



MERALCO

Powering OUR Brighter Tomorrow

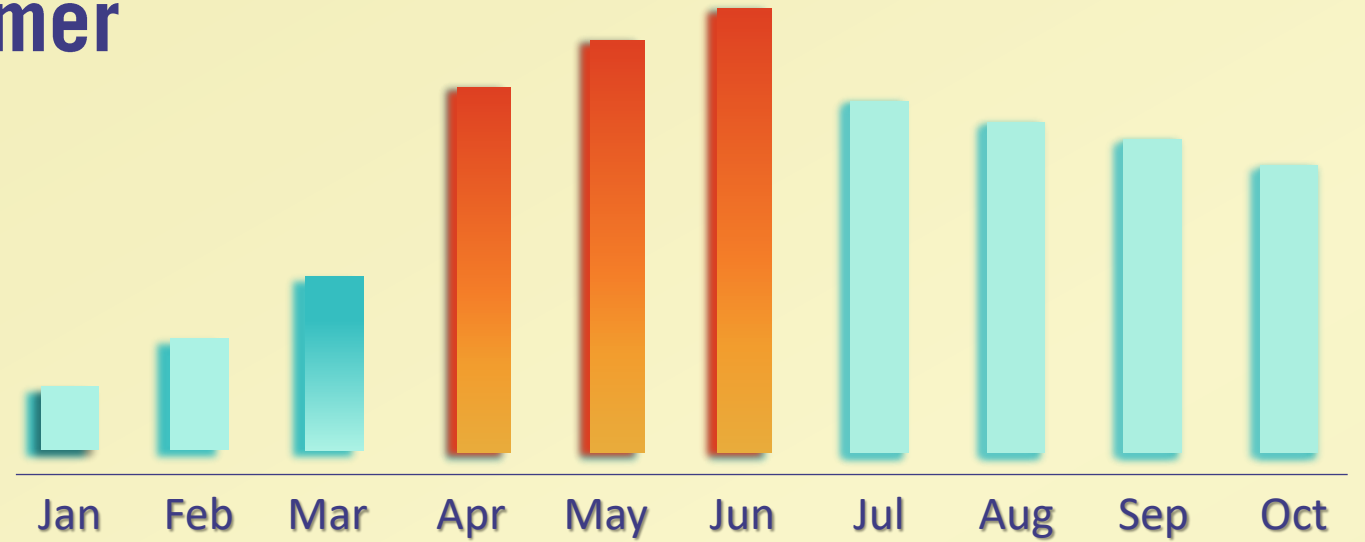
Presentation Date: April 20, 2023

For Businesses





Electricity consumption of businesses increases during the summer by 16-27%



Appliances that consume the most

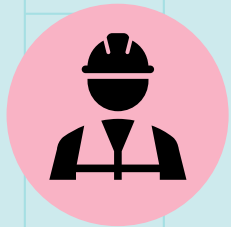


EE&C Act

Energy Efficiency and Conservation Act Republic Act No. 11285

An act institutionalizing energy efficiency and conservation, enhancing the efficient use of energy, and granting incentives to energy efficiency and conservation projects

Compliance to the EE&C Law



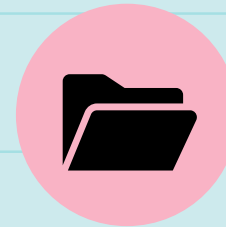
Certified
Energy Manager or
Energy Conservation
Officer



