Associate Director,

To provide our client, PowerCo, with a viable, robust solution to their business needs, I have outlined a potential solution I think will help them.

**Business problem:**

PowerCo is a major gas and electricity utility that supplies to corporate, SME (Small & Medium Enterprise), and residential customers. The power-liberalization of the energy market in Europe has led to significant customer churn, especially in the SME segment. A fair hypothesis is that price changes affect customer churn. Therefore, it is helpful to know the probability a customer is to churn at their current price, for which a good predictive model could be useful. For the customers at risk of churning, a discount of 20% will be offered to keep those customers to the client.

**Data science solution:**

We will need the client’s customer energy data, especially data relating price. Next, exploring the data to find possible insights into customers and their relationship between different variables, such as price, and figuring out how to approach data preprocessing. Once we have completed the EDA, we will start the feature engineering process. Finally, we begin building a few models that will output customer churn probabilities. Logistic regression could potentially be viable since model interpretation is easily understood and we can get the probabilities directly. At this point, the head of the SME division can decide on a threshold in which customers above the threshold are given the 20% discount.

Let me know your thoughts on this.

Best,

Saul