

SAS[®] GLOBAL FORUM 2019

USERS PROGRAM

APRIL 28 - MAY 1 | DALLAS, TX



Atul Thatte

Director of Advanced Business Analytics at TXU Energy

Atul's team is responsible for enterprise advanced analytics, ML & AI, supporting the Residential & Mass Markets portfolio and generating measurable incremental value through the application of prescriptive analytics and AI/ML principles and techniques. As a member of the broader Strategy, Pricing and Analytics function within the retail business arm of Vistra, Atul is responsible for the entire advanced analytics lifecycle, from thought leadership on advanced analytics to execution and integration into business processes.

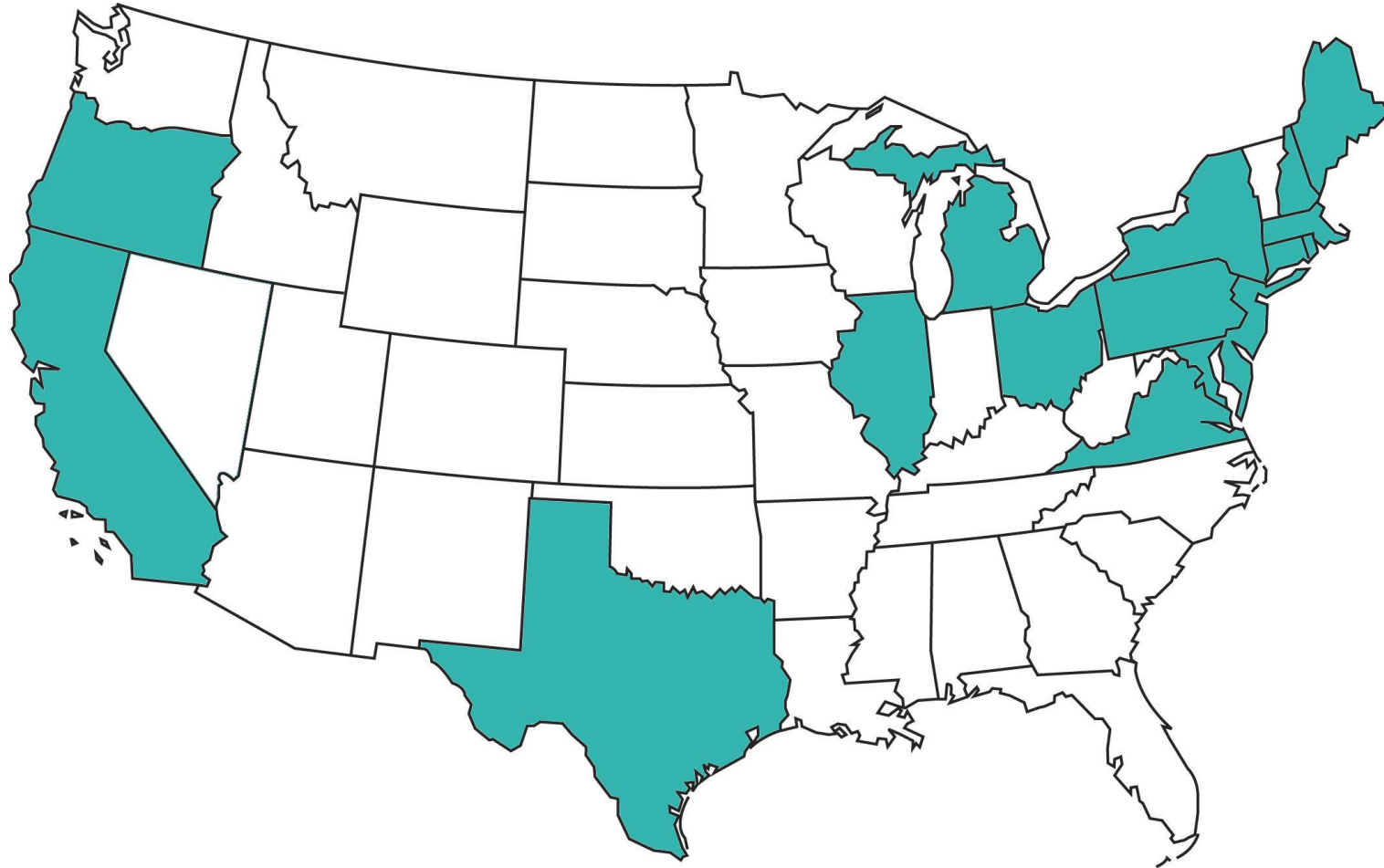
Prior to TXU Energy, Atul led Advanced Analytics efforts related to the FiOS suite of products at Verizon. His combined tenure at Verizon and now at TXU Energy accounts for more than a decade and half of advanced analytics experience optimizing business outcomes in subscription-based businesses.

Atul is also an Adjunct Faculty in the MS (Advanced Analytics) program at Oklahoma State University.

Leveraging Advanced Analytics to Optimize Customer Experience

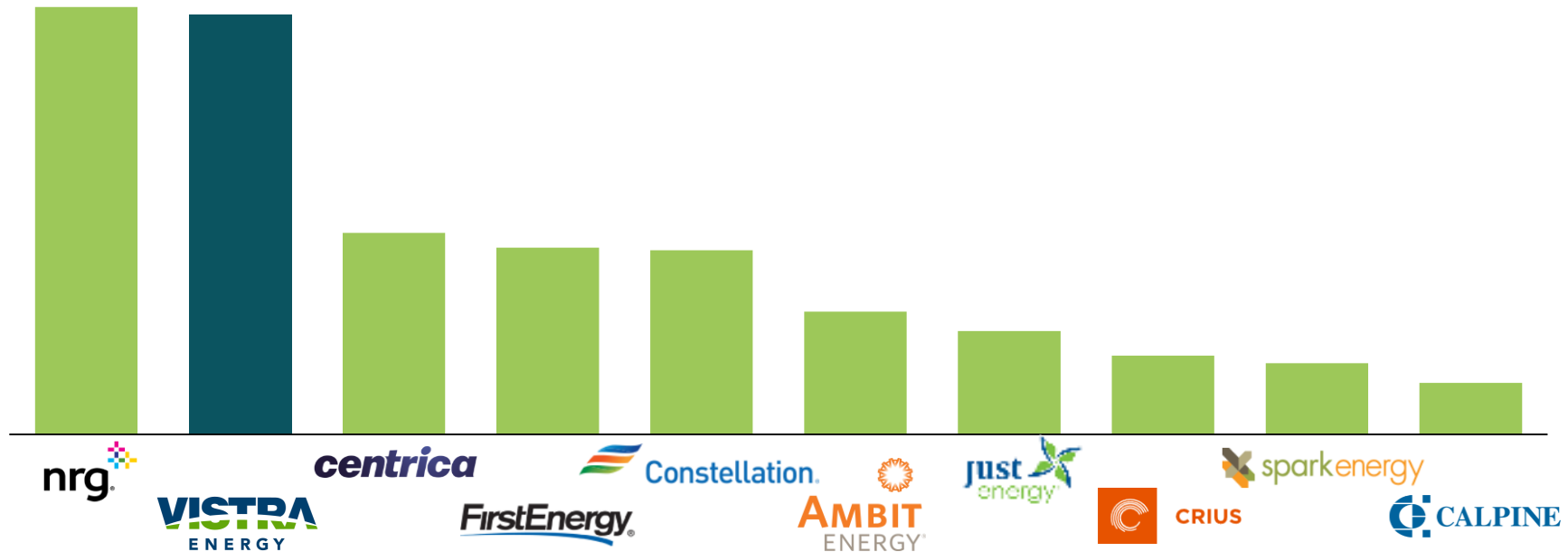
at TXU Energy

Electricity is a competitive market in 18 states



Vistra Energy is one of the largest retail energy companies in the states open to competition

US Residential Market Share



Vistra Energy serves ~3 million customers across the largest competitive states in the U.S.



