Executive summary best practice

Situation:

PowerCo is addressing an issue with customer churn, attributing it to customers' sensitivity to pricing. One potential resolution involves offering a 20% discount to those customers who exhibit a higher likelihood of attrition.

Machine Learning Modeling:

Following thorough data cleaning, exploratory data analysis, and feature engineering, a Random Forest Classifier model was implemented. This model was designed to forecast the probability of customer churn, yielding an impressive accuracy of 0.90 and a precision score of 0.91 on the test set.

Insights:

- Approximately 9.7% of customers have experienced churn, while the remaining 90% have not.
- The net margin derived from power subscription and consumption over a 12-month period emerges as a primary catalyst for churn.
- Additionally, the projected bill for meter rental over the next two months proves to be a significant influencing factor.
- Temporal considerations also play a noteworthy role, particularly factors such as the duration of their active engagement, tenure, and the interval since their last contract update.