



**Summary of eligible activities and abatement in the *Energy Efficiency (Cost of Living) Improvement (Eligible Activities Determination 2015 (No 2)*.**

**Activities and abatement to apply from 1 January 2016**

| #   | Activity  | Abatement | pp    |
|---|---|-----------|-------|
| <b>Schedule 1. Residential building envelope activities</b> |   |           |       |
| <b>1.1 Building sealing activities</b>                      |   |           |       |
| 1a  | an unsealed door frame in an external wall  | 0.1684    | 2-4   |
| 1b  | an unsealed door frame in a part of an internal wall that divides a conditioned zone or zones from an unconditioned zone or zones       | 0.1684    | 2-4   |
| 1c  | each unsealed edge of an external door  | 0.1684    | 2-4   |
| 1d  | each unsealed edge of a door in a part of an internal wall that divides a conditioned zone or zones from an unconditioned zone or zones | 0.1684    | 2-4   |
| 1e  | an unsealed window frame in an external wall  | 0.0122    | 2-4   |
| 1f  | each unsealed edge of an openable window  | 0.0122    | 2-4   |
| <b>1.2 Exhaust fan sealing activities</b>                   |   |           |       |
| 1a  | Replace an unsealed ceiling or wall exhaust fan with a self-sealing exhaust fan   | 0.4171    | 5-6   |
| 1b  | Sealing an existing exhaust fan   | 0.4171    | 5-6   |
| <b>1.3 Ventilation opening sealing activities</b>           |   |           |       |
| 1a  | Sealing ventilation openings in an external wall  | 0.1054    | 7-9   |
| 1b  | install damper or flap to chimney or flue of an open solid fuel burning appliance   | 2.3451    | 7-9   |
| <b>1.4 Install a thermally efficient window</b>             |   |           |       |
| a   | Not less than 4.0 and not more than 4.9 stars   | 0.1665    | 10-11 |
| b   | Not less than 5.0 and not more than 5.9 stars   | 0.2081    | 10-11 |
| c   | 6.0 stars or greater  | 0.2497    | 10-11 |
| <b>1.5 Retrofit thermally efficient glazing</b>             |   |           |       |
| a   | Additional pane of glass or acrylic   | 0.1070    | 12-13 |
| b   | Window film   | 0.0486    | 12-13 |
| <b>1.6 Install thermally efficient window coverings</b>     |   |           |       |
|   | installing window coverings and pelmets to a window in an external wall of a conditioned zone   | 0.1813    | 14-15 |
| <b>1.7 Install window pelmets</b>                           |   |           |       |
|   | installing a box pelmet to a window in an external wall of a conditioned zone   | 0.1163    | 16-17 |

|   |   |        |                |       |
|---|---|--------|----------------|-------|
| <b>Schedule 2. Space heating and cooling activities</b>                                       |   |        |                |       |
| <b>2.1 Replacing a ducted gas space heater with a high efficiency ducted gas space heater</b> |   |        |                |       |
|   | Star rating                               | 5-5.49 | 5.5 or greater |       |
| a   | Rated heating capacity 10kW to 18 kW      | 8.27   | 10.34          | 18-19 |
| b   | Rated heating capacity 18.1 to 28kW       | 10.47  | 13.08          | 18-19 |
| c   | Rated heating capacity Greater than 28 kW | 13.09  | 16.36          | 18-19 |
| <b>2.2 Install a high efficiency ducted gas heater in a new residential premises</b>          |   |        |                |       |
|   | Star rating                               | 5-5.49 | 5.5 or greater |       |
| a   | Rated heating capacity 10kW to 18 kW      | 4.03   | 5.03           | 20-21 |
| b   | Rated heating capacity 18.1 to 28kW       | 4.31   | 5.39           | 20-21 |
| c   | Rated heating capacity Greater than 28 kW | 5.86   | 7.33           | 20-21 |

