Executive Summary

Situation:

- Powerco has a problem with customer churn; they believe it is caused by customers' price sensitivities. One possible solution is to provide 20% off to customers who are most likely to start leaving

Hypothesis:

- It is possible to predict customers likely to churn using a predictive model.
- Hypothesis that churn is driven by customer price sensitivity Client wants to try discounting strategy that SME division head suggests that offering customers at high propensity to churn a 20% discount might be effective.

Machine Learning Modeling:

- After Data cleaning, EDA and Feature engineering, I applied Random Forest Classifier. Random Forest Classifier model has been built to predict customers' churn probability, achieving an accuracy of 0.90 and Precision score of 0.90 on test set.

Insights:

- Nearly 10% (9.7%) of the customers have churned and 90% of the customers have not churned.
- Net margin on power subscription and consumption over 12 months is a top driver for churn
- Forecasted bill of meter rental for the next 2 months also is an influential driver
- Time seems to be an influential factor, especially the number of months they have been active, their tenure and the number of months since they updated their contract