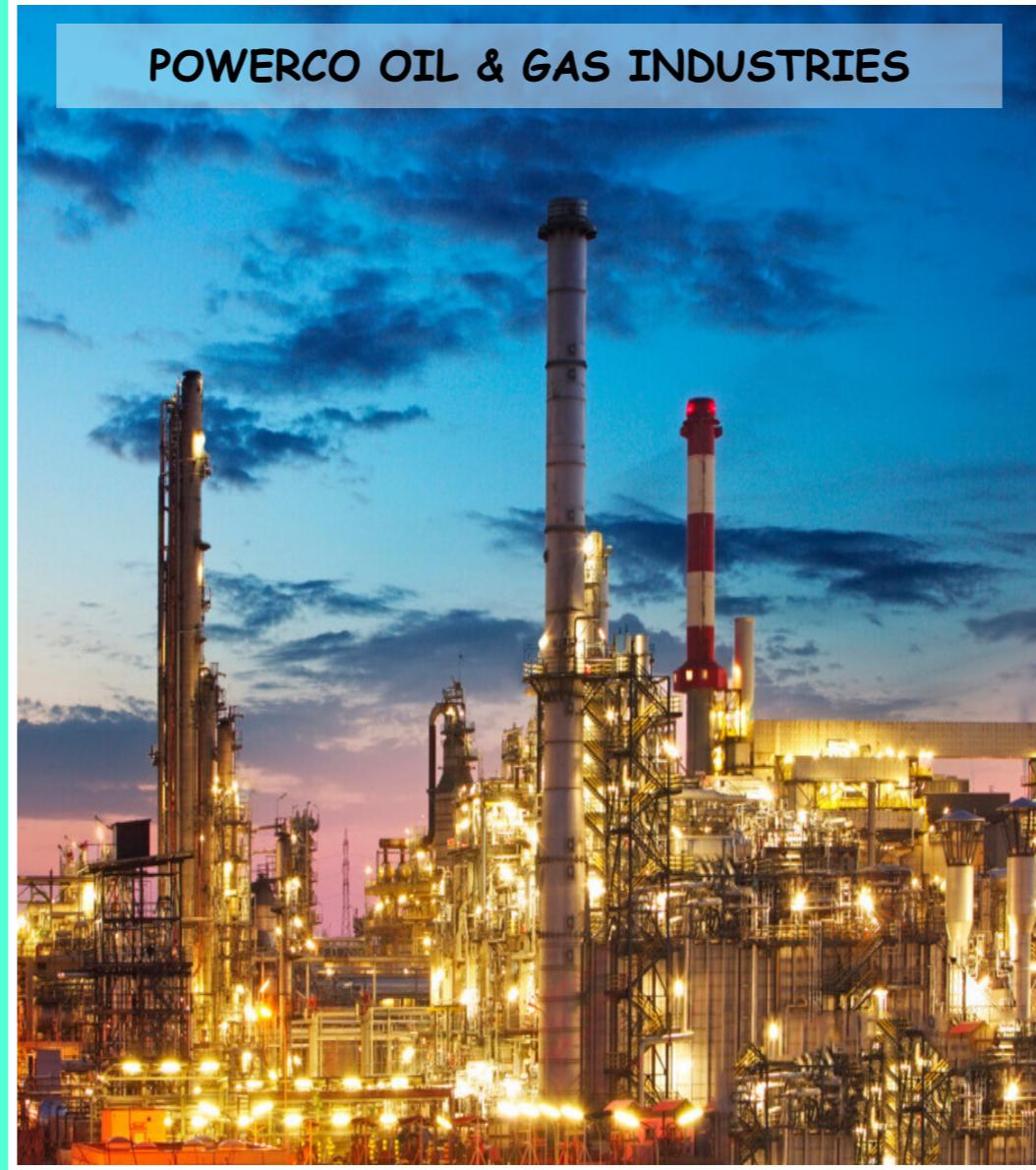


BCG-FORAGE VIRTUAL INTERSHIP PROGRAM PROJECT-CHURN BUSTER-PREDICTIVE MODELLING FOR CHURN



PROBLEM:

