

# CODE OF PRACTICE OF EFFICIENT USE OF ELECTRICITY

October 2024

# 1. INTRODUCTION

This document was issued in compliance with the requirements of the electricity supply license issued by the Public Services Regulatory Authority, which requires the company to publish the business guidance followed by the supply company in dealing with customers regarding efficient use of electricity.

The Efficient Use of Electricity Code of Practice is designed as guidance for customers on the efficient use of electricity. It contains many simple and practical measures that can have an immediate benefit in reducing your electricity use. Caring for and protecting the environment requires efficient use of electricity to contribute in reducing the level of pollution for a sustainable environment, while maintaining levels of comfort and an appropriate atmosphere in your property.



# 2. ELECTRICITY METER

Electricity meter measures the amount of electrical energy consumed in units of kilowatt-hours.

# 3. UNIT OF ELECTRICITY

One energy UNIT is consumed if an appliance with a power rating of 1000 watts (or 1 kilowatt) is switched on for 1 hour. A 500 watt appliance would consume the same amount of energy in two hours.

The power rating plate on any electrical appliance shows how much electricity it consumes in one hour, described in watts or kilowatts (1000 watts=1kilowatt or 1Kw). The higher the number of watts, the more expensive the appliance is to run

You can measure how much electricity an appliance is using by multiplying the wattage by the number of hours you use it. For example, if you use a 100 watt bulb for 10 hours, you will have used one kilowatt hour (100 watts x 10 hours= 1000 = 1kwh = 1 unit).

# 4. ELECTRICITY BILL

The electricity bill is issued every month based on the meter reading, indicating the current and previous meter readings. The difference between them represents the number of units consumed, and the value of consumption is calculated in Omani Riyals according to the approved tariff.

## 5. BUYING NEW APPLIANCES - ENERGY LABELING

When purchasing new electrical appliances, we recommend looking for their economic advantages (less electricity consumption), for example:

- When purchasing an air conditioner, you must take into account the electrical efficiency of the device, which is shown in the device and is sometimes symbolized by the number of stars or colors, with green symbolizing the most efficient.
- When buying electric cookers, choose the half-rotisserie grill and the low-temperature for washing machines.

## 6. PEAK HOURS

**Peak Hours:** the hours where the demand for electricity increases dramatically and they are two times of peak hours

**Peak  
Time**

**1:00 PM to 4:00 PM**

**10:00 PM to 1:00 AM**

# 7. SIMPLE ELECTRICITY SAVING MEASURES



The way you use your appliances on a day-to-day basis can have a big effect on how much electricity they use. Here are a number of useful tips to reduce your electricity bills:

- Electric irons, dishwashers, air conditioners, heaters and other large appliances consume a lot of energy and often operate for long periods of time. Therefore, we recommend operating these appliances during off-peak times, especially for customers who are eligible for a cost-reflective tariff, and to do laundry or dishes in the evening or at any time during weekend
- Consider using the air dry option in your dishwasher and washing clothes on a shorter cycle
- Electricity can be saved if you avoid leaving devices in standby mode for operation. Therefore, all devices must be turned off if they are not needed.



## 7.1- Air Conditioners

The air conditioner is considered one of the most widely used devices due to the high temperature during the summer. This device consumes a large amount of electrical energy, which is reflected in the electricity bill, as the air conditioner consumes more than (60%) of the total electrical energy consumed. Therefore, we recommend using capacities and sizes of air conditioners that are appropriate with the size of the rooms. Air conditioning per square meter requires about (800) BTU in the case of an uninsulated building, and (600) BTU in the case of an insulated building.

**Note:** BTU (British Thermal Unit), which is the amount of heat needed to raise the temperature of one pound (454 grams) of water by one degree Fahrenheit (0.55 degrees Celsius).

