

RCBC Plaza,
Leading you
to a
Greener
Environment

Tenants Coordination Meeting
23 August 2016

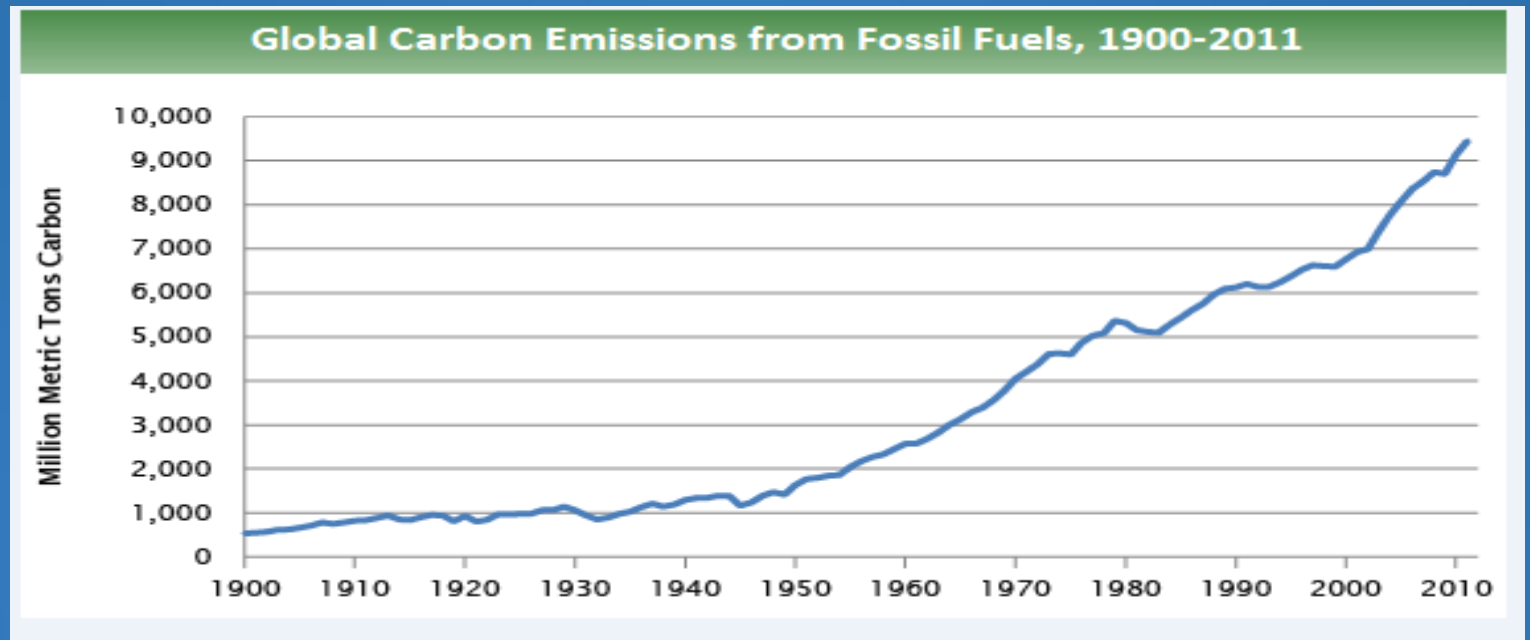


ENERGY AND ATMOSPHERE (EA)



Engr. Michael Jun P Estrada
RCBC Plaza Enercon Engineer

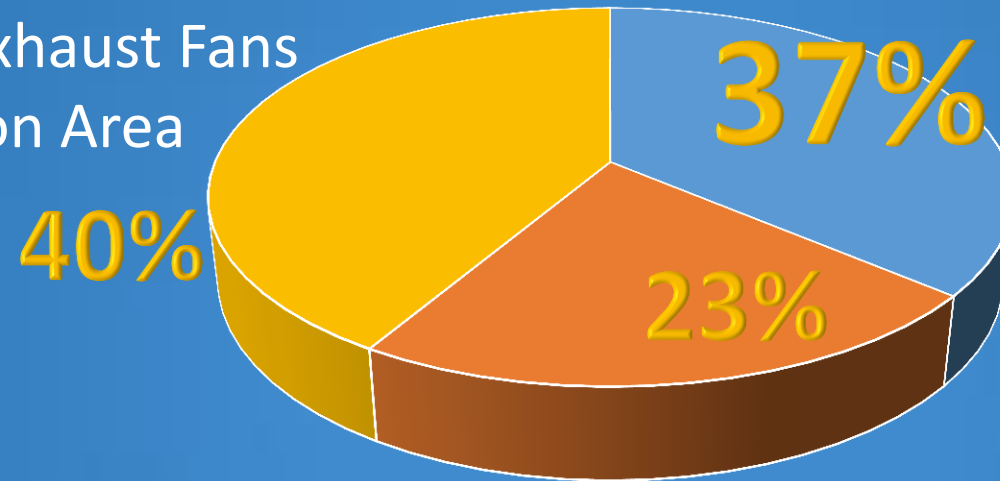
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RCBC PLAZA ELECTRICITY BREAKDOWN

CT, AHU's, ChWP,
Elevators, Pumps,
Lightings, Exhaust Fans
and Common Area

Tenant's Electricity
Consumption



Chillers

RCBC Plaza's Average Monthly
Electricity Consumption

4,441,627 kWhr (PhP 33M)

↓ 3,775,383 kWhr (PhP 27M)





Together
Everyone
Achieves
More

3E's APPROACH

Education

Engineering

Enforcement



E ducation



- ✓ Energy Efficiency and Conservation Trainings
- ✓ Enercon Tips
- ✓ Energy Efficiency Updates

E n gineering



- ✓ Conversion to LED lamps
- ✓ Use of Energy Star Certified Equipment

E nforcement



- ✓ Implement Enercon Policies
- ✓ Monitoring of electricity Consumption



save energy





E ducation for Energy Conservation & Efficiency



The National Energy Efficiency & Conservation Program



EC Energy
Efficiency and Conservation
Easing-Easy, EC lang!