2.9 million
retail customers

across Texas, Illinois, Ohio,
Massachusetts, and Pennsylvania

Combined premier retail
and wholesale brands



Approximately 41,000 MW
generation capacity
enough to
power
20 million
homes



Retail Offices

Irving, TX

Collinsville, IL

Cincinnati, OH

Houston, TX

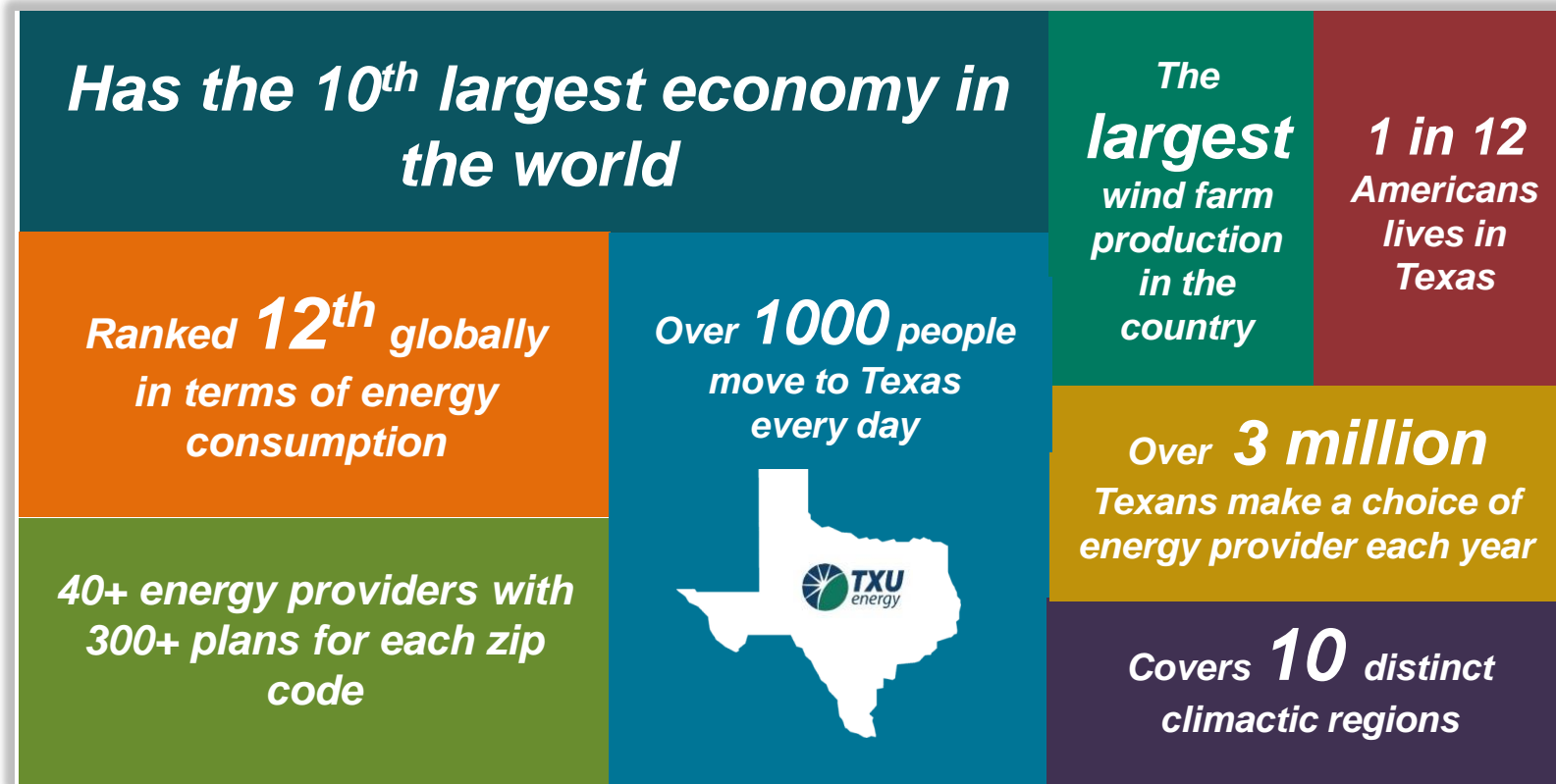
Total Employees

Approx. 5,400

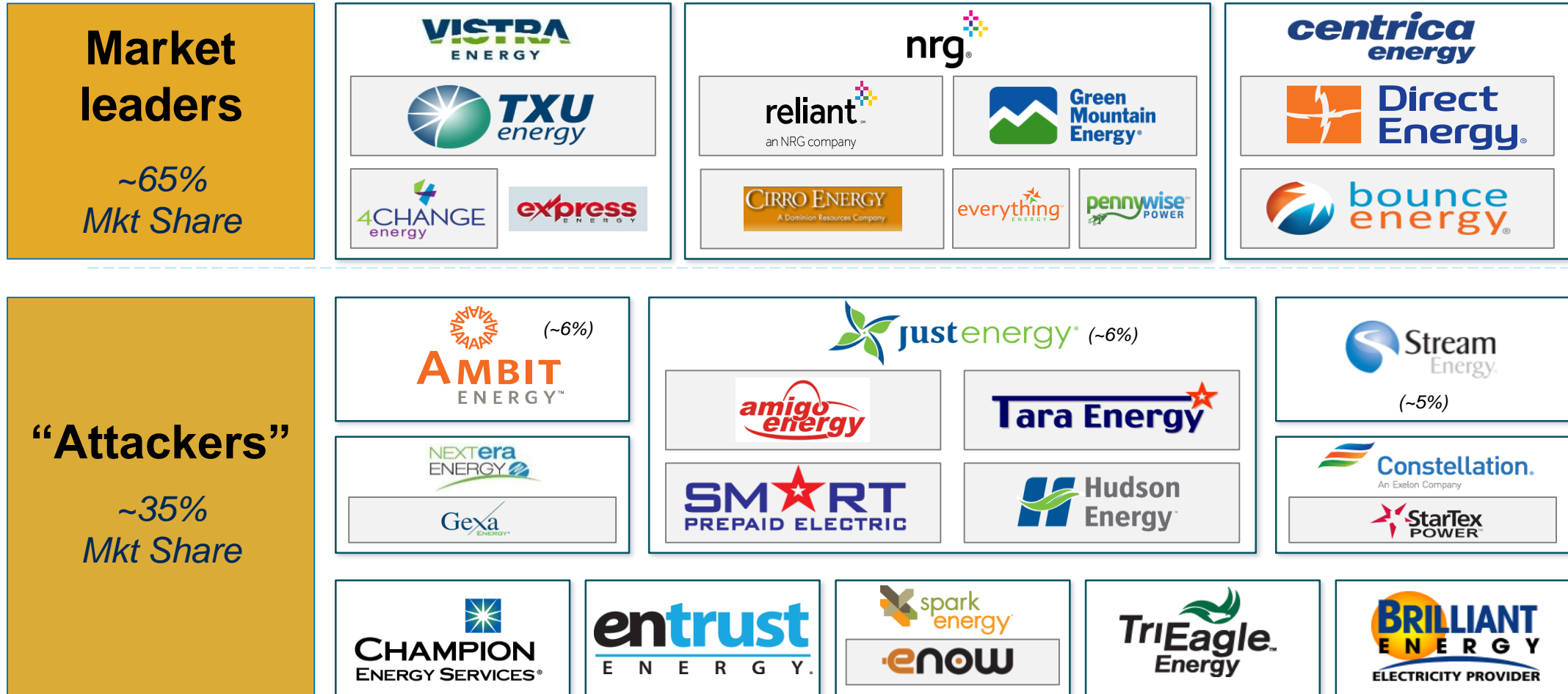


Committed to our customers, our communities, and to
operating our plants safely, reliably, and in accordance
with environmental standards.

Texas is one of the most dynamic markets in the world



The retail energy marketplace in Texas is crowded



As a market leader, TXU Energy offers innovative, customer-focused products and services

Innovative Offer Sets

Month-to-Month

Fixed

Index

Solar

Wind

Time of Use (Free Nights®)

Pay-as-you-go

Individualized Interactions