- POWERCO IS A MAJOR GAS AND ELECTRICITY UTILITY THAT SUPPLIES TO CORPORATE, SME(Small and 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.
- THEY HAVE PARTNERED WITH BCG TO HELP DIAGNOSIS THE SOURCE OF CHURNING SME CUSTOMERS.
- A FAIR HYPOTHESIS : "PRICE CHANGES AFFECT CUSTOMER CHURN".
- ACCORDING TO THE PROBLEM STATEMENT, I ACTUALLY DID A PREDICTIVE MODELLING FOR THIS CHURN PROBLEM WITH SEVERAL ML MODELS AMONG THAT I HAVE CHOSEN BEST 5 BASED ON THE HIGHNESS OF F1 SCORE METRIC.
- ARTIFICIAL NEURAL NETWORK(LOGISTIC REGRESSION MODEL) IS MY PREFERABLE ONE. SO, I HAVE PREDICTED THE CHURN PROBABILITIES OF EACH CUSTOMER'S ID BASED ON THEIR CONSUMPTIONS OF OIL AND GAS. BASED ON THE PROBABILITY RATE I HAVE CREATED A SEPARATE FEATURE WHICH WILL CATEGORIZE THE CUSTOMERS AS FOLLOWS:

@ 0 TO 20 ---> NON RISK
@ 20 TO 40 -----> LOW RISK
@ 40 TO 60 -----> RISK
@ 60 TO 80 -----> HIGH RISK
@ 80 TO 100 -----> VERY HIGH RISK

CUSTOMERS BASED ON THEIR PREVIOUS YEARS OF CONSUMPTION OF OIL AND GAS.

