



## Impact Time Series Comparison Report: Improved Design

### Cost Performance of Improved Design



Improved Design Base Design

Highcharts.com

| Year | Improved Design | Base Design |
|------|-----------------|-------------|
| 0    | 220,644         | 202,435     |
| 1    | 220,752         | 203,867     |
| 2    | 220,860         | 205,299     |
| 3    | 220,968         | 206,731     |
| 4    | 221,076         | 208,163     |
| 5    | 222,046         | 209,594     |
| 6    | 222,154         | 211,026     |
| 7    | 222,262         | 212,458     |
| 8    | 222,370         | 213,890     |
| 9    | 222,983         | 215,827     |
| 10   | 230,826         | 224,500     |
| 11   | 230,934         | 225,932     |
| 12   | 231,042         | 227,363     |
| 13   | 232,335         | 229,980     |
| 14   | 232,443         | 231,412     |
| 15   | 242,878         | 241,159     |
| 16   | 242,986         | 242,591     |
| 17   | 243,094         | 244,023     |
| 18   | 243,707         | 245,960     |
| 19   | 243,815         | 247,392     |
| 20   | 257,002         | 261,472     |
| 21   | 257,110         | 262,904     |
| 22   | 257,218         | 264,336     |
| 23   | 257,326         | 265,768     |
| 24   | 257,433         | 267,200     |
| 25   | 279,835         | 280,180     |
| 26   | 281,128         | 282,796     |
| 27   | 281,741         | 284,734     |
| 28   | 281,849         | 286,165     |
| 29   | 281,957         | 287,597     |
| 30   | 300,063         | 305,384     |
| 31   | 300,171         | 306,815     |
| 32   | 300,279         | 308,247     |
| 33   | 300,387         | 309,679     |
| 34   | 300,495         | 311,111     |
| 35   | 314,634         | 325,711     |
| 36   | 319,997         | 332,399     |
| 37   | 320,105         | 333,831     |

|    |         |         |
|----|---------|---------|
| 38 | 320,213 | 335,262 |
| 39 | 321,506 | 337,879 |
| 40 | 339,574 | 355,077 |
| 41 | 339,681 | 356,509 |
| 42 | 339,789 | 357,941 |
| 43 | 339,897 | 359,373 |
| 44 | 361,553 | 373,391 |
| 45 | 372,493 | 383,644 |
| 46 | 372,601 | 385,075 |
| 47 | 372,709 | 386,507 |
| 48 | 372,817 | 387,939 |
| 49 | 372,925 | 389,371 |
| 50 | 426,644 | 436,463 |
| 51 | 426,752 | 437,895 |
| 52 | 428,045 | 440,511 |
| 53 | 428,152 | 441,943 |
| 54 | 428,766 | 443,880 |

### Detail

| Year | Annual Energy and Water | Annual Materials | Annual Labour and Equipment | Total      |
|------|-------------------------|------------------|-----------------------------|------------|
| 0    | 0.00                    | 131,749.85       | 88,894.31                   | 220,644.16 |
| 1    | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 2    | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 3    | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 4    | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 5    | 107.89                  | 0.00             | 862.42                      | 970.32     |
| 6    | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 7    | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 8    | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 9    | 107.89                  | 385.66           | 119.61                      | 613.16     |
| 10   | 107.89                  | 5,848.95         | 1,886.60                    | 7,843.44   |
| 11   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 12   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 13   | 107.89                  | 1,184.81         | 0.00                        | 1,292.71   |
| 14   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 15   | 107.89                  | 2,727.24         | 7,599.93                    | 10,435.06  |
| 16   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 17   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 18   | 107.89                  | 385.66           | 119.61                      | 613.16     |
| 19   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 20   | 107.89                  | 9,956.97         | 3,122.40                    | 13,187.26  |
| 21   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 22   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 23   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 24   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 25   | 107.89                  | 14,165.12        | 8,128.93                    | 22,401.95  |
| 26   | 107.89                  | 1,184.81         | 0.00                        | 1,292.71   |
| 27   | 107.89                  | 385.66           | 119.61                      | 613.16     |
| 28   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 29   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 30   | 107.89                  | 8,897.94         | 9,100.29                    | 18,106.13  |
| 31   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 32   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 33   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 34   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 35   | 107.89                  | 0.00             | 14,031.03                   | 14,138.92  |
| 36   | 107.89                  | 5,135.93         | 119.61                      | 5,363.43   |
| 37   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 38   | 107.89                  | 0.00             | 0.00                        | 107.89     |
| 39   | 107.89                  | 1,184.81         | 0.00                        | 1,292.71   |

|    |        |           |           |           |
|----|--------|-----------|-----------|-----------|
| 40 | 107.89 | 12,207.89 | 5,752.15  | 18,067.94 |
| 41 | 107.89 | 0.00      | 0.00      | 107.89    |
| 42 | 107.89 | 0.00      | 0.00      | 107.89    |
| 43 | 107.89 | 0.00      | 0.00      | 107.89    |
| 44 | 107.89 | 21,547.55 | 0.00      | 21,655.45 |
| 45 | 107.89 | 3,112.90  | 7,719.53  | 10,940.33 |
| 46 | 107.89 | 0.00      | 0.00      | 107.89    |
| 47 | 107.89 | 0.00      | 0.00      | 107.89    |
| 48 | 107.89 | 0.00      | 0.00      | 107.89    |
| 49 | 107.89 | 0.00      | 0.00      | 107.89    |
| 50 | 107.89 | 35,320.89 | 18,290.58 | 53,719.37 |
| 51 | 107.89 | 0.00      | 0.00      | 107.89    |
| 52 | 107.89 | 1,184.81  | 0.00      | 1,292.71  |
| 53 | 107.89 | 0.00      | 0.00      | 107.89    |
| 54 | 107.89 | 385.66    | 119.61    | 613.16    |