Social Media

Text

Email

Natural Language IVR

Live Agent

Chat

MyAccount

Mobile First Technologies

Usage

Alerts

Device Management

Data capabilities are built around solving the four V's of data challenges

VOLUME

600 TBs

2014-2018 Database Growth

50 Billion

Web Clickstreams

4 Billion

Customer Segment Snapshots

3 Billion

Annual Record Growth

VARIETY

VELOCITY

15 Minute



Meter Reads



Trade Volumes



Weather Data



1.5 Million Customers

VERACITY

Technology and analytics capabilities support a customer-focused strategy

Technology

- Strategic investment in a tiered data platform to manage the four Vs
- Enable real-time analytics and support key business processes

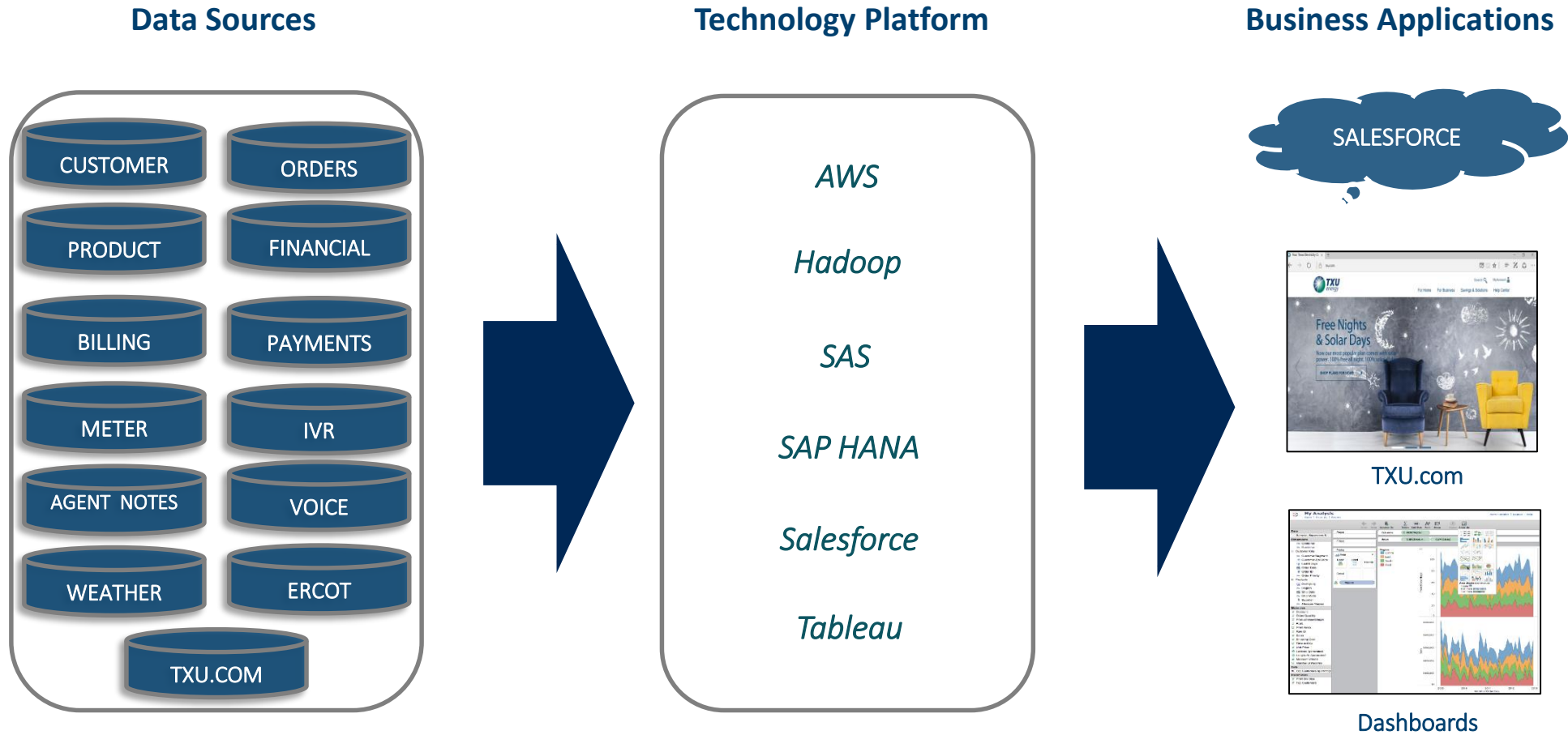
Capabilities

- Identify customer behavior patterns and key trigger events
- Leverage analytics at every stage of the customer lifecycle