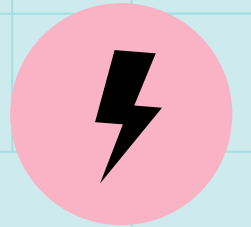
Energy
Management
Framework



Regular Monitoring,
Reports and
Compliance Audits

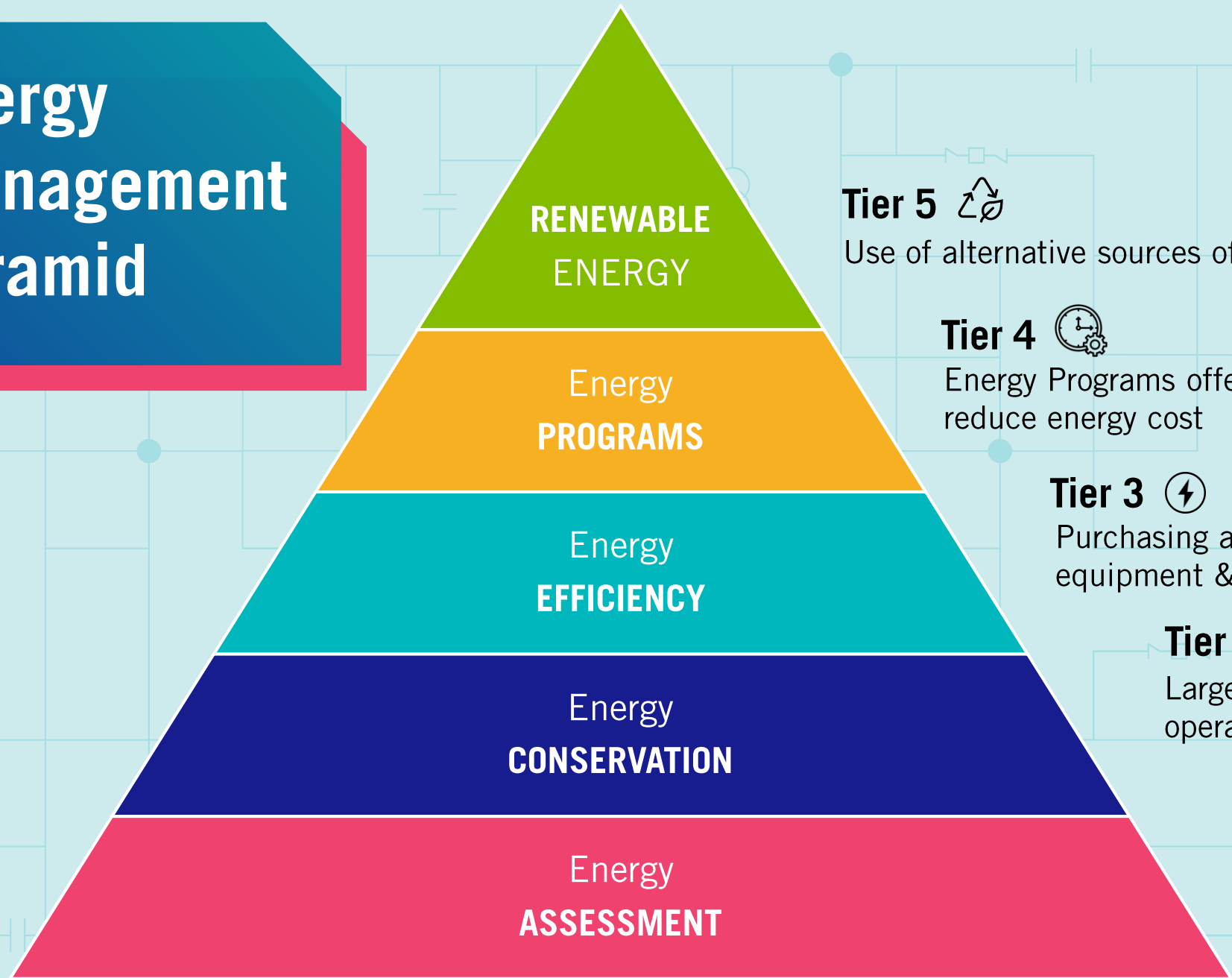



5 year Record
Consumption Data





Projects to improve
efficiency and
achieve targets


Energy Management Pyramid




Tier 5 
Use of alternative sources of energy

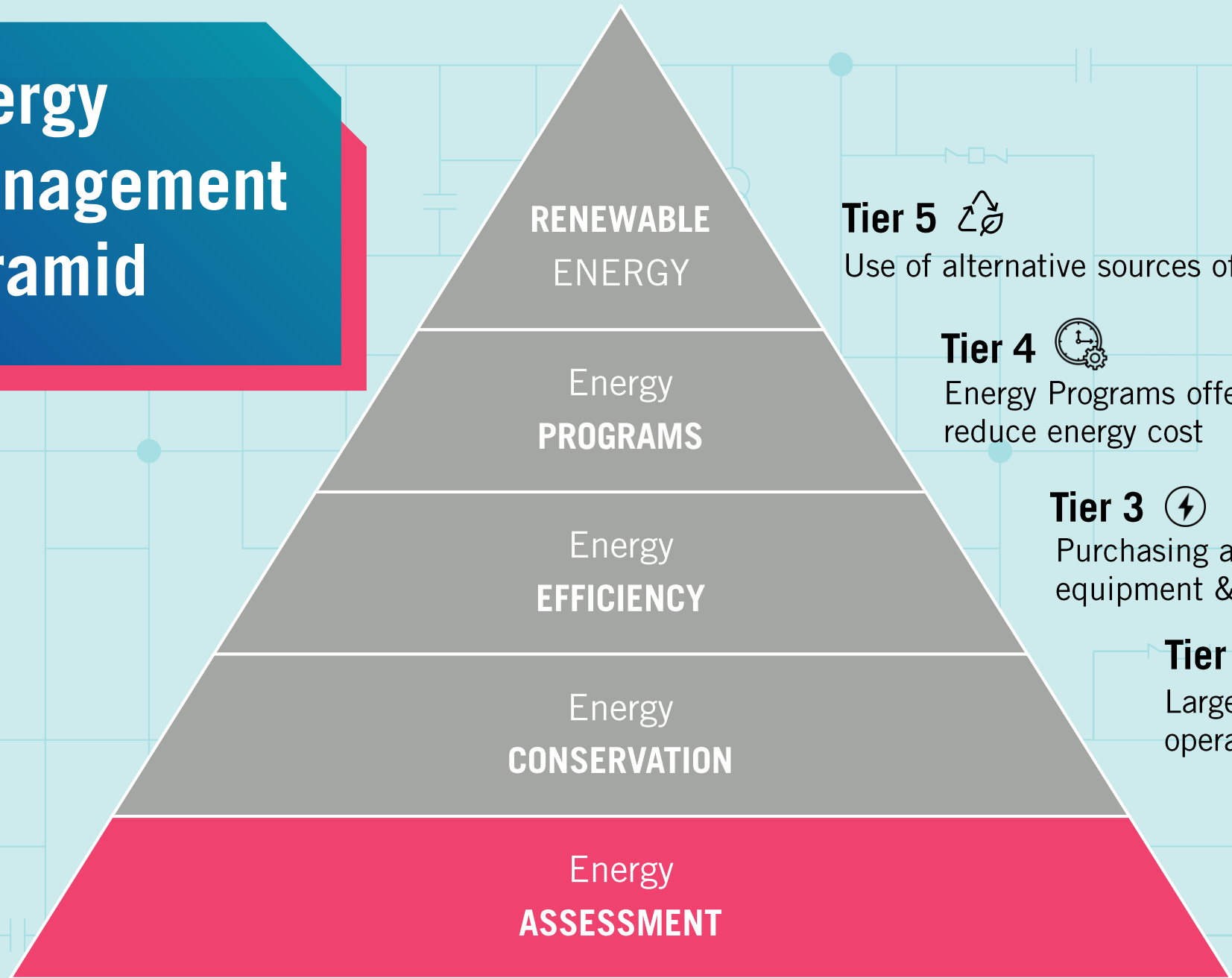
Tier 4 
Energy Programs offered by the utility to reduce energy cost


Tier 3 
Purchasing and installing energy efficient equipment & processes


Tier 2 
Largely based on behavioral and operational practices. No cost needed


Tier 1 
Bedrock of all energy management priorities. It involves knowing the current state of your facility