| <b>2.3 Install a ducted air-to-air heat pump to replace existing ducted air-to-air heat pump</b>        |  |                    |                    |                    |              |       |
|---|--|--------------------|--------------------|--------------------|--------------|-------|
|   | Coefficient of Performance                       | ACOP - 3.7 to 3.99 | ACOP - 4.0 to 4.29 | ACOP - 4.3 to 4.59 | ACOP - 4.6 + |       |
| a   | Small (10kW to 18 kW)                            | 0.63               | 1.66               | 2.45               | 3.09         | 22-23 |
| b   | Medium (18.1 to 28kW)                            | 0.80               | 2.10               | 3.11               | 3.92         | 22-23 |
| c   | Large (>28 kW)                                   | 1.00               | 2.63               | 3.90               | 4.91         | 22-23 |
| <b>2.4 Install a ducted air-to-air heat pump to replace existing central electric resistance heater</b> |  |                    |                    |                    |              |       |
|   | Coefficient of Performance                       | ACOP - 3.7 to 3.99 | ACOP - 4.0 to 4.29 | ACOP - 4.3 to 4.59 | ACOP - 4.6 + |       |
| a   | Small (10kW to 18 kW)                            | 19.91              | 21.02              | 21.89              | 22.58        | 24-25 |
| b   | Medium (18.1 to 28kW)                            | 25.24              | 26.65              | 27.75              | 28.62        | 24-25 |
| c   | Large (>28 kW)                                   | 31.77              | 33.51              | 34.86              | 35.94        | 24-25 |
| <b>2.5 Install high efficiency space air-to-air heat pump (type of heater replaced not specified)</b>   |  |                    |                    |                    |              |       |
|   | Coefficient of Performance                       | ACOP 4.0 to 4.49   | ACOP 4.5 to 4.99   | ACOP 5.0 to 5.49   | ACOP 5.5 +   |       |
| a   | Small (2-3kW)                                    | 4.65               | 4.83               | 4.96               | 5.07         | 26-27 |
| b   | Medium (3.1-6.0kW)                               | 8.85               | 9.18               | 9.44               | 9.64         | 26-27 |
| c   | Large (>6 kW)                                    | 11.09              | 11.50              | 11.82              | 12.07        | 26-27 |
| <b>2.6 Install insulated gas heating ductwork</b>   |  |                    |                    |                    |              |       |
| a   | Rated output heating capacity 10kW to 18 kW      |                    |                    |                    | 12.51        | 28-29 |
| b   | Rated output heating capacity 18kW to 88 kW      |                    |                    |                    | 15.85        | 28-29 |
| c   | Rated output heating capacity greater than 28 kW |                    |                    |                    | 19.84        | 28-29 |

| <b>Schedule 3. Hot water service activities</b>   |   |  |        |       |
|---|---|--|--------|-------|
| <b>3.1 Decommission and replace electric resistance water heater</b>  |   |  |        |       |
| 3.1.2   | Small (25.2 MJ/day or 120 Litres/day)                                   |  | 4.428  | 30-32 |
| 3.1.2   | Large (42 MJ/day or 200 Litres/day)                                     |  | 7.176  | 30-32 |
|   | AAV - [0.00044 x (Esupp + Eaux)]  |  |        |       |
| <b>3.2 Decommission a gas or liquefied petroleum gas water heater and install a gas or liquefied petroleum gas boosted solar water heater</b> |   |  |        |       |
| a   | Small (25.2 MJ/day or 120 Litres/day)                                   |  | 7.80   | 33-34 |
| b   | Large (42 MJ/day or 200 Litres/day)                                     |  | 11.37  | 33-34 |
|   | AAV - [0.000558 x Esupp + 0.000442 x Eaux]                              |  |        |       |
| <b>3.3 Replace an existing shower fixture outlet with low flow shower fixture outlet</b>  |   |  |        |       |
|   | Remove and replace shower fixture outlet or outlets with 9L/m flow rate |  | 0.6976 | 35-36 |
| <b>3.4 Hot water tap improvements</b>   |   |  |        |       |
| a   | Aerator   |  | 0.1124 | 37-38 |
| b   | Flow restrictor   |  | 0.1239 | 37-38 |