### Significant Items

| Year | Significant Items   |
|------|---|
| 5    | z Monocrystalline Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs   |
| 9    | Dishwasher Em   Dishwasher   Steel - General - Unspecified - Industry Average   15.4 kg<br>Dishwasher Em   Dishwasher   Plastics - Polypropylene - Injection Moulding - Industry Average   8.81 kg<br>Dishwasher Em   Dishwasher   Steel - Stainless - Unspecified - Industry Average   7.42 kg<br>Dishwasher Em   Install dishwasher   Trade Staff (Small Electrical Equipment)   0.75 hrs<br>Dishwasher Em   Making the dishwasher   Offsite Manufacturing / Prefabrication Process   5 hrs   |
| 10   | Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2.7 kg<br>Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - ABS - Industry Average   5.07 kg<br>Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polystyrene - Expanded Polystyrene - Industry Average   6.26 kg<br>Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polyurethane - Unspecified - Industry Average   5.57 kg<br>Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - General - Unspecified - Industry Average   5.07 kg<br>Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Glass and Windows - AA Glass - Unspecified - Industry Average   2.87 kg<br>Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Steel - General - Unspecified - Industry Average   47.55 kg<br>HWS, Solar Gas Instantaneous (no storage)   Housing etc   Steel - General - Unspecified - Industry Average   15 kg<br>HWS, Solar Gas Instantaneous (no storage)   Gas Heating Element etc   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br>Solar Hot Water Flat Plate Collector, 3.9m2   Collector Plastic Moulding etc   Plastics - General - Unspecified - Industry Average   20 kg<br>Solar Hot Water Flat Plate Collector, 3.9m2   Solar Collectors   Glass and Windows - AA Glass - Unspecified - Industry Average   0.0234 m3<br>Solar Hot Water Flat Plate Collector, 3.9m2   Collector frames   Aluminium - General - Unspecified - Industry Average   15 kg<br>Solar Hot Water Flat Plate Collector, 3.9m2   Collector copper   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br>Solar Hot Water Flat Plate Collector, 3.9m2   Collector   Steel - General - Unspecified - Industry Average   50 kg<br>Clothes washer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br>Clothes washer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br>Clothes dryer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br>Clothes dryer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br>HVAC Residential Wood Pellet Heater   Fan motor   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2 kg<br>z Monocrystalline Solar System - Zone 3   Inverter and cables etc   Finished Products - Electrical Goods - Electrical Equipment - Industry Average (# unit equals \$ Spent)   1000 #<br>Refrigeration, Residential Detailed (AUS) Em   Manufacture fridge   Offsite Manufacturing / Prefabrication Process   5 hrs<br>Site Surveys & Inspections   Inspection of site for pest/insects   Trade Staff (Small Electrical Equipment)   2 hrs<br>HWS, Solar Gas Instantaneous (no storage)   Plumber for HWS installation   Trade Staff (Small Electrical Equipment)   4 hrs<br>HWS, Solar Gas Instantaneous (no storage)   Hot Water Unit Assembly   Offsite Manufacturing / Prefabrication Process   5 hrs<br>Solar Hot Water Flat Plate Collector, 3.9m2   Assembly of collector   Offsite Manufacturing / Prefabrication Process   6 hrs<br>Clothes washer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br>Clothes washer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br>Clothes dryer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br>Clothes dryer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br>Energy monitoring system, residential   Install energy monitor   Trade Staff (Small Electrical Equipment)   0.5 hrs<br>z Monocrystalline Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs |

