Executive summary

Situation

- PowerCo is experiencing customer churn, and assuming that churn is driven by the customer's price sensitivities. One possible strategy is to offer customers at high propensity to churn a 20% discount.

Machine Learning Modeling

- A LightGBM classification model has been built to predict customers' churn probability, achieving an accuracy of 0.89 and AUC score of 0.65.

Insights

- Around 10% churn rate exists in current customers.
- Major features driving customer churn, including:
  - A high net margin on power subscription
  - Original campaigns that, especially with 'lx' and not with 'ka'
  - A high consumption combining with a drastic changing price, or a low consumption combining with a fixed price
  - Sales channels, especially not associating with 'lm'

Action plan

- The proposed 20% discount strategy is confirmed to be effective.
- Through revenue estimate, the optimal cut-off of offering discount is calculated to be 0.23.