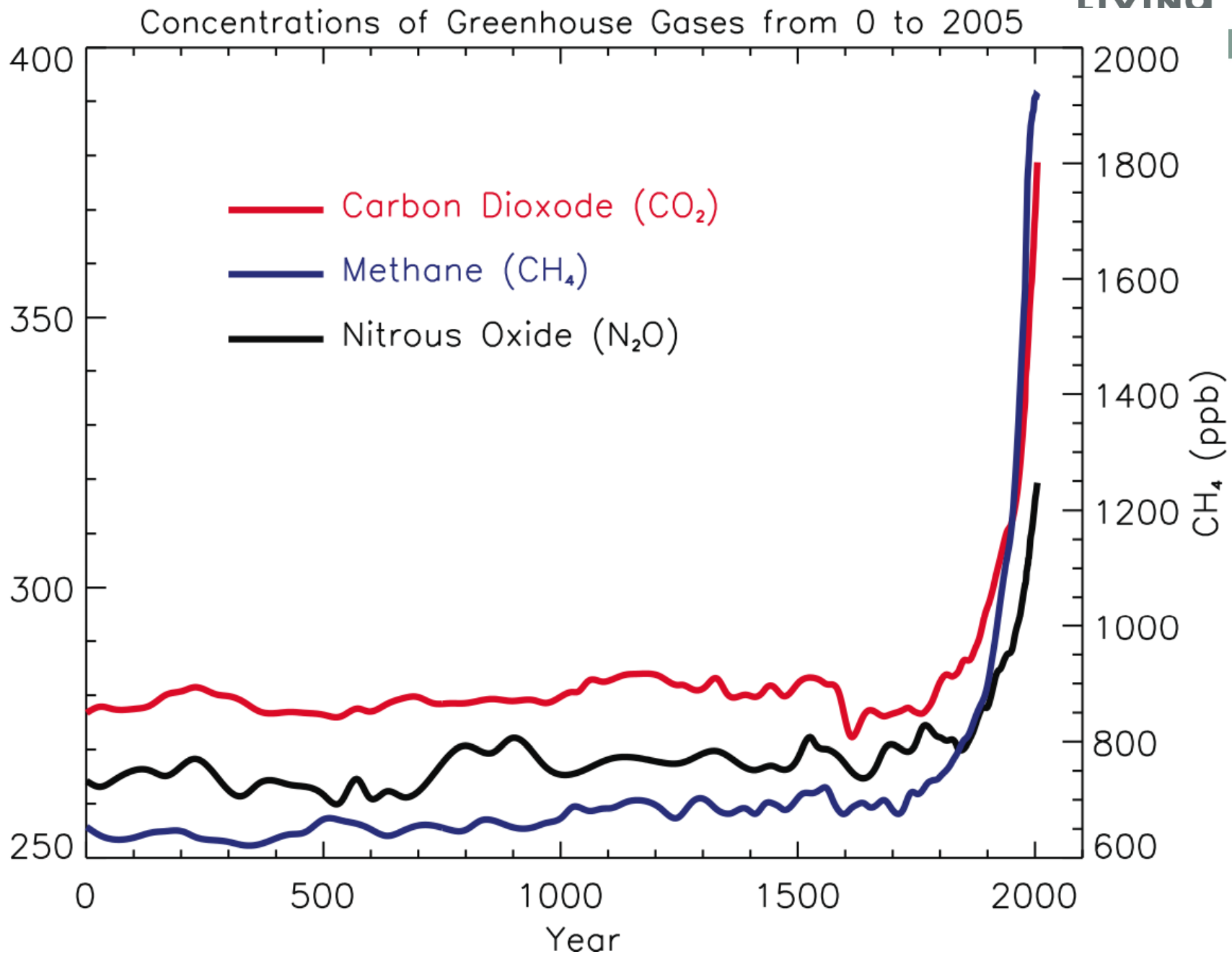
Why?



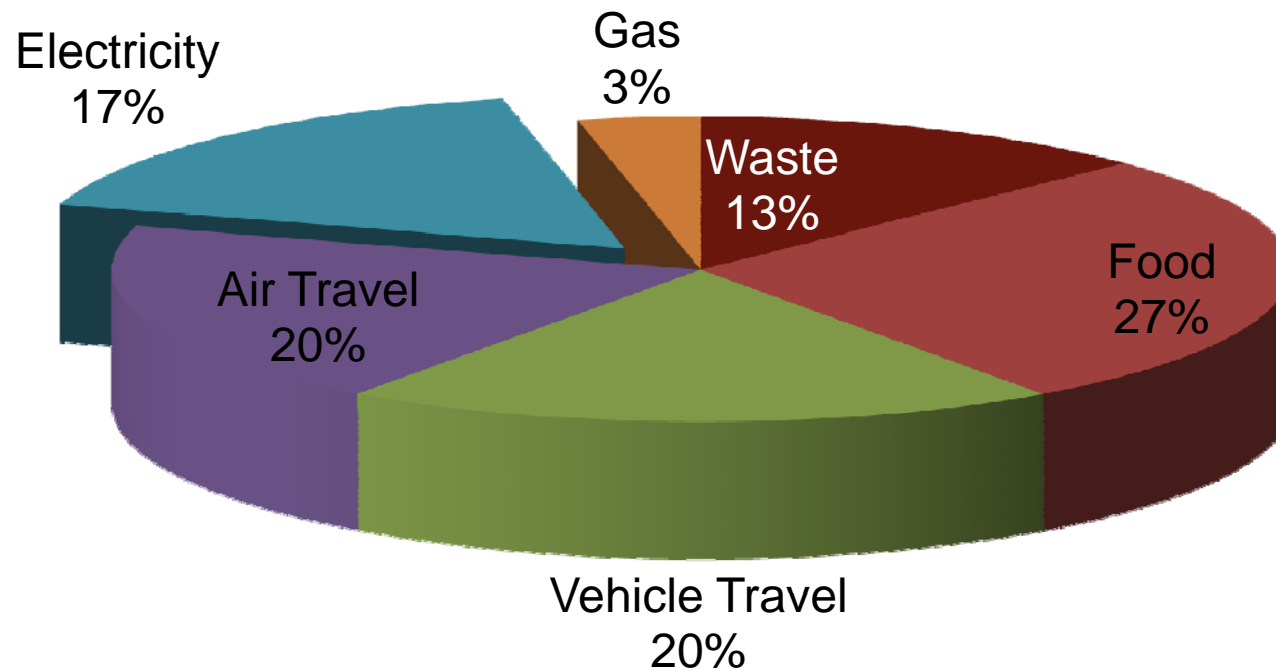
Peak Oil & Gas – Finite resources

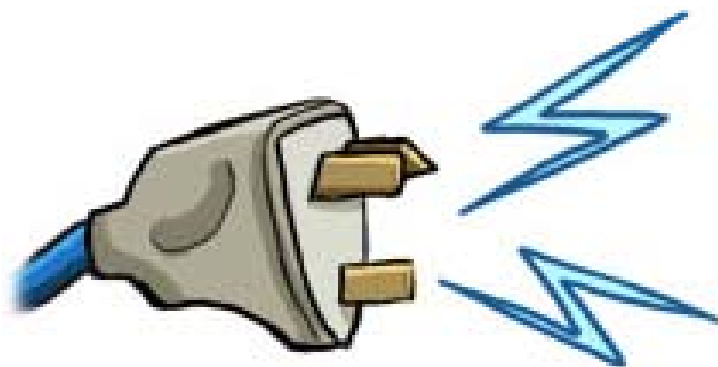
ASPO: OIL & GAS PRODUCTION PROFILES
2005 Base Case