Energy Management Pyramid




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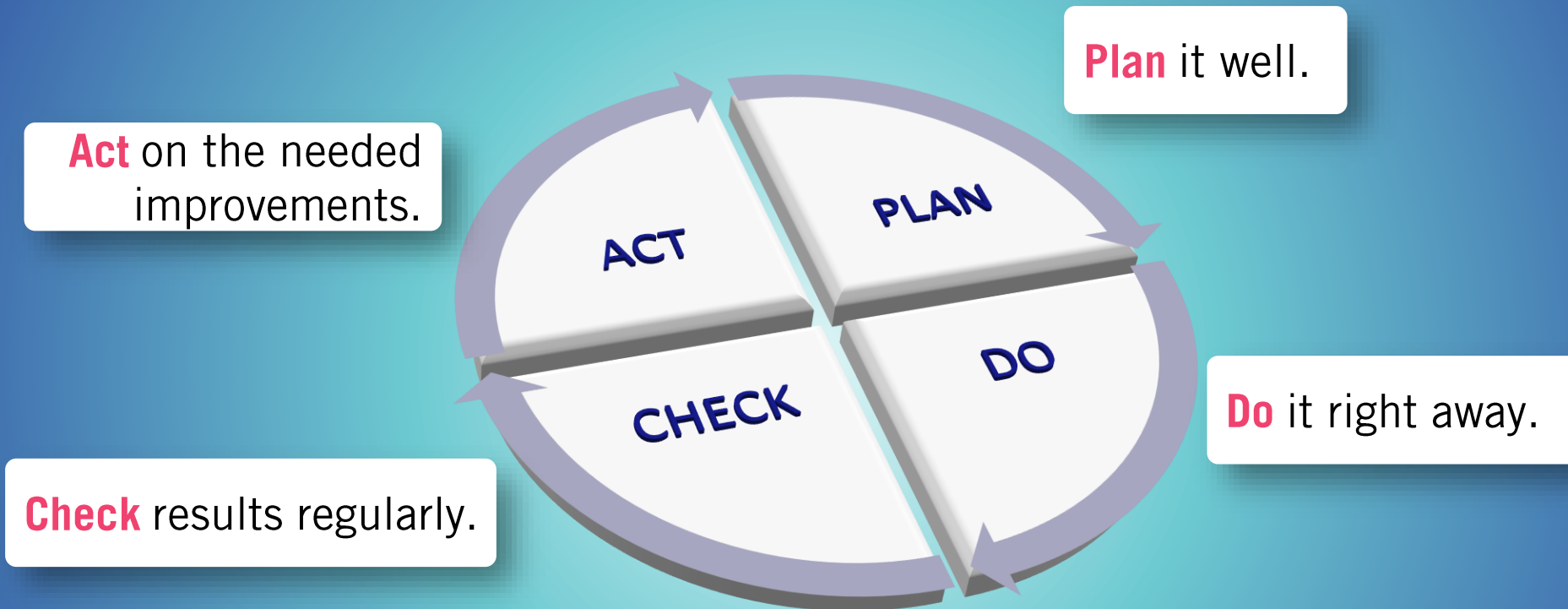
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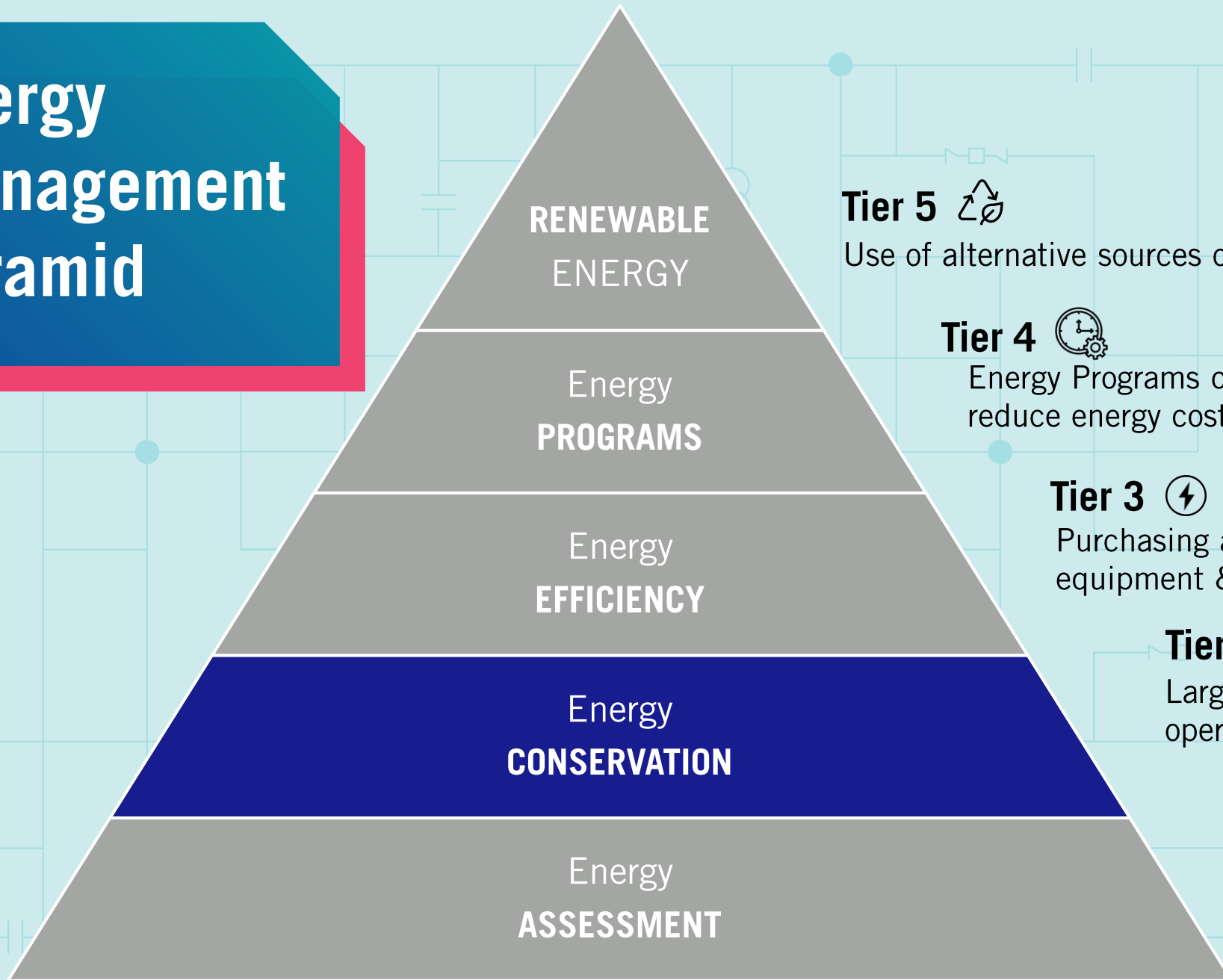
Source: Energy 101: Energy Priorities, University of Maryland Extension


