



# HOME ENERGY CALCULATOR (HEC) USER GUIDE

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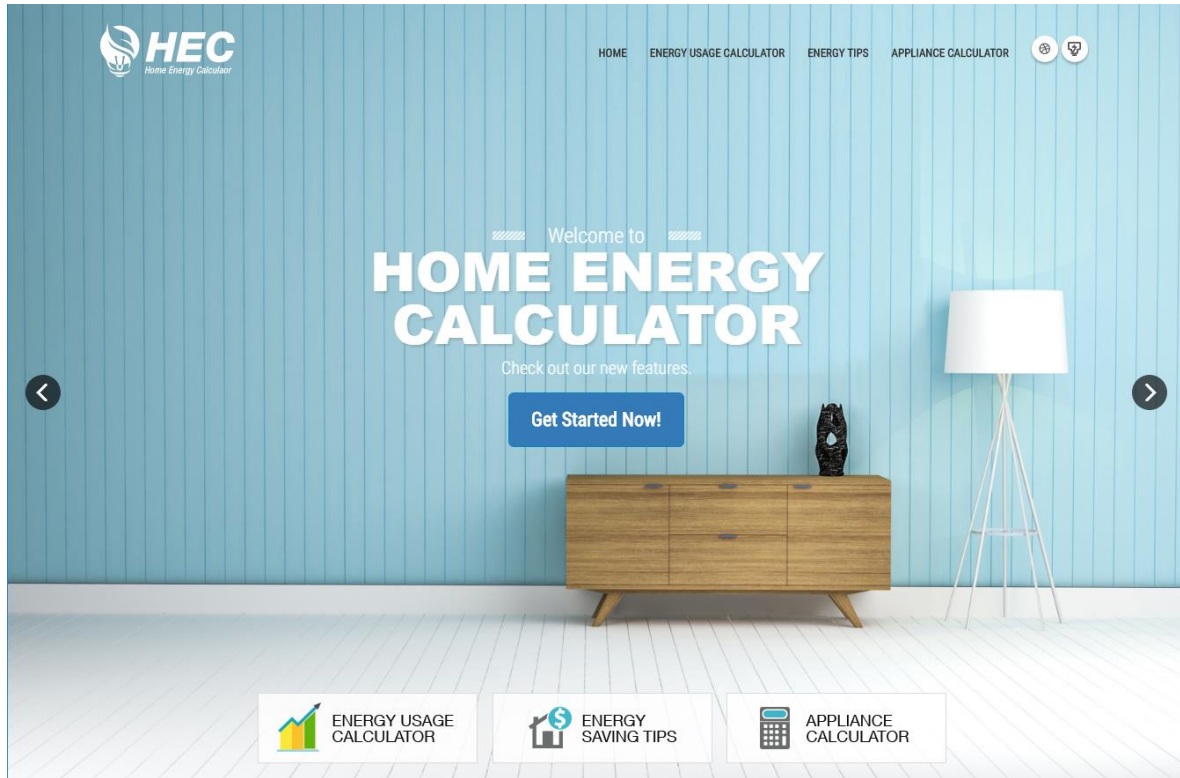
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## ABOUT HOME ENERGY CALCULATOR

1. Open Home Energy Calculator (HEC) website using URL below:

Link: <https://hec.tnb.com.my/>



**HEC** is a tool for customers to conduct self-energy audit to understand their household consumption. TNB provides another feature in HEC to assist customers in making better decision in managing their appliance

