

## PRIMAX - 2024 Energy Performance Summary

**Total Electric Cost:** S/ 4,647,180 | **Annual Budget:** S/ 5,808,970

**Average Monthly:** S/ 387,265 | **Daily Average:** S/ 12,909

**Coefficient of Variation:** 45% (High Variability)

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### Key Observations

#### 1. High Variability in Costs:

- Monthly electric costs fluctuate significantly (CV = 45%).
- Demand Charges (CV = 36%) and Other Charges (CV = 53%) show instability.
- Indicates lack of control over peak demand and potential operational inefficiencies.

#### 2. Top Cost Drivers:

- **Demand Charges** represent 44% of total cost (~S/ 2.06M).
- **Energy Charges** are 51% (~S/ 2.39M).
- Monthly peaks (Feb, Mar, Jun) surpass **S/ 550,000**, pulling the average up.

#### 3. Inefficient Demand Management:

- With a demand cost of **S/ 57.60/kW**, reductions in peak demand can yield significant savings.
- For example, a 5% reduction in demand could save over **S/ 100,000 annually**.

#### 4. Under-Utilized Budget:

- 2024 costs are **20% under budget** (~S/ 1.16M unused).
  - Opportunity to reallocate savings to energy optimization or automation.
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### Risks & Watchouts

- **November drop (S/ 157K)** suggests potential billing or operational anomalies.
- **No data in October** may indicate a missing bill or reporting error.

- **High CV** in "Other Charges" needs further audit—may include penalties or reactive power charges.
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## Opportunities for Improvement

### 1. Demand-Side Management:

- Implement automated load control and peak shaving strategies.
- Explore shifting non-critical loads to off-peak hours.

### 2. Energy Auditing:

- Conduct store-level audits to identify high-consumption sites and anomalies.

### 3. Billing Optimization:

- Review and optimize tariff schemes; consider migrating high-demand sites to more favorable rate structures.

### 4. Monthly Monitoring:

- Track trends proactively—establish alerts when deviations exceed 10% from the trend line.
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## Strategic Insight

With better demand control and enhanced site-level visibility, PRIMAX can **reduce electricity costs by 8–12%**, equivalent to **S/ 370,000–560,000 annually**, while improving energy resilience across all convenience stores.