Hello AD,

The main objective is to identify which customers are more likely to churn do the price sensitivity. In order to test the hypothesis the following approach can be taken:

- Data Collection: Gather various relevant data on customer demographics and historical prices and usage patterns. Extract data on the customers who switched to other providers. This enables us to spot trends that may indicate price sensitivity due to customer behavior.

- Data Analysis: Identify whether customer churn and price increases happened at the same time or if there are any other correlations between between these two variables. Using statistical methods to test for significance or data visualization tools will indicate any relevant patterns.

- Model Building: Create a model that predicts customer churn as a result of price sensitivity. Since this a binary classification problem (either the customer stays with PowerCo or switches to another provider), using models such a Logistic Regression or Random Forest Trees to name a few will be suitable.

- Model Testing: The predictive model can be assessed by testing its efficiency in predicting churn due to prices on a sample of historical data.

- Model Implementation: Utilize the model to predict whether applying a 20% discount will prevent customer churn and use the results to suggest which customers the discount should be offered to.

Further, it may be beneficial to conduct surveys with the customers to learn more about their sentiments towards the 20% discount and price sensitivity. This could help us in calibrating the model and increase confidence that the discount is effective for customer retention.

Regards,

Raghav Goyal