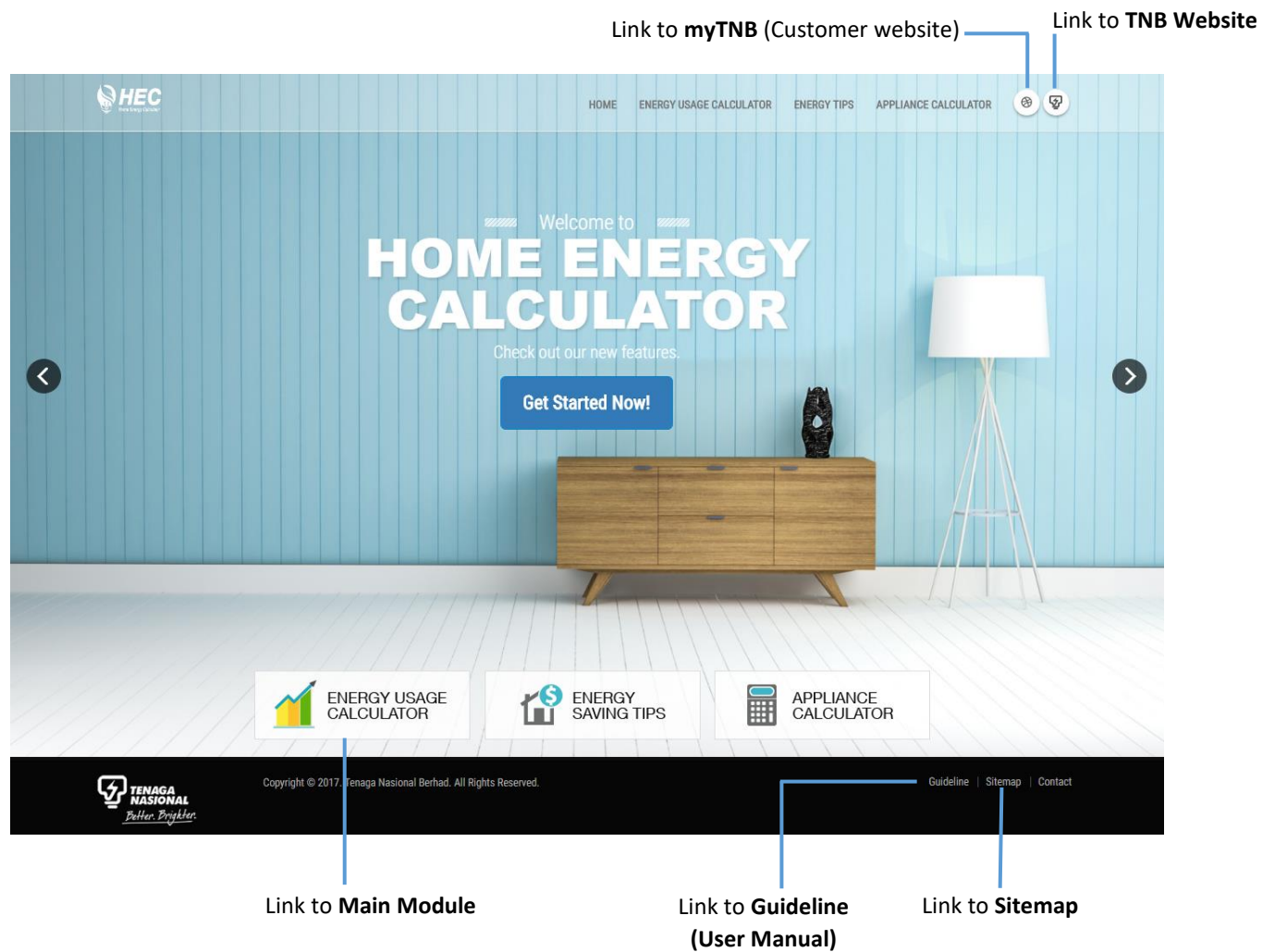
The objective of HEC is to help consumers make better energy efficiency decisions through: -

- Energy Usage Calculator
- Energy Saving Tips
- Appliance Calculator

Consumers can estimate their energy consumption and choose the right measures towards achieving greener living.

## Landing Page

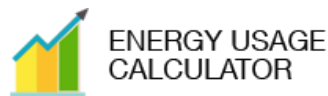
Note: Please use latest browser version for full experience.



## Energy Usage Calculator

Note: Please use latest browser version for full experience.

1. At Landing Page, Click **Energy Usage Calculator**.



2. Click **"HOW TO"** to get overview about how to get the wattage (watt) value from appliances label.

Link to **How To**

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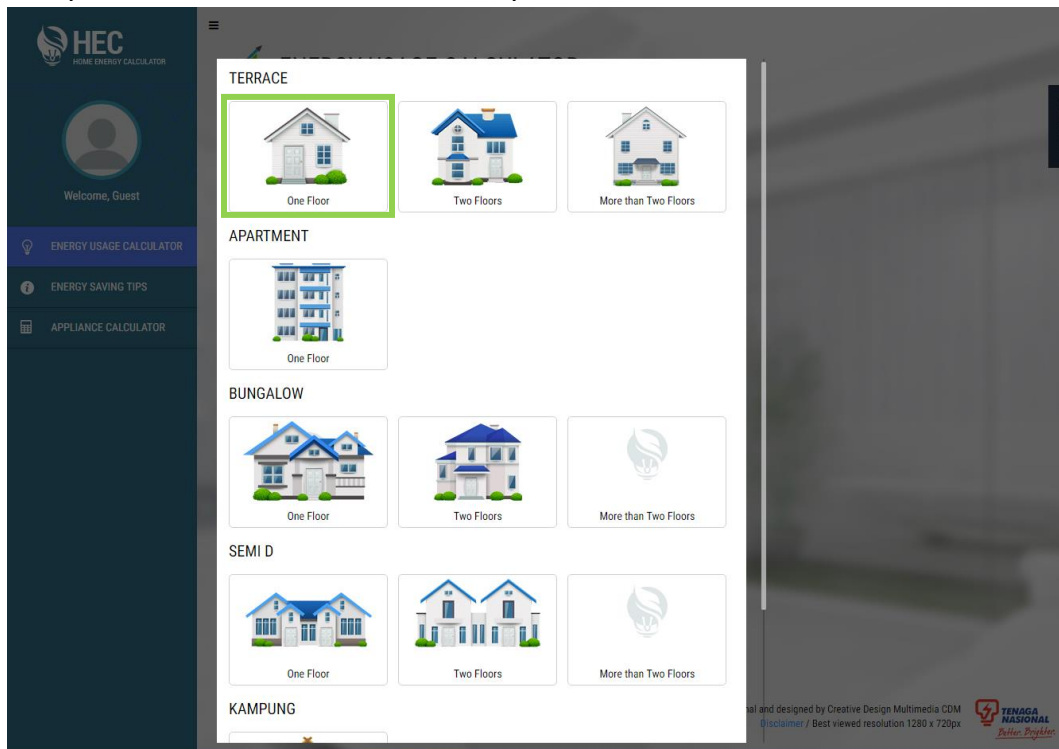
Disclaimer / Best viewed resolution 1280 x 720px