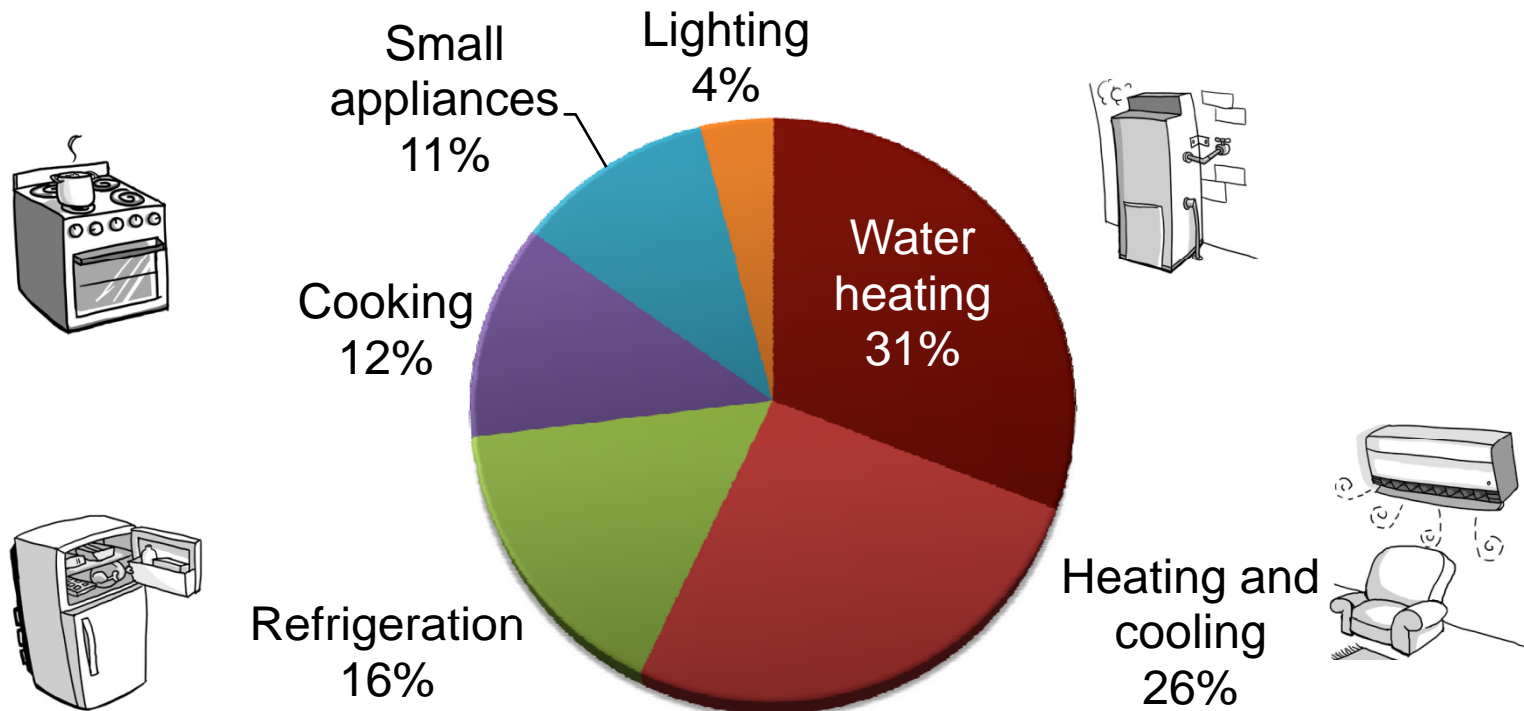
Electricity Represents 17% of the Average Aussie Household's GHG Emissions





Which
appliances
consume the
most
electricity?

Energy use chart for an average home



Source: SEDO

What can I do?



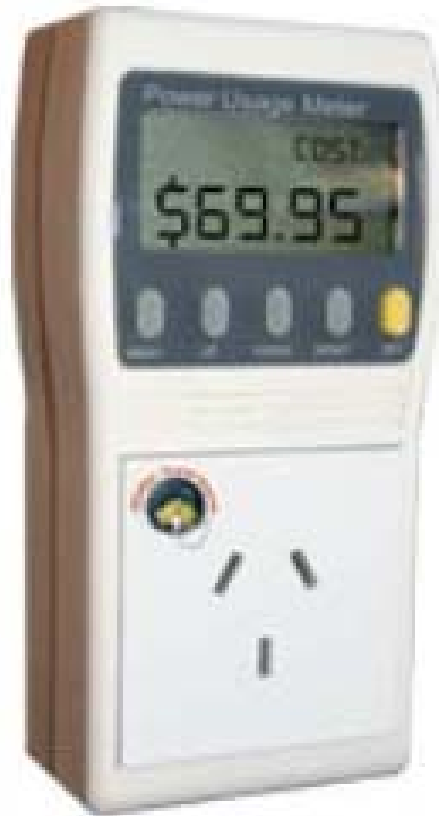
- **Measure YOUR energy use**
- **Address your energy use**
 - Hot water actions
 - Heating & cooling actions
 - Refrigeration & Cooking
 - Lighting
- **Address your electricity source**
 - GreenPower tariff from Synergy
 - Your own roof-top solar PV system
- **Address energy in goods, travel**

Measuring Your Energy Use



- Multifunction Meter;
- Simple to operate;
- Accurate over long time period;
- No good for stand-by power.
- \$29.95
- Altronics

Measuring Your Energy Use



- Power Usage Meter;
- Simple to operate;
- Accurate above 10W;
- Not so good for stand-by power.
- \$69.95
- <http://shop.ata.org.au/>



Measuring Your Energy Use



- Efergy power meter;
- Simple to operate;
- Monitors energy use for entire house
- \$105.00;
- Bunnings
- <http://www.topbuy.com.au>

Alternative Technology Association



ALTERNATIVE TECHNOLOGY ASSOCIATION : Promoting energy saving & conservation to households

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Categories

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- ReNew magazine
- Sanctuary magazine
- Books
- CD-ROMs and DVDs
- New products
- **Clearance Items****
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- MR16 LED Replacement Lamps
- LEDs and accessories
- Power Usage Meters and Test Gear
- Weather monitoring
- Electronic kits
- Educational toys
- Solar equipment and devices
- Seminar and event tickets

Welcome to the ATA's new webshop! We hope you find the new-look webshop more user friendly.

Please note that this is a new webshop. If you have not visited this version of the shop before you may need to re-register. If the shop won't allow you to register with your current email address then you already have an existing profile, so please try and login with the most likely password. If you can't login and the 'recover password' option doesn't help you, please [email us](#), thankyou.

If you are a member of the ATA, ensure your profile contains your ATA membership number to receive discounts and free ReNew downloads.