|    |   |
|----|---|
| 13 | <p>Cooking Res, stove and oven Em   Cooker casing   Steel - Stainless - Unspecified - Industry Average   43 kg<br/> Cooking Res, stove and oven Em   Cooker   Paints and Finishes - Unspecified - 1 Coat - Industry Average   7.2 kg<br/> Cooking Res, stove and oven Em   Ceramic glass cooktop   Glass and Windows - AA Glass - Unspecified - Industry Average   6 kg</p>   |
| 15 | <p>Plasterboard Ceilings (painted)   Final Coat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   180 m2<br/> z * Door, Hollow Core and Steel Jam   Door and Frame Paint   Paints and Finishes - Unspecified - 2 Coats - Industry Average   70 m2<br/> z Lighting Residential CFL Med Natural Light   Light fitting   Steel - Coated Sheet - Zinc Coated &amp; Coloured Sheet 0.43mm - Industry Average   5.175 kg<br/> Energy monitoring system, residential   sensors and gateway   Finished Products - Electrical Goods - Electronics For Control Unit - Industry Average (# unit equals \$ Spent)   200 #<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Undercoat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Final Coat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Undercoat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   2nd Coat   Paints and Finishes - Wood Stains and Finishes - General - Industry Average   64 m2<br/> Garage Door, Double   Installation of Garage Door   Trade Staff (Small Electrical Equipment)   3 hrs<br/> Plasterboard Ceilings (painted)   Painter - Prep and Final Coat   Trade Staff (Small Electrical Equipment)   45 hrs<br/> z * Door, Hollow Core and Steel Jam   Painter   Trade Staff (Small Electrical Equipment)   14 hrs<br/> Cooking Res, stove and oven Em   Making the cooker   Offsite Manufacturing / Prefabrication Process   20 hrs<br/> z Lighting Residential CFL Med Natural Light   Electrician Fit Lights   Trade Staff (Small Electrical Equipment)   8.625 hrs<br/> Ornamental Timber Wall Cladding   Painter - coating   Trade Staff (Small Electrical Equipment)   2 hrs<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Painter - Undercoat   Trade Staff (Small Electrical Equipment)   3.712 hrs<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Painter - Finish   Trade Staff (Small Electrical Equipment)   3.712 hrs<br/> z Monocrystalyne Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs</p>  |
| 18 | <p>Dishwasher Em   Dishwasher   Steel - General - Unspecified - Industry Average   15.4 kg<br/> Dishwasher Em   Dishwasher   Plastics - Polypropylene - Injection Moulding - Industry Average   8.81 kg<br/> Dishwasher Em   Dishwasher   Steel - Stainless - Unspecified - Industry Average   7.42 kg<br/> Dishwasher Em   Install dishwasher   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Dishwasher Em   Making the dishwasher   Offsite Manufacturing / Prefabrication Process   5 hrs</p>  |
| 20 | <p>Windows, Residential Aluminium Single Glaze   Fly screen frame   Aluminium - General - Unspecified - Industry Average   24 kg<br/> Windows, Residential Aluminium Single Glaze   Flyscreen Mesh   Plastics - General - Unspecified - Industry Average   0.0144 m3<br/> Shower unit   Shower screens   Glass and Windows - AA Glass - Unspecified - Industry Average   0.02 m3<br/> Shower unit   Shower screens   Glass and Windows - AA Glass - Unspecified - Industry Average   0.02 m3<br/> HVAC Residential Ceiling Fans   Fan motor Windings   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   8.28 kg<br/> HVAC Residential Ceiling Fans   Fan Components - Plastic Shrouds   Plastics - General - Unspecified - Industry Average   11.04 kg<br/> HVAC Residential Ceiling Fans   Fan Blades   Steel - Coated Sheet - Zinc Coated &amp; Coloured Sheet 0.43mm - Industry Average   22.08 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2.7 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - ABS - Industry Average   5.07 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polystyrene - Expanded Polystyrene - Industry Average   6.26 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polyurethane - Unspecified - Industry Average   5.57 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - General - Unspecified - Industry Average   5.07 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Glass and Windows - AA Glass - Unspecified - Industry Average   2.87 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Steel - General - Unspecified - Industry Average   47.55 kg<br/> Lighting and Electrical Fittings   Plastic associated with electrical wire and fittings   Plastics - General - Unspecified - Industry Average   60 kg<br/> HWS, Solar Gas Instantaneous (no storage)   Housing etc   Steel - General - Unspecified - Industry Average   15 kg<br/> HWS, Solar Gas Instantaneous (no storage)   Gas Heating Element etc   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector Plastic Moulding etc   Plastics - General - Unspecified - Industry Average   20 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Solar Collectors   Glass and Windows - AA Glass - Unspecified - Industry Average   0.0234 m3<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector frames   Aluminium - General - Unspecified - Industry Average   15 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector copper   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector   Steel - General - Unspecified - Industry Average   50 kg<br/> Clothes washer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br/> Clothes washer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> Clothes dryer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br/> Clothes dryer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> HVAC Residential Wood Pellet Heater   Fan motor   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2 kg</p> |