Use the PDCA Cycle Method





Employ a holistic approach in implementing energy conservation & efficiency!


Energy Management Pyramid




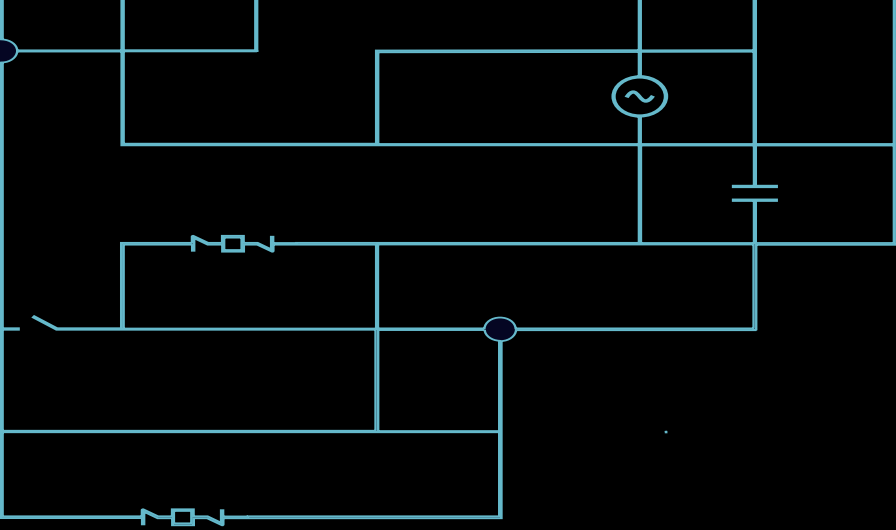
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Energy Conservation Measures for Businesses



Computation on savings are based on the average January 2022 - October 2022 General Service B rates



Energy Conservation Measures

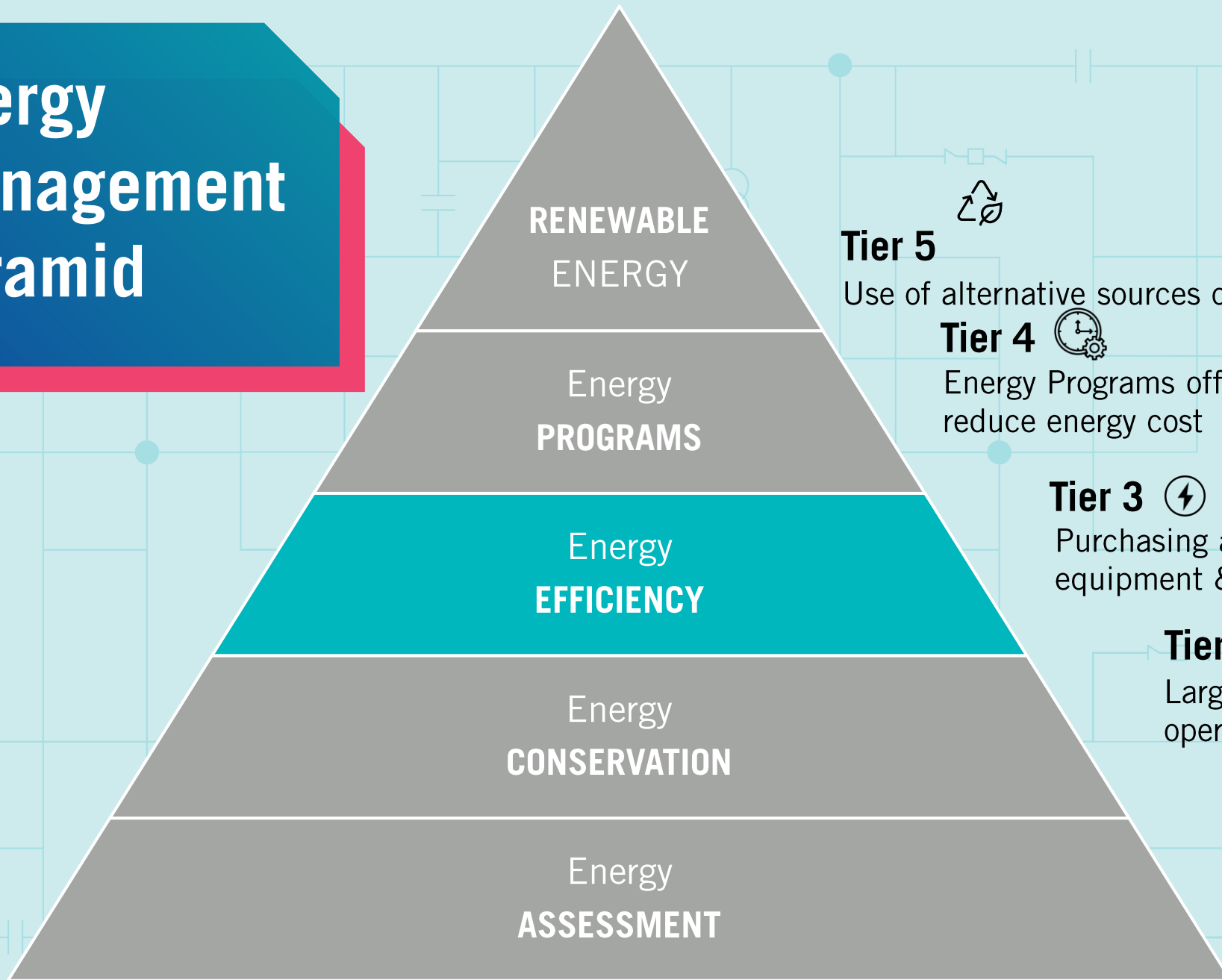
- ⌚ Observe optimal positioning of aircon units

