

This document outlines the key assumptions used to calculate the energy efficiency savings data used by The Climate Institute for its online tool: [yourcarbonprice.com.au](http://yourcarbonprice.com.au).

## Technical Assumptions

Action	Assumptions used
<b>Install water saving shower head</b>	<ul style="list-style-type: none"> <li>Savings are for gas hot water (note this is conservative, as many households have electric, which is more expensive)</li> <li>Savings are for replacing one showerhead</li> <li>Up front cost: \$20 per showerhead</li> <li>Energy savings: 3,030 MJ/person/yr (assuming one shower per person per day)</li> </ul>
<b>Reduce length of shower by 2 minutes</b>	<ul style="list-style-type: none"> <li>Savings are for gas hot water</li> <li>Energy savings: 974 MJ/person/yr (assuming one shower per person per day)</li> </ul>
<b>Upgrade lights - 60W Incandescent to 15WCFL</b>	<ul style="list-style-type: none"> <li>Assumed that six lights are changed</li> <li>Energy savings: 405 kWh/yr in total for six lights</li> <li>Upfront cost: \$7 per light</li> </ul>
<b>Upgrade lights - 50W Halogen Downlight to 12W LED</b>	<ul style="list-style-type: none"> <li>Assumed that six lights are changed</li> <li>Energy savings: 432 kWh/yr in total for six lights</li> <li>Upfront cost: \$60 per light</li> </ul>
<b>Reduce washing temperature by 20°C</b>	<ul style="list-style-type: none"> <li>Washing machine size: 6 – 8 kg toploader</li> <li>Water use: 60 L/cycle</li> <li>Annual energy savings: 1,840 MJ</li> </ul>
<b>Remove second refrigerator</b>	<ul style="list-style-type: none"> <li>Fridge size: 500 L</li> <li>Energy use for second fridge: 1.78 kWh/L/yr</li> <li>Annual energy savings: 800 kWh</li> </ul>
<b>Use clothes line instead of electric clothes dryer</b>	<ul style="list-style-type: none"> <li>Energy use per load: 5.352 kWh</li> <li>Number of loads per year: 104</li> <li>Annual energy savings: 577 kWh</li> </ul>
<b>Reduce standby power from 100W to 50W</b>	<ul style="list-style-type: none"> <li>Assumed annual energy loss for 100 W standby load: 788 kWh</li> <li>Assumed annual energy loss for 50 W standby load: 394 kWh</li> <li>Annual energy savings: 394 kWh</li> </ul>

## Energy Cost Assumptions

	ACT	NSW	VIC	QLD	WA	TAS	NT	SA
Electricity (\$/Kwh)	\$0.19	\$0.23	\$0.20	\$0.21	\$0.21	\$0.23	\$0.24	\$0.26
Gas* (\$/MJ)	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	-	\$0.02

\*For simplicity we assumed the same relatively low gas price across all states and territories. In reality gas prices, and associated dollar savings will be higher in most jurisdictions (appreciably higher in Queensland and WA), though lower in Victoria.