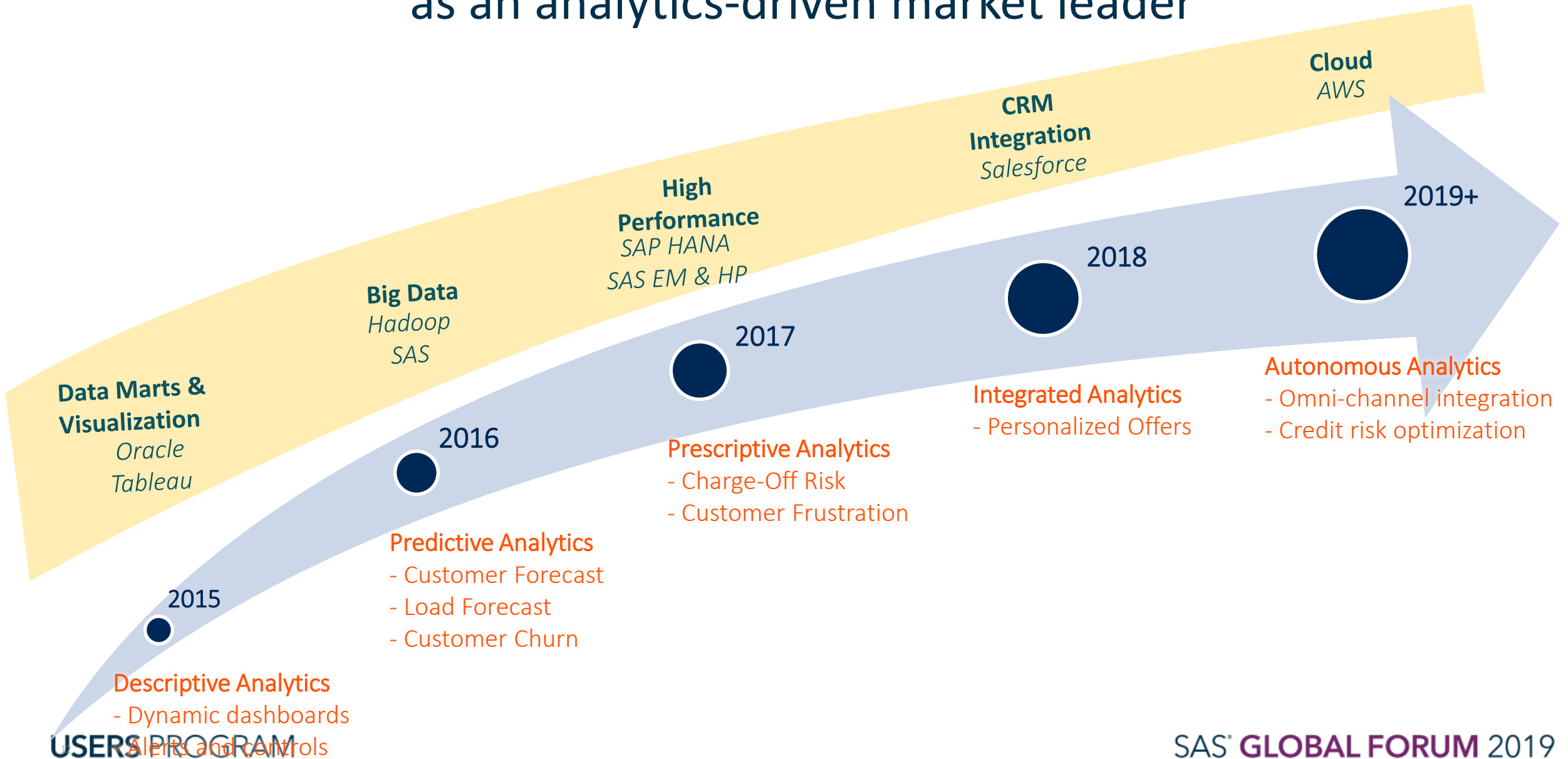
Outcomes

- Enhance the customer experience and reduce customer churn
- Improve customer satisfaction and optimize value of customer portfolio

Analytics capabilities are built directly into the technology workflow



Technology roadmap positions TXU Energy as an analytics-driven market leader



Customers are activated by trigger events



Moving



End of contract



Word of mouth



Sales contact



Unexpected high bills

CASE STUDY 1: PERSONALIZED PRODUCTS



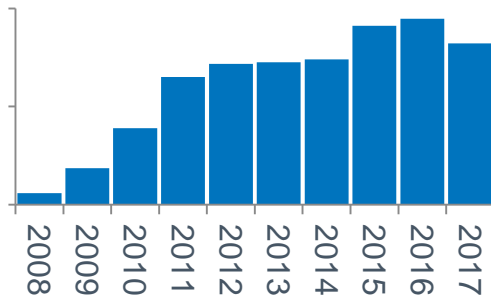
TXU Energy works with movers new to Texas to match them with the best electricity plan for them



We create products that provide unique features and benefits for our customers



CASH BACK REWARD PAYOUTS



Free Nights & Solar Days



Two great things in one great plan.

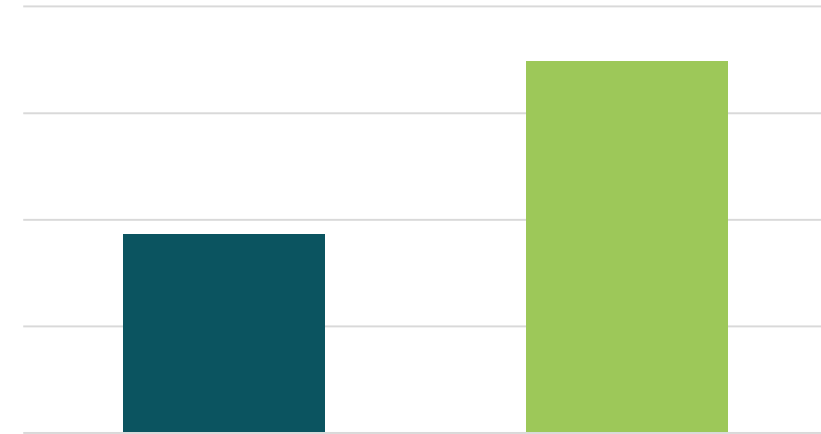
Introducing Free Nights and Solar Days. With Free Nights, you can stay cool and comfortable all night long. Then, with Solar Days, you can feel cool all day knowing that your plan is 100% solar. Panel-free, worry-free. It's the plan that helps you feel good 24/7. **Sign up today!**

1-866-CALL TXU | txu.com/free

Free electricity applies from 9 p.m. to 6 a.m. Other billed charges and taxes apply normally. Smart meter required. TXU Energy purchases renewable energy credits equal to 100% of your daytime energy usage. © 2017 TXU Energy. SEP 11/2016



