



# Sustainable Homes Program



In conjunction with  
the City of Casey



# Sustainable Homes Program

The triple bottom line and partnerships for sustainability



Our population is expanding, our towns and cities are growing and new suburbs are sprouting up right across Victoria. How can we make sure that we build houses that people want to live in and that don't cost an arm and a leg in energy charges, for example? Working in partnership with the City of Casey, the South East Councils Climate Change Alliance Inc (SECCCA) has developed an innovative answer to this question.

**SECCCA is an association of 8 local government in Melbourne's south-east, formed to deliver regional responses to specific sustainability issues that involve climate change. SECCCA delivers projects that reduce carbon emissions, whether through promoting the use of electric vehicles or changing farming practice to improve both environmental performance and productivity, and that help with adapting to the changes that we see already occurring.**

Building and living in houses that make maximum use of energy efficiencies reduces carbon emissions, keeps utility costs as low as possible and offers greater comfort for residents.

Through Sustainability Victoria's EcoLiving Fund, SECCCA developed and delivered the Sustainable Homes Program to show this can be done. At Selandra Community Place (SCP), the City of Casey, in collaboration with Stocklands and Henley Homes, worked with SECCCA to deliver a zero net emissions 8 star house to show how we can reduce our environmental impact and cut our bills at the same time. SCP is located within a new homes display village and is a showpiece for incorporating sustainability in housing for the greenfields residential sector.

SECCCA worked with graphics company Aspect Studios to provide a comprehensive interpretation program to explain to display village visitors the materials, fittings and whitegoods that improve energy efficiency and lead to

living more sustainably. Further, SECCCA developed, with the assistance of a range of behaviour change consultants, the Sustainable Homes Program to show residents how to maximise the environmental performance of their house.

This Sustainable Homes Program is now available for dissemination across the local government sector wherever there are greenfield residential developments. SECCCA would be pleased to discuss the program and its various elements with interested councils.

# The Sustainable Homes Program for Greenfield Developments

## 01

### Display for Sustainable Living package

---

This interpretation package provides for the display village visitor a comprehensive introduction to household sustainability. It includes a full range of visual and text material that orients the visitor to the features of the SCP and provides them with easily accessible sustainability advice. The package is available for your modification in a licence agreement with SECCCA (working through their subcontractor Aspect Media) and the participating council.

## 03

### Sustainable Homes Program package

---

Delivery of the Sustainable Homes Program is supported with a wide range of print materials, design work and a box of the technologies. Facilitators and the residents that they work with don't just get told of the things that can do, they show them, play with them and learn how to use them.

## 02

### Building Energy Efficient Homes package

---

This program involves a trained facilitator working with a new resident on their proposed building plans to maximise the sustainability features – while they are still at the design stage. Training in household sustainability and in interacting with residents is included.

## 04

### Facilitator training and resources to deliver all packages

---

SECCCA has developed a training program for facilitators and/or staff to deliver these elements of all of the packages. This is packaged onto a flash drive with files for activities and advice for delivering the programs, including recruitment systems, program running sheets, program and training packages evaluation pro formas, etc.

# 01

## Display for Sustainable Living Package

This program developed by SECCCA is supported at the SCP by a comprehensive interpretation package developed with Aspect Studios and Studio Binocular.

The intellectual property contained within this interpretation package is an integral component of the sustainable living program.

This interpretation package is available for your modification in a licence agreement with SECCCA (working through their subcontractor Aspect Media) and the participating council.

The package includes a full range of visual and text material that orients the visitor to the features of the SCP and provides them with easily accessible sustainability advice.