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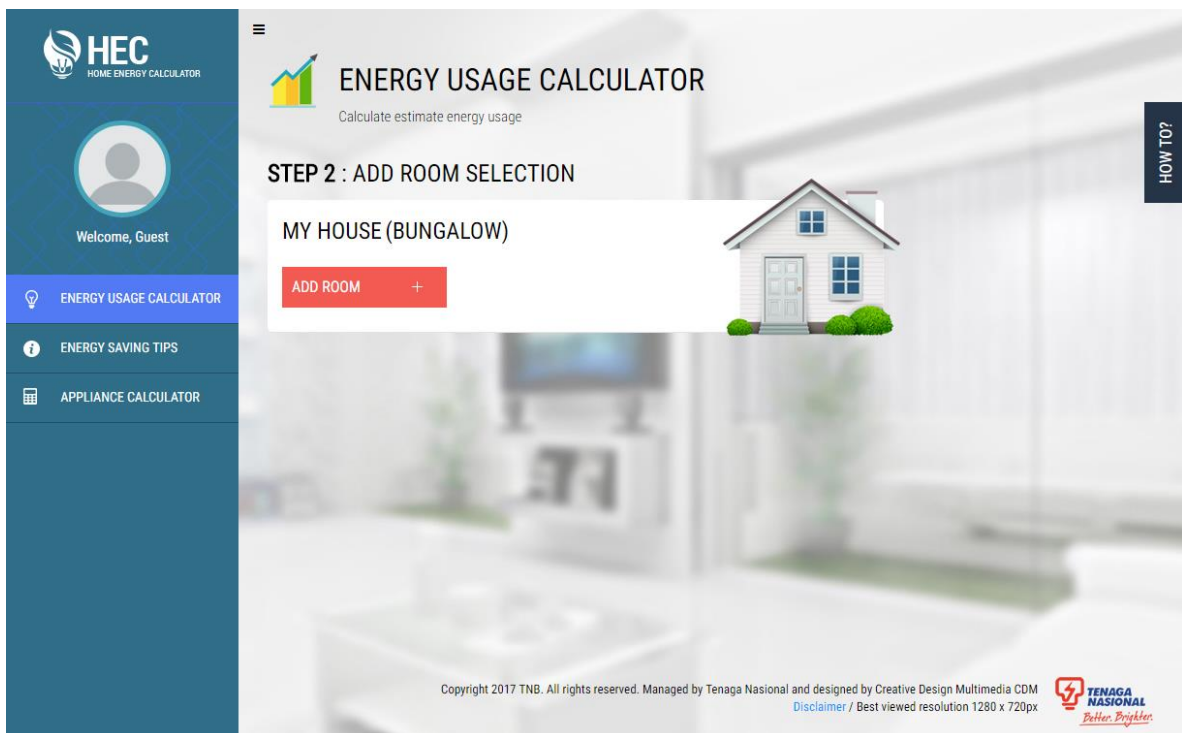
Link to **Disclaimer**

