Executive Summary

Template

Recommended Solution

- Implement a data-driven churn prediction model to proactively identify high-risk customers and apply targeted retention strategies instead of broad discounting.

Situation

- PowerCo has experienced increasing customer churn, negatively impacting revenue and profitability. Management believes recent price changes may be driving customers to leave and is considering offering a 20% discount to reduce churn. To support decision-making, a machine learning churn prediction model was developed using historical customer data.

Complication

- Despite the company's belief that pricing is the primary driver of churn, analysis suggests that other factors play a significant role. These include customer energy consumption patterns, net margins on power, additional charges like meter rent, and customer tenure. Simply lowering prices may not fully address the churn issue..

Question

- How can PowerCo reduce churn in a targeted and cost-effective way while protecting profit margins?

Answer

- In order to do this, a random forest classifier was built from the data. The model accurately recognized customers that were likely to leave at 90% accuracy and 84% precision.