“Free Nights & Solar Days” is our most popular time-of-use product

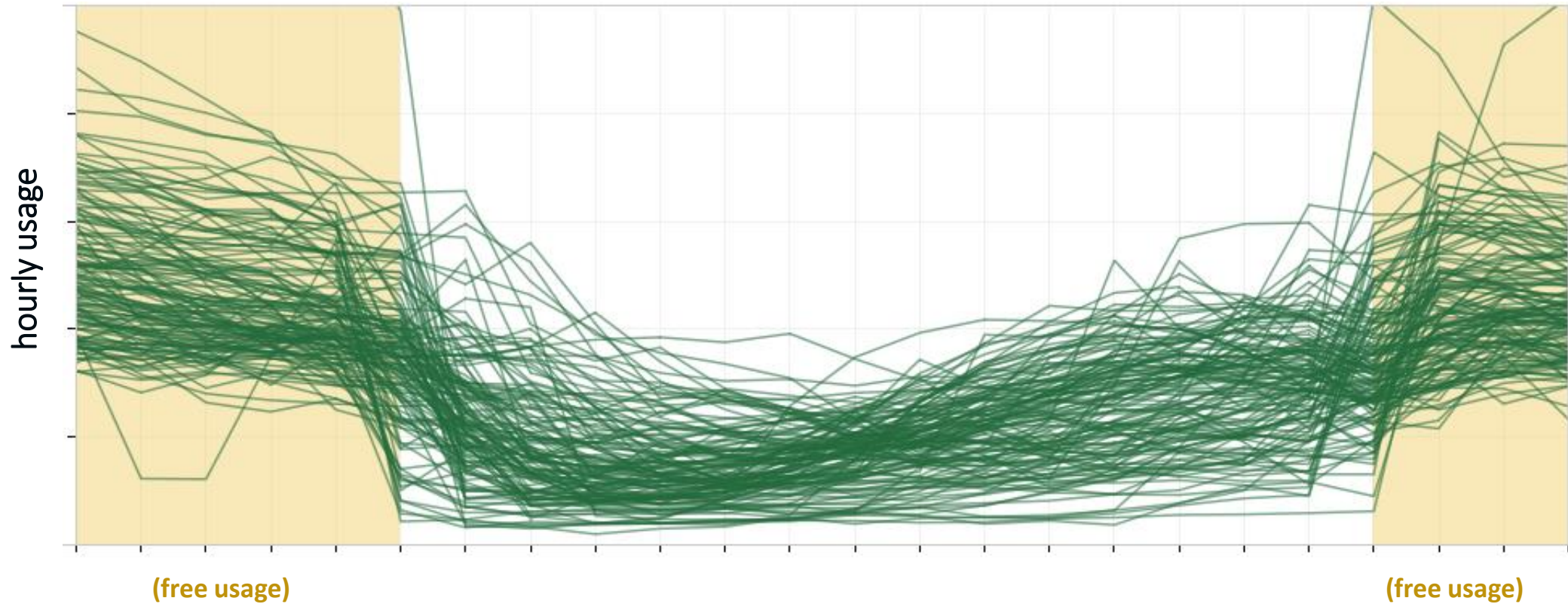


Texas Homes with Solar Rooftop Installations

TXU Customers enjoying Free Nights & Solar Days

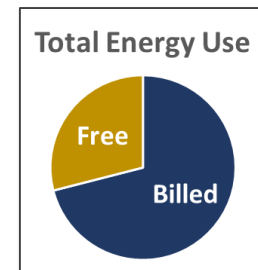
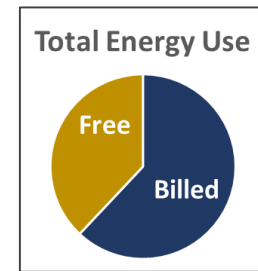
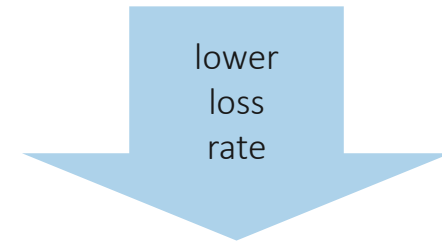
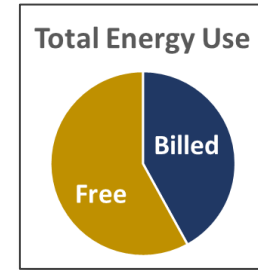
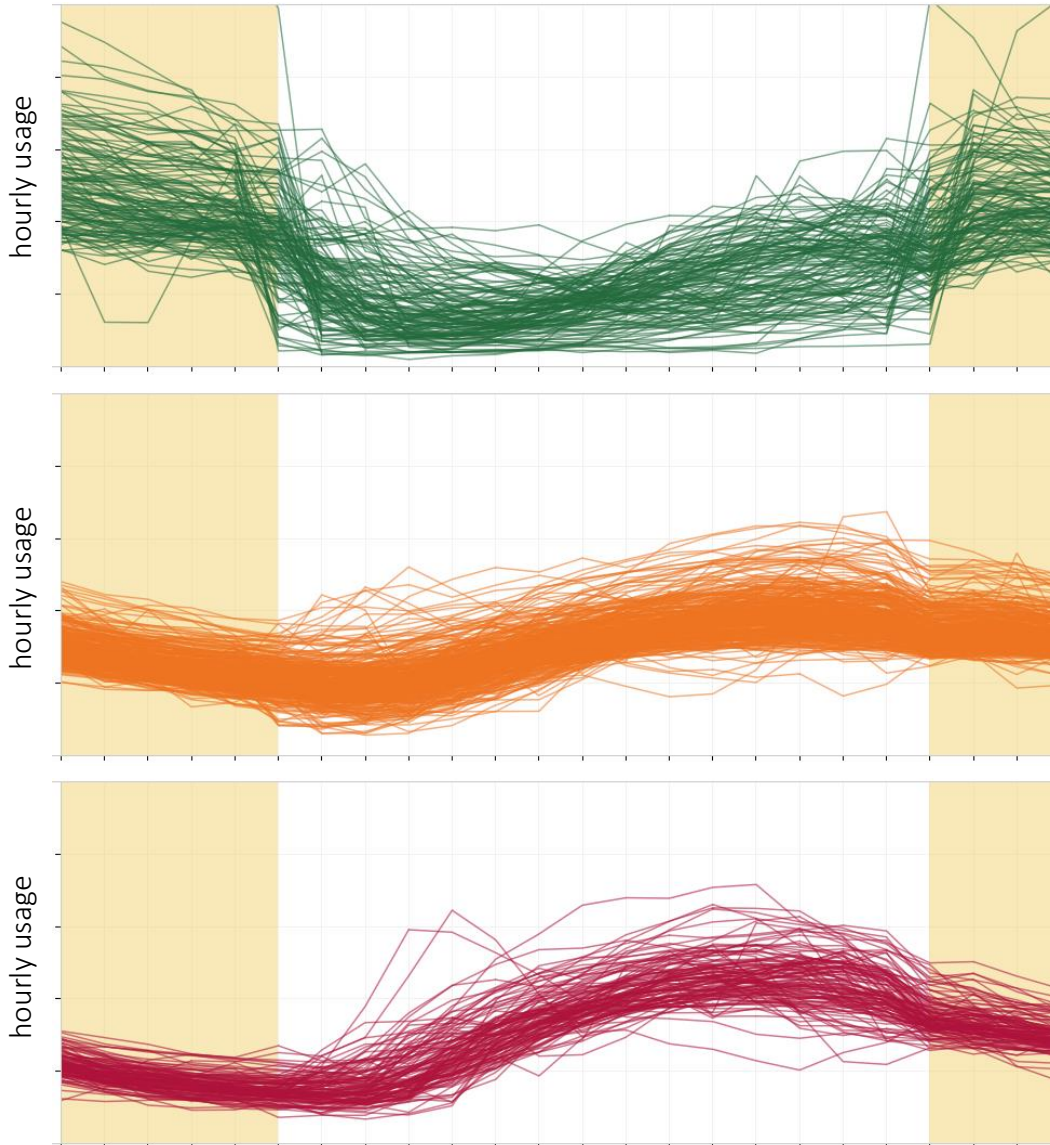


Customers with high nighttime usage receive the most benefit



Hourly Usage for a Single Customer
(each line represents one day)

“Free Nights” products are not right for everyone!



