The Real Game Changer in Energy...

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Three game changers for energy

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New sources, mobility, and industry fragmentation are set to disrupt the system.
Game Changers in the Energy System
Emerging Themes
Reshaping the Energy Landscape
SAVE OUR PLANET!
STOP THE WARMING
Getting Graphic…and One Utility’s Journey
From Load...
To Meters...
To Customers

Channels

Data
Lessons From the IOUs
How Analytics Reveals New Utility Customer Value
SAS Whitepaper

- To reshape the customer experience, utilities must first understand their customers intimately. Only then can they develop new avenues for customer engagement and build programs and services that redefine them as trusted energy partners.

- Analytics provides a framework to monitor, measure, react to, predict, and optimize the impacts and changes sparked by customer behavior.
• Data offers visibility into each prosumer’s electricity exports and imports, providing the fundamental basis of the transactive energy market.

• Rather than focus purely on the delivery of grid-sourced power, energy service providers offer individualized products and services to suit their customers’ specific needs.

• Customer centricity is no longer a marketing buzzword; in 2030, it accurately describes the entire utility value chain.
A Perfect Storm
Excellent ✅
Good
Average
Poor
• To date, the electricity industry has never had to deal with anything like EVs.
• Utilities will have to work with a complex and competitive ecosystem of stakeholders, a diverse customer base with different requirements, and a wide range of technologies that affect the grid in different ways.
• It is critical that an EV strategy must include a data strategy that optimizes data access, both for existing and future business models.
the EVOLUTION of ENERGY
Last 100+ years

1900-1920s
- Cities and homes fit by electricity
- Electric appliances becoming commonplace
- More reliable service

1920s - 1940s
- Nuclear and hydro scale up
- More efficient plants built

1950s
- Nuclear power plants
- Scrubbers reduce air emissions (Clean Air Act)

1970s - 1980s
- Energy conservation began to be emphasized
- Environmental issues came to the forefront (acid rain)
- Increased regulations to reduce emissions

2000s - present
- 40% decrease in SO2 emissions from 1990 levels, decrease in mercury levels
- Increased support for renewables
- Cleaner air but continued reliance on traditional generation for reliable service

NEXT 25 YEARS

- Battery storage
- Rooftop solar
- Energy Ecosystem
- Internet of Things
- Power plants
- Digital platform
- Fiber networks
- Smart appliances
- Grid standards

Fast charging
- EVs
- Excess power sales
- Plug and play
- Hourly forecasts
- Low-cost batteries
- Wind
- Interoperability
How Will Analytics Help?
Analytics for Best-in-Class Customer Experience

- Real-Time Customer Experience
- Customer Data & Analytics
- INSIGHTS
- RULES
- CHANNELS
- ACTIONS
- DATA
- CONTENT

↑ Increase Revenue
握手 Decrease Churn
🌟 Improve Customer Experience

Customer Data & Analytics

Increase Revenue
Decrease Churn
Improve Customer Experience
How to Delight a Citizen With Data
Gallon Alert for Water Meter
April 9, 2016 at 5:04 AM

Hello,

You requested the Town notify you when your water usage exceeded 120.0 gallons per day. Yesterday, your actual usage was 623.70 gallons.

Please sign into the Aquastar web portal if you would like to view your usage or to update your alert settings.
Hello,

You requested the Town notify you when your water usage exceeded 120.0 gallons per day. Yesterday, your actual usage was 619.70 gallons.

Please sign into the Aquastar web portal if you would like to view your usage or to update your alert settings.
Hi Karen. My water usage in the winter is typically quite low so when I received the email below on Saturday morning I was sure that a pipe had broken. I immediately crawled under my house to check and everything was fine.

When I looked at the hour-by-hour data in Aquastar I was surprised to see that it showed me using 510 gallons between 12:00a and 1:00a on 1/9. That’s an impossible consumption pattern.
“In overly simple terms, your meter transmitted a large negative usage read and then the large positive read to recalibrate. The large negative read was presented as a 0 on the website so you only saw the recalibration. We are looking into why this happened, but you are correct that the high usage was not physically possible in one hour. We have encountered this anomaly only a couple of times in the last month, and we are working with the vendor on this issue.

First I appreciate that you use the Aquastar system, and secondly I appreciate your thorough and logical approach to problem solving.

I apologize that there was a problem to solve.”
SAS & Utilities – By the Numbers

- 560: energy customers worldwide
- 100%: of Fortune500 US Utilities are SAS customers; 30 years average use
- 80%: of Global Fortune500 Utilities are SAS customers
- 1976: SAS founded and 2 utilities among initial customers
Recommended Reading

- Navigant Research, *Defining the Digital Future of Utilities*
- Navigant Research, *Charging Ahead with EV Analytics*
- SAS, *How Analytics Reveals New Utility Customer Value*
- SAS, *Municipality Puts Wireless Water Meter-Reading Data to Work*
- S. Ransbotham and D. Kiron, *Using Analytics to Improve Customer Engagement*
- Nicola Smith, *Customers Are in the Driving Seat Of Digital Transformation*
- Thomas Davenport and Jeanne G. Harris, *Competing on Analytics*
- T&D World, *The Long & Winding Road to Utilities & Analytics: How Do We Build It?*
- MIT Sloan, *Analytics as a Source of Business Innovation*
- TM Forum, *Journey to the Core of Customer Centricity*

*Highlighted in this presentation*
Summing It Up
Key Takeaways

- It’s about carbon...but not in the form that makes the headlines
- It’s a perfect storm with the citizen at the eye of the storm
- Customer experience = citizen experience
Thank You

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