|    |  |
|----|--|
|    | <p>HVAC Residential Wood Pellet Heater   Heater Componentry   Steel - General - Unspecified - Industry Average   75 kg<br/> HVAC Residential Wood Pellet Heater   Heat proof ceramic lining   Ceramics - Ceramic Tiles - Industry Average   20 kg<br/> z Monocrystalyne Solar System - Zone 3   Inverter and cables etc   Finished Products - Electrical Goods - Electrical Equipment - Industry Average (# unit equals \$ Spent)   1000 #<br/> Laundry Sink   Plumber   Trade Staff (Small Electrical Equipment)   2 hrs<br/> HVAC Residential Ceiling Fans   Factory Processes   Offsite Manufacturing / Prefabrication Process   20 hrs<br/> HVAC Residential Ceiling Fans   Install Unit   Trade Staff (Small Electrical Equipment)   6 hrs<br/> Refrigeration, Residential Detailed (AUS) Em   Manufacture fridge   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Site Surveys &amp; Inspections   Inspection of site for pest/insects   Trade Staff (Small Electrical Equipment)   2 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Plumber for HWS installation   Trade Staff (Small Electrical Equipment)   4 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Hot Water Unit Assembly   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Assembly of collector   Offsite Manufacturing / Prefabrication Process   6 hrs<br/> Clothes washer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes washer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Clothes dryer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes dryer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Energy monitoring system, residential   Install energy monitor   Trade Staff (Small Electrical Equipment)   0.5 hrs<br/> HVAC Residential Wood Pellet Heater   Install HVAC Unit   Trade Staff (Small Electrical Equipment)   4 hrs<br/> z Monocrystalyne Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs</p>   |
| 25 | <p>Plasterboard Ceilings (painted)   acrylic adhesive   Resins and Adhesives - Epoxy Resin - Industry Average   0.036 m3<br/> Plasterboard Ceilings (painted)   12mm back-blocking plasterboard   Plaster and Gypsum Derived Products - Plaster Board - 12mm Sheets - Industry Average   0.396 m3<br/> Plasterboard Ceilings (painted)   12mm plasterboard   Plaster and Gypsum Derived Products - Plaster Board - 12mm Sheets - Industry Average   2.16 m3<br/> Plasterboard Ceilings (painted)   Timber ceiling battens   Timber - Sawn Softwood - Unspecified - Industry Average   0.594 m3<br/> Plasterboard Ceilings (painted)   Undercoats   Paints and Finishes - Unspecified - 2 Coats - Industry Average   180 m2<br/> z Monocrystalyne Solar System - Zone 3   Panels   Finished Products - Electrical Goods - Solar PV Panels - Monocrystalline - Unspecified - Industry Average   25.6 m2<br/> Plasterboard Ceilings (painted)   Painter - Prep and Undercoats   Trade Staff (Small Electrical Equipment)   9 hrs<br/> Lighting and Electrical Fittings   Electrician   Trade Staff (Small Electrical Equipment)   40 hrs<br/> Communications, Residential   Electrician   Trade Staff (Small Electrical Equipment)   8 hrs<br/> Polished Concrete - Grind and Polish   Polish   Trade Staff (Small Electrical Equipment)   24.2 hrs<br/> z Monocrystalyne Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs</p>   |
| 26 | <p>Cooking Res, stove and oven Em   Cooker casing   Steel - Stainless - Unspecified - Industry Average   43 kg<br/> Cooking Res, stove and oven Em   Cooker   Paints and Finishes - Unspecified - 1 Coat - Industry Average   7.2 kg<br/> Cooking Res, stove and oven Em   Ceramic glass cooktop   Glass and Windows - AA Glass - Unspecified - Industry Average   6 kg</p>  |
| 27 | <p>Dishwasher Em   Dishwasher   Steel - General - Unspecified - Industry Average   15.4 kg<br/> Dishwasher Em   Dishwasher   Plastics - Polypropylene - Injection Moulding - Industry Average   8.81 kg<br/> Dishwasher Em   Dishwasher   Steel - Stainless - Unspecified - Industry Average   7.42 kg<br/> Dishwasher Em   Install dishwasher   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Dishwasher Em   Making the dishwasher   Offsite Manufacturing / Prefabrication Process   5 hrs</p>   |
|    | <p>Plasterboard Ceilings (painted)   Final Coat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   180 m2<br/> z * Door, Hollow Core and Steel Jam   Door and Frame Paint   Paints and Finishes - Unspecified - 2 Coats - Industry Average   70 m2<br/> WC and sink   Sink   Ceramics - Finished Products - Bathroom Sink - Industry Average   1 #<br/> Laundry Sink   Laundry Sink   Steel - Stainless - Finished Products - Laundry Sink - Industry Average   1 #<br/> z Lighting Residential CFL Med Natural Light   Light fitting   Steel - Coated Sheet - Zinc Coated &amp; Coloured Sheet 0.43mm - Industry Average   5.175 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2.7 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - ABS - Industry Average   5.07 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polystyrene - Expanded Polystyrene - Industry Average   6.26 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polyurethane - Unspecified - Industry Average   5.57 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - General - Unspecified - Industry Average   5.07 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Glass and Windows - AA Glass - Unspecified - Industry Average   2.87 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Steel - General - Unspecified - Industry Average   47.55 kg<br/> HWS, Solar Gas Instantaneous (no storage)   Housing etc   Steel - General - Unspecified - Industry Average   15 kg<br/> HWS, Solar Gas Instantaneous (no storage)   Gas Heating Element etc   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector Plastic Moulding etc   Plastics - General - Unspecified - Industry Average   20 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Solar Collectors   Glass and Windows - AA Glass - Unspecified - Industry Average   0.0234 m3<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector frames   Aluminium - General - Unspecified - Industry Average   15 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector copper   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector   Steel - General - Unspecified - Industry Average   50 kg<br/> Clothes washer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg</p> |