We track customers to identify those who might not be on the best plan for their usage habits

The screenshot shows a web browser window with the URL <https://www.txu.com/view-plans.aspx?customerclassification=residential&cint=3&dwel=02&streetNum=4605&...>. The page header includes the TXU Energy logo, a 'Call' button, a 'Hello!' greeting, a 'Sign Out' button, and a search bar. Navigation links for 'Manage MyAccount', 'Plans & Offers', 'Savings & Solutions', and 'Help Center' are also present.

Pick the Perfect Plan

Use Your Current Usage to Help You Pick the Perfect Plan

Based on your history of energy use, we have some plans that may let you save even more than **Free Nights & Solar Days 12**.

940 kWh
average per month

68%
consumption during daytime

Your satisfaction is guaranteed! You have 60 days to change your plan!

Here is your usage & cost over the past 3 billing cycles:

Bill Month	Bill Cycle Usage (kWh)	Bill Amount
March	1057 kWh	\$118.97
April	858 kWh	\$99.18
May	644 kWh	\$77.69

[How it works](#)

Filters: Best Match | I'm interested in... | Rates* | Term

FEATURED PLAN

TXU Energy

Season Pass 12

Save 50% all winter and summer long – that's a 5.9¢ energy charge the months you're using the most electricity.

[View Plan Details & Pricing](#)

Rate* **13.9¢** per kWh

Term **12 Months**

[SIGN UP](#)

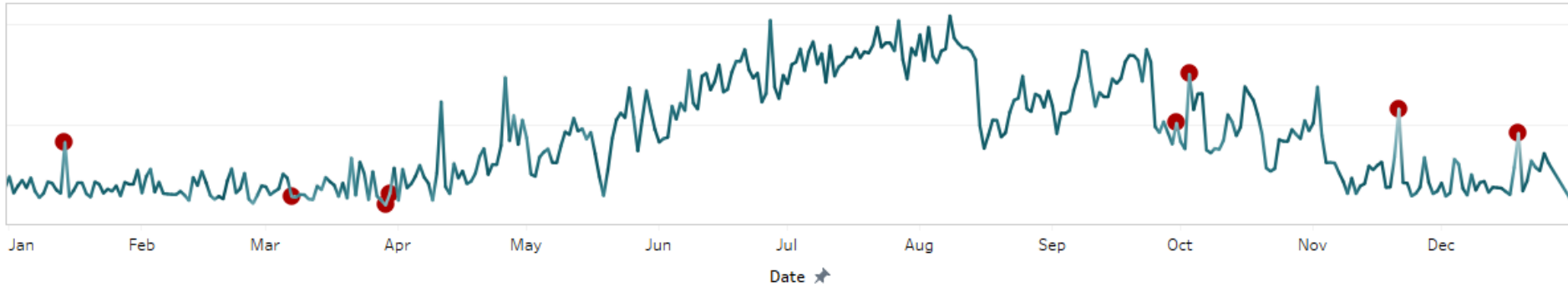
[CHAT](#)

CASE STUDY 2: PERSONAL SAVINGS TIPS

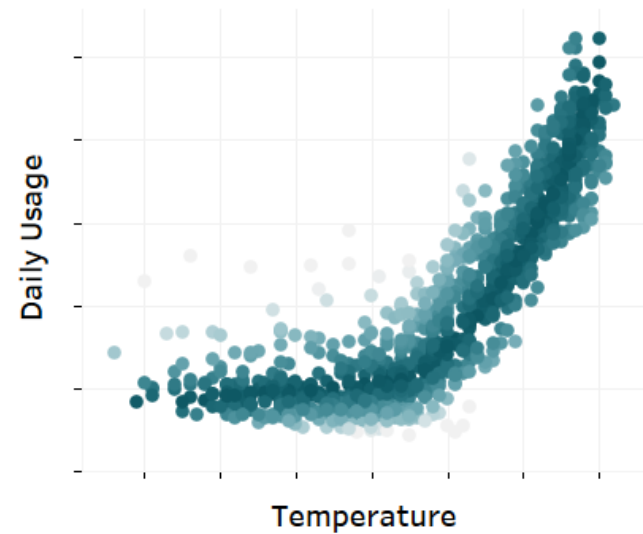
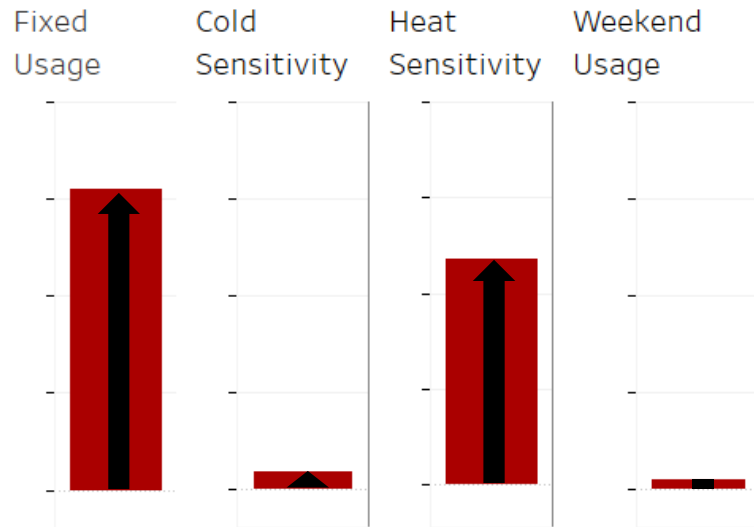