3. Follow the first step by click on **SELECT YOUR HOUSE TYPE**.

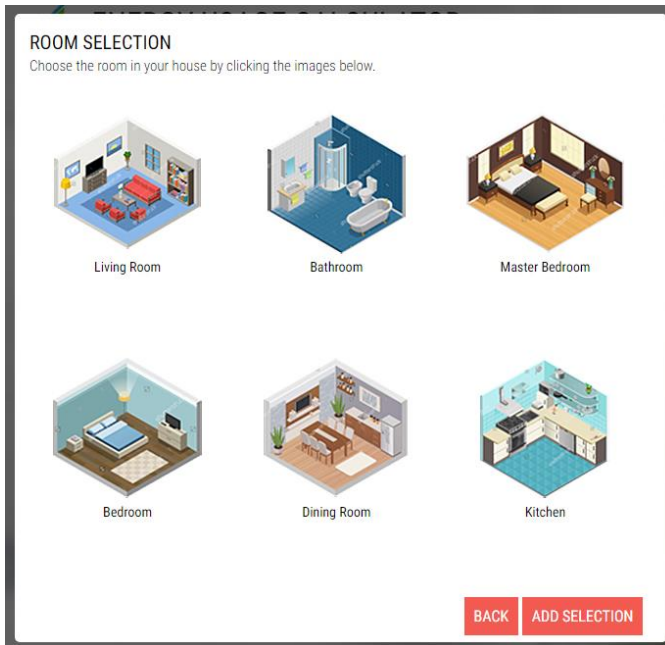
4. Choose your **HOUSE TYPE** from the lists, by click on the House Icon.



5. Your house selection will appear on the next page.



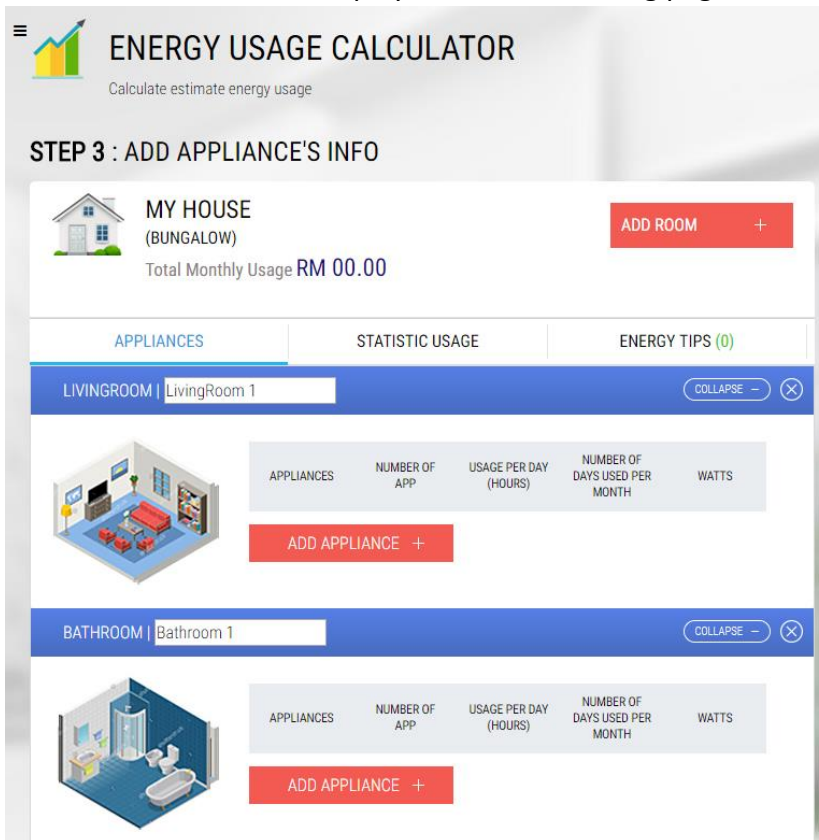
6. Click **ADD ROOM** to your selected house.



You can add multiple room by increase the value from the navigational button.



7. A selected room will be displayed on the following page.



To expand or collapse the navigational bar for ROOM, click on the icon (Collapse/Expand).

**STEP 3 : ADD APPLIANCE'S INFO**

MY HOUSE (BUNGALOW)  
Total Monthly Usage RM 00.00

ADD ROOM +

ADD Room

Auto Calculated Usage

3 Tab Menu.

Expand/Collapse Room Section

Delete Room

#### Room Label

- Click **ADD APPLIANCE** for each selected room.

ADD APPLIANCES (LIVINGROOM 1)

Air Condition

Astro Decoder

Desktop PC

DVD Player

Fan

Game Console

Hi-Fi

Hypp TV Decoder

Laptop

Light

Phone Charger

Printer

Router

Scanner

Television

Vacuum Cleaner

BACK ADD SELECTION

You can add multiple appliances by increase the value from the navigational button.



- Click **ADD SELECTION** to proceed.



10. Change the default preset value for each appliance based on your daily usage.  
Value for Energy Usage will automatically be calculated once the value change.