|    |  |
|----|--|
| 30 | <p>Clothes washer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> Clothes dryer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br/> Clothes dryer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> Energy monitoring system, residential   sensors and gateway   Finished Products - Electrical Goods - Electronics For Control Unit - Industry Average (# unit equals \$ Spent)   200 #<br/> HVAC Residential Wood Pellet Heater   Fan motor   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2 kg<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Undercoat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Final Coat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Undercoat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   2nd Coat   Paints and Finishes - Wood Stains and Finishes - General - Industry Average   64 m2<br/> z Monocrystalyne Solar System - Zone 3   Inverter and cables etc   Finished Products - Electrical Goods - Electrical Equipment - Industry Average (# unit equals \$ Spent)   1000 #<br/> Garage Door, Double   Installation of Garage Door   Trade Staff (Small Electrical Equipment)   3 hrs<br/> Plasterboard Ceilings (painted)   Painter - Prep and Final Coast   Trade Staff (Small Electrical Equipment)   45 hrs<br/> z * Door, Hollow Core and Steel Jam   Painter   Trade Staff (Small Electrical Equipment)   14 hrs<br/> WC and sink   Plumber fit sink   Trade Staff (Small Electrical Equipment)   2 hrs<br/> Shower unit   Plumber fit shower base   Trade Staff (Small Electrical Equipment)   2 hrs<br/> Shower unit   Plumber fit shower base   Trade Staff (Small Electrical Equipment)   2 hrs<br/> Cooking Res, stove and oven Em   Makeing the cooker   Offsite Manufacturing / Prefabrication Process   20 hrs<br/> z Lighting Residential CFL Med Natural Light   Electrician Fit Lights   Trade Staff (Small Electrical Equipment)   8.625 hrs<br/> Refrigeration, Residential Detailed (AUS) Em   Manufacture fridge   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Ornamental Timber Wall Cladding   Painter - coating   Trade Staff (Small Electrical Equipment)   2 hrs<br/> Site Surveys &amp; Inspections   Inspection of site for pest/insects   Trade Staff (Small Electrical Equipment)   2 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Plumber for HWS installation   Trade Staff (Small Electrical Equipment)   4 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Hot Water Unit Assembly   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Assembly of collector   Offsite Manufacturing / Prefabrication Process   6 hrs<br/> Clothes washer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes washer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Clothes dryer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes dryer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Energy monitoring system, residential   Install energy monitor   Trade Staff (Small Electrical Equipment)   0.5 hrs<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Painter - Undercoat   Trade Staff (Small Electrical Equipment)   3.712 hrs<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Painter - Finish   Trade Staff (Small Electrical Equipment)   3.712 hrs<br/> z Monocrystalyne Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs</p> |
| 35 | <p>Roof - TimberTruss/SteelSheeting/25°Pitch   install Gutter   Trade Staff (Small Electrical Equipment)   9 hrs<br/> Roof - TimberTruss/SteelSheeting/25°Pitch   Carpenter, roof frame and battons / sarking   Trade Staff (Small Electrical Equipment)   54 hrs<br/> Roof - TimberTruss/SteelSheeting/25°Pitch   Ceiling, soffits and eves installation   Trade Staff (Small Electrical Equipment)   28.8 hrs<br/> Roof - TimberTruss/SteelSheeting/25°Pitch   Install covering   Trade Staff (Small Electrical Equipment)   28.8 hrs<br/> Site Electrical Works - Residential   Trenching   Trench Digger / Dingo   1.5 hrs<br/> Site Electrical Works - Residential   Connection and Installation   Trade Staff (Small Electrical Equipment)   8 hrs<br/> Plumbing, hardware and install to slab   Services trench   Trench Digger / Dingo   2 hrs<br/> Plumbing, hardware and install to slab   Plumber, installation from stret   Trade Staff (Small Electrical Equipment)   24 hrs<br/> z Monocrystalyne Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs</p>  |
| 36 | <p>Covering - Steel Sheetting (corrugated)   0.48mm Colorbond corrugated/CustomOrb sheet   Steel - General - Unspecified - Industry Average   978.8022 kg<br/> Dishwasher Em   Dishwasher   Steel - General - Unspecified - Industry Average   15.4 kg<br/> Dishwasher Em   Dishwasher   Plastics - Polypropylene - Injection Moulding - Industry Average   8.81 kg<br/> Dishwasher Em   Dishwasher   Steel - Stainless - Unspecified - Industry Average   7.42 kg<br/> Dishwasher Em   Install dishwasher   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Dishwasher Em   Making the dishwasher   Offsite Manufacturing / Prefabrication Process   5 hrs</p>   |
| 39 | <p>Cooking Res, stove and oven Em   Cooker casing   Steel - Stainless - Unspecified - Industry Average   43 kg<br/> Cooking Res, stove and oven Em   Cooker   Paints and Finishes - Unspecified - 1 Coat - Industry Average   7.2 kg<br/> Cooking Res, stove and oven Em   Ceramic glass cooktop   Glass and Windows - AA Glass - Unspecified - Industry Average   6 kg</p>  |
|    | <p>Windows, Residential Aluminium Single Glaze   Fly screen frame   Aluminium - General - Unspecified - Industry Average   24 kg<br/> Windows, Residential Aluminium Single Glaze   Flyscreen Mesh   Plastics - General - Unspecified - Industry Average   0.0144 m3<br/> WC and sink   Toilet   Ceramics - Finished Products - Toilet - Industry Average   1 #<br/> Shower unit   Shower screens   Glass and Windows - AA Glass - Unspecified - Industry Average   0.02 m3<br/> WC   Toilet   Ceramics - Finished Products - Toilet - Industry Average   1 #<br/> Shower unit   Shower screens   Glass and Windows - AA Glass - Unspecified - Industry Average   0.02 m3<br/> HVAC Residential Ceiling Fans   Fan motor Windings   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   8.28 kg<br/> HVAC Residential Ceiling Fans   Fan Components - Plastic Shrouds   Plastics - General - Unspecified - Industry Average</p>   |