Specifically, items are as follows:

- » Facts Cards, data and key messages
- » Promotional material
- » Animations
- » Iconography and signage
- » iPhone applications
- » Cross section
- » Way-finding advice and signage

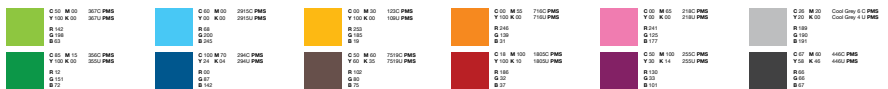
### BRAND MARK



### BRAND LOGO



### CATEGORY LOGOS



### CLOUR PALETTE



### SECONDARY LOGOS



### APPLICATIONS

ASPECT Studios | Studio Binocular  
GANTM Creates Design Awards

# PRINTED MEDIA



IDEA CARDS



PROMOTIONAL MATERIAL

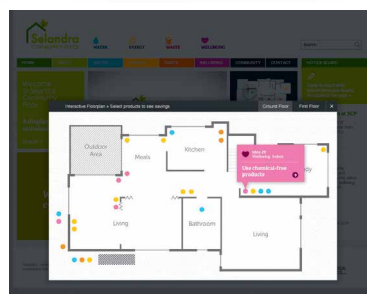
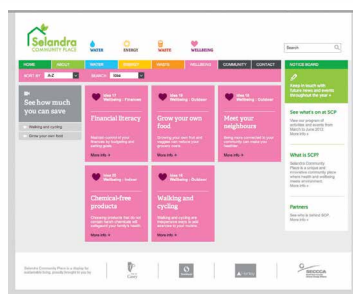
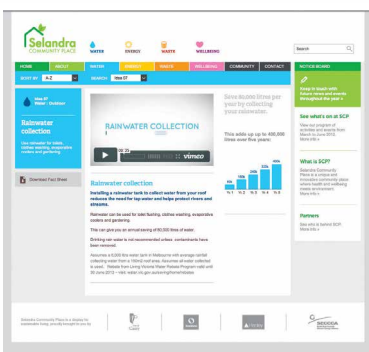
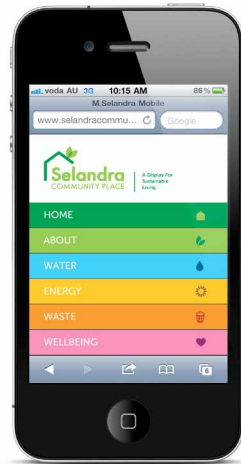
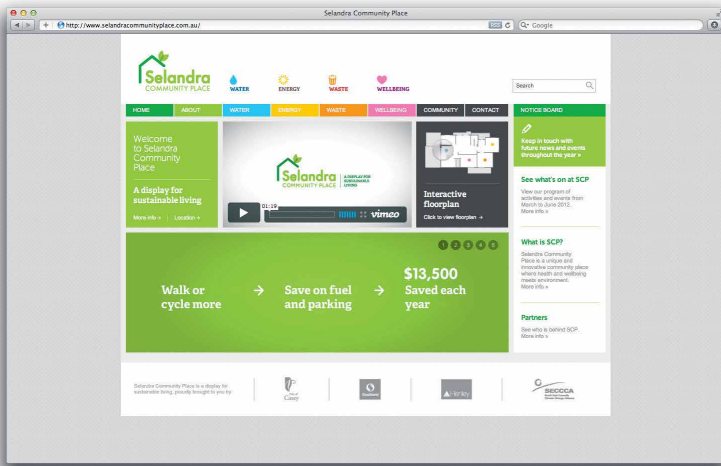


VINYL CUT

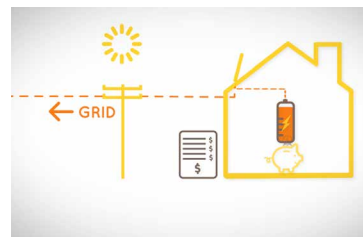
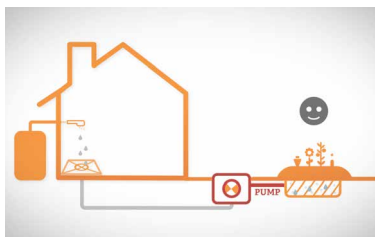
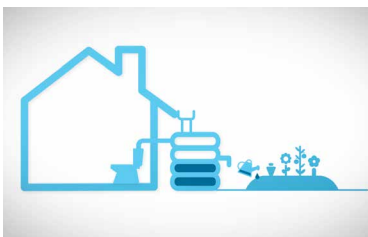
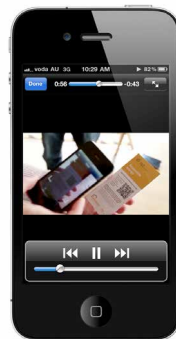
Visitors collect the cards with information of interest to them, they check the websites at the QR Codes and gather the ideas that they want in the house that they will build.

