

Subject: Plan for Investigating PowerCo's Customer Churn Issue

Hi Associate Director,

Estelle and I have outlined our plan to investigate PowerCo's customer churn issue. We aim to delve deeper into the problem using the data science methodology and formulate actionable steps to it effectively.

Problem Formulation: As per our understanding, PowerCo is facing a significant churn issue as customers are leaving for better offers from other energy providers. This churn problem can be formulated as follows the data science methodology:

- 1. Business Understanding & Problem Framing: Understanding the business context and formulating the problem.**
- 2. Data Collection: Gathering the relevant data from PowerCo's database and external sources.**
- 3. Data Preparation: Cleaning and preprocessing the data for analysis.**
- 4. Model Building: Utilizing various statistical and machine learning techniques to investigate the drivers of customer churn.**
- 5. Evaluation and Deployment: Evaluating the findings and developing strategies to mitigate customer churn.**

Key Reasons for Customer Churn: Based on industry knowledge and initial insights, we believe the key reasons for a customer deciding to stay with or switch energy providers may include price competitiveness, customer service quality, offerings related to clean, and perhaps geographical location.

Relevant Data for Investigation: To investigate these key reasons, the following data would be useful:

- 1. Customer churn history and reasons for leaving**
- 2. Pricing plans, discounts, and promotions offered to customers**
- 3. Customer service ratings and feedback**
- 4. Usage of clean energy options by customers**
- 5. Geographic distribution of customer locations**
- 6. Customer demographics and purchasing trends over the past 5 years**

Analysis and Visualization: Once we acquire the relevant data, we plan to: 1 Conduct exploratory data analysis to understand the distribution and trends related to customer churn, pricing plans, customer satisfaction, and clean energy usage. 2. Utilize statistical methods to quantify the impact of price, customer, clean energy, and location factors on customer churn. 3. Develop visualizations such as correlation plots, trend graphs, and geographical heat maps to illustrate the relationship between these factors and customer churn.

We believe that this approach will provide valuable insight into the factors driving customer churn and facilitate the development of targeted strategies to mitigate this issue. We look forward to your feedback and guidance on this plan.

Best regards, Gaurav Tailor ,Estelle Altazin