|    |  |
|----|--|
|    | <p>  11.04 kg<br/> HVAC Residential Ceiling Fans   Fan Blades   Steel - Coated Sheet - Zinc Coated &amp; Coloured Sheet 0.43mm - Industry Average   22.08 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2.7 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - ABS - Industry Average   5.07 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polystyrene - Expanded Polystyrene - Industry Average   6.26 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polyurethane - Unspecified - Industry Average   5.57 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - General - Unspecified - Industry Average   5.07 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Glass and Windows - AA Glass - Unspecified - Industry Average   2.87 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Steel - General - Unspecified - Industry Average   47.55 kg<br/> Lighting and Electrical Fittings   Plastic associated with electrical wire and fittings   Plastics - General - Unspecified - Industry Average   60 kg<br/> HWS, Solar Gas Instantaneous (no storage)   Housing etc   Steel - General - Unspecified - Industry Average   15 kg<br/> HWS, Solar Gas Instantaneous (no storage)   Gas Heating Element etc   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector Plastic Moulding etc   Plastics - General - Unspecified - Industry Average   20 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Solar Collectors   Glass and Windows - AA Glass - Unspecified - Industry Average   0.0234 m3<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector frames   Aluminium - General - Unspecified - Industry Average   15 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector copper   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector   Steel - General - Unspecified - Industry Average   50 kg<br/> Shower drain heat recovery system, residential   Grey water heat recovery unit   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   30 kg<br/> Clothes washer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br/> Clothes washer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> Clothes dryer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br/> Clothes dryer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> HVAC Residential Wood Pellet Heater   Fan motor   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2 kg<br/> HVAC Residential Wood Pellet Heater   Heater Componentry   Steel - General - Unspecified - Industry Average   75 kg<br/> HVAC Residential Wood Pellet Heater   Heat proof ceramic lining   Ceramics - Ceramic Tiles - Industry Average   20 kg<br/> z Monocrystalline Solar System - Zone 3   Inverter and cables etc   Finished Products - Electrical Goods - Electrical Equipment - Industry Average (# unit equals \$ Spent)   1000 #<br/> Ceramic Wall Tiles   Tiler   Trade Staff (Small Electrical Equipment)   8 hrs<br/> WC and sink   Plumber fit WC   Trade Staff (Small Electrical Equipment)   2.75 hrs<br/> Ceramic Wall Tiles   Tiler   Trade Staff (Small Electrical Equipment)   8 hrs<br/> Laundry Sink   Plumber   Trade Staff (Small Electrical Equipment)   2 hrs<br/> WC   Plumber fit WC   Trade Staff (Small Electrical Equipment)   2.75 hrs<br/> HVAC Residential Ceiling Fans   Factory Processes   Offsite Manufacturing / Prefabrication Process   20 hrs<br/> HVAC Residential Ceiling Fans   Install Unit   Trade Staff (Small Electrical Equipment)   6 hrs<br/> Refrigeration, Residential Detailed (AUS) Em   Manufacture fridge   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Site Surveys &amp; Inspections   Inspection of site for pest/insects   Trade Staff (Small Electrical Equipment)   2 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Plumber for HWS installation   Trade Staff (Small Electrical Equipment)   4 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Hot Water Unit Assembly   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Assembly of collector   Offsite Manufacturing / Prefabrication Process   6 hrs<br/> Shower drain heat recovery system, residential   Installation shower drain heat recovery system   Trade Staff (Small Electrical Equipment)   14 hrs<br/> Clothes washer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes washer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Clothes dryer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes dryer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Energy monitoring system, residential   Install energy monitor   Trade Staff (Small Electrical Equipment)   0.5 hrs<br/> HVAC Residential Wood Pellet Heater   Install HVAC Unit   Trade Staff (Small Electrical Equipment)   4 hrs<br/> z Monocrystalline Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs</p> |
| 40 | <p>Unspecified - Industry Average   5 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector   Steel - General - Unspecified - Industry Average   50 kg<br/> Shower drain heat recovery system, residential   Grey water heat recovery unit   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   30 kg<br/> Clothes washer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br/> Clothes washer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> Clothes dryer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br/> Clothes dryer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> HVAC Residential Wood Pellet Heater   Fan motor   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2 kg<br/> HVAC Residential Wood Pellet Heater   Heater Componentry   Steel - General - Unspecified - Industry Average   75 kg<br/> HVAC Residential Wood Pellet Heater   Heat proof ceramic lining   Ceramics - Ceramic Tiles - Industry Average   20 kg<br/> z Monocrystalline Solar System - Zone 3   Inverter and cables etc   Finished Products - Electrical Goods - Electrical Equipment - Industry Average (# unit equals \$ Spent)   1000 #<br/> Ceramic Wall Tiles   Tiler   Trade Staff (Small Electrical Equipment)   8 hrs<br/> WC and sink   Plumber fit WC   Trade Staff (Small Electrical Equipment)   2.75 hrs<br/> Ceramic Wall Tiles   Tiler   Trade Staff (Small Electrical Equipment)   8 hrs<br/> Laundry Sink   Plumber   Trade Staff (Small Electrical Equipment)   2 hrs<br/> WC   Plumber fit WC   Trade Staff (Small Electrical Equipment)   2.75 hrs<br/> HVAC Residential Ceiling Fans   Factory Processes   Offsite Manufacturing / Prefabrication Process   20 hrs<br/> HVAC Residential Ceiling Fans   Install Unit   Trade Staff (Small Electrical Equipment)   6 hrs<br/> Refrigeration, Residential Detailed (AUS) Em   Manufacture fridge   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Site Surveys &amp; Inspections   Inspection of site for pest/insects   Trade Staff (Small Electrical Equipment)   2 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Plumber for HWS installation   Trade Staff (Small Electrical Equipment)   4 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Hot Water Unit Assembly   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Assembly of collector   Offsite Manufacturing / Prefabrication Process   6 hrs<br/> Shower drain heat recovery system, residential   Installation shower drain heat recovery system   Trade Staff (Small Electrical Equipment)   14 hrs<br/> Clothes washer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes washer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Clothes dryer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes dryer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Energy monitoring system, residential   Install energy monitor   Trade Staff (Small Electrical Equipment)   0.5 hrs<br/> HVAC Residential Wood Pellet Heater   Install HVAC Unit   Trade Staff (Small Electrical Equipment)   4 hrs<br/> z Monocrystalline Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs</p>  |
| 44 | <p>Windows, Residential Aluminium Single Glaze   Ali Windows and Sliding Doors   Glass and Windows - Timber Framed - Double Glaze - Domestic 50% Opening - Industry Average   48 m2</p>  |
|    | <p>Plasterboard Ceilings (painted)   Final Coat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   180 m2<br/> z * Door, Hollow Core and Steel Jam   Door and Frame Paint   Paints and Finishes - Unspecified - 2 Coats - Industry Average   70 m2<br/> z Lighting Residential CFL Med Natural Light   Light fitting   Steel - Coated Sheet - Zinc Coated &amp; Coloured Sheet 0.43mm - Industry Average   5.175 kg<br/> Dishwasher Em   Dishwasher   Steel - General - Unspecified - Industry Average   15.4 kg<br/> Dishwasher Em   Dishwasher   Plastics - Polypropylene - Injection Moulding - Industry Average   8.81 kg<br/> Dishwasher Em   Dishwasher   Steel - Stainless - Unspecified - Industry Average   7.42 kg<br/> Energy monitoring system, residential   sensors and gateway   Finished Products - Electrical Goods - Electronics For Control Unit - Industry Average (# unit equals \$ Spent)   200 #<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Undercoat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Final Coat   Paints and Finishes - Unspecified - 1 Coat - Industry</p>  |