The seeds in the matchbook giveaways are not only an invitation to plant local shrubs but a reminder of the ideas that they have collected for their subsequent action. Every effort has been made to reduce barriers to action for sustainability.

# INTERACTIVE MEDIA



## WEBSITE



## ANIMATIONS

ASPECT Studios | Studio Binocular  
QANTM Create Design Awards

**People find access to information in many ways and many of those ways are through colour and movement.**

The SCP features animations that attract the visitors' attention and that provide a further layer of easily accessible information regarding sustainable living.

# 02

## Building Energy Efficient Homes Package

With increasing energy prices, the running cost is now an important consideration in the size, positioning and performance of a new home.

The most critical opportunity for improving new home energy efficiency is before the home buyer has signed their building contract.

While they are considering their floor plans, their upgrade options and their budgets the energy efficiency of their proposed home can be considered. Typically homes that are rated at 6 star under legislation does not mean they are performing at 6 star. This is due to a range of reasons that can be addressed only prior to construction.

Once a home is built it is expensive to rectify. The provision of independent advice with a personalised consultation with a trained facilitator gives the new home buyer the knowledge and opportunity to make informed decisions when they can still be implemented.



### Building Energy Efficient Homes



Book on 5998 9541 or visit us and discover how to save energy & money

- ☀ Orientation
- ☀ Double Glazing
- ☀ Insulation
- ☀ Draught Sealing
- ☀ Shading
- ☀ Solar Energy
- ☀ Heating & Cooling
- ☀ LED Lighting
- ☀ 5 Star Appliances
- ☀ Energy Monitoring



Selandra Community Place is located at 2 Forest Drive, Cyniba North (Corner Weather Grove and Forest Drive, Melway Ref. 134 J5)



Your branding and logo goes here



## Building consultation booking form

The Energy Efficient Homes Delivery package includes training and advice for booking and conducting a building consultation. Have the participant bring in their building plans and look for opportunities to maximise sustainable living options.

The Energy Efficient Homes Delivery Package includes artwork available for customising to your needs.

**FREE**  
CONSULTATION

Building Energy Efficient Homes



### BOOKING SHEET

Book from the following options. We will call you to confirm the dates, times and booking/s

NAME/S

PHONE No

EMAIL ADDRESS

Please tick from the following options

**Building Energy Efficient Homes**

**COST:** FREE Consultation  
Maximum 2 people per consultation (please bring your building plans)  
1 hour approximately per consultation

**What time and day suits you?**  
Weekends only 11pm to 5pm

SATURDAY	SUNDAY
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

**What date suits you?**  
\_\_\_\_\_

**Sustainable Homes Program**

**COST:** FREE Program + resources valued at \$30 FREE  
Maximum 12 people  
Includes sessions running 2 hours each on a week night 7pm to 9pm

**Current program dates**

**Otherwise what month suits you?**  
\_\_\_\_\_

Your branding and logo goes here



## SPECIAL OFFER! BOOK THIS WEEKEND FOR A



**FREE CONSULTATION**  
Building Energy Efficient Homes  
& upon attendance receive a planning guide valued at

**\$30 FREE**





# Sustainable Homes Program Package

Delivery of the Sustainable Homes Program is supported with a wide range of print materials, design work and a box of the technologies.

Facilitators and the residents that they work with don't just get told of the things that they can do, they show them, play with them and learn how to use them.