**ENERGY USAGE CALCULATOR**  
Calculate estimate energy usage

**STEP 3 : ADD APPLIANCE'S INFO**

**MY HOUSE**  
(BUNGALOW)  
Total Monthly Usage RM 20.78

**ADD ROOM +**

**APPLIANCES** | **STATISTIC USAGE** | **ENERGY TIPS (3)**

**LIVINGROOM | LivingRoom 1** **COLLAPSE -** **X**

APPLIANCES	NUMBER OF APP	USAGE PER DAY (HOURS)	NUMBER OF DAYS USED PER MONTH	WATTS
Air Condition	1	4	15	746 <b>-</b>
Astro Decoder	1	2	30	20 <b>-</b>
Fan	1	6	30	50 <b>-</b>
Light	1	8	30	32 <b>-</b>
Television	1	2	30	50 <b>-</b>

**ADD APPLIANCE +**

Change **value** here based on your usage

11. Click **ADD ROOM** to add more room. (Optional)

**ROOM SELECTION**  
Choose the room in your house by clicking the images below.

**Living Room**  
- 0 +  
(Current room: 1)

**Bathroom**  
- 0 +  
(Current room: 1)

**Master Bedroom**  
- 0 +  
(Current room: 1)

**Bedroom**  
- 0 +

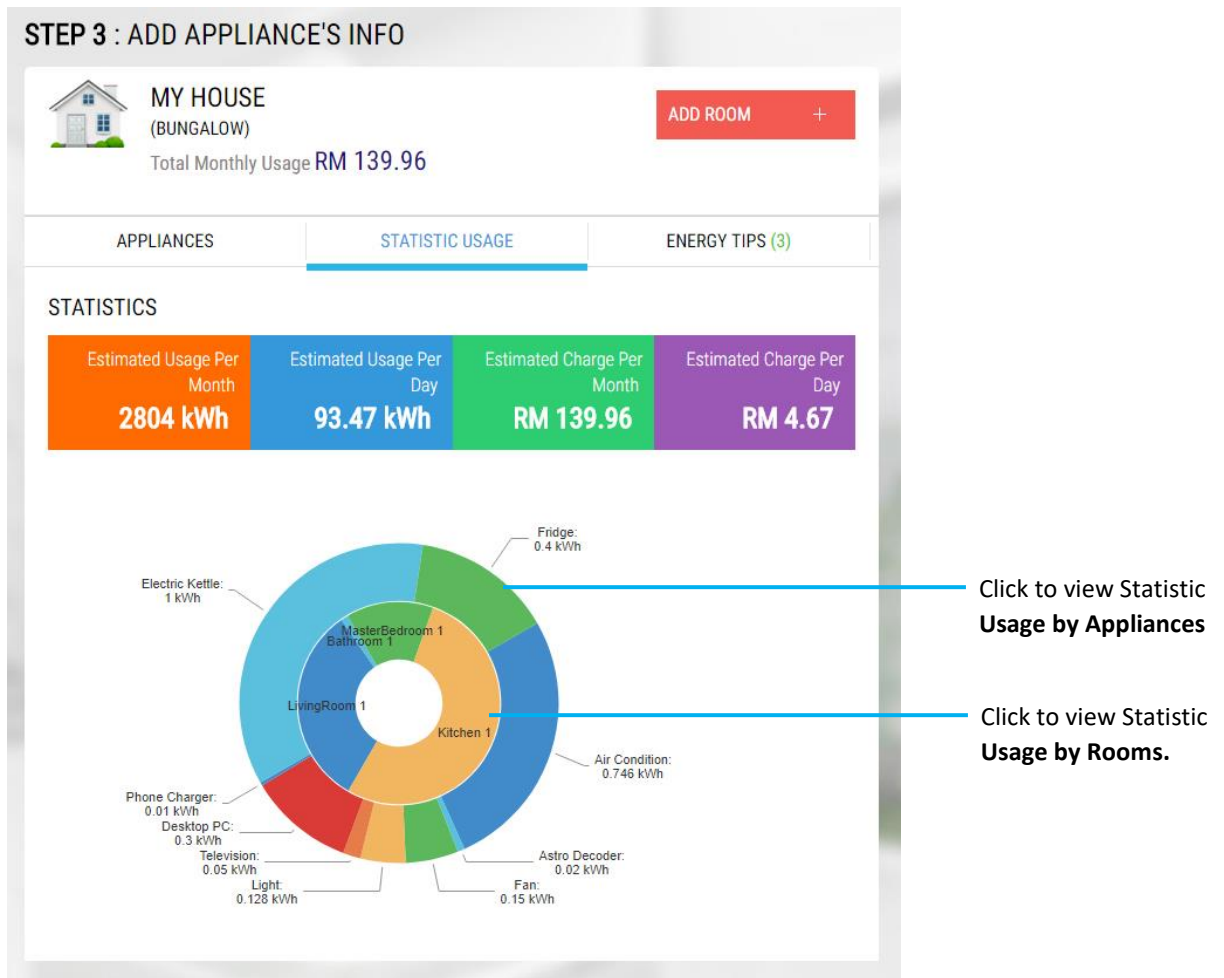
**Dining Room**  
- 0 +

**Kitchen**  
- 0 +  
(Current room: 1)