Now you can join the ATA, renew your ATA membership or ReNew subscription or buy books, magazine back issues and a range of other items in a secure environment.

To get started, just select from the categories at left. Help files are available from the links in the help section at bottom left.

If you require more information on a particular product, [email the shop](#).

If you have a question about an order you have placed and have the order number, [email our admin staff](#) or call (03) 9639 1500 between 10am and 4pm weekdays.

Please note that all prices on this shop include GST

Shopping cart

Cart is empty

Log in here

Please note that this is a new webshop. If you have not visited this version of the shop before you may need to re-register. If the shop won't allow you to register with your current email address then you already have an existing profile, so please try and login with the most likely password. If you can't login and the 'recover password' option doesn't help you, please [email us](#), thankyou.

E-mail

Password

[Submit](#) [Register](#)

Bestsellers

1. Low cost Superflux LED - White
2. New individual membership Australia only

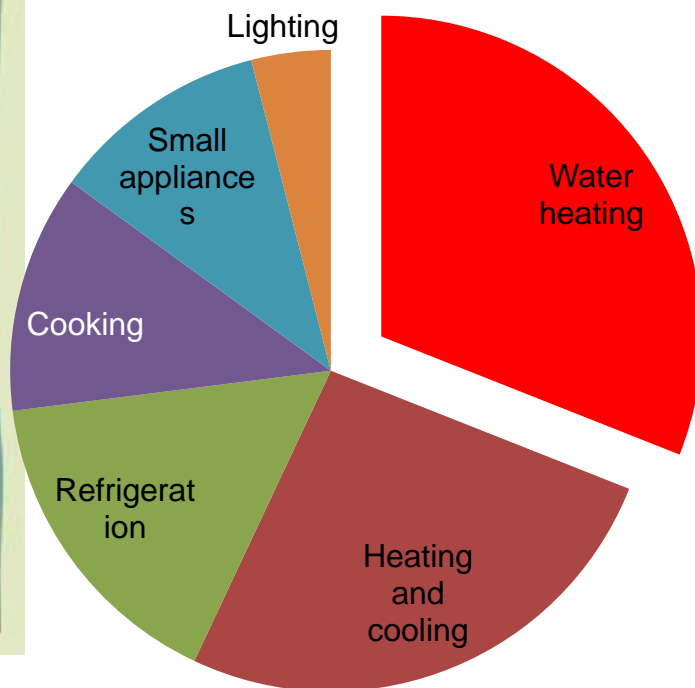
Featured products





www.ata.org.au

Reducing your Water Heating



- Time in showers;
- Minimising energy used by existing hot water system;
- Recirculating mains;
- Low flow shower heads;
- Low energy hot water systems.

INSULATE YOUR PIPES & TURN DOWN YOUR THERMOSTAT

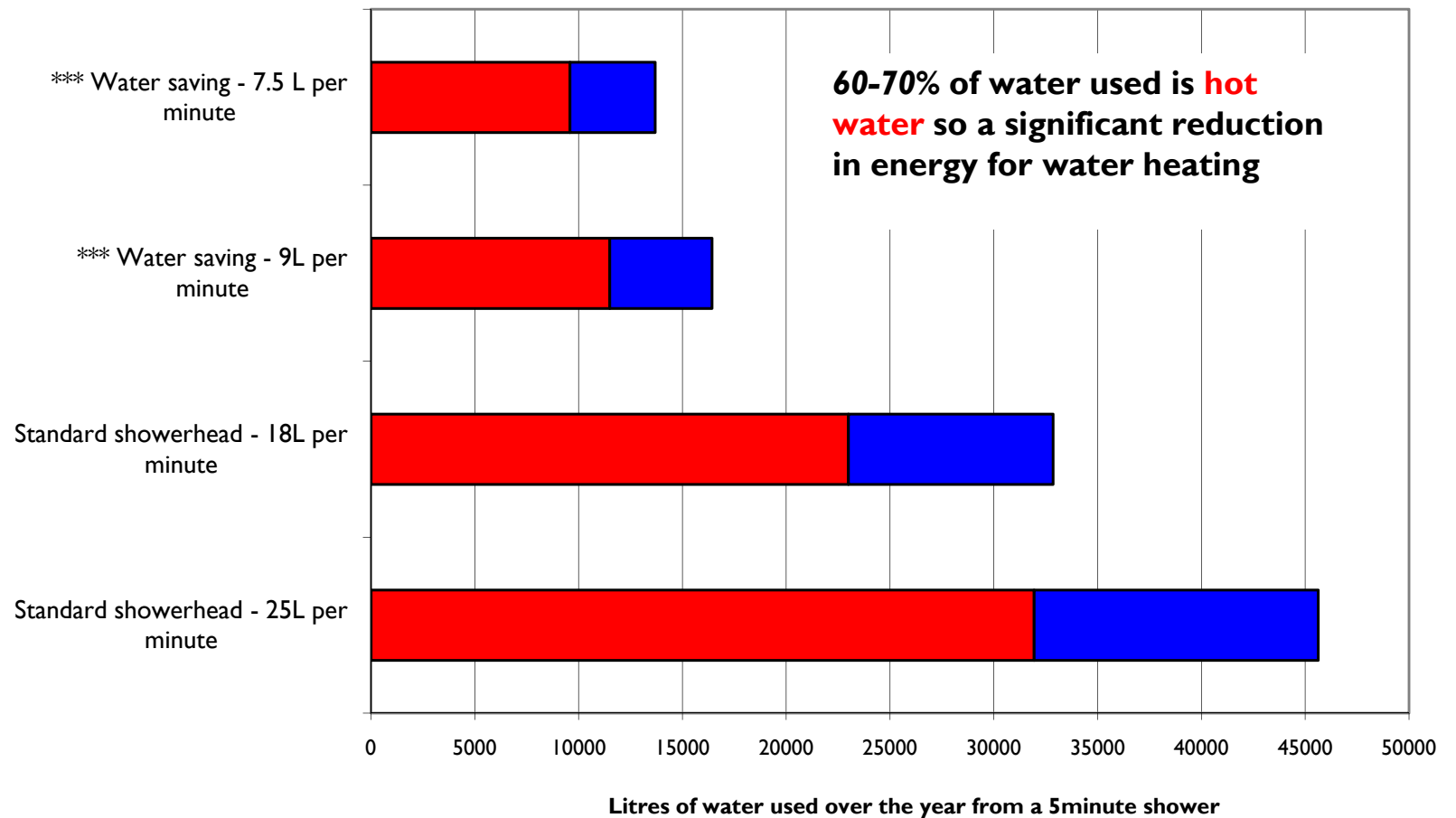


Water-Saving Showerheads

What sort of difference do water saving showerhead make in power use?