INTRO

PAST CONS

FORCAST CONS

churn analysis

BCG VIRTUAL INTERNSHIP - CHURN BUSTER DASHBOARD



DATE OF PRODUCT MODIFICATION

12/4/2006 1/29/2016

DATE OF ACTIVITY

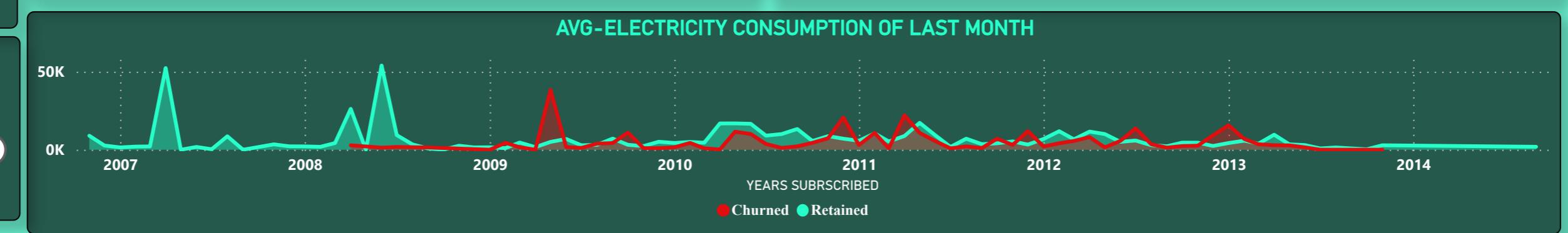
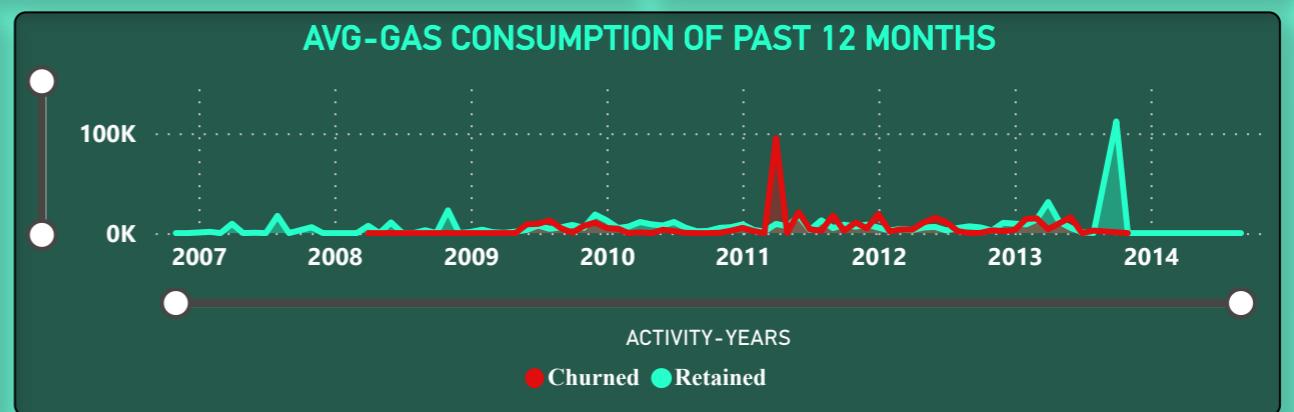
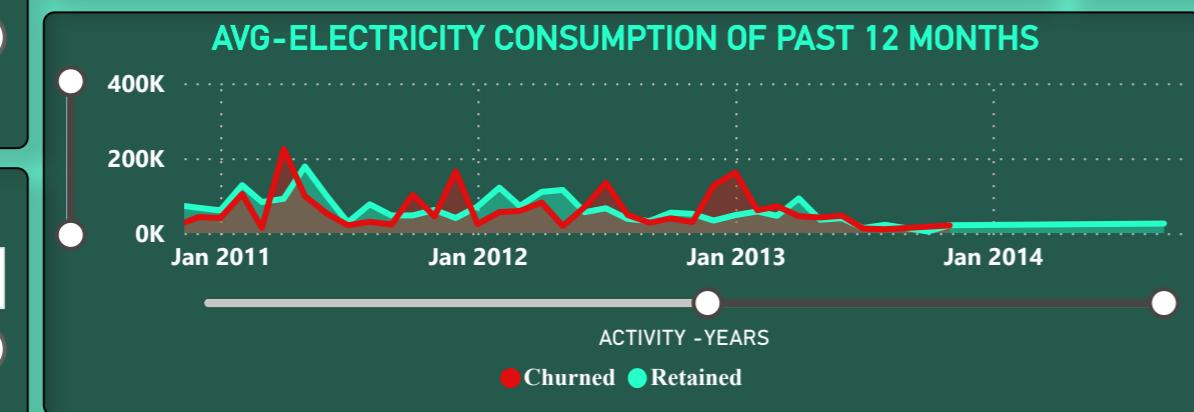
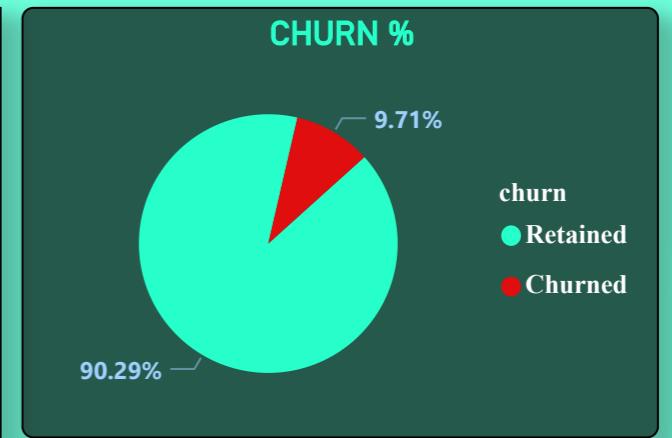
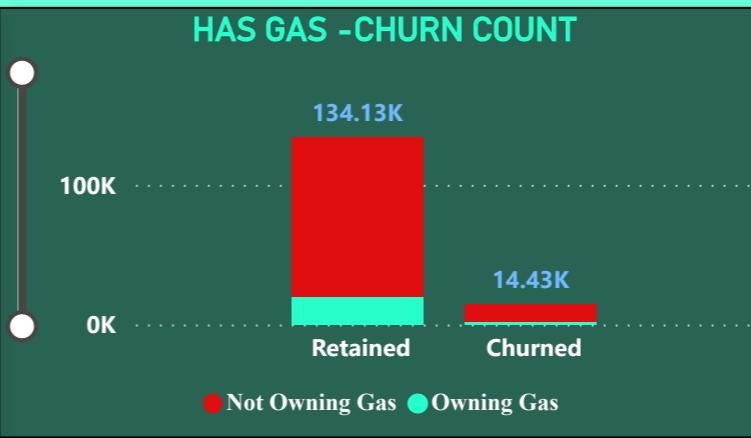
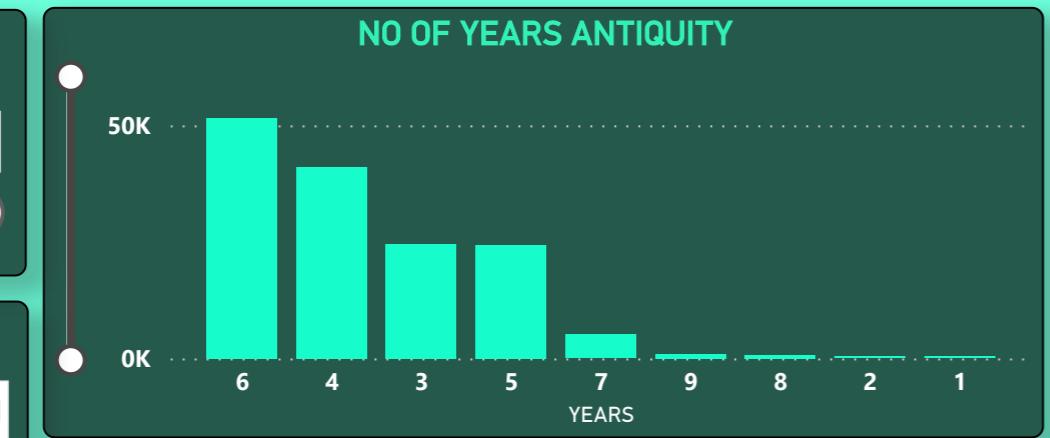
11/28/2006 9/1/2014