|    |   |
|----|---|
| 45 | <p>Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Undercoat   Paints and Finishes - Unspecified - 1 Coat - Industry Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   2nd Coat   Paints and Finishes - Wood Stains and Finishes - General - Industry Average   64 m2<br/> Garage Door, Double   Installation of Garage Door   Trade Staff (Small Electrical Equipment)   3 hrs<br/> Plasterboard Ceilings (painted)   Painter - Prep and Final Coat   Trade Staff (Small Electrical Equipment)   45 hrs<br/> z * Door, Hollow Core and Steel Jam   Painter   Trade Staff (Small Electrical Equipment)   14 hrs<br/> Cooking Res, stove and oven Em   Makeing the cooker   Offsite Manufacturing / Prefabrication Process   20 hrs<br/> z Lighting Residential CFL Med Natural Light   Electrician Fit Lights   Trade Staff (Small Electrical Equipment)   8.625 hrs<br/> Ornamental Timber Wall Cladding   Painter - coating   Trade Staff (Small Electrical Equipment)   2 hrs<br/> Dishwasher Em   Install dishwasher   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Dishwasher Em   Making the dishwasher   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Painter - Undercoat   Trade Staff (Small Electrical Equipment)   3.712 hrs<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Painter - Finish   Trade Staff (Small Electrical Equipment)   3.712 hrs<br/> z Monocrystalyne Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs</p>   |
| 50 | <p>Finishes Cornices and Skirting   Skirting Boards Hardwood   Timber - Sawn Hardwood - Unspecified - Industry Average   0.0808 m3<br/> Garage Door, Double   Door Panel   Steel - Coated Sheet - Zinc Coated &amp; Coloured Sheet 0.56mm - Industry Average   0.008175 m3<br/> Roof - TimberTruss/SteelSheeting/25°Pitch   R4 glasswool ceiling batts   Insulation - Glass Fibre Batts - R 4.0 - Industry Average   180 m2<br/> Roof - TimberTruss/SteelSheeting/25°Pitch   Gutters and Down Pipes   Steel - Coated Sheet - Zinc Coated &amp; Coloured Sheet 0.56mm - Industry Average   0.018 m3<br/> Plasterboard Ceilings (painted)   acrylic adhesive   Resins and Adhesives - Epoxy Resin - Industry Average   0.036 m3<br/> Plasterboard Ceilings (painted)   12mm back-blocking plasterboard   Plaster and Gypsum Derived Products - Plaster Board - 12mm Sheets - Industry Average   0.396 m3<br/> Plasterboard Ceilings (painted)   12mm plasterboard   Plaster and Gypsum Derived Products - Plaster Board - 12mm Sheets - Industry Average   2.16 m3<br/> Plasterboard Ceilings (painted)   Timber ceiling battens   Timber - Sawn Softwood - Unspecified - Industry Average   0.594 m3<br/> Plasterboard Ceilings (painted)   Undercoats   Paints and Finishes - Unspecified - 2 Coats - Industry Average   180 m2<br/> z * Door, Hollow Core and Steel Jam   Door   Timber - General - Unspecified - Industry Average   280 kg<br/> Paving, concrete pavers (Landscaping)   Impermeable membrane   Plastics - High Density Polyethylene (HDPE) - Unspecified - Industry Average   0.018 m3<br/> Paving, concrete pavers (Landscaping)   50mm Concrete pavers   Concrete - Unreinforced - 30 MPa - Industry Average   1.8 m3<br/> Ceramic Wall Tiles   Wall Tiles   Ceramics - Ceramic Tiles - Industry Average   0.04 m3<br/> Ceramic Wall Tiles   Wall Tiles   Ceramics - Ceramic Tiles - Industry Average   0.04 m3<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2.7 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - ABS - Industry Average   5.07 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polystyrene - Expanded Polystyrene - Industry Average   6.26 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - Polyurethane - Unspecified - Industry Average   5.57 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Plastics - General - Unspecified - Industry Average   5.07 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Glass and Windows - AA Glass - Unspecified - Industry Average   2.87 kg<br/> Refrigeration, Residential Detailed (AUS) Em   Refrigerator unit   Steel - General - Unspecified - Industry Average   47.55 kg<br/> Plumbing, hardware and install to slab   Hardware (pressure limiting valve, mains tap etc)   Timber - General - Unspecified - Industry Average   25 kg<br/> HWS, Solar Gas Instantaneous (no storage)   Housing etc   Steel - General - Unspecified - Industry Average   15 kg<br/> HWS, Solar Gas Instantaneous (no storage)   Gas Heating Element etc   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br/> HWS, Solar Gas Instantaneous (no storage)   Associated Plumbing for HWS   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   20 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector Plastic Moulding etc   Plastics - General - Unspecified - Industry Average   20 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Solar Collectors   Glass and Windows - AA Glass - Unspecified - Industry Average   0.0234 m3<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector frames   Aluminium - General - Unspecified - Industry Average   15 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector copper   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   5 kg<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Collector   Steel - General - Unspecified - Industry Average   50 kg<br/> Clothes washer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br/> Clothes washer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> Clothes dryer Em   Clothes washer   Steel - General - Unspecified - Industry Average   43 kg<br/> Clothes dryer Em   Washing Machine   Plastics - Polypropylene - Injection Moulding - Industry Average   9.1 kg<br/> HVAC Residential Wood Pellet Heater   Fan motor   Metals (non steel and Aluminium) - Copper - Unspecified - Industry Average   2 kg<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Sealer   Paints and Finishes - Unspecified - 1 Coat - Industry Average   64 m2<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Skirting boards   Timber - Medium Density Fibreboard (MDF) - Unspecified - Industry Average   0.064 m3<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   1st Coat   Paints and Finishes - Wood Stains and Finishes - General -</p> |



