APPENDIX

Table A1 Hypothetical weekly energy use for a medium-size (150 m^2) Australian garden

Energy use	Energy use rating	Energy use (MJ/week)
INFLOWS		
Power tool fuel		
Handheld blower	¼ hr @ 14.2 MJ/hr	3.55
Mower	¼ hr @ 16.9 MJ/hr	4.2
Chainsaw	¼ hr @ 5.8 MJ/hr	1.45
Whipper-snipper	¼ hr @ 2 MJ/hr	0.5
Total		9.7
Chemicals		
Fertiliser		Negligible
Pesticide	3 apps on 75 m^2 @ rate of 1 kg/ha and ~ 263 MJ	0.025 Negligible
Mains water	Embodied energy of treatment and infrastructure	Negligible
Organics		Negligible
Mulch (off-site) and compost		Unknown (small)
Food scraps	2 kg peelings etc.	?
Increase in 'permanent' vegetation such as a growing tree	Each kg gain in fresh weight equates to about 4.65 MJ energy	5
Human labour	1 day light work	4
Hard landscape		
Energy costing of area with pool, decking and paving, labour, construction	12 218.5 MJ – assuming life span of 15 years = 814.6 MJ/yr	15.7
Manufacture of tools and machinery		Unknown
OUTFLOWS		
Organics garden produce		
Vegetables Asparagus Onion Potatoes Carrots Cucumber Lettuce Spinach	Annual production (kJ) ½ kg = 247 2 kg = 2920 10 kg = 29 260 2 kg = 2672 ½ kg = 209 ¼ kg = 160 1 kg = 138 Total c. 35kJ	0.0006 MJ
Green waste	Processed on-site (possible use of chipper)	?
Hard waste		?
Total*		c. 30
*Solar radiation over garden***		*Total solar 2268*

* this is extremely low relative to other energy use, e.g. a home of 4 people uses about 32 kWh (115.2 MJ) per day.
** In Melbourne with a mean annual solar radiation of about 4.2 kWh/m^2/day total solar energy input per week is:
150 (area of garden in m^2) x 4.2 (kWh/m^2/day) x 3.6 (conversion to MJ) x 7 (week) = 2268 MJ