Water use from showerheads with different



Low Flow Shower Heads



- Neco;
- Aerates Water;
- 6.8l per minute
- \$149.99
- www.neco.com.au



Low Flow Shower Heads



- Perfectflow Ultimate showerhead
- 5.5l per minute
- \$24.99
- www.perfectflow.com.au

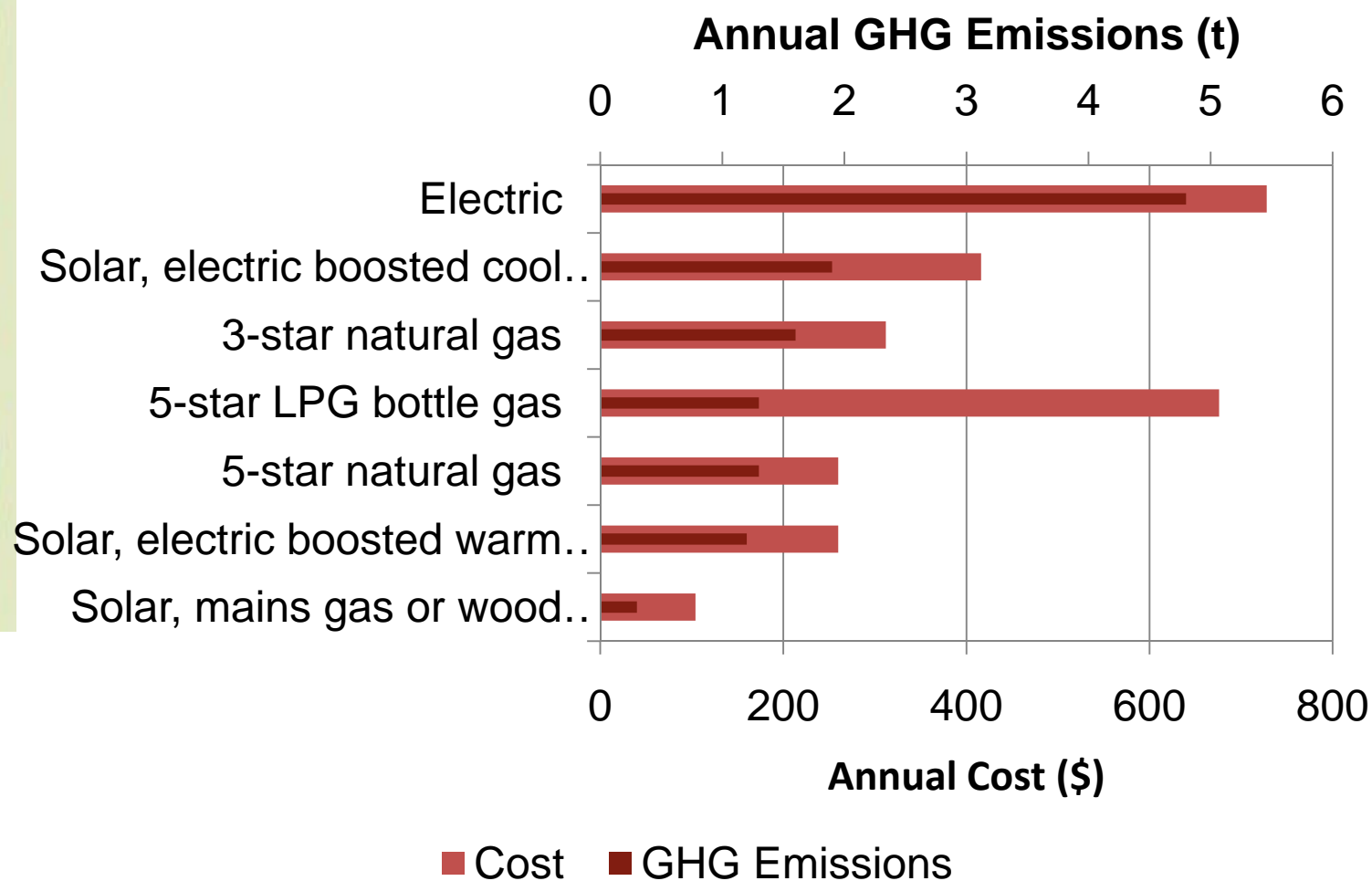


Shower Saver

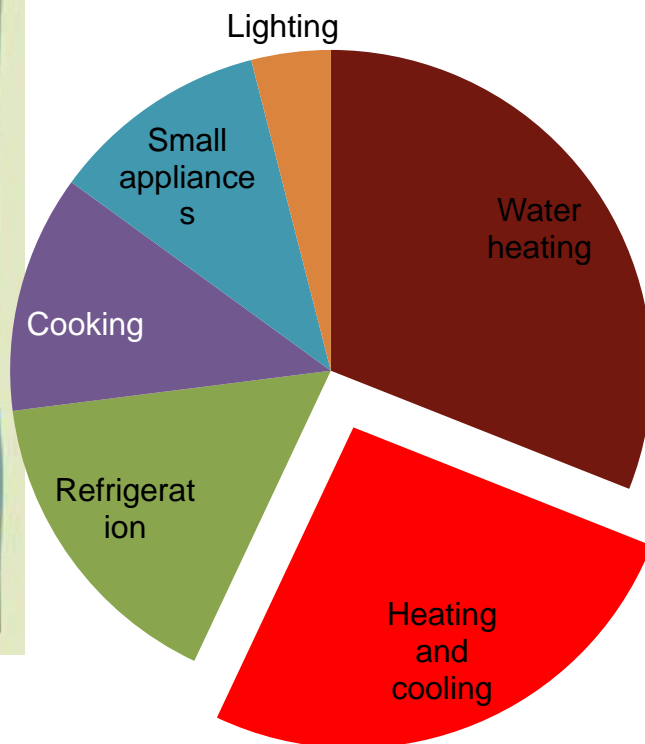


<http://www.showersaver.com.au/>

Costs and Emissions from Different Water Heaters



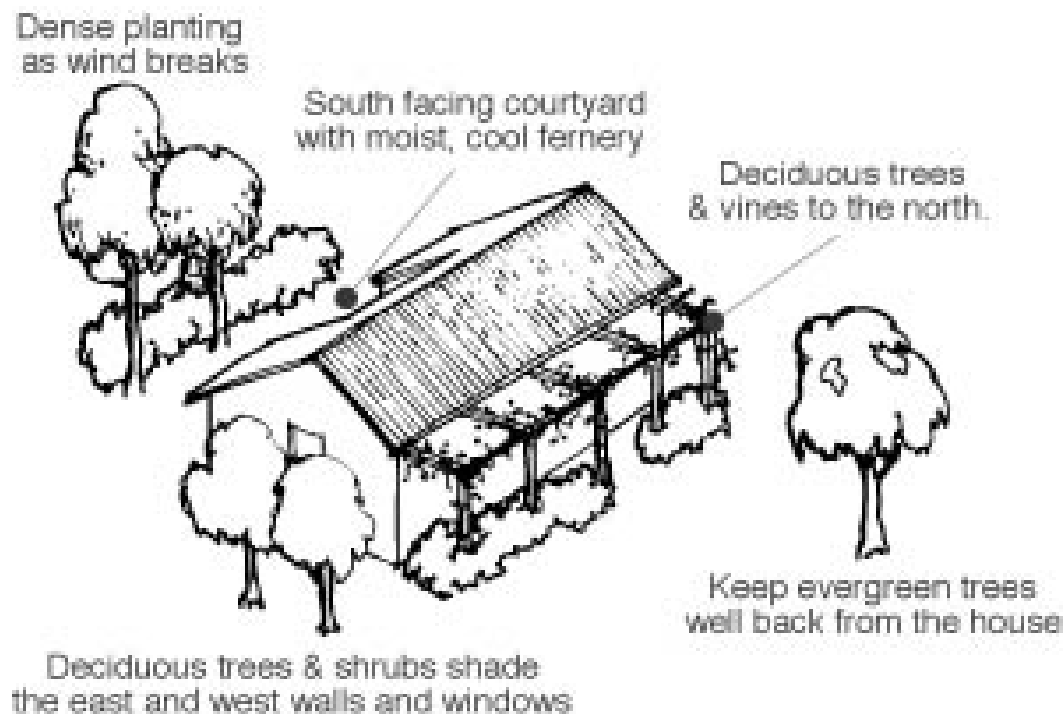
Reducing your Heating and Cooling



- Passive Solar Design;
- Retrofitting your home to make it passive solar;
- Energy efficient cooling;
- Energy efficient heating.