|    |  |
|----|--|
|    | <p>Industry Average   128 m2<br/> z Monocrystalline Solar System - Zone 3   Panels   Finished Products - Electrical Goods - Solar PV Panels - Monocrystalline - Unspecified - Industry Average   25.6 m2<br/> z Monocrystalline Solar System - Zone 3   Inverter and cables etc   Finished Products - Electrical Goods - Electrical Equipment - Industry Average (# unit equals \$ Spent)   1000 #<br/> z Monocrystalline Solar System - Zone 3   Frames   Aluminium - General - Unspecified - Industry Average   200 kg<br/> Finishes Cornices and Skirting   Install cornices and skirting   Trade Staff (Small Electrical Equipment)   10.1 hrs<br/> Internal Plaster and Paint Finish   Plasterer   Trade Staff (Small Electrical Equipment)   12.5 hrs<br/> Finishes Cornices and Skirting   Install cornices and skirting   Trade Staff (Small Electrical Equipment)   2.5 hrs<br/> Plasterboard Ceilings (painted)   Painter - Prep and Undercoats   Trade Staff (Small Electrical Equipment)   9 hrs<br/> z * Door, Hollow Core and Steel Jam   Installation of Door   Trade Staff (Small Electrical Equipment)   35 hrs<br/> Paving, concrete pavers (Landscaping)   Paver   Trade Staff (Large Elect Equipment)   9 hrs<br/> Refrigeration, Residential Detailed (AUS) Em   Manufacture fridge   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Lighting and Electrical Fittings   Electrician   Trade Staff (Small Electrical Equipment)   40 hrs<br/> Communications, Residential   Electrician   Trade Staff (Small Electrical Equipment)   8 hrs<br/> Site Surveys &amp; Inspections   Contour &amp; Site Survey   Trade Staff (Small Electrical Equipment)   4 hrs<br/> Site Surveys &amp; Inspections   Engineers Soil Testing/Footing &amp; Slab Design   Trade Staff (Small Electrical Equipment)   4 hrs<br/> Site Surveys &amp; Inspections   Surveyor House Set-Out   Trade Staff (Small Electrical Equipment)   3 hrs<br/> Site Surveys &amp; Inspections   Inspection of site for pest/insects   Trade Staff (Small Electrical Equipment)   2 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Plumber for HWS installation   Trade Staff (Small Electrical Equipment)   4 hrs<br/> HWS, Solar Gas Instantaneous (no storage)   Hot Water Unit Assembly   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Solar Hot Water Flat Plate Collector, 3.9m2   Assembly of collector   Offsite Manufacturing / Prefabrication Process   6 hrs<br/> Clothes washer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes washer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Clothes dryer Em   Install washing machine   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Clothes dryer Em   Making the Washer   Offsite Manufacturing / Prefabrication Process   5 hrs<br/> Energy monitoring system, residential   Install energy monitor   Trade Staff (Small Electrical Equipment)   0.5 hrs<br/> HVAC Residential Wood Pellet Heater   Install Flue   Trade Staff (Small Electrical Equipment)   2 hrs<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Plasterer Install Cornices   Trade Staff (Small Electrical Equipment)   6.4 hrs<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   Painter - Sealer   Trade Staff (Small Electrical Equipment)   3.712 hrs<br/> Reverse Brick Veneer Wall, Sawn Hardwood Clad   External Cladding   Trade Staff (Small Electrical Equipment)   20.48 hrs<br/> Polished Concrete - Grind and Polish   Polish   Trade Staff (Small Electrical Equipment)   24.2 hrs<br/> z Monocrystalline Solar System - Zone 3   Installation, Maintenance and Electrical Connection   Trade Staff (Small Electrical Equipment)   12 hrs</p> |
| 52 | <p>Cooking Res, stove and oven Em   Cooker casing   Steel - Stainless - Unspecified - Industry Average   43 kg<br/> Cooking Res, stove and oven Em   Cooker   Paints and Finishes - Unspecified - 1 Coat - Industry Average   7.2 kg<br/> Cooking Res, stove and oven Em   Ceramic glass cooktop   Glass and Windows - AA Glass - Unspecified - Industry Average   6 kg</p>  |
| 54 | <p>Dishwasher Em   Dishwasher   Steel - General - Unspecified - Industry Average   15.4 kg<br/> Dishwasher Em   Dishwasher   Plastics - Polypropylene - Injection Moulding - Industry Average   8.81 kg<br/> Dishwasher Em   Dishwasher   Steel - Stainless - Unspecified - Industry Average   7.42 kg<br/> Dishwasher Em   Install dishwasher   Trade Staff (Small Electrical Equipment)   0.75 hrs<br/> Dishwasher Em   Making the dishwasher   Offsite Manufacturing / Prefabrication Process   5 hrs</p>   |

The LCA predictions of embodied and operational indicators (including costs) conducted in eTool software, by their very nature, cannot be exact. It is not possible to track all the indicators associated with a product or service back through history, let alone do this accurately. The software has been built and tested to enable informed decision making process when comparing design options. Generic cost and environmental indicator coefficients do not necessarily correspond to those of individual brands of the same product or service due to differences within industries in the way these products and services are delivered. eTool PTY LTD cannot make assurances regarding the accuracy of these reports for the above reasons.