South East Councils Climate Change Alliance

## Sustainable Homes Program

**Opportunity Assessment**

Circle the appropriate answer relating to your home or behaviour

**Introduction**

It's easy living in our homes not to notice how our homes have been built. Depending on the age of the home, design features and the quality of workmanship our homes could be more or less energy and water efficient. Sometimes it's not even our homes, it's how we use them that can be improved.

An Opportunity Assessment is a quick check that will give you an indication of where the opportunities are for you to save. Take your time to complete and investigate your home. You might be surprised at what you find!

**Key:**

- Yes
- No
- Not Sure
- Not Applicable

**How to check for draughts**

You can check your draughts by:

- Looking for daylight around the edges of doors and windows
- Looking for gaps around skirting boards
- Feeling draughts on a waft fan
- Using a lit incense stick - the smoke will move in the direction of the draught

**Check your fridge and freezer temperature**

Use a thermometer to check the temperature of your fridge and freezer.

**Energy**

**Renewable Energy**

- Have solar panels installed?
- Signed up to Green Power?

**Heating and Cooling**

- Only heat and cool rooms that are being used?
- Open curtains, blinds and external shades so the sun can heat your home in winter?
- When heating, set the temperature as low as is comfortable?
- Maintain your heating and cooling appliances to ensure they operate efficiently?
- When cooking, do you set the temperature as high as is comfortable?
- When you purchase a heating or cooling appliance do you seek advice about:
  - The most appropriate appliance?
  - The right size appliance?
  - The energy rating label, or if there is none, the running costs of the appliance?
- Is there insulation in the roof and walls?
- Are there gaps around doors and windows that let draughts in?
  - Where can you find them?
- Are ceiling exhaust fans covered with a draught stopper?
- Have the vents in the walls been covered over?
- Are windows shaded in the summer to keep the house cool?
- Do the living spaces face north?
- Are windows double glazed?
- Do the windows have curtains and paints?

**Fridges and Freezers**

- Is there only one fridge and freezer running?
- When purchasing a fridge and freezer is the energy efficiency of the model and size for the household's needs considered?
- Is the fridge temperature set between 3°C and 4°C?
- Is the freezer temperature set between -15°C and -18°C?
- Is the fridge and freezer located in a cool, well ventilated area and out of direct sunlight?
- Do the fridge and freezer doors seal properly?
- Has any frost built up over 5 mm in the freezer been cleared?

**Water Heating**

- Are short showers taken - in three to four minutes each?
- Is a solar, electric heat pump or a flow stop gas water heater installed?
- Is there insulation on external water heater pipes?

**Lighting**

- Are lights turned off when a room is not in use?
- Are curtains and blinds opened to let in daylight instead of turning on lights?
- Have energy efficient lights been installed- eg compact fluorescents or LED down lights?
- Is outdoor lighting operated by motion sensors?
- Are these outdoor lights low wattage?

**Home Appliances**

- Are clothes washed with a cold water cycle?
- Are clothes hung out to dry?
- Is the lint filter in the clothes washer or dryer cleaned before each load?
- Are appliances on standby turned off - eg televisions, stereos, computers?
- When purchasing a clothes washer or dryer, was a model selected that was the right size for household needs and did it have a high star rating for energy use?

South East Councils Climate Change Alliance

## Sustainable Homes Program

Take part in our program to make your home more sustainable

Minimise energy, water and waste

Save money on energy and water bills

Fast facts to make decisions easy

Relaxed social setting and activities

The Sustainable Homes Program has been developed by the South East Councils Climate Change Alliance and is supported by the City of Casey and the Sustainability Fund.

Your branding and logo goes here



## Energy

### How you behave in your home

How we behave and use appliances will also influence the amount of household energy used. For example, if you are at work during the day and out on weekends, the heater and TV should be turned off. If you have purchased an efficient reverse cycle air conditioner the way you use it will affect its energy consumption. For example, it will be efficient if you leave the doors open to other rooms in your home, or you're wearing slacks.

Many factors influence how much energy is used in homes. Firstly, there are things like the direction the building living spaces face, the building design and materials used. Secondly, choices of heating and cooling systems and appliances is a consideration. Finally, the way we behave in our homes can make a big difference when it comes to saving energy.

