

Executive Summary

Situation

- PowerCo is facing an issue with customer churn. The company believes this is due to changes in prices, which some customers find unfeasible. They believe that offering a 20% discount might be sufficient to deter customers from churning.

Solution

- A random forest classifier solution was built on the provided data, it predicted churning with an accuracy of 90% and a precision of 84%.

Findings

- Out of all the customers that PowerCo serves, only a small percentage, specifically 9.7%, end up churning.
- The model finds that pricing has a minor role in customer churn compared to other factors. Key contributors to churn include consumption patterns over the last year. Net margin on power is crucial too. Additional charges like meter rent also influence churn. Finally, customer tenure with PowerCo significantly affects churn rates.
- Despite these factors, implementing the model to predict churn and providing discounts to customers that are about to churn can help achieve a profit of approx. \$3000. This indicates that while customer retention is essential, strategic pricing and discounting can be effective in maintaining profitability.