Invites you to the
**Energy Efficiency and Conservation
Awareness Training**

Organized by the
Energy Efficiency & Conservation Division
Energy Utilization Management Bureau
DEPARTMENT OF ENERGY

In Cooperation with
RCBC Realty Corp.

On 17 June 2016
12:30 PM – 4:45 PM

Room 526-529, YIAS Level 5
RCBC Plaza, 6819 Ayala Avenue., Makati City



Conserve



It's in Your Hands

E ducation for Energy Conservation & Efficiency



✓ Open curtains/
blinds and
lessen lighting

✓ “Turn-Off” Lights
during Lunch Break

✓ Close curtains/
blinds to block
direct sunlight
from entering the
windows



Part of Buendia and Ayala



E ducation for Energy Conservation & Efficiency

- ✓ Close curtains/blinds to block direct sunlight from entering the windows

- ✓ “Turn-Off” Lights during Lunch Break

- ✓ Open curtains/blinds and lessen lighting



Part of Geronimo and Dela Costa Side

Engineering for Energy Conservation & Efficiency



Regular lamps



LED lamps

Replacement of regular lamp to LED lamps

Replacement of fluorescent lamps to LED lamps

For a typical Single Tenant Floor

Description	T8 Fluorescent Lamp	T8 LED Lamp
Consumption	59 watts	30 watts
Lumens	1,026 per lamp	1,050 per lamp
Burning hours	20,000	40,000
Operating Hours	16 hours	16 hours

MONTHLY CONSUMPTION: 11,268 kWhr (PhP 83 T)

MONTHLY SAVINGS: PhP 17,000

ROI: 9.5 months

20% savings/month



save
energy





Encourage tenants through Energy Efficiency Awards

All Tenants who will achieve energy savings through conservation and efficiency shall be given an energy efficiency award.

Period Covered:

Sept 2015 – June 2016 (Previous Period)

Sept 2016 – June 2017 (Present Period)





Conserve



**It's in
Your Hands**

Which is more efficient?

Minimum Energy Efficiency Performance Optimize Energy Efficiency Performance

76 points = 5 credit points

**MAX CREDIT POINTS
18 points**

Energy & Atmosphere



ENERGY STAR® Statement of Energy Performance

76
ENERGY STAR® Score¹

RCBC Plaza
Primary Property Function: Office
Gross Floor Area (ft²): 1,915,866.5
Built: 1996
For Year Ending: March 31, 2015
Date Generated: October 02, 2015

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.








Property & Contact Information		
Property Address RCBC Plaza 6819 Ayala Avenue Makati, Metro Manila 1226	Property Owner Barone International 36 Cordillera Street Suite 308 Mandaluyong, NCR 1381 () -	Primary Contact Maria Theresa Austria 673 Boni Ave, 2F Unit E Mandaluyong City, Manila 1381 +639279125485 theresa.palma@baroneinternational.com
Property ID: 4449719		

Energy Consumption and Energy Use Intensity (EUI)		
Site EUI 88.1 kBtu/ft ²	Annual Energy by Fuel Electric • Grid (kBtu) 168,758,469 (100%)	National Median Comparison National Median Site EUI (kBtu/ft ²) 120.6 National Median Source EUI (kBtu/ft ²) 378.8 % Diff from National Median Source EUI -27%
Source EUI 276.6 kBtu/ft ²		Annual Emissions Greenhouse Gas Emissions (Metric Tons CO ₂ e/year) 27,783

For the year ending in March 2015, this building used 276.6 (kBtu/ft²) on a source energy basis. The Environmental Protection Agency's (EPA's) ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.



ENERGY AND ATMOSPHERE

ENERGY & ATMOSPHERE		35 Points
Prereq 1	Energy Efficiency Best Management Practices	Required
Prereq 2	Minimum Energy Efficiency Performance	Required
Prereq 3	Fundamental Refrigerant Management 	Required
Credit 1	Optimize Energy Efficiency Performance 	1 to 18
Credit 2.1	Existing Building Commissioning - Investigation and Analysis	2
Credit 2.2	Existing Building Commissioning - Implementation	2
Credit 2.3	Existing Building Commissioning - Ongoing Commissioning	2
Credit 3.1	Performance Measurement - Building Automation System 	1
Credit 3.2	Performance Measurement - System-Level Metering 	1 to 2
Credit 4	On-site and Off-site Renewable Energy 	1 to 6
Credit 5	Enhanced Refrigerant Management 	1
Credit 6	Emissions Reduction Reporting 	1

10 pts

1 pt

1 pt

2 pt

1 pt

1 pt

16 pts



Operation - Efficient equipment's and operation

Administrative - Create policies for energy conservation and equipment efficiency

Implementation - Implement and monitor policies

EXISTING
BUILDINGS
OPERATIONS
AND
MAINTENANCE





LEED EB:OM