| <b>Schedule 4. Lighting activities</b>  |  |        |        |                    |        |        |                    |        |        |              |        |        |
|---|--|--------|--------|--------------------|--------|--------|--------------------|--------|--------|--------------|--------|--------|
| <b>4.1 Residential lighting activities (note that 1.05 power factor correction still applies)</b>   |  |        |        |                    |        |        |                    |        |        |              |        |        |
| <b>Table 4.1.1 Activity abatement values for installation of low energy general lighting services in place of mains voltage incandescent general lighting services, pp39-49</b> |  |        |        |                    |        |        |                    |        |        |              |        |        |
|   | Activity Abatement Value (tCO <sub>2</sub> -e) |        |        |                    |        |        |                    |        |        |              |        |        |
| Lumens output   | lumens < 350                                   |        |        | 350 ≤ lumens < 650 |        |        | 650 ≤ lumens ≤ 850 |        |        | lumens > 850 |        |        |
| Efficacy  | 40 I/W   | 48 I/W | 58 I/W | 45 I/W             | 54 I/W | 65 I/W | 52 I/W             | 62 I/W | 75 I/W | 55 I/W       | 66 I/W | 79 I/W |
| <b>8,000 to 9,999 hrs</b>   | 0.040  | 0.043  | 0.046  | 0.040              | 0.043  | 0.046  | 0.040              | 0.043  | 0.046  | 0.040        | 0.043  | 0.046  |
| <b>10,000 to 11,999 hrs</b>   | 0.048  | 0.051  | 0.054  | 0.048              | 0.051  | 0.054  | 0.048              | 0.051  | 0.054  | 0.048        | 0.051  | 0.054  |
| <b>12,000 to</b>  | 0.054  | 0.059  | 0.062  | 0.054              | 0.059  | 0.062  | 0.054              | 0.059  | 0.062  | 0.054        | 0.059  | 0.062  |



|                      |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 14,999 hrs           |       |       |       |       |       |       |       |       |       |       |       |       |
| 15,000 to 19,999 hrs | 0.064 | 0.070 | 0.074 | 0.064 | 0.070 | 0.074 | 0.064 | 0.070 | 0.074 | 0.064 | 0.070 | 0.074 |
| 20,000 hrs+          | 0.081 | 0.089 | 0.093 | 0.081 | 0.089 | 0.093 | 0.081 | 0.089 | 0.093 | 0.081 | 0.089 | 0.093 |

**Table 4.1.2 Activity abatement values for installation of a low energy reflector lamp in place of a mains voltage incandescent reflector lamp, pp39-49**

| Efficacy                 | Activity Abatement Value (tCO <sub>2</sub> -e) |        |        |
|--------------------------|--|--------|--------|
|                          | 25 l/W   | 30 l/W | 36 l/W |
| 15,000 to 19,999 hrs     | 0.082  | 0.085  | 0.087  |
| 20,000 hrs to 24,999 hrs | 0.103  | 0.107  | 0.111  |
| 25,000 hrs +             | 0.125  | 0.129  | 0.134  |

**Table 4.1.3 Activity abatement values for installation of low energy 12 volt lamp to replace 12 volt halogen, pp39-49**

| Efficacy                 | Activity Abatement Value (tCO <sub>2</sub> -e) |        |        |        |
|--------------------------|--|--------|--------|--------|
|                          | 52 l/W   | 62 l/W | 75 l/W | 90 l/W |
| 15,000 to 19,999 hrs     | 0.081  | 0.085  | 0.089  | 0.091  |
| 20,000 hrs to 24,999 hrs | 0.101  | 0.107  | 0.112  | 0.116  |
| 25,000 hrs +             | 0.121  | 0.130  | 0.135  | 0.140  |

**Table 4.1.4 , Activity abatement values for installation of mains voltage low energy downlight in place of existing 12 volt halogen downlight, pp 39-49**

| Efficacy             | Activity Abatement Value (tCO <sub>2</sub> -e) |        |        |        |        |
|----------------------|--|--------|--------|--------|--------|
|                      | 40 l/W   | 48 l/W | 58 l/W | 69 l/W | 83 l/W |
|                      | 0.076  | 0.082  | 0.086  | 0.090  | 0.093  |
| 15,000 to 19,999 hrs | 0.097  | 0.103  | 0.109  | 0.114  | 0.116  |
| 20,000 hrs +         | 0.116  | 0.125  | 0.131  | 0.137  | 0.141  |

