

Summary of Key Findings and Data Augmentation Suggestions

Insights from Client Data:

- 1. Consumption Patterns** - Average annual consumption: 159,220 kWh with a wide range, significant zero gas consumption.
- 2. Forecasting** - Notable difference between average last month's and forecasted consumption, indicating changing patterns.
- 3. Discounts and Meter Rent** - Average forecasted energy discount: 0.97. Average forecasted meter rent: 63.
- 4. Price Forecast** - Forecasted energy prices vary. Higher average off-peak prices. Average forecasted power price: 43.13.
- 5. Customer Characteristics** - Average slightly more than one product per customer. Average net margin: 189.26.
- 6. Churn Rate** - Relatively low, average: 9.72%. Indicates a significant portion of customers not churning.
- 7. Power and Consumption Limits** - Average maximum power: 18.14. Substantial portion with zero consumption in the last month.
- 8. Historical Information** - Average customer tenure: Almost five years.

Insights from Pricing Data:

- 1. Variable Prices** - Average off-peak variable price: 0.141 with a spread (SD: 0.025).
- 2. Fixed Prices** - Average off-peak fixed price: 43.33 with variability (SD: 5.41).
- 3. Price Spread** - Considerable variability in variable prices, especially during peak hours.
- 4. Minimum Prices** - Instances of zero values suggest instances of zero or no applied pricing.
- 5. Price Distribution** - Positively skewed distribution of variable prices during off-peak hours. Instances of zero values in peak and mid-peak hours.
- 6. Fix vs. Variable Price Ratio** - Variable ratios across periods, higher fixed prices during peak and mid-peak hours.
- 7. Price Fix Component** - Significant contribution of fixed component, particularly during off-peak hours.
- 8. Price Quartiles** - Relatively small interquartile range for variable prices during off-peak hours.

Data Augmentation Suggestions:

- 1. External Consumption Data** - Incorporate regional consumption patterns to enhance understanding.
- 2. Competitor Pricing Data** - Obtain competitor pricing data to assess pricing competitiveness.
- 3. Economic Indicators** - Include economic indicators data to analyze correlation between economic trends and churn.
- 4. Customer Satisfaction Surveys** - Conduct surveys to gather direct feedback on satisfaction and non-price-related churn factors.