



# Home Energy Audit Toolkit

## Support Information

This is included on the accompanying  
Home Energy Audit Toolkit CD

Updated June 2010

If you require any assistance in  
the use of HEAT please contact  
Katrina Graham, Hobart City Council  
Phone: 6238 2741 or  
Email: [grahamk@hobartcity.com.au](mailto:grahamk@hobartcity.com.au)

# Background

The **Home Energy Audit Toolkits** (HEAT) have been developed through the Southern Tasmanian Regional Authorities (STCA) Regional Climate Change Initiative (RCCI) by the Hobart City Council. At least one toolkit will be available for borrowing from 23 Tasmanian Councils as well as two community organisations – please see following table.

Council /Organisation	Number of Kits
Break-a-Day Council	2
Brighton Council	1
Central Coast Council	1
Central Highlands Council	2
Circular Head Council	1
Clarence City Council	4
Derwent Valley Council	1
Devonport Council	3
George Town Council	1
Glamorgan Spring Bay Council	1
Hobart City Council	15
Huon Valley Council	2
Kentish Council	4
Kingborough Council	4
Latrobe Council	2
Launceston City Council	8
Meander Valley	2
Northern Midlands Council	1
Sorrell Council	2
Southern Midlands Council	1
Tasman Council	1
West Coast Council	1
NRM North	15
Sustainable Living Tasmania	1

The toolkits are included as an action in Hobart's City Council's "*Climate Change Strategy x 5*" and the Council undertook a bulk purchase and development of the toolkits on behalf of the RCCI and other interested organisations in February 2010 and then a further bulk purchase, extended to all Tasmanian councils, due to unprecedented demand in June 2010.

HEAT is based on toolkits developed by the South Australian Dept of Transport Energy and Infrastructure's Energy Division that are available through every SA library. HEAT has been redesigned to specifically suit Tasmanian households and conditions.

The Toolkits allow households to undertake their own home energy audits in their own time and space and are considered a complimentary measure to available home energy audit

services and programs. It is expected that households who undertake their own energy audit using the toolkit will gain a deeper understanding of how their homes use energy that will lead to lasting behaviour change. HEAT emphasises and specifically deals with household energy efficiency so as to engage the households that may be polarised around the issue of climate change.

The toolkits, retail @ \$500 per kit and are in a specially designed case with mouldings insets.

Each toolkit contains:

Tool	What is it used for
<ul style="list-style-type: none"> <li>➤ Power-Mate 10 Amps (PM10A)</li> </ul>	<p>Enables measurement of electricity consumption of all electrical appliances with a standard 3-pin plug. Useful for measuring the electricity consumption of appliances such as fridges; televisions, microwaves and computers and their standby consumption.</p>
<ul style="list-style-type: none"> <li>➤ Infrared radiometer (Q1370)</li> </ul>	<p>Used to check for leaks around fridge doors as well as checking for adequate ventilation behind the fridge/freezer and the effectiveness of ceiling insulation.</p>
<ul style="list-style-type: none"> <li>➤ Stopwatch (Y1299)</li> </ul>	<p>Assists in determining flow rate of hot water from showers &amp; taps.</p>
<ul style="list-style-type: none"> <li>➤ Silva compass</li> </ul>	<p>Assists in identifying: (i) the homes orientation for solar aspect considerations and (ii) suitably orientation of roof aspect for hot water and electricity solar panels.</p>
<ul style="list-style-type: none"> <li>➤ Thermometer (EP75)</li> </ul>	<p>Enables measurement of air temperature around houses, hot water system, fridges and freezers.</p>
<ul style="list-style-type: none"> <li>➤ Laminated instruction and information sheets x 13</li> </ul>	<p>Developed specifically for Tasmanian households they provide instructions on how to use the tools included in the kit and suggestions for doable energy efficient actions for various appliances and/or activities.</p>

To ensure uniformity and assist in the effective borrowing and tracking of the kits an Excel spreadsheet, HomeEnergyAuditToolkit.xls, has been developed for those who are responsible for lending-out of the kits. The easy to use Spreadsheet includes a borrowing/lending, waiting list and receipt function.