DATE OF RENEWAL

6/26/2013 1/28/2016

DATE OF RENEWAL ENDED

1/28/2016 6/13/2017



INTR O

PAST CONS

FORC AST CONS

churn analys is

CHURN

All

HAS GAS

All

ORIGIN UP

All

ANTIQUITY

All

NO OF PRODUCTS

All

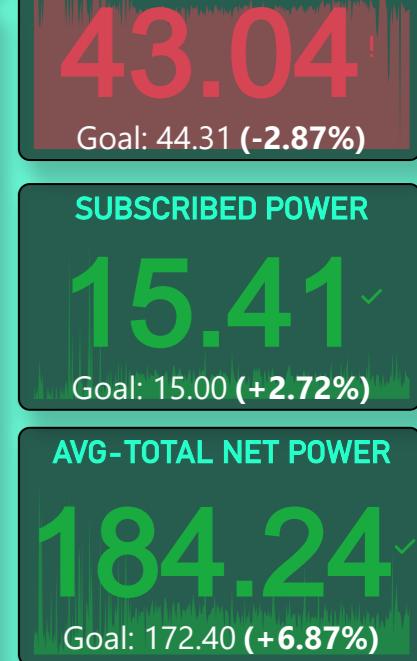
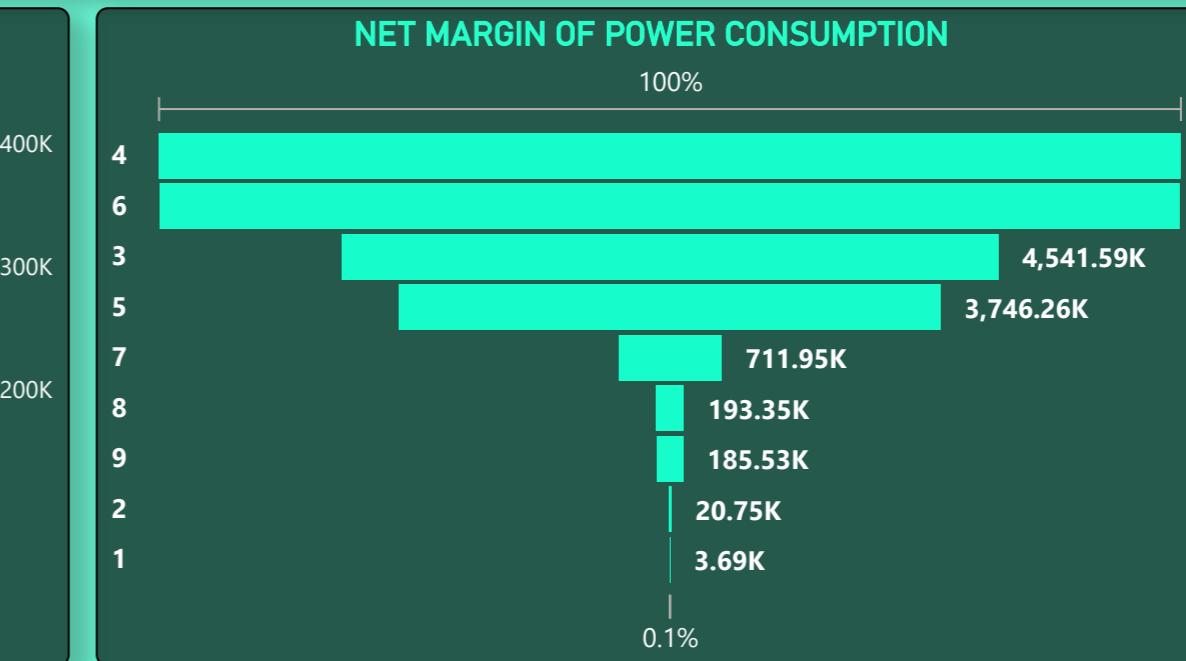
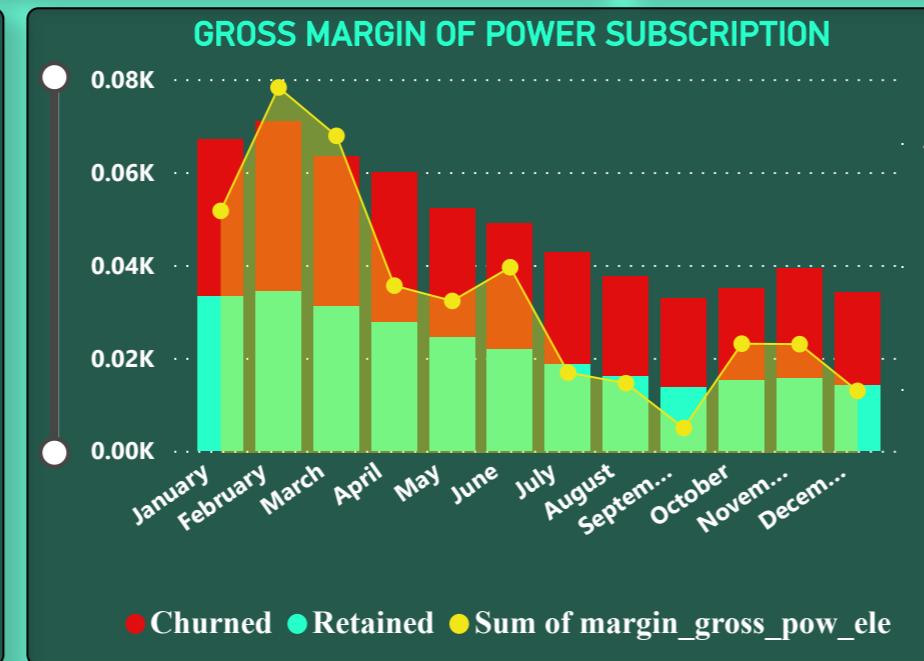