Strategic location of ACU in rooms

- ⌚ **Window-type:** install at least **3-4 feet** from the floor
- ⌚ **Split-type:** install at least **7-8 feet** from the floor. Provide at least 15 cm air gap from ceiling
- ⌚ **Cassette-type:** install at least **2.8 – 4 meters** from the floor, depending on the manufacturer's requirement.
- ⌚ Install in the middle of the length of the room for optimized cooling capacity.



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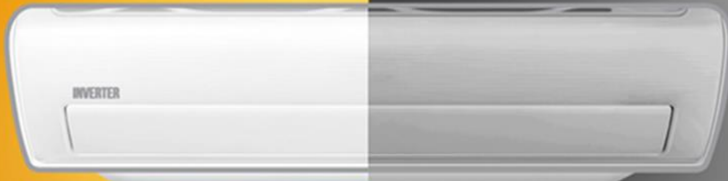


Energy Efficiency Measures

☺ Shift to inverter technology

2.5 HP
SPLIT TYPE INVERTER
AIR CONDITIONER

2.5 HP
SPLIT TYPE ORDINARY
AIR CONDITIONER



▶ 0.2944 kWh/hr

▶ 0.5118 kWh/hr

▶ P3.06/hr

▶ P5.32/hr

▶ P734.77/month

▶ P1,277.53/month

Monthly Savings = P542.03 or 42%



Inverter vs Non-inverter Chest Freezers

☺ Use an inverter-type chest freezer and save up to 63% or **Php 315.71 per month.**

Inverter vs Non-inverter Chiller

☺ Use an inverter-type chiller and save 28% or **Php 290.06 per month.**



Energy Efficiency Measures

☺ Use Hard Top Cover Chest Freezer

Glass Top vs Hard Top Cover

☺ Using hard top cover chest freezer will save 59% or **Php 400.68 per month.**



Glass Top
11cu.ft. Conventional,
Chest Freezer
Php22.66 per day
-20.22degC



Hard Top
11cu.ft. Conventional,
Chest Freezer
Php9.31 per day
-23.67degC



Energy Efficiency Measures

☺ Switch to LED lighting

- ☺ Save up to **85% or P164.44/month** per bulb*
** 9-watt LED vs 60-watt incandescent bulb, 10 hours per day*
- ☺ Save up to **60% or P572.80/month** by **reducing the number of units** needed that can provide the **same illumination.**
** Tested using 18W (1800 lm) LED vs 18W (1050 lm) CFL in a 60 sqm office with total illumination requirement of 24,000 lux. Study shows that in terms of illumination, 24 units of CFL can be replaced by only 14 units of LED lights.*

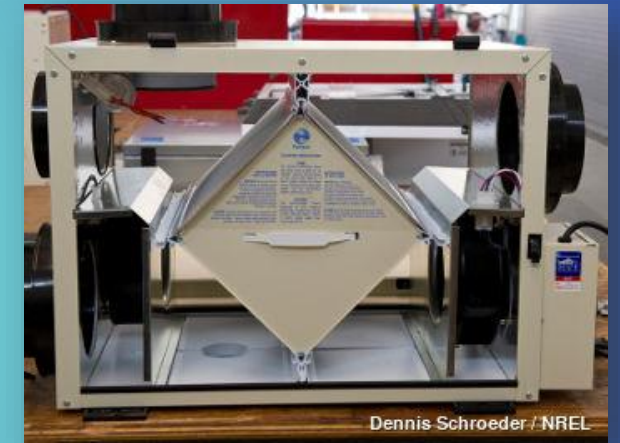




Energy Efficiency Measures

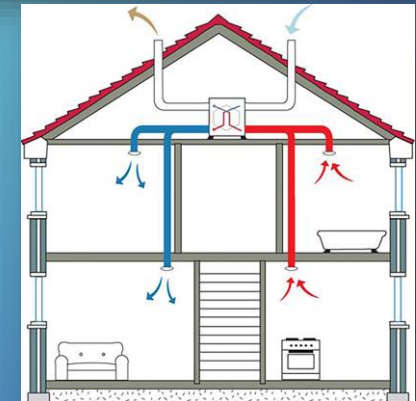
⌚ Consider installation of Energy/Heat Recovery Ventilators

- ⌚ Designed to recycle and reuse substantial amounts (up to 80%) of the heating and cooling energy contained in exhaust air
- ⌚ Helps the HVAC system to not work as hard to make up for the difference in temperature between the incoming and outgoing air

