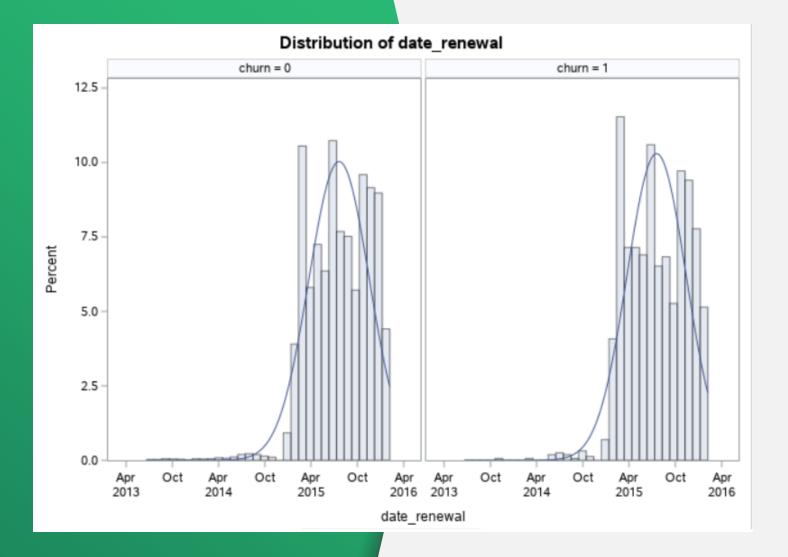
SUMMARY REPORT ON CHURN

Context:

- 1. Situation
- 2. Complication
- 3. Question
- 4. Propose solution

1. Situation

* Significant churn problem
-Churn rate increases
after the 2015.



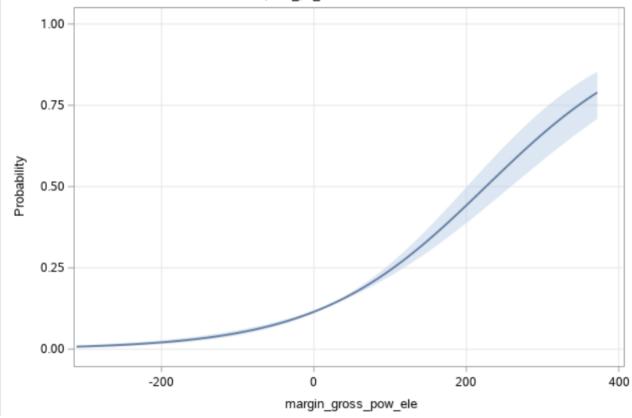
2. Complication

*
Problem

-Considering the plot, we can say that as margin_gross_pow_ele increases, probability of customer leaving the company also increases.
-It shows positive relationship.

Predicted Probabilities for churn=1 with 95% Confidence Limits

At forecast_meter_rent_12m=77.59 num_years_antig=4.435 price_p1_fix=42.84 price_p2_fix=11.43 price_p3_fix=6.898



3. Question

Hypotheses

-If company can reduce the gross_margin_pow_ele rate, then churn rate can be reduce



*Solutions

-if we look at the table, we notice that, 85.3% customer leave the company who doesn't have the gas subscription.

-Now, we have to focus on customer who doesn't have the gas subscription and who has high margin_gross_pow_ele.

-Considering these two group, we should start a campaign providing new and good offer to these two sections of customer, so that churn rate will decrease.

Table of has_gas by churn						
	churn					
has_gas	1	Total				
f	1361 85.33 100.00 85.33	1361 85.33				
t	234 14.67 100.00 14.67	234 14.67				
Total	1595 100.00	1595 100.00				

Analysis of Maximum Likelihood Estimates							
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	
Intercept		1	-2.3070	0.0369	3899.9512	<.0001	
has_gas	f	1	0.1495	0.0369	16.3870	<.0001	