In addition the kits are support by a CD that includes the following:

Material	Why has it been included?
Excel spreadsheet booking form	To be placed on your Council system to coordinate bookings. It includes a form to be filled in, printed out and signed by the customer and witness by the Council officer. A copy of the signed form must be placed in the kit each time it is borrowed and a copy retained for Council records.
12 Information Sheets and a 'How to Use the Equipment' brochure.	These are provided as laminated copies in each kit. If you need to replace a sheet you can print and laminate it in-house. They provide step by step instructions to follow in order to conduct the home energy audit.
Power Mate Information Sheet	This toolkit contains an updated model of the power mate – an detailed information sheet has been prepared outlining how to use the latest version.
Feedback form	To be placed in the kit each time it is borrowed. It provides people with the opportunity to tell us about their experience. Please encourage people to provide feedback. All feedback should be forwarded to the HCC for a 12 month HEAT evaluation.
Poster	Use this poster to advertise the availability of the kit. You may wish to place it in the customer service area, in your local community centres, anywhere.
Media release template	You can use this template to develop your own media release to advertise the availability of the kit in your local media.
Information about the HEAT	This outlines all the materials associated with the HEAT and to how to source replacements.

Full sized HEAT posters will also be provided to each Council for display/promotional purposes.

Phone support will be provided by Sustainable Living Tasmania Trouble-shooting with members of the public and Council officers responsible for lending.

The initial 12 months of the toolkits is considered to be a pilot with feedback in the form of a survey accompanying the kits used to assess their effectiveness and for review purposes.

Anecdotally there has been considerable interest expressed by the public in the initiative who would very much in favour of taking control of their energy use and reducing costs.

## The tools in the kit

Tool	What is it used for
Power-Mate	Enables you to measure the electricity consumption of all electrical appliances with a standard 3-pin plug. It is particularly useful for measuring the electricity consumption of appliances such as fridges; televisions, microwaves and computers and their standby consumption.
Infrared thermometer	The Infrared thermometer can be used to check for leaks around fridge doors. It can also be used for checking for adequate ventilation behind the fridge/freezer and for checking the effectiveness of ceiling insulation.
Stopwatch	Assists in determining the flow rate of hot water from showers and taps.
Magnetic compass	Assists in identifying: (i) the orientation of your home so that you can consider what may need to be done to tap into the northerly sun more efficiently and (ii) suitably oriented roof space for hot water and electricity solar panels.
Room (mercury) thermometer	Measure air temperature around your house, your hot water system, fridges and freezers.

## Written materials supplied on the CD

Material	Why has it been included?
'Information Sheets' and a 'How to Use the Equipment' pdf brochure	They provide step by step instructions to follow in order to conduct the home energy audit and are provided as laminated copies in each kit. Note all 11 information Sheets are included in one Infosheets.pdf and there is a separate Instruction sheet for the updated power mate. If you need to replace a sheet you can print and laminate in-house.
Feedback form	A feedback form is to be placed in the kit each time it is borrowed. It provides people with the opportunity to provide comment on the HEAT. Please encourage people to provide feedback. All feedback is to be forwarded to the HCC for a 12 month HEAT evaluation. Home Energy Audit Toolkit, Hobart City Council GPO Box 503,Hobart, TAS 7001.  Please contact Katrina Graham HCC on 6238 2741 if you require any information
Excel spreadsheet booking form	To be loaded on a Council computer system to coordinate bookings. It includes a form to be filled in, printed out and signed by the customer and witness by the Council officer. See How to Loan the Kit page 4 of this document
Poster A3	Use this poster to advertise the availability of the kit. You may wish to place it in the customer service area, in your local community centres, anywhere.
Media release template	You can use this template to develop your own media release to advertise the availability of the kit in your local media.
Information about the HEAT	This outlines all the materials associated with the HEAT and to how to source replacements.

# How to loan the kit

The Excel Spreadsheet is for booking and lending the HEAT. It records details of borrowers, waiting list and provides a receipt – it is easy to use and once installed is run from the front page. The following details how the Excel spreadsheet works. It is important to note that the information recorded on the spreadsheet will also be used to report back on the effectiveness of the kit as part of a 12 month review.

## Set Up

1. Install (save) the Excel spreadsheet HomeEnergyAuditToolkit.xls on the CD to a computer that will be used for loaning HEAT
2. Click on the worksheet titled Receipt and enter the appropriate contact details in the area on the top right hand side of the form – save changes to the file.
3. The spreadsheet is now ready to used for lending or to record detail on a waiting list

## Lending

4. The program is run from the logo on the FrontPage, i.e. click on the logo and the user form will be displayed
5. With the user form if you choose Yes to the question "Is this a Confirmed Loan" you will be required to complete all fields which will automatically fill in the form to be signed by the person borrowing the kit. The Return Date will default in as 14 days from today but this can be changed if required. If you choose No to the question then you will be only able to fill in details for the waiting list -Title, First Name, Surname, Street, Town/Suburb, Postcode and Phone No. fields.
6. To lend the HEAT choose Yes to the question "Is this a Confirmed Loan", fill in the detail and print 2 copies of the automatically generated Receipt'. The customer signs both and you, as witness, sign both. You then put their copy in the kit and retain the other copy for the file.
7. When the kit is returned check contents and replace feedback form (if used). Could you please forward completed feedback forms to:

Home Energy Audit Toolkit,

Hobart City Council

GPO Box 503,

Hobart, TAS 7001.