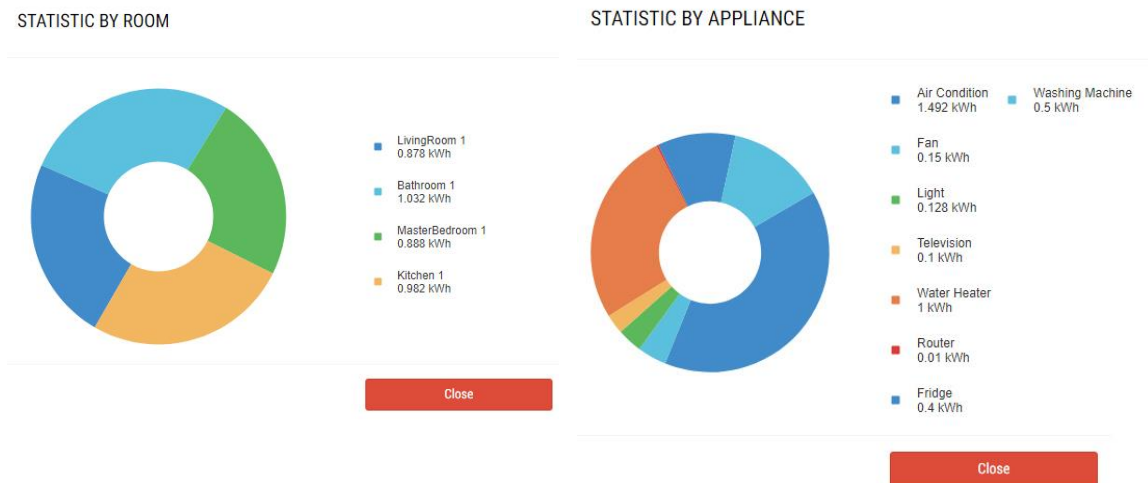
**BACK** **ADD SELECTION**

Current Room refer to previous added **Room**

12. Switch to **STATISTIC** to get details overview about your usage in analytic format.




13. Click the Graph to view details about **Usage by Appliances** or **Usage by Room**.



14. Click on **ENERGY TIPS** to get advice on how to reduce your monthly usage by following what had been suggested by TNB.

**STEP 3 : ADD APPLIANCE'S INFO**



**MY HOUSE**  
(BUNGALOW)

Total Monthly Usage **RM 139.96**

**ADD ROOM** +

APPLIANCES	STATISTIC USAGE	ENERGY TIPS (3)
Let me help you reduce your electricity usage <a href="#">VIEW MORE ENERGY TIPS &gt;</a>		
01	When choosing an air conditioner for your home, remember to buy one that's appropriate for the size of the room.	✓ 0
02	5-star rated appliances are designed to run more efficiently, reducing your consumption.	✓ 1
03	Installing motion sensors can help save energy by turning on your spotlights only when they need to be.	✓ 0