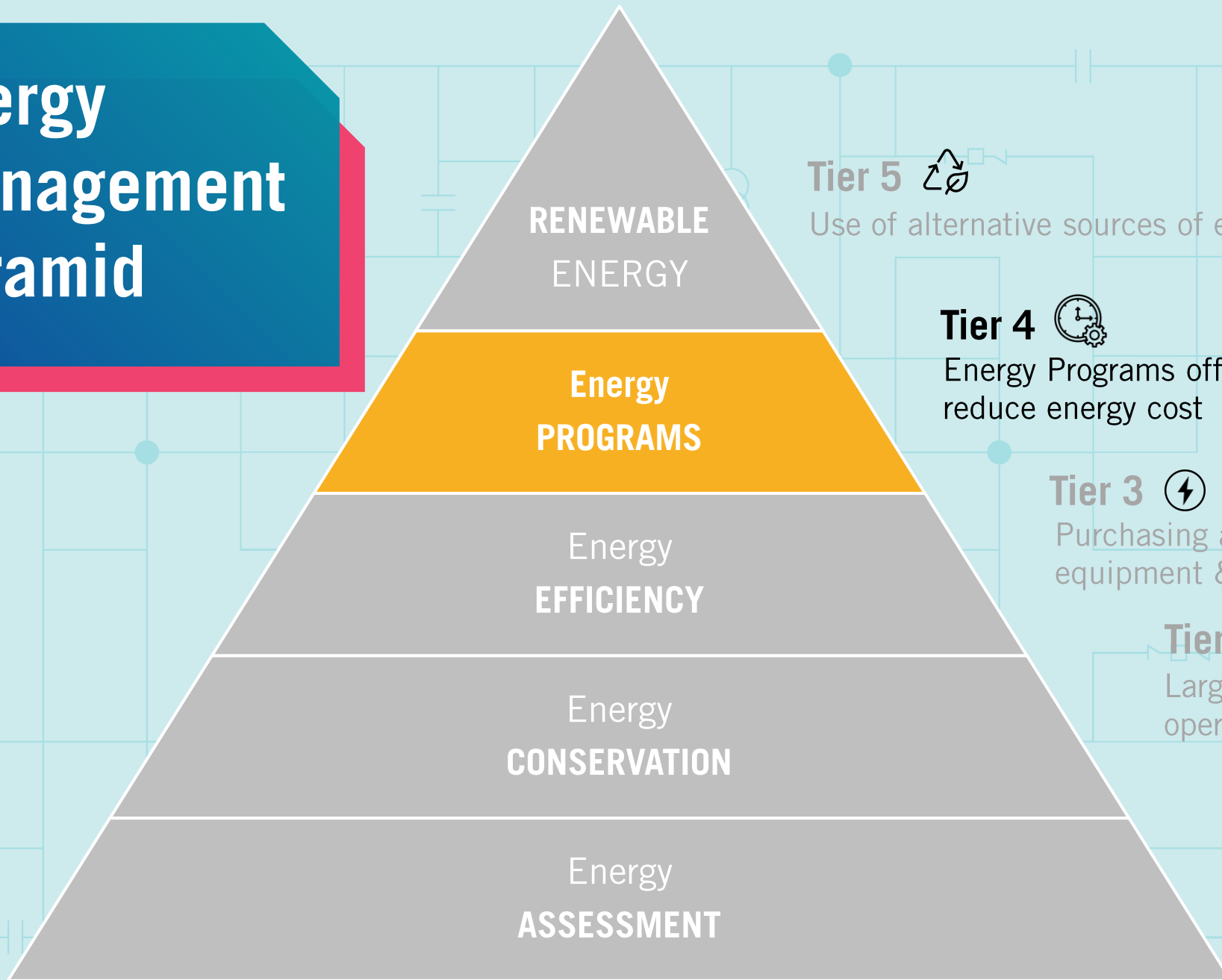


Benefits:


1. Reduce the work of your HVAC system
2. Balance heat distribution throughout the building/facility
3. Provide constant supply of fresh, healthy, filtered air to your building/facility




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Peak / Off-Peak Solution



- ⌚ An alternative energy pricing scheme designed to help business **lower their total electricity expenses** through rates based on peak and off-peak periods.
- ⌚ This is best for businesses that operate on or **can shift a larger part of their energy-intensive operations to off-peak hours** and Sundays.

Peak and Off-Peak hours

Day	Peak hours	Off-Peak hours
Monday to Saturday	8AM to 9PM (13 hrs)	9PM to 8AM (11 hrs)
Sunday	6PM to 8PM (2 hrs)	12AM to 6PM (18 hrs) and 8PM to 12AM (4 hours)

Peak and Off-Peak Rates

	Peak Rate	Off-Peak Rate
Dry Season (Jan – Jun)	Php 7.4854	Php 3.5461
Wet Season (Jul – Dec)	Php 7.2779	Php 3.5461

- ⌚ Shift at least **46%** of your operations to off-peak hours to enjoy savings from POP