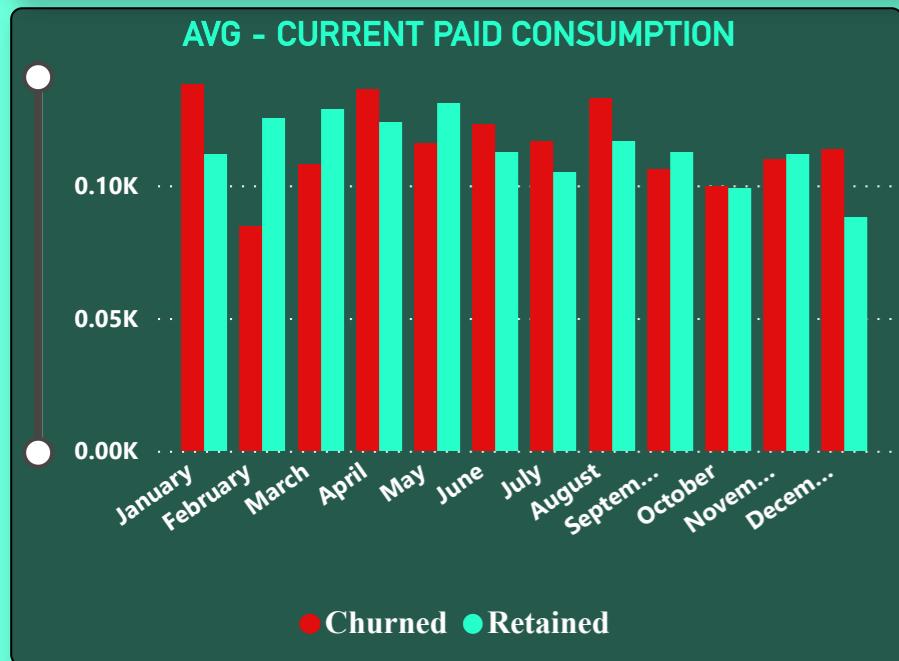
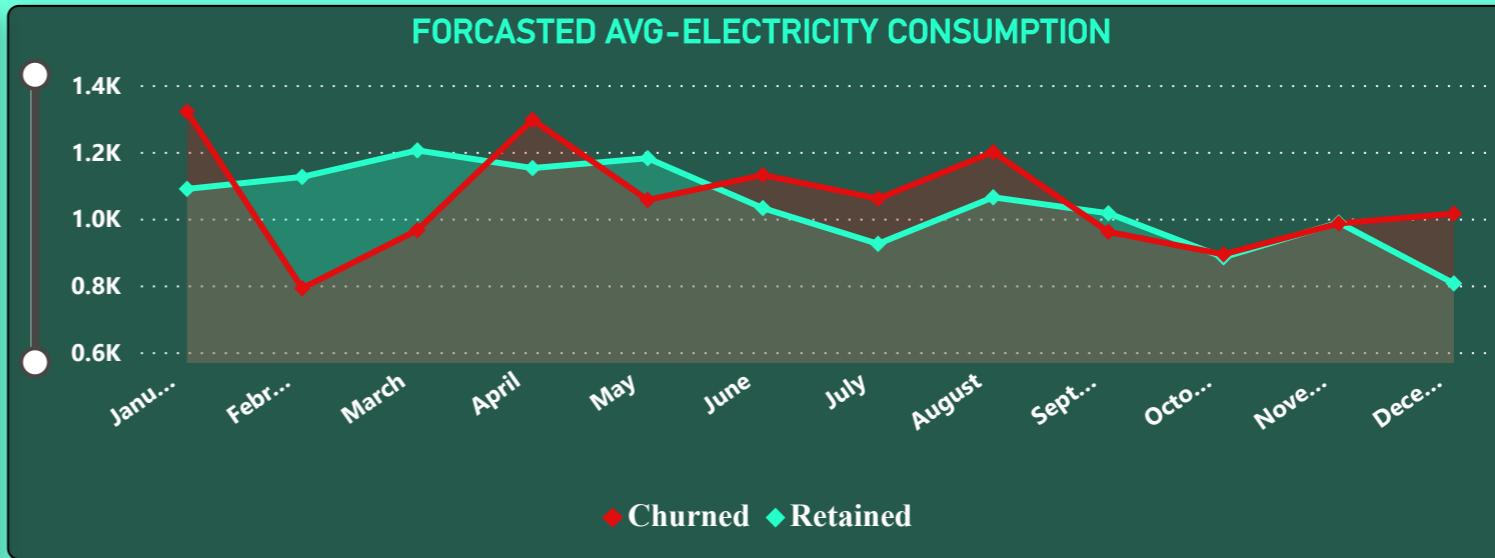
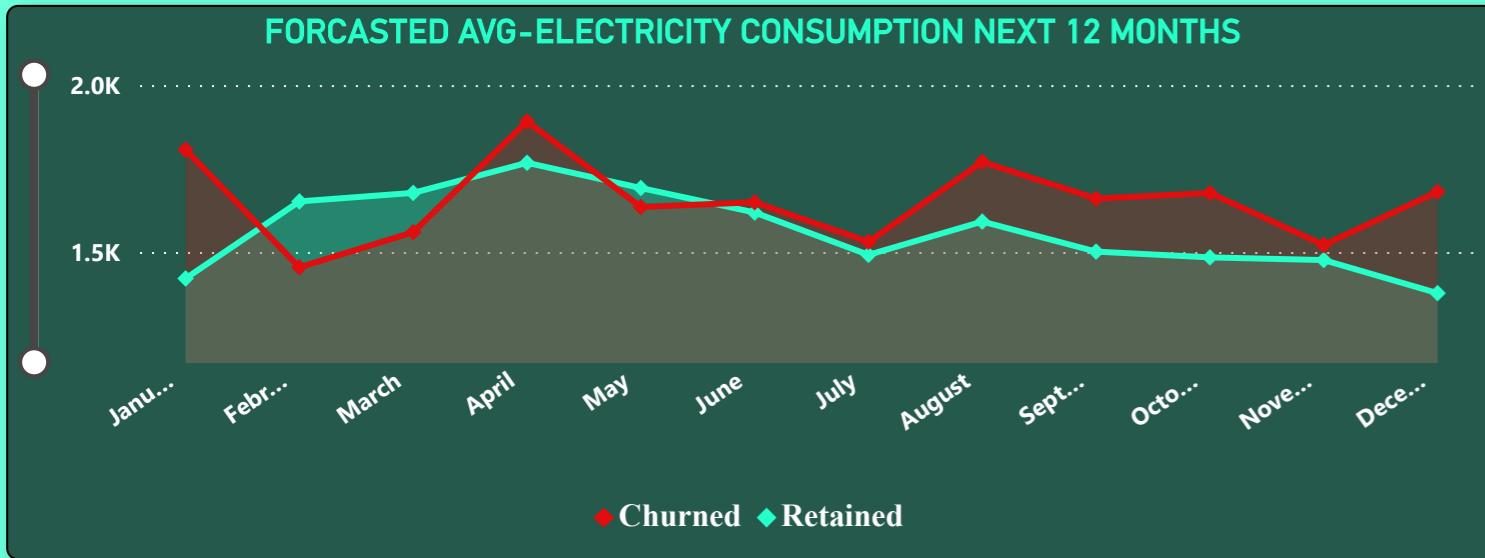
SALES CHANNEL

