

# Support material #20:

## Sample energy team data

Time of year: Winter

Two adults live with two children, a grandparent and a dog in a three-bedroom house.

They use electricity for cooking, hot water and heating.

Both adults work full time during the day while the grandparent stays at home.

The two children are school age. The oldest is in Year 8, the youngest in Year 6. They spend most of their time after school in the house or outside playing.

As an energy team, they discussed their combined energy use for different appliances in their home and came up with the following data.

Complete the following table using the data provided in

- *Support material #9: Typical power ratings of gas and electric appliances*
- *Support material #10: Energy calculations.*



Room	Appliance	Use	Typical power rating (W or MJ)	How many hours would the appliance be on for a year? 365 days/year 52 weeks/year 60 minutes/hour	Total yearly energy use	Greenhouse gases produced (kg CO <sub>2</sub> -e) (See page 2 for state based CO <sub>2</sub> conversion data)  (Please note: 1000 MJ = 1 GJ)
<b>My bedroom</b>						
	Home computer (PC and monitor)	3 hrs/day	190 W	1095 hours/year	208,050 Wh = 208.05 kWh	QLD: 216.37 kg CO <sub>2</sub> -e
	Alarm clock (on for 24 hours)	168 hrs/week				
	Portable Television (small)	3 hrs/day				
	Portable stereo (small)	2 hrs/day				
	Electric blanket (single bed)	7 hr/week				
	Other small appliances	2 hrs/day				
	Lighting (2 x 60 W globes)	5 hrs/day				
Bedroom weekly total						

# Support material #20: Sample energy team data

My bathroom and laundry						
	Iron (auto appliance)	3 hrs/ week				
	Shower (electric hot water system)	50 min/ day				
	Lighting (3 x 100 W globes)	2 hrs/day				
Bathroom and laundry weekly total						
My kitchen						
	Small appliances	28 hrs/ week				
	Electric oven (fan- assisted)	14 hrs/ week				
	Dishwasher	4 hrs/ week				
	Electric stove top cooking (small hotplate)	8 hrs/ week				
	Microwave	2 hrs/ week				
	Lighting (3 x 100 W globes)	5 hrs/day				
Kitchen weekly total						
My living room						
	Electric strip heater	2 hrs/day				
	Electric central heating	4 hrs/day				
	Television (plasma)	42 hrs/ week				
	Stereo	10 hrs/ week				
	VCR	3 hrs/ week				
	Lighting (5 x 100 W globes)	7 hrs/day				
	Vacuum cleaner	3 hrs/ week				
Living room weekly total						

State based CO<sub>2</sub> conversion data

State	Natural gas (Kg CO <sub>2</sub> -e/GJ)	Electricity (Kg CO <sub>2</sub> -e/Kwh)
NSW	66.1	1.06
QLD	57.3	1.04
SA	70.7	0.98
VIC	57.3	1.31