**Table 4.1.5 Activity abatement values for installation of low energy lamp with a GU10 base in place of existing mains voltage halogen lamp of at least 35 watts with a GU10 base, pp39-49**

| Efficacy                 | Activity Abatement Value (tCO <sub>2</sub> -e) |        |        |
|--------------------------|--|--------|--------|
|                          | 25 l/W   | 30 l/W | 36 l/W |
| 15,000 to 19,999 hrs     | 0.082  | 0.085  | 0.087  |
| 20,000 hrs to 24,999 hrs | 0.103  | 0.107  | 0.111  |
| 25,000 hrs +             | 0.125  | 0.129  | 0.134  |

**Schedule 5. Appliance activities**

**5.1 Decommissioning and disposal of pre-1996 refrigerator or freezer**

|                                |        |       |
|--------------------------------|--------|-------|
| 1-door refrigerator or freezer | 0.5926 | 50-51 |
| 2-door refrigerator or freezer | 1.0603 | 2-4   |

**5.2 Purchase of high efficiency refrigerator or freezer**

|   |                          |  |       |
|---|--------------------------|--|-------|
| a | single door refrigerator | $(0.9126 \times [200 + 4.0 \times (V_{ff})^{0.67}] - CEC) \times 0.00224$                        | 52-54 |
| b | two door refrigerator    | $(0.6954 \times [150 + 8.8 \times (V_{ff} + [1.60 \times V_{fr}])^{0.67}] - CEC) \times 0.00224$ | 52-54 |
| c | chest freezer            | $(0.6329 \times [150 + 7.5 \times (1.60 \times V_{fr})^{0.67}] - CEC) \times 0.00266$            | 52-54 |
| d | upright freezer          | $(0.7700 \times [150 + 7.5 \times (1.60 \times V_{fr})^{0.67}] - CEC) \times 0.00266$            | 52-54 |

Where—  
 (a) V<sub>fr</sub> is the volume in litres of the freezer compartment; and  
 (b) CEC is the comparative energy consumption specified on energy rating label as defined by AS/NZS 4474.2.



| <b>5.4 Installation of high efficiency electric clothes dryer</b>  |  |   |       |
|--|--|---|-------|
|  | Installing one HE electric clothes dryer | $(48 \cdot 08 \times \text{Rated Capacity} - \text{CEC}) \times 0.003206$       | 57-58 |
| Where—   |  |   |       |
| (a) Rated Capacity is measured in kilograms and defined by AS/NZS 2442.1   |  |   |       |
| (b) CEC is the comparative energy consumption and is measured in kilowatt hours per year (kWh/y) specified on the energy rating label as defined by AS/NZS 2442.2. |  |   |       |
| <b>5.5 Install a standby power controller</b>  |  |   |       |
| a  | In an information technology environment | 0.16  | 59-62 |
| b  | In an audio visual environment           | 0.16  | 59-62 |
| <b>5.6 Purchase a high efficient television</b>  |  |   |       |
|  | A high efficiency television             | $(0.512 \times [\text{SA} \times 0.1825 + 127.5] - \text{CEC}) \times 0.001494$ | 63-64 |
| Where—   |  |   |       |
| (a) SA is the area of the screen in square centimetres as defined in AS/NZS 62087.2.2; and   |  |   |       |
| (b) CEC is the comparative energy consumption in kWh/y specified on the energy rating label as defined by AS/NZS 62087.2.2.  |  |   |       |
| <b>5.7 Install a high efficiency swimming pool pump</b>  |  |   |       |
|  | Minimum star rating of 6                 | $(1622 - \text{PAEC}) \times 0.001228$  | 65-66 |
| Where PAEC is the projected annual energy consumption in kWh/y listed on the energy rating label.  |  |   |       |