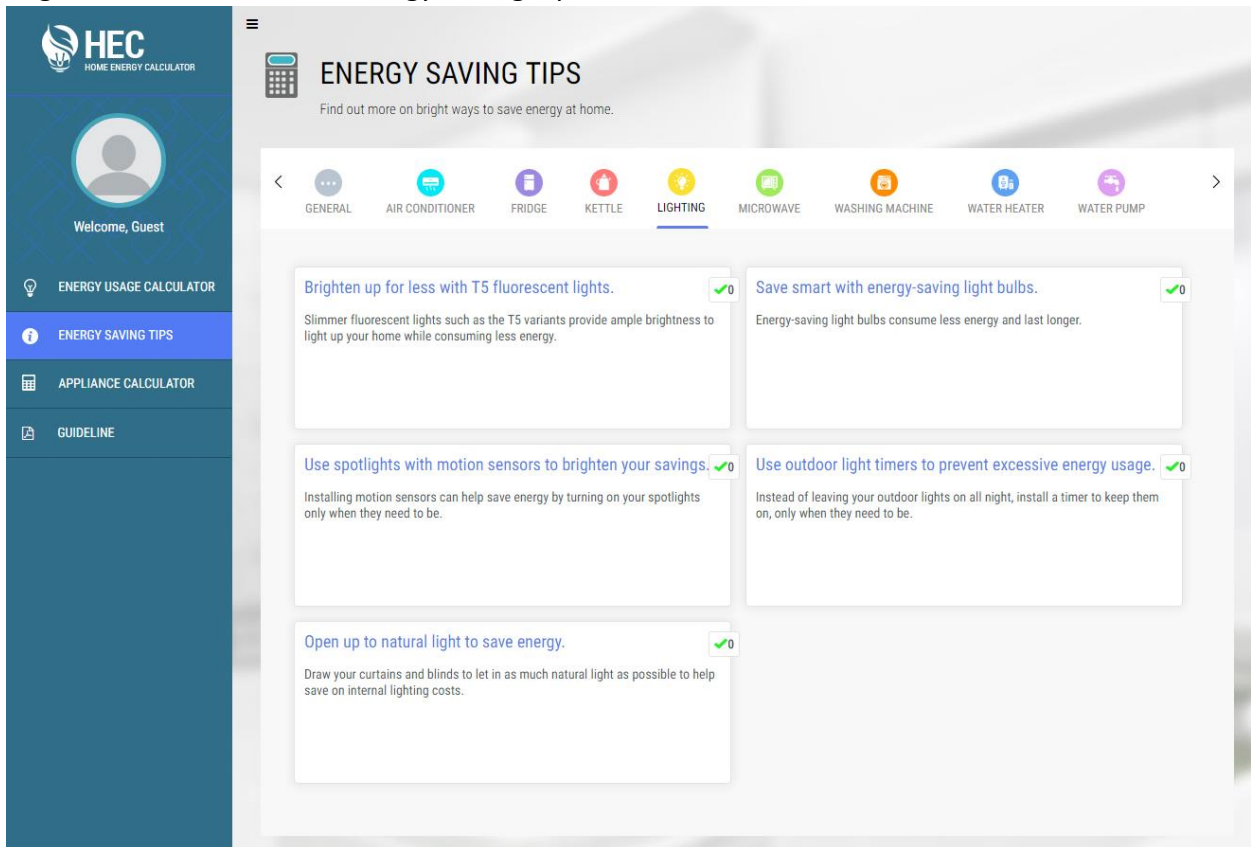
## Energy Saving Tips

Note: Please use latest browser version for full experience.

1. At Landing Page, Click **Energy Saving Tips**.



2. Page will be redirected to Energy Saving Tips.



3. Click on **Appliance icon** to view all the Energy Tips related to the appliance.



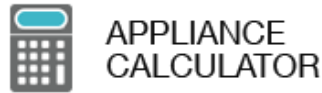
4. For more info about Energy Saving Tips, click on provided link at the header.

Link: <https://www.tnb.com.my/residential/energy-savings-at-home/>

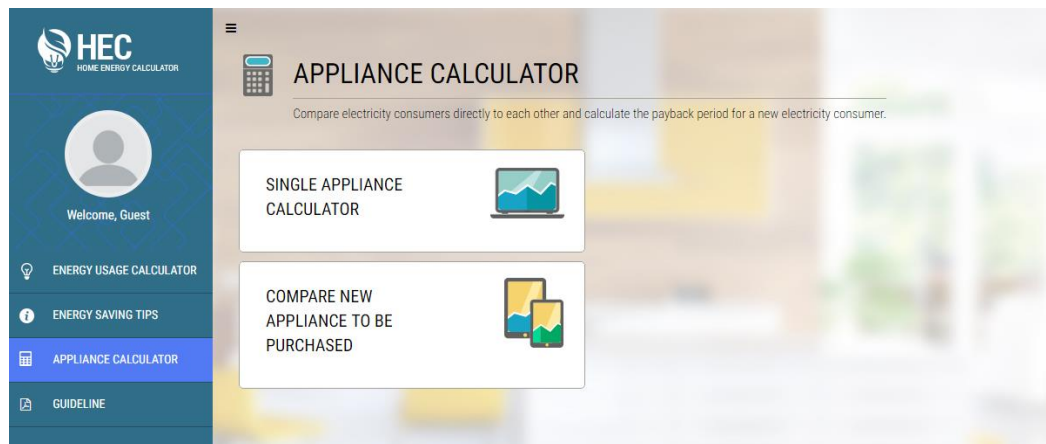
## Appliance Calculator

Note: Please use latest browser version for full experience.

1. At Landing Page, Click **Appliance Calculator**.



2. Page will be redirected to Appliance Calculator menu.



### For **SINGLE APPLIANCE CALCULATOR**

1. Click on Single Appliance Calculator menu.
2. Page will be redirected to a Single Appliance form.

 The screenshot shows the "SINGLE APPLIANCE CALCULATOR" form. It has a title bar "SINGLE APPLIANCE CALCULATOR" and a sub-header "Compare electricity consumers directly to each other and calculate the payback period for a new electricity consumer." The form contains four input fields: "Usage Per Day (Hours)" with value 0, "Number of Days Used Per Month (Days)" with value 0, "Average Cost Per kWh" with value 0.3166 (and a note "Average selling price based on national grid is 31.66 cent/kWh"), and "Wattage (Watt)" with value 0. A red "CALCULATE" button is at the bottom right. Below the form is a "Note:" section with four bullet points:
 

- Please refer to your appliance's product description label for 'Wattage'
- Calculation is based on Domestic Customer Tariff = RM0.3166 (Tariff effective Jan 2014)
- Voltage = 230V
- Monthly average = 30 days

3. Insert the required field. Click **Calculate**.

CALCULATE

4. Result will be calculated and displayed at the top.

**SINGLE APPLIANCE CALCULATOR**  
Compare electricity consumers directly to each other and calculate the payback period for a new electricity consumer.