Passive solar heating and cooling

GET YOUR HOME TO WORK FOR YOU



Your Home Technical Manual & Renovators Guide

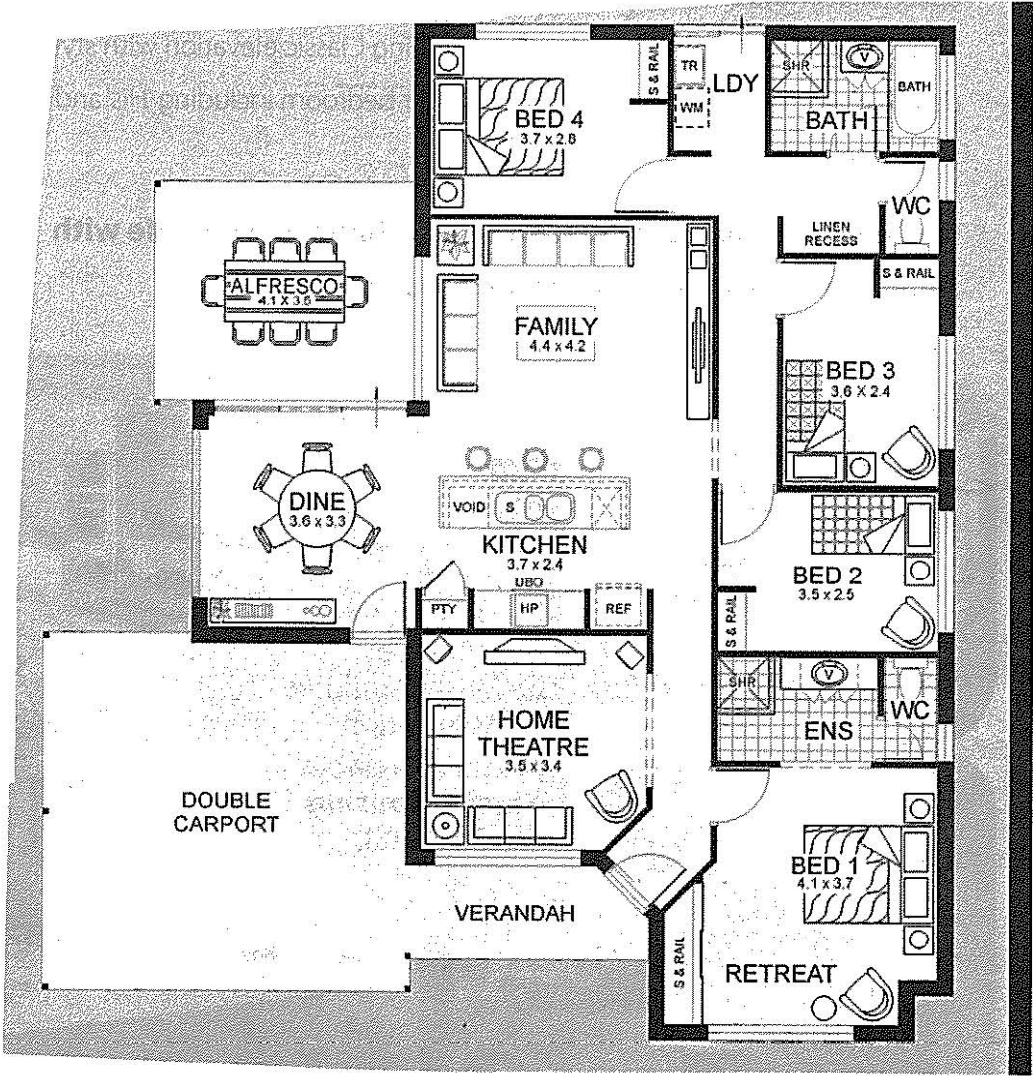
<http://www.yourhome.gov.au/technical/>

House Design Principles for renovations or new homes

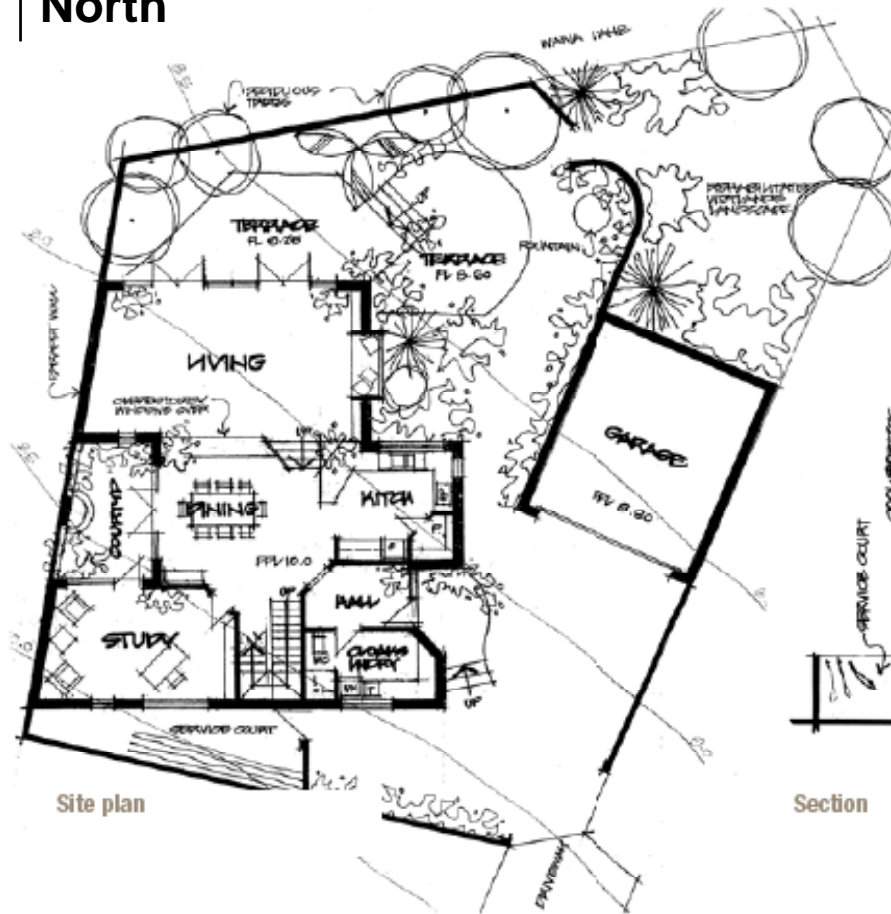
In groups, assess it for:

- Long E-W axis
- Good low sun penetration in Winter from N
 - short eave to N
- Window location to start summer heat and let in winter sun
 - Lots of northern windows, few to E, W and S
- Day-living areas on the north
 - If not, what would be a good orientation?
- Other sustainability issues in the design?
- How to reduce in each room of the house?