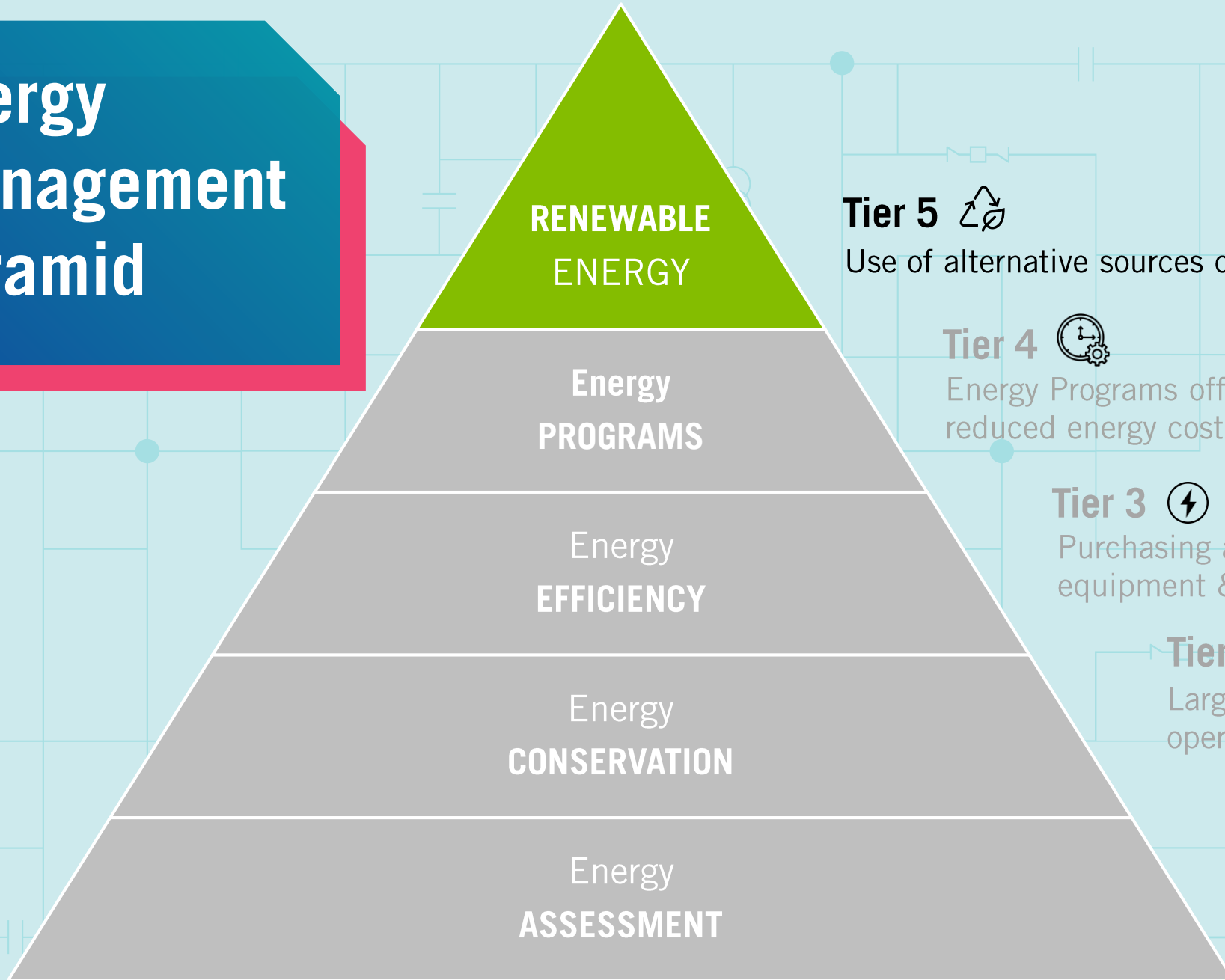
Options for Supply of Energy


Retail Competition and Open Access (RCOA)

Green Energy Option Program (GEOP)

Under the Electric Power industry Reform Act (EPIRA) of 2001 (RA 9136) Allows contestable customers to choose their preferred retail electricity suppliers for their electricity requirements	Overview	Under the Renewable Energy Act (RA 9513) Empowers eligible customers to choose a purely renewable energy resource to meet their energy requirements
Promotes customer CHOICE on their energy requirements, terms, and conditions.	Benefits	Chance to contribute to the development and use of renewables in a least-cost and sustainable manner
Monthly average peak demand is 500kW and above	Customer Eligibility	Monthly average peak demand is 100kW and above
Bill ad	Notification	Bill ad


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Source: Energy 101: Energy Priorities, University of Maryland Extension



Solar Power

*PV or Photovoltaic is the method of generating electrical power by converting **sunlight** into direct current **electricity** through the use of solar panels*





Solar Tips

1

Know your power needs and purchase the right size

2

Check the best location for your installation

3

Engage early & enroll with Meralco;
Choose the right solar provider



SOLUTIONS FOR MERALCO CUSTOMERS *(based on government programs)*



NET METERING

≤ 100 kW RE capacity,
excess for export to the grid



ZERO-EXPORT

< 100 kW RE capacity,
solely for own-use (no export)



Solar Safety

With Net Metering and Zero Export, you are assured that your RE installation is compatible with the Meralco grid

properly measured & monitored to help you get the maximum value from your investment



SAFE

Complies with safety standards & regulations – no risk of electrical/ fire hazards & damage to property



STABLE

Avoid dangerous fluctuations, power interruptions and overloading of transformers



SUSTAINABLE

Distribution Utility will be able to properly bill and credit exported energy to generate savings.

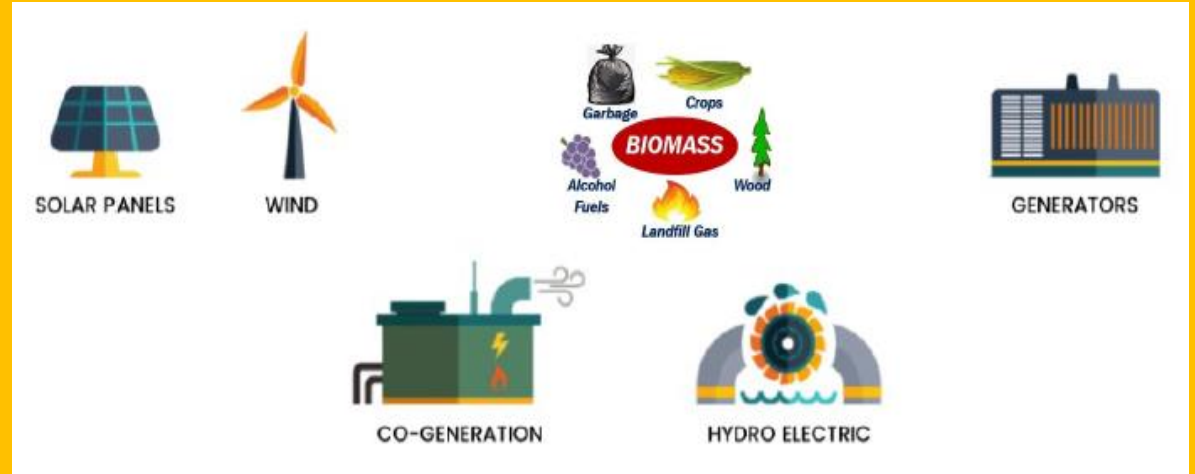




Distributed Energy Resource (DER)