Daily usage data lets us build detailed customer profiles

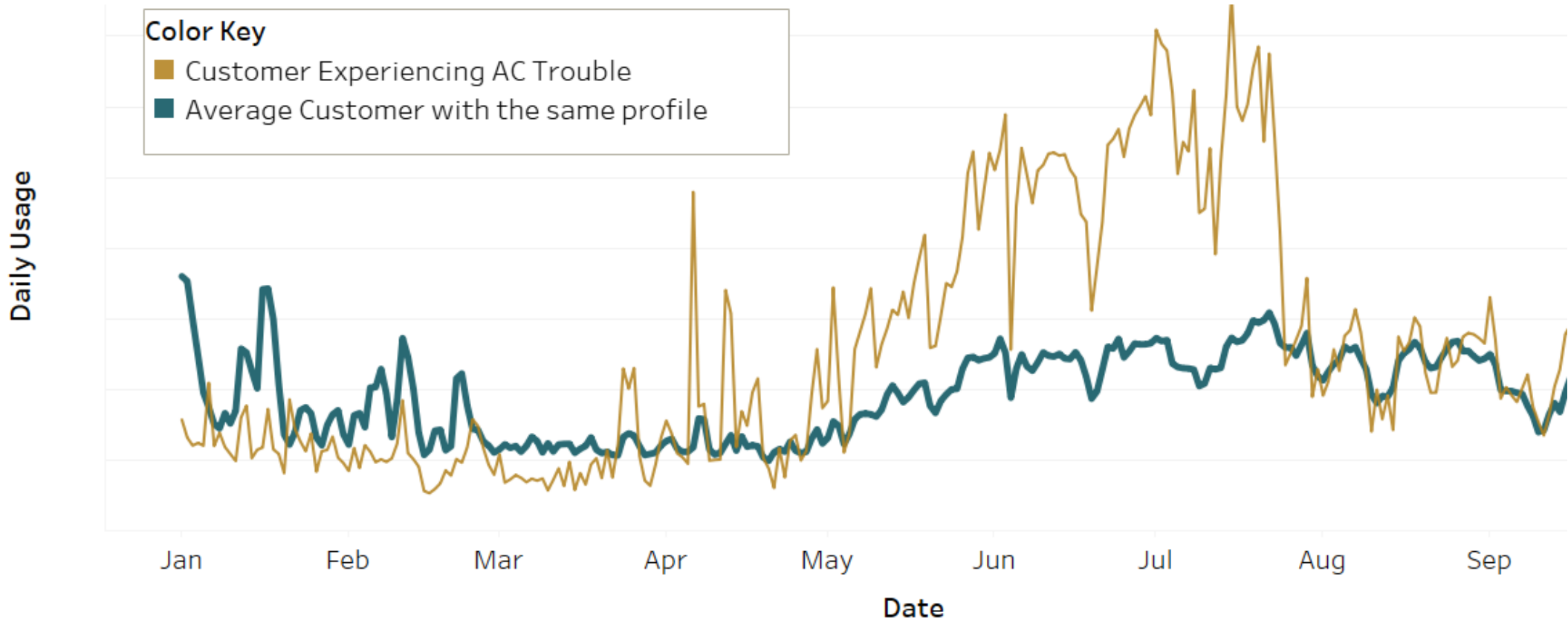
Daily Usage Timeline



Customer Profile

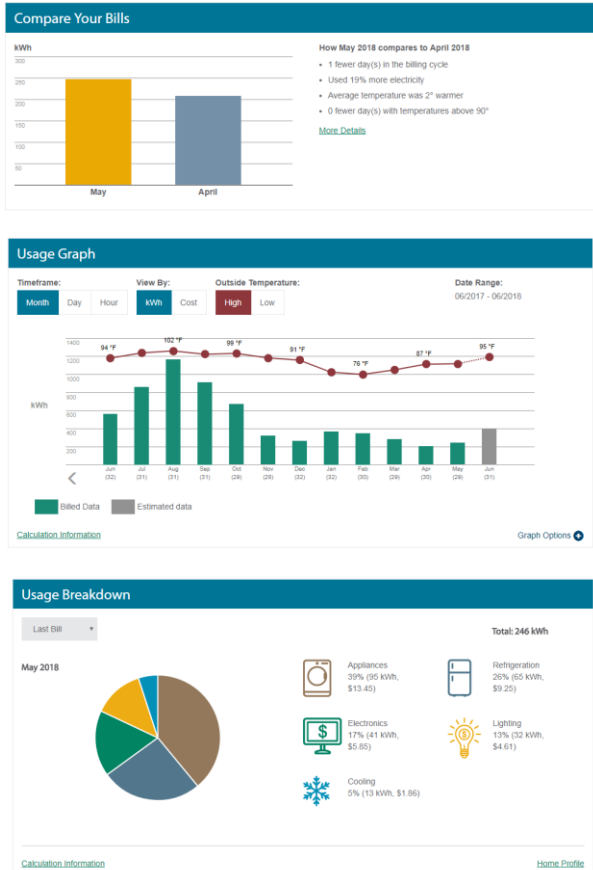


Profiles will let us to track energy use over time, and detect anomalies



We use our best-in-class digital platforms to communicate directly with our customers

MY ENERGY DASHBOARD



MOBILE APP



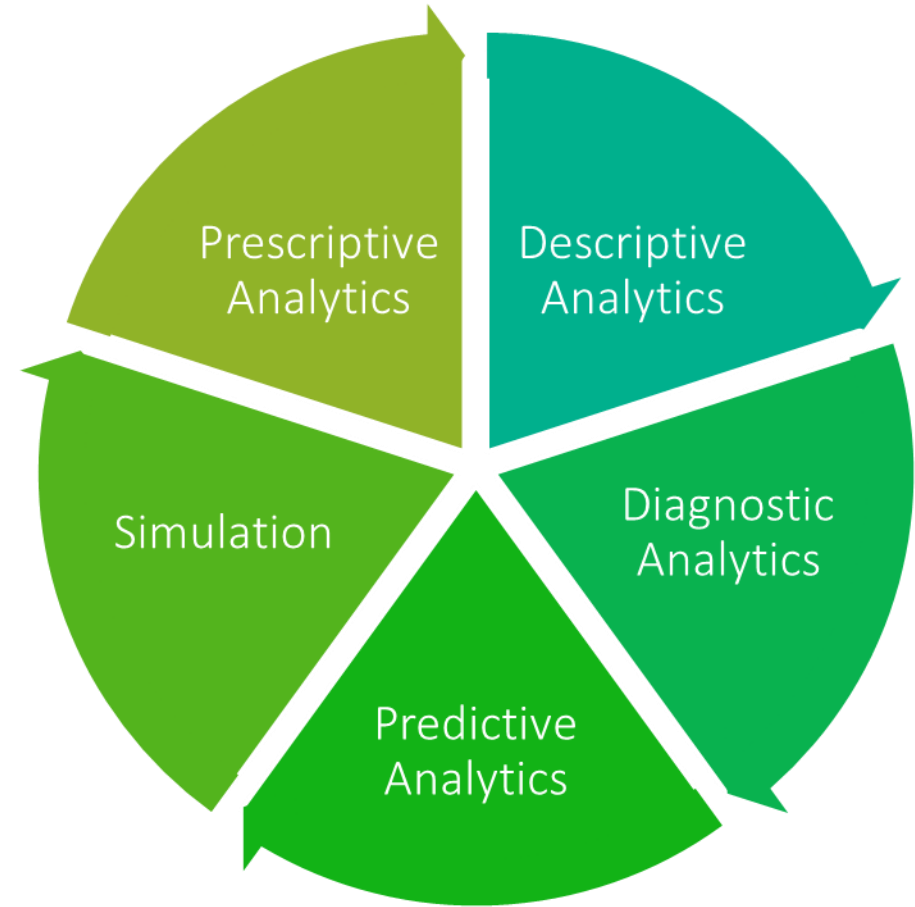
- Touch ID
- Split Payments
- Usage Breakdown

