DO THE CHEAP AND EASY THINGS FIRST

1. Check the load shedding schedule in your electricity usage.
   - Be sure to turn off electrical appliances and lights when not in use.

   - A TV and a decoder uses 30W when off and 150W when in use.
   - With appliances, find the labels on the appliance that state the power usage.
   - A cell phone charger uses 0.5W not charging and 6W when charging.

RESEARCH WAYS TO “LOAD-SHED PROOF” YOUR HOUSE

Calculate the daily power consumption of all electricity used for household needs. Start by adding the daily power of the lights and TV to the kitchen and bathroom.

3. The cost of living high energy appliances.
   - A small industry-approved gas cooker can cost you R200 – R500. Make sure that gas cooker meets safety standards.

4. Buy a small gas cooker (about R200). A: can operate on gas or on LPG as a power plan.
   
5. Buy a gas bottle (about R200). They last for up to 15 hours fully charged.

6. Use solar PV and a battery for home energy storage and to switch off during load shedding. If you have a digital meter, ask your municipality to install a switch to an “off-grid” meter.

7. Using appliances when in your house to prevent power surges and to lose power.

OPTION A: BATTERY

A battery backup system consists of the following components:

- Inverter
- Battery
- Battery charger
- Heavy-duty switch

INVERTER

- The inverter changes the DC battery power into usable AC power during load shedding. An inverter converts over 90% of the electrical power into usable power.

BATTERY

- The battery stores the electrical power for later use.

BATTERY CHARGER

- The battery charger recharges the battery. It converts DC power to AC power and vice versa.

HEAVY-DUTY SWITCH

- A heavy-duty switch is used to switch the AC power on or off.

Note:

- The heavy-duty switch is normally used in conjunction with heavy-duty switchgear. This is used to connect and disconnect the battery to the inverter.

OPTION B: SOLAR PV AND BATTERY

5. This option is suitable for a medium-sized house with a high consumption of electricity.

- A solar panel and a battery that will power 120W (around 5 lights or a TV, or a fridge) will cost between R2000 and R3000.

Note:

- Solar panels are up to 10% more efficient than battery systems

OPTION C: GRID TIED SOLAR PV

This option is suitable for a large house with a high consumption of electricity.

- A large solar panel and a battery that will power 120W (around 5 lights or a TV, or a fridge) will cost between R2000 and R3000.

Note:

- Solar panels are up to 10% more efficient than battery systems

OPTION A: BATTERY

This option is the most affordable option and will provide continuous power to your house.

- A small gas cooker (about R200) that you can operate off the gas bottle or when there is no electricity.

Note:

- A TV and a decoder uses 30W when off and 150W when in use.

OPTION B: SOLAR PV AND BATTERY

This option is suitable for a medium-sized house with a high consumption of electricity.

- A solar panel and a battery that will power 120W (around 5 lights or a TV, or a fridge) will cost between R2000 and R3000.

Note:

- Solar panels are up to 10% more efficient than battery systems

OPTION C: GRID TIED SOLAR PV

This option is suitable for a large house with a high consumption of electricity.

- A large solar panel and a battery that will power 120W (around 5 lights or a TV, or a fridge) will cost between R2000 and R3000.

Note:

- Solar panels are up to 10% more efficient than battery systems

PLEASE NOTE:

All grid-connected solar PV systems need to be authorised by your municipality prior to installation. Contact your municipality to determine whether or not your roof is suitable for solar PV. You will need to inform your utility of your intentions to install solar PV. The supermarket will provide you with a list of approved solar PV systems and the conditions that must be met. You will need to contact them directly. Off-grid solar systems also need to be authorised by your municipality to ensure that they are safe and efficient. Always contact your municipality for advice on the best options.

The City of Cape Town aims to ensure easy and affordable access to energy. For more information, please visit www.capetown.gov.za/solarPV or www.westerncape.gov.za/110green

To contact the City of Cape Town, or to access the Western Cape Municipal Energy Strategy, you can visit www.westerncape.gov.za/energy@green-cape.co.za