Launched Mar 14 2023

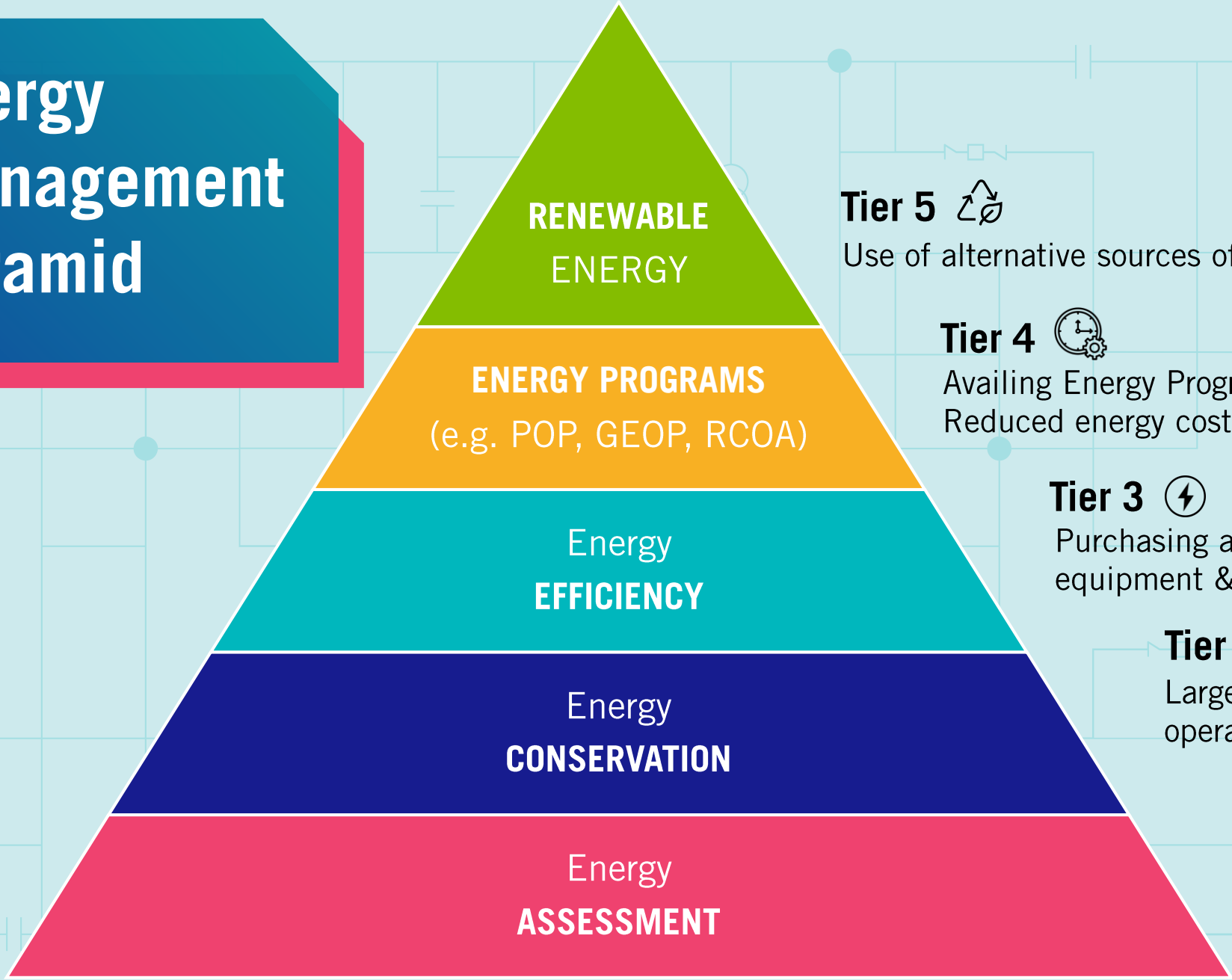
Power sources connected to the distribution system or electrical system of the end-users, that could be aggregated to meet a demand




DISTRIBUTED ENERGY SOURCES

- *RE sources connected on-grid meant for consumption and export, with nameplate capacity of greater than 100kW-1MW, but maximum capacity to export capped at 30%;*
- *Energy generation and storage technology, whether on- or off- grid, and meant for end-user consumption only, so long as the DER owner and end-user are not the same entity.*


Energy Management Pyramid




RENEWABLE ENERGY

Tier 5 
Use of alternative sources of energy


ENERGY PROGRAMS
(e.g. POP, GEOP, RCOA)

Tier 4 
Availing Energy Programs offered by your utility
Reduced energy cost


Energy
EFFICIENCY

Tier 3 
Purchasing and installing energy efficient equipment & processes

Energy
CONSERVATION

Tier 2 
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Energy
ASSESSMENT

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Key Takeaways

- 1 **Energy is a controllable and measurable resource**
- 2 **Anything you can measure; you can manage and control**
- 3 **We are energy efficient if we could do more with less**
- 4 **Some energy efficiency measures do not require costs**
- 5 **Energy efficiency should be a way of life**

Contact your Biz Partner Manager / Relationship Manager for questions and/or concerns.



FOR MORE INFORMATION, VISIT OUR WEBSITE:



www.meralco.com.ph/biz

OR BOOK A FREE POWER CONSULT TODAY VIA:



biz@meralco.com.ph



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Biz Partner Manager

MERALCO ENTERPRSE

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www.meralco.com.ph

REACH US THROUGH OUR CUSTOMER CARE CHANNELS:



enterprise@meralco.com.ph



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