North



↑ North

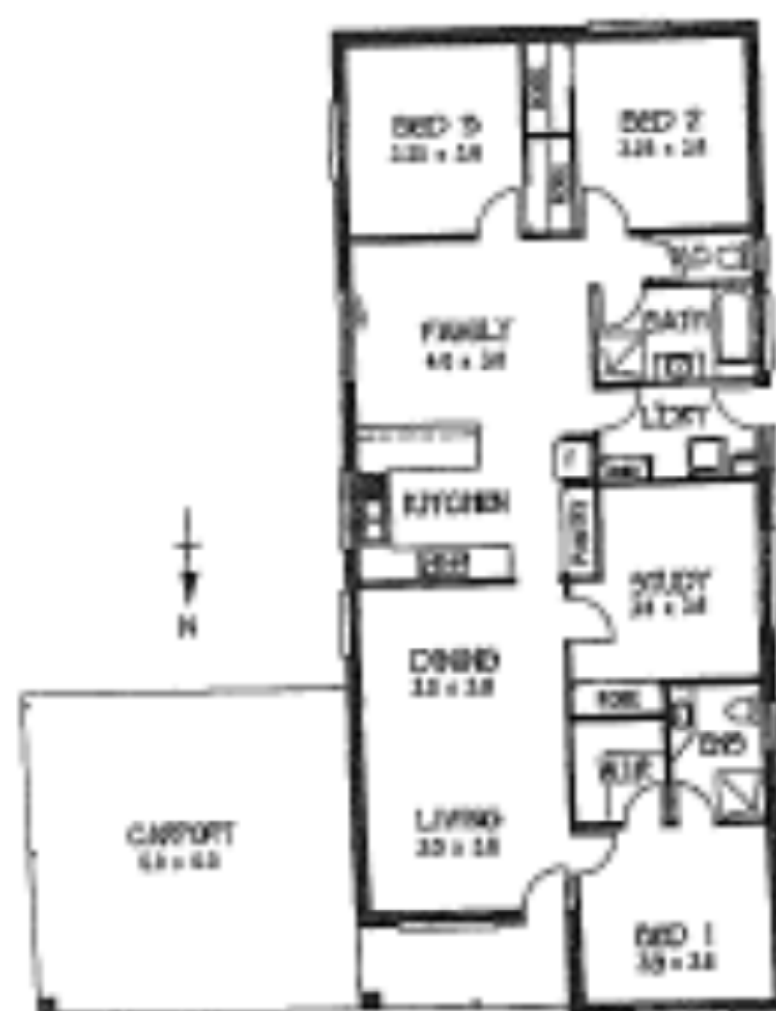


Site plan



Section

→ North



Original proposal

Blocking heat through E-W Windows Living smart

What makes a difference in blocking the sun's heat in rooms with E or W-facing windows? Suggest some solutions.



