The Churn Project

The brief from PowerCo

The Associate Director (AD) of the Data Science team held a team meeting to discuss the client brief. You'll be working closely senior data scientist on your team.

Here are the key takeaways from the meeting:

- Your client is **PowerCo** - a major gas and electricity utility that supplies to small and medium sized enterprises.
- The energy market has had a lot of change in recent years and there are more options than ever for customers to choose from.
- PowerCo are concerned about their customers leaving for better offers from other energy providers. When a customer leaves to use another service provider, this is called **churn**.
- This is becoming a big issue for PowerCo and they have engaged BCG to help diagnose the reason why their customers are churning.

During the meeting your AD discussed some potential reasons for this churn, one being how "sensitive" the price is. In other words, how much is price a factor in a customer's choice to stay with or leave PowerCo?

So, now it's time for you to investigate this hypothesis.

Your task - we need to understand PowerCo's problem in detail

First things first, you and Estelle need to understand the problem that PowerCo is facing at a deeper level and plan how you'll tackle it. If you recall the 5 steps in the Data Science methodology, this is called "business understanding & problem framing".

Your AD wants you and the Sr. Data Scientist to email him by COB today outlining:

1. the data that we'll need from the client, and
2. the techniques we'll use to investigate the issue.
3. What do you think are the key reasons for a customer deciding to stay with or switch energy providers? For example: price, is it clean energy, customer service, location etc.
4. What data do you think would be useful in order to investigate these key reasons? E.g. customer purchasing trends over past 5 years, location of business etc.
5. If you were to get this data, how could you analyse or visualize it to test whether these reasons may have an impact on churn?