**The following are ways and tips to rationalize electrical energy used in air conditioners:**

- Regular maintenance of air conditioning devices before entering the summer period
- Close your windows, doors and other openings when the air-conditioner is in use

- Make sure to close the holes to prevent hot air from entering by placing gaskets around door and window frames, exhaust fans, and any other places through which hot air can enter
- Draw insulating window curtains to prevent outside heat from entering or darkening the window glass
- Clean the air filter regularly as it is difficult for air to pass through unclean filters, and therefore air conditioners consume more energy and increase the consumption in the value of the bill
- Try not to install the air conditioner in a position subject to direct sunlight. If it is, cover it with a shade or an umbrella
- Always try to keep the area surrounding the outdoor unit free of obstacles for better airflow. We recommend not keeping any large object near the outdoor unit, which may obstruct airflow
- Incorrectly charging refrigerant gas leads to leakage, reduced cooling capacity, and decreased energy efficiency
- The length of the pipe connecting the indoor and outdoor unit must not be less than 3 meters
- The height difference between the indoor and outdoor unit above the ground depends on the type/model of the air conditioner and the length of the pipe used. We recommend referring to the installation guide to find out the maximum pipe length and height difference
- Set the air conditioner to 23 degrees Celsius or set the indicator to 7 for window type air conditioners
- Make sure to turn off the air conditioners when leaving the room or office
- Make sure to purchase devices with a high efficiency factor, which provide high cooling with less electricity consumption
- Keep furniture away from the air vents of air conditioners to ensure easy path of cooling air
- Use fans instead of air conditioners when the weather is moderate
- Consult a specialized air conditioning technician to determine the capacity and size of the air conditioner suitable for each room



## 7.2- Water Heaters

Heating up water requires large amounts of electricity; significant savings can be made in the following ways:

- Choose the right size of water heater for your family.
- Switch off the water heater after use.
- Switch on the water heater a short while before use.
- Take a shower instead of a bath. It may cut costs by two-thirds.
- Use cold water where hot water is not absolutely necessary
- Regular maintenance of the heater and ensuring that the appropriate temperature is set



## 7.3- Cookers

Cooking with gas rather than electricity represents a better use of resources and is usually less expensive. We recommend the following if using electric cookers:

- Choose the right size pan. The base of the pan should match the size of the cooker ring

- Put lids on pans and turn down the heat when food starts to boil. There is no need to boil vegetables vigorously, turn the ring to a gentle simmer
- Try not to use too much water; most items are best cooked in just enough water to cover them
- Food can be cooked more quickly if it is cut into small pieces
- A pressure cooker speeds up cooking times, saves energy, maintains goodness and generates less water vapor in the kitchen
- Cook small items like meat chops under the grill rather than in the oven
- It is more efficient to use a toaster rather than a grill when making toast
- When using an electric kettle boil only as much water as you need. Make sure the element is always covered
- Microwave ovens are useful for cooking, defrosting or heating food. They use much less energy than conventional ovens



## 7.4 - Fridges and freezers

- Put your fridge or freezer in a cool place, away from cookers or heaters.
- For best operation, position your fridge so that air can circulate around the heat exchanger at the back
- Do not leave a fridge or freezer door open for longer than necessary
- Allow any cooked food to cool before putting it in the fridge or freezer
- Combination fridge/freezers with one compressor use less electricity than two separate units
- Defrost your freezer regularly. The ice should never be more than quarter of an inch or 6mm thick around the icebox
- Freezers should be kept at least three-quarters full at all times
- Modern frost-free fridge-freezers use considerably more electricity than conventional designs



## 7.5 - Washing Machine

- Ensure you have a full load before using your washing machine. If this is impractical, use the half loads or economy program
- Use a minimum temperature (40C) wash and economy programs whenever possible
- Use the washing machine in off peak hours (2:00 am - 1:00 pm and 5:00 pm - 10:00 pm)
- Consider doing laundry during off-peak times
- Drying clothes externally using sunlight