Awning blind



Reduction in Heat

0% 20% 40% 60% 80% 100%

Unshaded single glazed window

Internal venetian blinds

Internal holland blinds

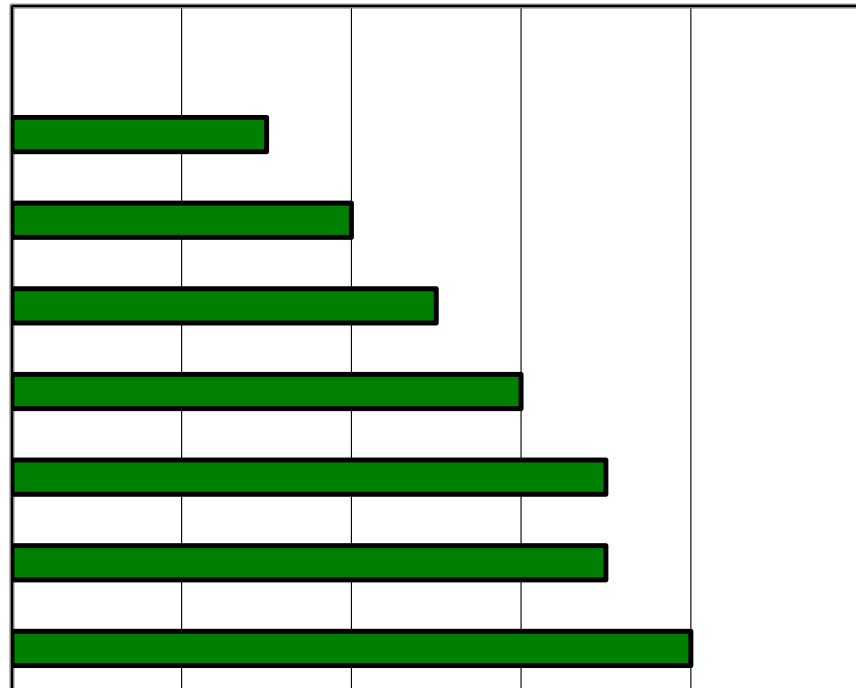
Tinted glass

Trees-full shade to light shade

External roller shutter

External awning

Pergola with vines or shade cloth

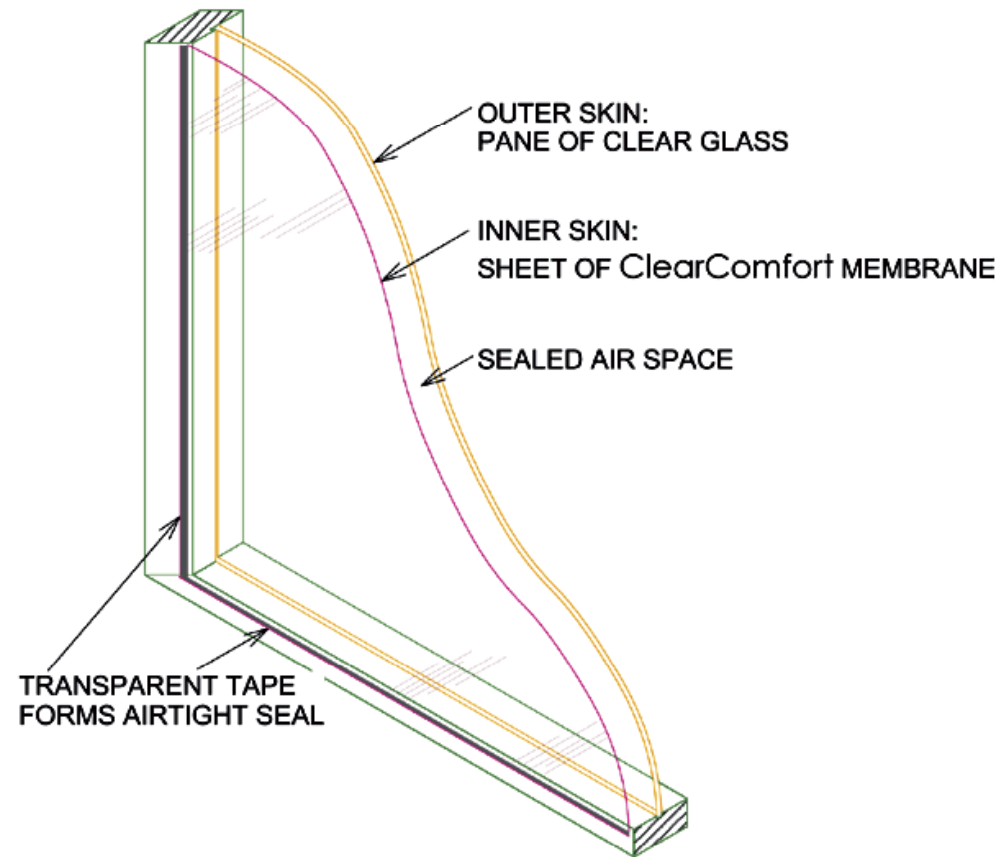


Other Options for Reducing Heating and Cooling



- Use of heavy drapes and pelmets;
- Use of solar window films;
- Use of double glazing;
- Use of secondary glazing films;
- Use of shade sails;
- Use of shade trees and green belts around houses;
- Use of whirligigs;
- Removal of heat sources from within home (eg halogen lights);
- Use of ceiling fans rather than air conditioners;
- Use of insulation;
- Use of light coloured roofing (painting a dark roof white will reduce temperature by 3C);

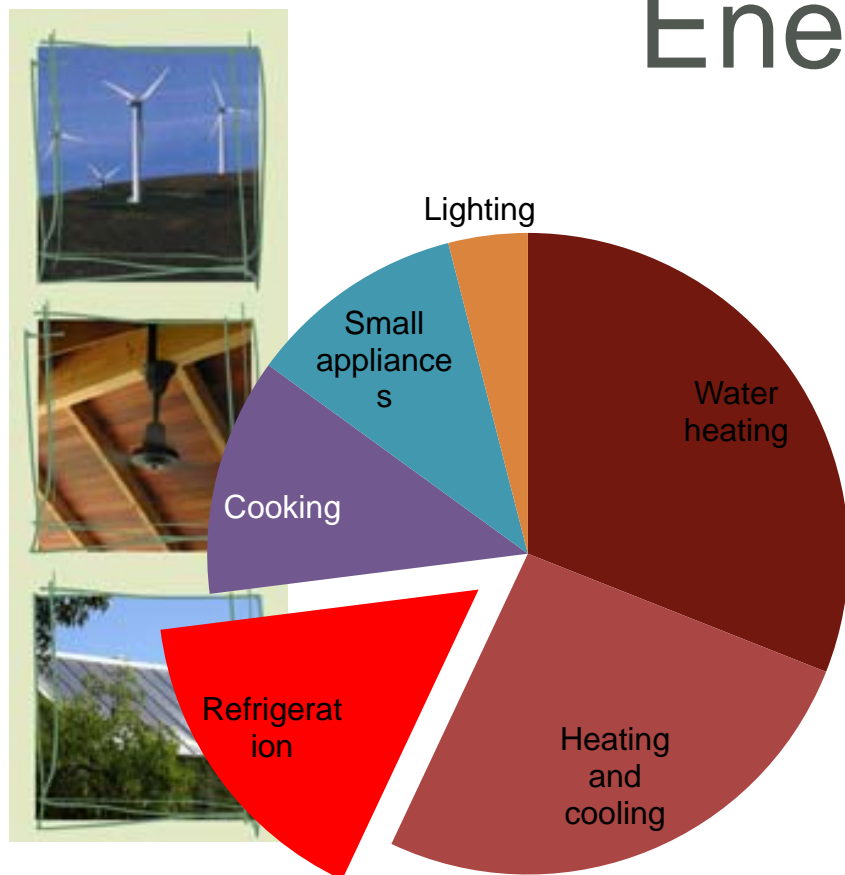
Clear Comfort Secondary Glazing



Magnetite Secondary Glazing

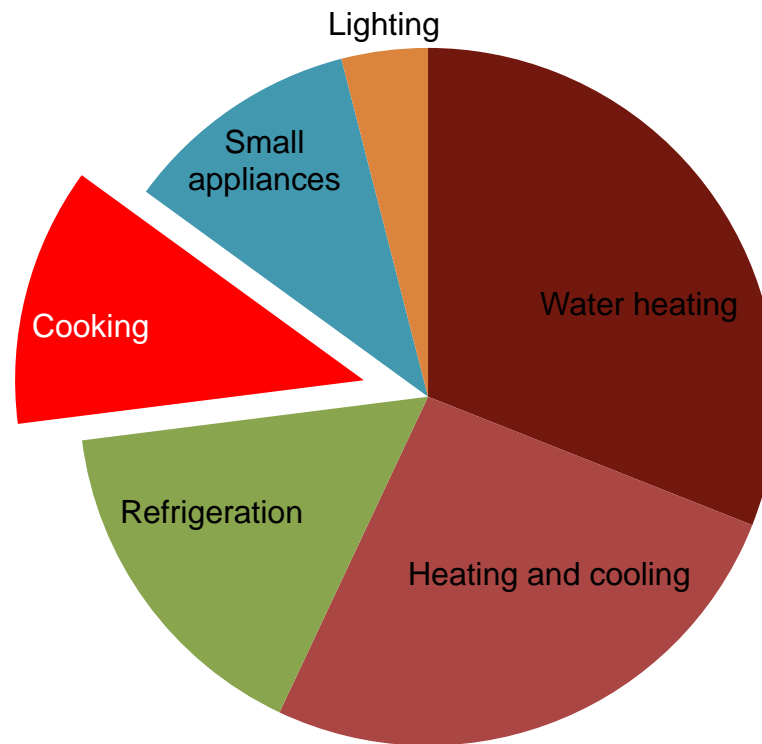


Reducing your Refrigeration Energy Use



- Get rid of “beer fridge”, or switch off except for parties;
- Replace worn seals on fridge;
- Ensure fridge is well ventilated;
- Don’t overload the fridge;

Reducing your Cooking Energy Use



Reducing your Cooking Energy Use



- Use microwave or gas (75% less energy than electric stove);
- Ensure oven seal in good condition;
- When using oven, cook several dishes at once;
- Use cooking pots with flat bases on tight-fitting lids;
- Use pressure cooker;

Buying Energy Efficient Appliances



www.energyrating.gov.au

Australia's leading guide to choosing an energy efficient appliance

a joint initiative of Commonwealth, State, and Territory government agencies

Everyone has a role to play in reducing greenhouse gas emissions that contribute to climate change. Choosing an energy efficient appliance is one way to do this while saving money.

- [Search & Compare Appliances](#)
- [Product Information](#)
- [What's New?](#)
- [Registering a Product](#)

[Energy Programs](#) [Regulations](#) [Product Standards](#) [E₃ Committees](#) [Electronic Library](#) [Other Resources](#) [Search](#)

Australian Government
Department of the Environment,
Water, Heritage and the Arts

www.energyrating.gov.au

Energy Efficient 400-500l Fridge/Freezers

Australia's leading guide
to choosing an energy
efficient appliance

www.energyrating.gov.au

Product Information

What's New?

