Executive Summary

Situation:

PowerCo, a major utility provider, is experiencing increasing customer churn due to competitive offers in the energy market.

Complication:

Churn is becoming a significant issue, and PowerCo has engaged us to diagnose the underlying causes.

Question:

Is customer churn driven primarily by price sensitivity?

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Answer:

Based on our Random Forest Classifier model, with metrics showing a precision of 90%, F1 score of 95%, and accuracy of 95%, we observed that:

- Net margin and consumption over 12 months is the top driver for churn.
- Margin on power subscription also plays a significant role.
- Time-related factors (tenure, months active, contract update) are highly influential.
- The recommended feature is moderately influential but outperformed by features derived from it.
- Price sensitivity features, while scattered, are not the primary drivers of churn.

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Conclusion:

- Our initial hypothesis that price sensitivity is the main driver for churn is not fully supported by the data.
- However, it remains a weak contributor. More experimentation is necessary to reach a conclusive result.