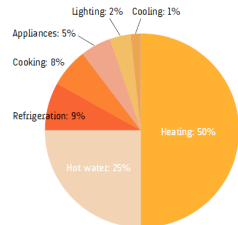
## Energy

### In this section

1. Face living spaces & windows north
2. Increase shade around the house
3. Install double glazing
4. Increase thermal mass
5. Draught seal gaps, windows, doors & vents
6. Install solar hot water system
7. Install wall & roof insulation
8. Install an efficient dishwasher
9. Install an efficient washing machine
10. Install an efficient fridge/freezer
11. Improve heating efficiency
12. Install solar panels
13. Install efficient lighting
14. Install an efficient cooling system
15. Turn off appliances on stand by
16. Turn thermostat down
17. Maintain fridge & freezer efficiency
18. Turn off lights not in use
19. Use clothes line instead of the dryer
20. Turn water heater down
21. Use cold water for washing clothes
22. Use public transport
23. Walk or cycle more often
24. Measure energy efficiency & use
25. Use sustainable landscapes

### Where is energy used in the Victorian household?

The below pie chart shows that half of the energy used in a Victorian household is used to heat the home.



Source: Data from Sustainability Victoria, "Benefits Of Energy Smart Housing", Data source dated 1999 - 2000

## 1. Face living spaces & windows north

## Energy



SAVE up to

**\$150**  
on bills per year

SAVE up to

**610** kg  
on CO2 per year

Benefit

Comfort

### Features & Benefits

#### Placing your home on the block

Identify your home should be placed on the block so that its living areas and major windows face north. Renovators and extensions to existing homes should also use this principle to make them more energy efficient. If you cannot do this on your block, a high level of energy efficiency can still be achieved by paying attention to other higher cost, energy efficient features such as extra insulation and double glazing. Alternatively, your home can be specifically designed to catch the winter sun even on a block with otherwise poor solar access.

#### Benefits of solar access

Solar access refers to the amount of the sun's energy available to a building. Ensuring your home has good solar access results in less heating from the sun, reduced energy requirements, improved comfort levels and environmental benefits.

#### Siting for solar access

To achieve a high level of unobstructed winter sunshine, it is essential to choose the correct siting and orientation for your house. A house should be designed to respond to site conditions to maximise free solar energy.

#### Diffuse and direct solar radiation

Solar radiation encompasses both direct and diffuse solar energy. Direct solar energy is the sunlight that falls upon the window, whereas diffuse solar energy is the reflected energy that still comes through the window on a cloudy day. In Victoria, up to 40% of the energy contribution from north windows in the colder months is from diffuse solar radiation.

#### Solar access for lots

Good solar access for new housing depends very largely on the site. Energy efficient housing can be provided more easily and economically if the lot allows a home to be sited with good solar access. Characteristics such as orientation, slope, existing or potential overshadowing from the north, and lot shape, size and width are important considerations.

**Calculation Assumptions:** A poorly orientated 5 star home in Victoria requires an approximate 26% increase in heating and cooling energy load compared to a well orientated home. Assumed gas heating and electric cooling.

Sustainable  
Homes Program



## Face living spaces & windows north

Energy

## Install double glazing

## 3. Energy

### Features & Benefits

Double glazing will stop heat moving from warm air one side of a window to cool air on the other side. It reduces heat loss in winter while allowing sunlight in to warm the room.

In summer it will protect your house from the warm air outside but will still need shading or tinted windows to prevent sunlight heating the room.

Typical cost

**\$9,000**

Additional cost

**\$5,000**  
extra

Total cost

**\$14,000**

SAVE up to

**\$300**  
on bills per year

SAVE up to

**1,000** kg  
on CO2 per year

Sustainable  
Homes Program



## Use the dishwasher instead of hand washing

Water

## Use the dishwasher instead of hand washing

## 7. Water

### Features & Benefits

Greywater is the wastewater from clothes washing machines, showers and taps from most areas within the house, except kitchens and toilets.