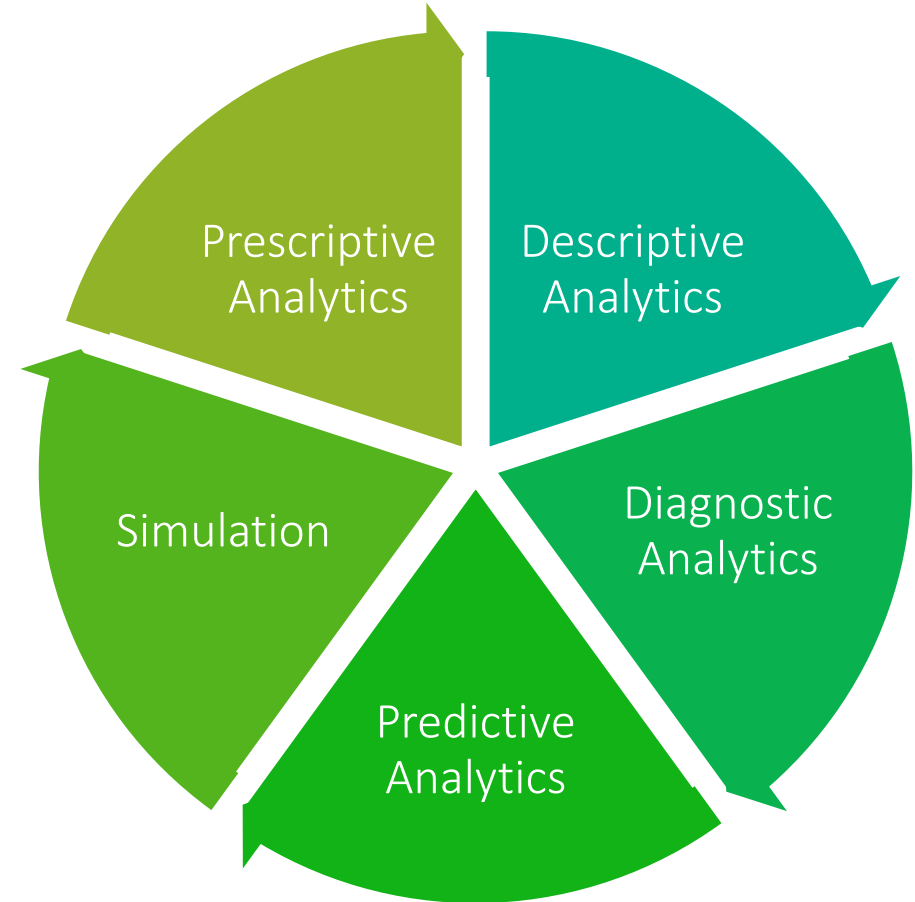
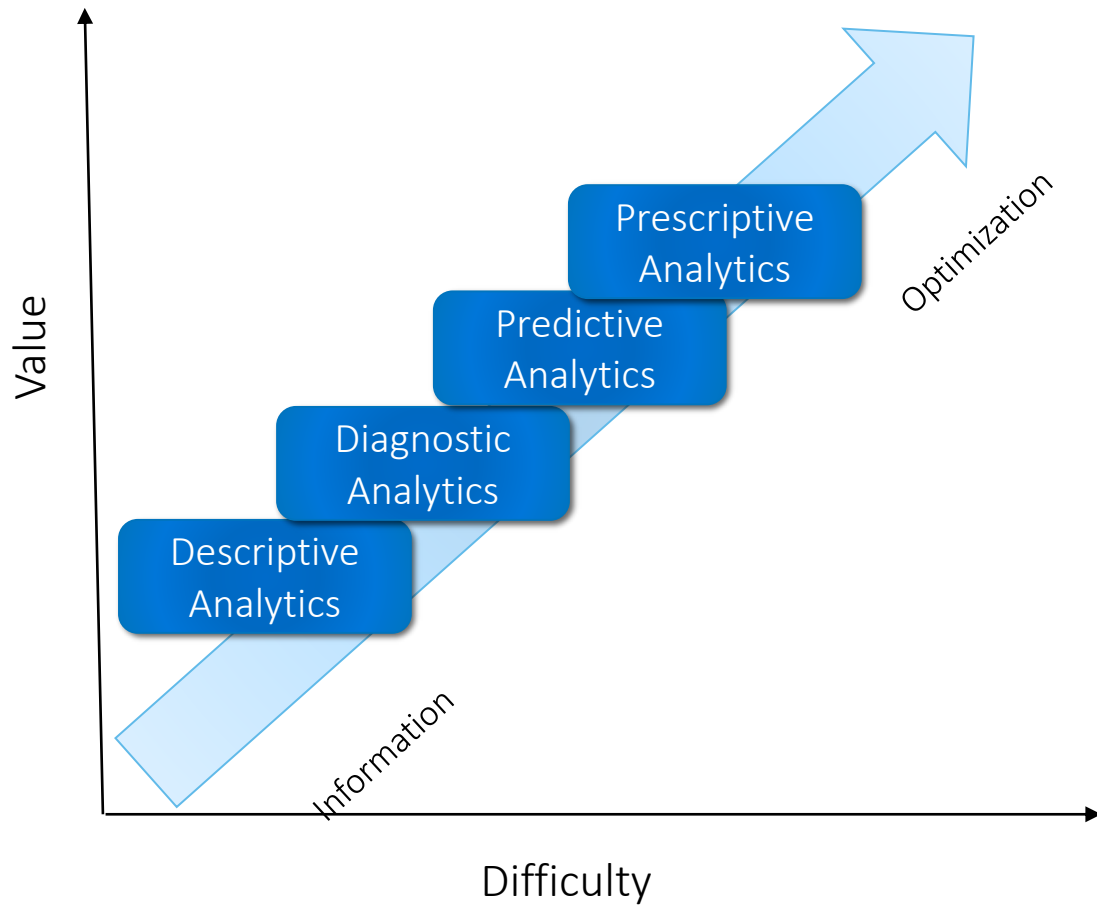
FORESEE

BEST IN CLASS

FIRST IN TEXAS

Advanced Analytics for CX Optimization





- This view highlights the value vs. difficulty spectrum
- Useful for a basic understanding of the four stages
- The linear, unidirectional view of value vs. difficulty might be misleading

- We recommend a CX optimizing view of analytics
- Each stage complements the other
- Emphasis on co-dependence and iterative refinement
- Provides a unified opportunity view of value & difficulty/cost

The Analytics Lifecycle: From Goals To Results



Thank you!

Contact Information
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Reminder:

Complete your session survey in the conference mobile app.

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