Registering a Product

Energy Programs

Regulations

Product Standards

E₃ Committees

Electronic Library

Other Resources

Search

Refrigerators/Freezers - search result.

Cost Calculator

Your search returned 215 Refrigerators/Freezers for:

Type: All,
Capacity: 400 litres to 500 litres,
Brand Names: All,
Sorted by: New SRI -Descending order.

Electricity Cost: 15 c/kWh

Show Energy Costs for: 10 years

Recalculate Costs

[Tips on Use](#)

[Show comprehensive detail](#) [Help on headings and content](#) [Do another Search](#)

Brand	Model	Available	Type	Total Volume (litres)	Energy Consumption(kWh/annum)	10 Yr Energy Cost	Star Rating
MIELE	K8952SD	AUS & NZ	1	413	272	\$408	6
FISHER & PAYKEL	E450	AUS & NZ	1	451	330	\$495	6
LIEBHERR	Kes 4260	AUS	1	407	335	\$502	6
LIEBHERR	SKes 4200	AUS	1	407	335	\$502	6
LIEBHERR	Kes 4260	AUS	1	407	335	\$502	6
WESTINGHOUSE	WRM4300S	AUS & NZ	1	434	380	\$570	5.5
WESTINGHOUSE	WRM4300W	AUS & NZ	1	434	380	\$570	5.5
WESTINGHOUSE	WRM4300S	AUS & NZ	1	434	390	\$585	5
WESTINGHOUSE	Refrigerator RP432	AUS & NZ	1	434	390	\$585	5
ELECTROLUX	Refrigerator CS430	AUS & NZ	1	434	390	\$585	5
ELECTROLUX	Refrigerator ERM4300W	AUS & NZ	1	434	390	\$585	5
FISHER & PAYKEL	C450	AUS & NZ	1	451	406	\$609	4

Switch to **GreenPower**TM Accredited Renewable Energy

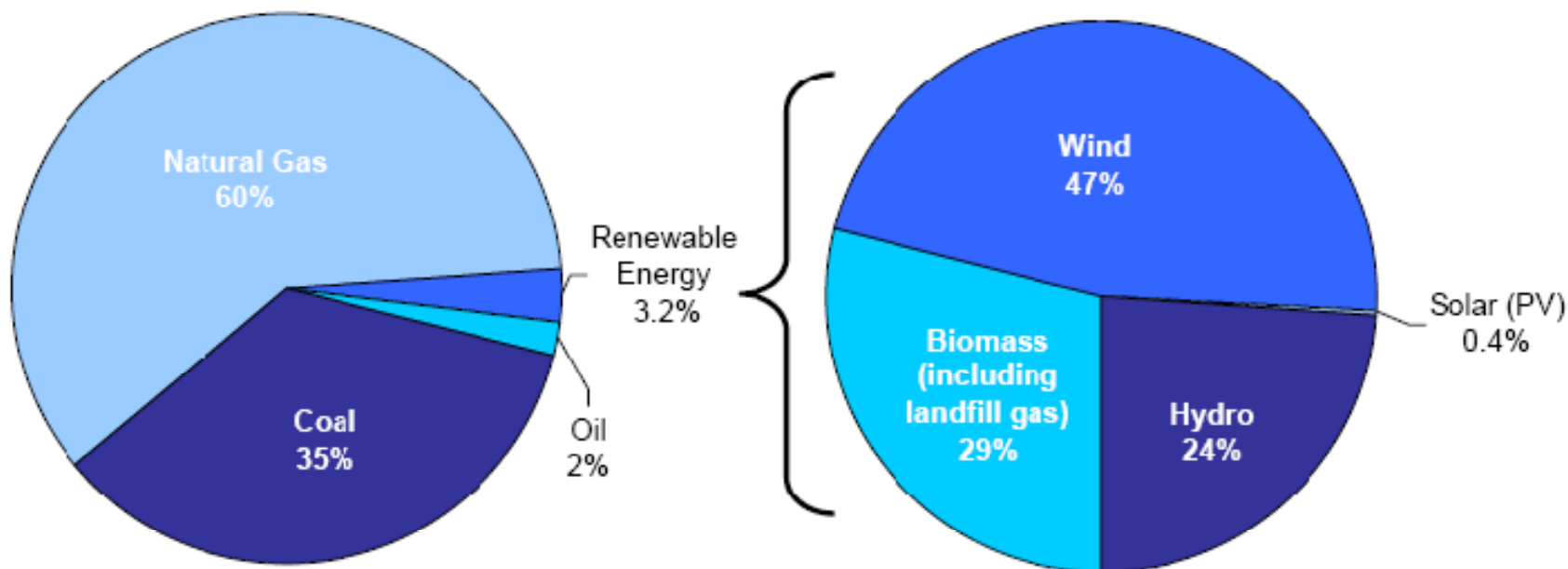


- Synergy offers two options for green power:
- “Natural Power”
 - Costs an extra 4.4c per unit for NaturalPower
 - For the average household means an extra 50c per day
 - Ensures 100% of your electricity comes from renewable sources
- “Easy Green”
 - Customers can sign up in \$10 annual increments
- Switching to NaturalPower or Easy Green is easy
 - Call Synergy on 13 13 54
 - Go to their website <http://www.synergyenergy.com.au>

Time for a break



2005-6 Electricity generation in WA



<http://www.energy.wa.gov.au/cproot/799/5305/RenewableEnergyFactSheetAug2006FINAL.pdf> from ABARE 2005 data



Photovoltaic Solar Panels

Darren Anderson

Sun Grid Solar

Group discussion time



- How could you reach an average 80% greenhouse reduction?
 - Where do you waste energy in your home – practices and appliances?
 - What steps could you make overnight?
 - What longer term steps?

Solar Panel Offer



www.SolarUnlimited.com.au

SOLAR
Unlimited

SMART LIVING
Limited Offer
\$200 off
RRP prices

Reduces 25% off the average
power bill of 20 units per day

**Japanese Poly
or US Thin Film** (only on a tin roof)

installed by a
Perth family business

Poly from \$2250* **\$2050***
Thin Film from \$1799* **\$1599***

*1000W of Japanese Kyocera Poly Panels and Latronics (Australian Inverter)
***1000W of US EPV Thin Film Panels and a Sunny Boy (German Inverter)
based on qualifying for the Gov grant, REC's discount, single storey & tin roof

Enjoy the experience from
start to finish. Solar Power is
now very affordable. Start
saving the planet today...

Poly

Thin Film

Poly/Thin Film

SOLAR
Unlimited

*Conditions:
Must qualify for Government
Grant of \$8,000.
After REC's discount. Install is
based on Calaburband Roof &
a typical single storey height.
Limited Offer - whilst stocks last

1 3 0 0 S O L A W A
1 3 0 0 7 6 5 2 9 2

Solar Panel Offer - Steps



1. Indicate your interest on the attendance register;
2. We will give your details to Solar Unlimited;
3. A Solar Unlimited representative will ring you to arrange a time for a visit;
4. A representative will visit you to assess your needs and quote;
5. You can sign up then and there, shop around, or decide not to proceed.