All





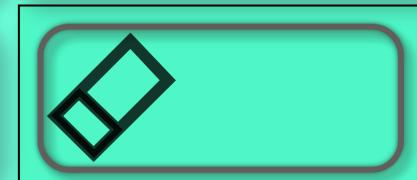
ELECTRICITY AND GAS FORCASTED PRICE CONSUMPTION 2016-2017



INTRO PAST CONS FORC AST CONS churn analysi s

CHURN INFO SALES CHANNEL NO OF PRODUCT HAS GAS INFO ORIGIN UP INFO ANTIQUITY

All All All All All All





CHURN-PROBABILITY RATE BY CUSTOMER ID



Avg- of net-margin

66.92

Avg of pow-max

10.39

Cons Measures

Avg of imp-cons

0.00

Avg of margin-gross-pow_ele

16.92

Avg of margin-net-pow_le

16.92

PEAK ENERGY

0.00

OFF PEAK ENERGY

0.14

CUSTOMER ID

0002203ffbb8125...

0013f326a839a2f...

001dc71143f45c...

002dc7935f7b6f8...

003cb4fdda941fb...

0004351ebdd665...

00184e957277ee...

0024bc8ffe90ec2...

0030bd55614c2c...

003fb333060c25...

00114d74e963e4...

001cb880d847a0...

002d70a2bdf9cf6...

003742573bb977...

00420fc2b6ede4...

ANN-PREDICTED-CUSTOMER CHURN %

0.00

PRICE-OFF PEAK

44.31

SUBSCRIBED POWER

10.39

AVG-TOTAL NET POWER

66.92

INTRO

PAST CONS

FORCAST CONS

churn analysis

PRICING DETAILS

0.00

0.00

price_mid_pea...

price_mid_peak_fix

44.36

0.15

price_off_peak...

price_off_peak_var

0.00

0.00

price_peak_fix

price_peak_var

Q&A's



Try one of these to get started

what is the churned by id

what is the retained by id

top origin up by maxpowper

Show all suggestions

Non Risky

