



KILOWHATT?

Lektric Energy Efficiency Analysis

As Lektric, your expert energy consultant, I've analyzed your appliance data to identify opportunities for reducing electricity consumption and saving money. All calculations are based on your provided utility rate of **PHP 13.4702/kWh** and a 30-day month.

Appliance Consumption Summary

Appliance Name	Effective Power (W)	Daily kWh	Monthly kWh	Monthly Cost (PHP)	Voltage Region
6x Lights (Add each lights separately)	10.00	0.12	3.60	48.49	NCR (Metro Manila)
Aircon Window Type	440.00	3.52	105.60	1,422.33	NCR (Metro Manila)
Desktop PC	247.50	1.49	44.55	600.17	NCR (Metro Manila)
Small Clipping Electric Fan	20.00	0.12	3.60	48.49	NCR (Metro Manila)
Electric Fan1	36.00	0.22	6.48	87.30	NCR (Metro Manila)
Electric Fan2	36.00	0.36	10.80	145.48	NCR (Metro Manila)

Appliance Name	Effective Power (W)	Daily kWh	Monthly kWh	Monthly Cost (PHP)	Voltage Region
TV	104.00	0.42	12.48	168.14	NCR (Metro Manila)

Energy Hogs: Top Cost Contributors

Based on your data, the following appliances are your primary energy hogs:

1. **Aircon Window Type**: PHP 1,422.33 / month
2. **Desktop PC**: PHP 600.17 / month
3. **TV**: PHP 168.14 / month

Recommendations for Energy Savings

1. Aircon Window Type

Your Aircon is currently consuming **105.60 kWh** per month, costing you **PHP 1,422.33**.

- **A. Usage/Behavioral Recommendations (Quick Wins):**
 - **Reduce Daily Use Hours:** Cutting usage from 8 hours to 6 hours per day can significantly reduce consumption.
 - Estimated new Monthly kWh: 79.20 kWh
 - Estimated new Monthly Cost: PHP 1,066.84
 - **Estimated Savings: 26.40 kWh/month (PHP 355.49/month)**
 - **Optimize Thermostat Setting:** Increasing your thermostat setting by 1-2 degrees Celsius can reduce the compressor's runtime and effective power. This could potentially lower your usage behavior from 55% to 50%.
 - Estimated new Monthly kWh: 96.00 kWh
 - Estimated new Monthly Cost: PHP 1,293.14
 - **Estimated Savings: 9.60 kWh/month (PHP 129.19/month)**
- **B. Appliance Replacement Recommendations (Long-Term Savings):**
 - **Upgrade to an Inverter Air Conditioner:** Modern inverter models are highly efficient. Replacing your 800W unit with an inverter model that effectively uses 30% less power (e.g., equivalent to 560W for peak, or average effective power of 308W at 55% usage behavior) for the same comfort levels.
 - Estimated new Monthly kWh: 73.92 kWh
 - Estimated new Monthly Cost: PHP 995.73
 - **Estimated Savings: 31.68 kWh/month (PHP 426.60/month)**

2. Desktop PC

Your Desktop PC is consuming **44.55 kWh** per month, costing you **PHP 600.17**.

- **A. Usage/Behavioral Recommendations (Quick Wins):**

- **Turn Off When Not In Use:** By consciously turning off your PC when not actively working and reducing its daily use from 6 hours to 4 hours, you can save substantially.

- Estimated new Monthly kWh: 29.70 kWh

- Estimated new Monthly Cost: PHP 399.87

- **Estimated Savings: 14.85 kWh/month (PHP 200.30/month)**

- **Utilize Power Management Settings:** Configure your PC to automatically sleep or hibernate after a shorter period of inactivity (e.g., 30 minutes), which can reduce its "usage behavior" from 55% to 40%.

- Estimated new Monthly kWh: 32.40 kWh

- Estimated new Monthly Cost: PHP 436.20

- **Estimated Savings: 12.15 kWh/month (PHP 163.97/month)**

- **B. Appliance Replacement Recommendations (Long-Term Savings):**

- **Switch to a Laptop or Energy-Efficient Mini PC:** These alternatives typically consume far less power than a traditional 450W desktop. Replacing it with a device that uses 60% less wattage (e.g., 180W) at the same usage behavior.

- Estimated new Monthly kWh: 17.82 kWh

- Estimated new Monthly Cost: PHP 240.09

- **Estimated Savings: 26.73 kWh/month (PHP 360.08/month)**

3. TV

Your TV is consuming **12.48 kWh** per month, costing you **PHP 168.14**.

- **A. Usage/Behavioral Recommendations (Quick Wins):**

- **Reduce Daily Use Hours:** Cutting your viewing time from 4 hours to 3 hours per day.

- Estimated new Monthly kWh: 9.36 kWh

- Estimated new Monthly Cost: PHP 126.12

- **Estimated Savings: 3.12 kWh/month (PHP 42.02/month)**

- **Optimize Display Settings:** Lowering brightness and contrast settings can slightly reduce power consumption. A 10% reduction in effective power (usage behavior from 65% to 58.5%) can save.

- Estimated new Monthly kWh: 11.23 kWh

- Estimated new Monthly Cost: PHP 151.34

- **Estimated Savings: 1.25 kWh/month (PHP 16.80/month)**

- **B. Appliance Replacement Recommendations (Long-Term Savings):**

- **Upgrade to a Newer, More Efficient OLED/LED TV:** While your current TV is OLED, newer models often offer even better efficiency. Replacing your 160W TV with a model that consumes 40% less wattage (e.g., 96W) at the same usage behavior.

- Estimated new Monthly kWh: 7.49 kWh

- Estimated new Monthly Cost: PHP 100.90
- **Estimated Savings: 4.99 kWh/month (PHP 67.24/month)**

Total Possible Monthly Savings

By implementing the most impactful recommendations (either behavioral or replacement, whichever offers greater savings per appliance) for your energy hogs, you could potentially save:

Total Estimated Monthly Savings: **PHP 853.92**