- 8 Contact the next person, if necessary, on the list to say it is available.

# Replacement details

Item	How to source replacements	Cost per item**
Power-Mate 10 Amps (PM10A)	Computer Control Instrumentation. <a href="http://www.power-mate.com.au">www.power-mate.com.au</a> PO Box 195 Goodwood S.A. 5034, South Australia. Contact Mike Russ: (08) 8373 6611 or 0419 811 558	\$214
Infrared radiometer (Q1370)	Dick Smith Electronics, Australia wide. <a href="http://www.dse.com.au">www.dse.com.au</a> Phone:1300 366 644 or fax the order to 0296429183	\$63.29
Stopwatch (Y1299)	Dick Smith Electronics, Australia wide. <a href="http://www.dse.com.au">www.dse.com.au</a> Phone:1300 366 644 or fax the order to 0296429183	\$5.89
One spare 9 volt battery for infrared thermometer - DSE alkaline battery (S3187)	Dick Smith Electronics, Australia wide. <a href="http://www.dse.com.au">www.dse.com.au</a> Phone:1300 366 644 or fax the order to 0296429183	\$2.04
Silva compass	Waratah Garden Supplies 1A Tara St South Hobart. Phone (03)62237200	\$8.37
Thermometer (EP75)	Technitherm. <a href="http://www.technitherm.com.au">www.technitherm.com.au</a> PO Box 140 Mapleton Q 4560 Phone: 07 5445 7175	\$4.45
Carry case (1H-162)	High Gate Distributions, <a href="http://www.fischerplastics.com.au">www.fischerplastics.com.au</a> 122-126 Don Rd, Devonport 7310 Phone: (03) 64248000	\$52
Foam Inset (to the exact specifications of the South Australian kit)	Form Cut. <a href="http://www.formcut.com.au">www.formcut.com.au</a> 7 Scarborough Way Lonsdale SA 5160 (08) 8322 6700 Dimensions of foam sheet: width = 405, height = 343, depth = 96 Dimensions of hole for booklet: width = 215, height = 314, depth = 19	\$37.20

\*\*Prices are based on individual purchases at February 2010, however small discounts can apply for bulk purchases. The prices do not include GST or freight. These prices do not include the production and printing costs associated with HEAT

# HEAT Review and Evaluation

The Hobart City Council will undertake a review and evaluation of HEAT in **August 2010** and **March 2011**. This will consider: the effectiveness and ease of use of the Kits contents and information sheets, ease of use of the borrowing spreadsheet by responsible officers and the public, anecdotal feedback by responsible officers, feedback sheets and gaps and other issues associated with the Kit, its use and promotion.

All participating Councils will be contacted and requested for information on borrowing frequency of the kits as well to provide feedback on their experiences. All findings will be made available to participating councils and any changes or additions will be coordinated through the Hobart City Council.

## Useful links

Southern Tasmanian Councils Authority

<http://stca.tas.gov.au/>

Hobart City Council

<http://www.hobartcity.com.au/HCC/HOMEPAGE/HOME.html>

South Australia Home Energy Audit Kit

[http://www.dtei.sa.gov.au/energy/be\\_energy\\_smart/home\\_energy\\_audit](http://www.dtei.sa.gov.au/energy/be_energy_smart/home_energy_audit)

Living Smart, W.A. Home Audit

[http://www.transport.wa.gov.au/mediaFiles/ls\\_DIYhomeaudit.pdf](http://www.transport.wa.gov.au/mediaFiles/ls_DIYhomeaudit.pdf)

Sustainable Living Tasmania, Home Energy Booklet

<http://www.tasmanianenvironmentcentre.org.au/HomeEnergyDec07.pdf.pdf>

The Australian Government Energy Efficient Homes program - installation of ceiling insulation grant

<http://www.environment.gov.au/energyefficiency/index.html>

Earn your stars - What can you do to earn your stars?

[http://www.climatechange.tas.gov.au/climate\\_classroom/earn\\_your\\_stars\\_today](http://www.climatechange.tas.gov.au/climate_classroom/earn_your_stars_today)

Australian Government energy efficiency programs

<http://www.environment.gov.au/sustainability/energyefficiency/index.html>

Reducing pool energy use

<https://www.energyaustralia.com.au/energy/ea.nsf/Content/Ways+Swimming+Pools+NEW>