## 7.6 - Iron

- Iron your clothes while they are still slightly damp
- Use a dry iron because it consumes less energy than a steam iron
- Ensure the iron is switched off as soon as you finish ironing



### 7.7 - Light

- Lighting in the home typically accounts for 10 -15% of electricity usage. The use of low energy lamps can provide significant electricity savings
- Low energy lamps are miniature fluorescent tubes, which are designed to replace ordinary light bulbs. They are made in a variety of shapes, sizes and ratings so they should be selected to suit the fitting and the space available
- A low-energy lamp can consume about one-fifth of the electricity consumed by a regular light bulb, which means that this type of lamp can save you some money
- To effectively illuminate your property, use daylight as much as possible. You can also open window curtains during the day to allow light in, place lamps carefully, and use bright colors in dark corners
- Consider using individual lighting (for tasks) such as reading as this is more effective and will be less expensive than lighting fixtures typically used for each room

- It is important to keep lamps and lighting accessories clean, especially in the kitchen, where an accumulation of grease and dirt can occur, causing a decrease in the amount of lighting



### 7.8 - Fans

- Clean fans regularly.
- Switch off the fan when it is unnecessary.



### 7.9 - Automation of Use and Smart Homes

- A smart thermostat can reduce heating and cooling costs by up to 15%. It works by learning your habits and automatically adjusting the temperature. For example, if you tend to turn down the temperature before bed at 10 p.m., your smart thermostat will start making that adjustment automatically
- You can also control your smart thermostat through an app, whether you are home or not. So, if your schedule changes unexpectedly, you can still control your cooling costs from the palm of your hand
- Automating your lighting can also help you save. For lights, install dimmers and motion sensors that turn off when you leave the room



### 7.10 - Insulating Materials and Double Glazing

- Heat-insulating materials for walls and ceilings, as well as heat-insulating bricks used in construction, have proven to help save electrical energy at a high rate
- There are several factors that affect the thermal insulation of the house and energy saving, which are "location, weather conditions, building orientation, wind, ceiling height, and the percentage of glass areas of doors, windows, and ventilation openings, which must be taken into account during the design of house maps and before starting construction



### 7.11 - Wasted Energy

- Plug surface appliances and electronic devices into a power outlet and program them to turn off at night
- Remember that televisions, cable boxes, personal video recorders, and game consoles absorb energy even when not in use. Having them all on one power outlet makes it easy to turn them off before everyone goes to bed



### 7.12 - Use the energy calculator for home appliances

- Using the energy calculator available on the Internet allows you to calculate the electrical cost of your home appliances, and helps you save energy consumption costs.
- The link below enables you to know the energy used and the cost for each appliance in the home:

<https://www.energy.gov/energysaver/appliance-energy-calculator>



### 7.13 - Small Changes make a big difference!

Would you believe all it takes to change the world is a simple switch?

It's true. By applying the above tips and other measures that contribute to saving energy, you can save a large amount of money in your pocket from the electricity bill. You can also contribute to reducing global warming for the sake of a sustainable environment



### 7.14 - Invest in energy audits

Once you have done everything you can do yourself, an energy auditor can tell you where there is room for improvement and further savings



## 8. CONTACT CHANNELS

### WAYS TO COMMUNICATE WITH NAMA ELECTRICITY SUPPLY COMPANY

Call Center: 1011

Mail: P.O. Box: 1239 - Postal Code 131, Sultanate of Oman

Website: [www.supply.nama.om](http://www.supply.nama.om)

Email: [info@supply.nama.om](mailto:info@supply.nama.om)



### WAYS TO COMMUNICATE WITH THE PUBLIC SERVICES REGULATORY AUTHORITY

Mail: P.O. Box: 954 - Postal Code 133 Al Khuwair, Sultanate of Oman

Website: <https://apsr.om>

Email: [customers@apsr.om](mailto:customers@apsr.om)

Call Center: 1616

Phone: 24609700

