Dear Associate Director,

I hope this email finds you well. As per our discussion regarding PowerCo’s customer churn issue, we have formulated a plan to investigate this problem using the 5-step data science process. Here are the key points:

Business Understanding: PowerCo, a major utility company, is experiencing customer churn due to the liberalization of the European energy market.

Problem Framing: The goal is to predict and manage customer churn in response to price changes to ensure business sustainability.

Client Hypothesis:

Predictive models could identify customers who are likely to churn based on their current price.

Offering a discount might incentivize these customers to remain with PowerCo.

PowerCo is considering a 20% discount to mitigate customer churn.

Required Data: To investigate these hypotheses, we would need the following data from PowerCo:

a. Electricity consumption details, date of joining as a customer, monthly bill, and industry.

b. Churn data that includes details about churned customers.

c. Historical price data of PowerCo.

Process of Solution:

Define a price limit that triggers customer churn.

Perform data analysis to understand the patterns and trends.

Conduct feature engineering based on the obtained data using techniques like Logistic Regression and Random Forest.

Investigate how price changes impact churn.

Based on these insights, define a discount strategy that could reduce customer churn.

We believe that understanding the key reasons for a customer’s decision to stay with or switch energy providers (such as price, clean energy availability, customer service, location, etc.) is crucial. The data mentioned above would be instrumental in investigating these key reasons. Once we have this data, we can analyze or visualize it to test whether these reasons may have an impact on churn.

We look forward to your feedback on this plan.

Best Regards,

Bhargav