**SAVING ANALYSIS**

Estimated Usage Per Day (kWh)	Estimated Charge Per Month (RM)	Estimated Charge Per Day (RM)
4.00	37.99	1.27

**SINGLE APPLIANCE CALCULATOR**

Usage Per Day (Hours)

Number of Days Used Per Month (Days)

Average Cost Per kWh   
Average selling price based on national grid is 31.66 cent/kWh

Wattage (Watt)

CALCULATE

**Note:**

- Please refer to your appliance's product description label for 'Wattage'
- Calculation is based on Domestic Customer Tariff = RM0.3166 (Tariff effective Jan 2014)
- Voltage = 230V
- Monthly average = 30 days

**Note:**

The Average Cost Per kWh refer to Average selling price based on Malaysia national grid which is 31.66 cent/kWh.

5. Change the value to recalculate the appliance usage.

## For **COMPARE NEW APPLIANCE TO BE PURCHASED**

1. Click on **Compare New Appliance to be Purchased** menu.
2. Page will be redirected to a new Form:
3. Insert the required field. First Step was to insert the Initial usage details.

The screenshot shows the 'COMPARE NEW APPLIANCE TO BE PURCHASED' form. The left sidebar contains the HEC logo and navigation links: 'Welcome, Guest', 'ENERGY USAGE CALCULATOR', 'ENERGY SAVING TIPS', 'APPLIANCE CALCULATOR' (highlighted), and 'GUIDELINE'. The main content area has a title 'COMPARE NEW APPLIANCE TO BE PURCHASED' and a subtitle 'Compare electricity consumers directly to each other and calculate the payback period for a new electricity consumer.' Below this is a progress bar with 'STEP 1 Insert usage details' (active) and 'STEP 2 Insert appliance details'. A note states 'Average selling price based on national grid is 31.66 cent/kWh'. There are four input fields: 'Expected Number of Usage a Year' (0), 'Usage Per Day (Hours)' (0), 'Number of Days Used Per Month (Days)' (0), and 'Average Cost Per kWh' (0.3166). A red 'NEXT' button is at the bottom right. A vertical banner on the right edge reads 'WHAT IS TOTAL COST OF OWNERSHIP?'.

4. Second step to insert the details of appliance usage.

The screenshot shows the 'APPLIANCE CALCULATOR' form. The left sidebar is the same as the previous screenshot. The main content area has a title 'APPLIANCE CALCULATOR' and a subtitle 'Compare electricity consumers directly to each other and calculate the payback period for a new electricity consumer.' Below this is a progress bar with 'STEP 1 Insert usage details' (inactive) and 'STEP 2 Insert appliance details' (active). The form is divided into two columns: 'APPLIANCE 1' and 'APPLIANCE 2'. Each column has input fields for 'Appliance Label (Eg: Brand Name)', 'Price (RM)', and 'Wattage (Watt)'. Below these are rows for 'Estimated Cost Per Day (RM)', 'Estimated Cost Per Month (RM)', 'Estimated Cost Per Year (RM)', and 'Total Cost of Ownership (RM)'. At the bottom are 'BACK' and 'CALCULATE' buttons.



5. Click **Calculate** to get the result.

**CALCULATE**

COMPARE NEW APPLIANCE TO BE PURCHASED

STEP 1 Insert usage details

STEP 2 Insert appliance details

SAVING ANALYSIS

Cost saving per Day <b>RM 0.13</b>	Cost saving per Month <b>RM 3.80</b>	Cost saving per Year <b>RM 46.22</b>	Total Cost of Ownership Difference <b>RM 17,171.61</b>
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Appliance A is recommended for cost saving.

	APPLIANCE 1	APPLIANCE 2
Appliance Label (Eg: Brand Name)	A	B
Price (RM)	1200	1500
Wattage (Watt)	1000	1200
Estimated Cost Per Day (RM)	0.63	0.76
Estimated Cost Per Month (RM)	19.00	22.80
Estimated Cost Per Year (RM)	231.12	277.34
Total Cost of Ownership (RM)	85,558.07	102,729.68

BACK CALCULATE

For more info about the Calculated Result, click on the “**What is Total Cost of Ownership?**” menu.

WHAT IS 'TOTAL COST OF OWNERSHIP'?

Note: Total cost of ownership is the purchase price of an asset plus the costs of operation such as the cost of usage. The item with lower total cost of ownership will be the better value in the long run.

Cost of ownership = Purchase Price + Annual Cost of Usage x Year of Usage