It is generally reused on the same property. Greywater is not suitable for drinking. However, it can be used for toilet flushing and garden watering.

Dishwasher owners

**50%**  
of households

SAVE up to

**\$15**  
on bills per year

SAVE up to

**6,000** lt  
on H2O per year

SAVE up to

**50** kg  
of CO2 per year

Sustainable  
Homes Program

# 04

## Facilitator Training and Resources to deliver all packages

The comprehensive training program requisites to support the Sustainable Homes Program are available as part of the package. These include elements as follows:

### Materials

The training program is supported by a master copy of the participant’s workbook and a set of flash cards that support participant’s learning

### Training support

A box of sustainability tools and technologies is provided for the facilitator to demonstrate, for example, how water diverters work, present the range of lighting appliances related to their energy consumption and a sample solar panel to support the activity on solar energy

### Documentation

This comprises facilitator recruitment documents, licence agreements and training certificates for use of the training programs and certification of facilitators.

### On-site training

This training package contains advice and directions for conducting all elements of the packages. It includes on-site training, running sheets, templates and program evaluation tools.



Welcome to the  
**“Sustainable Homes Program”**  
 Facilitator Training



### Sustainable Homes Program Energy Module Running Sheet

Program Facilitator Materials	Participation Materials
<ul style="list-style-type: none"> <li>» Running Sheet</li> <li>» Sustainability Products Tool Box</li> <li>» Motivation videos</li> <li>» Lap Top computer (optional)</li> <li>» Power point projector (optional)</li> <li>» TV (optional)</li> <li>» Name tags</li> <li>» Evaluation Sheets</li> <li>» Butchers paper / pens</li> <li>» Organise chairs in a circle</li> </ul>	<ul style="list-style-type: none"> <li>» Fact sheets</li> <li>» Activity cards</li> <li>» Opportunity Assessment</li> <li>» Action Plans</li> </ul>

### Broad Outline / Agenda

Session 01	Session 02
<ul style="list-style-type: none"> <li>» <b>Activity 01</b> Opportunity Review</li> <li>» <b>Activity 02</b> Energy on the Cards</li> <li>» <b>Activity 03</b> Action in our hands</li> </ul>	<ul style="list-style-type: none"> <li>» <b>Activity 01</b> Ready, Set, Energy</li> <li>» <b>Activity 02</b> Priority Actions Plan</li> </ul>

The package contains precise advice, including running sheets, for running the training program

## Energy Module – Session 01

Time	Running sheet	Notes	Materials Needed	Activities
7:00	Welcome back everyone			
	Clearly describe the purpose to validate why people are at the course  Establish your licence	Toilets, emergency exists, coffee and tea ect		
	<b>How'd You Go?</b>		<b>Group discussion</b>	Did anyone make a sustainable change at home over the previous week? What was it? Was it easy? Did it work? What barriers did you face?
	Set out a brief agenda for the event		Refer to the wall	
	Review ground rules and ask for consensus – refer to wall		Refer to the wall	
7:20	<b>Activity 01</b> Opportunity Review – Energy  Introduce the activity / question for this session  <i>(Note: assessment should have been completed by the participants over the previous week, if not they can do it over 5min now)</i>	01. Give clear instructions, demonstrate if necessary 02. Start the process 03. Summarise the result 04. Thank all (celebrate with applause!)	» <b>Completed Opportunity Assessments by participants</b> » <b>Organise in groups of about 3 people</b> » <b>Write the questions on a white board or butches paper</b>	» <b>Review Opportunity Assessment (energy only) in groups and answer the following questions:</b>  » <b>What was the most surprising finding from the Opportunity Assessment?</b>  » <b>Was there any finding that you had expected?</b>  » <b>Report back to the larger group on common themes</b>
	Give a clear commitment and explain what happens next			
7:50	Break			



The participants handbook contains all the information they would wish for in conducting a program to introduce residents to sustainable living. It features practical advice for reducing energy consumption including what dollar savings should result and what reductions in greenhouse gas emissions will eventuate.



Tool box – sustainability tools and technologies