Protecting Vulnerable Customers in a Changing Utility Industry

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Agenda

- Introductions
- Changes in the industry
- Vulnerability to changes
- Remedies





About VEIC

vermont

nergyInvestment

- Mission to act with urgency to enhance the economic, environmental, and societal benefits of clean and efficient energy use for all people
- Energy efficiency, renewable energy, and transportation
- Innovative program design, planning, and implementation; policy, advocacy, and research
- National and international clients: government agencies, regulators, utilities, foundations, and advocates









About Elizabeth

Elizabeth Chant, Principal Consultant, VEIC

- 23 years EE program and policy for low-income people and multifamily buildings
- Part of creation of Efficiency Vermont and DC Sustainable Energy Utility
- Board member, NEAUC, National Housing Trust, Home Performance Coalition, Three³





Utility Industry Transformation



- Utility revenue base is changing and declining (plants, poles & wires)
 - Consumption is decreasing in many places (efficiency is working!)
- Decentralized generation must be integrated in the grid management
- Utilities must invest in smart grid technology while maintaining conventional grid infrastructure





Changes for Customers on the Horizon

- AMI / IoT
- Integrating distributed generation
- Prepaid service
- Customer data







Advanced Metering Technology

- Digital meters have 2-way communication capability with data storage
- 2-way communications and storage features enable dynamic pricing and pre-payment
- Data storage allows utility to collect and track power usage and outages remotely - meter-readers no longer needed
- Digital readings enable:
 - Time-of-use rates
 - Usage notifications to your smart phone
 - Pre-payment based on usage patterns
 - Automatic disconnection and reconnection





Dynamic Pricing

- Utilities set rates based on peak and offpeak usage – also called Time of Use and Time of Day rates
- Peak hours are typically defined in relation to day-shift schedule
- Assumes all customers can shift usage based on peak pricing
- Who's at risk of paying peak rates:
 - Workers with second- and third-shift schedules
 - Seniors aging in place
 - People with disabilities, especially those reliant on 24-hour medical equipment





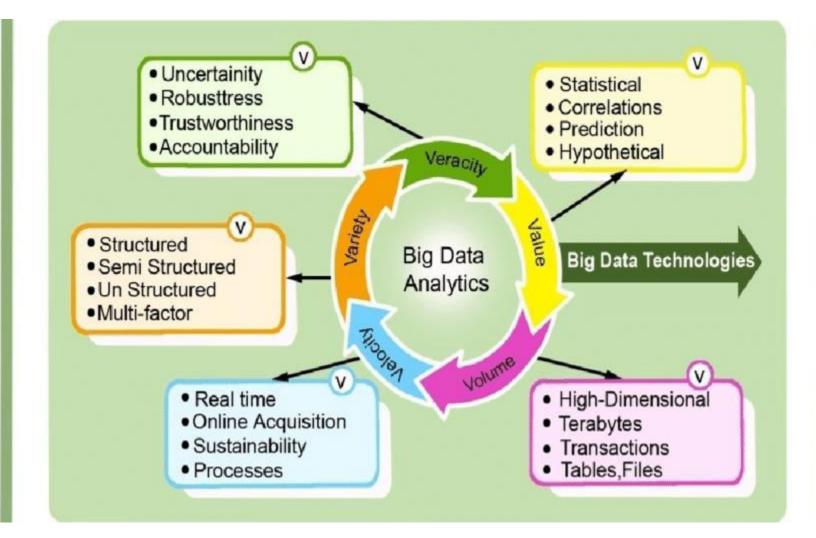
Pre-Payment

- Payment deposited in account before service is turned on
- Remote, automatic disconnect if bill credits run out
- May not come with in-home device to monitor usage and credits
- Numerous service fees may be required:
 - Monthly program fees
 - Transaction fees
 - Reconnection fees if disconnected
- National Consumer Law Center found that customers of one electric co-op paid 11% more for electricity due to transaction fees





The Value of Big Data





Who is Vulnerable?

- Low income
- Moderate income
- Medical needs
- Less "control over schedules"
- Not part of digital world

Meet ALICE!

- New United Way initiative to shine light on "asset-limited, income-constrained, employed"
- Some 66% of jobs in the US pay less than \$20 an hour



What's at stake? How can we protect vulnerable customers?







How can regulators and the utility industry protect customers?

Pre-Paid Billing

- Opt-in policy
- Reduced deposit and discount for advancing capital before service
- If bill credits depleted, return to postpaid and lose discount; retain traditional billing & payment services
- Incorporate transaction or program fees into rates – not itemized on bill

Thanks to continued work by John Howat & others in NCLC Energy group!





How can regulators and the utility industry protect customers?



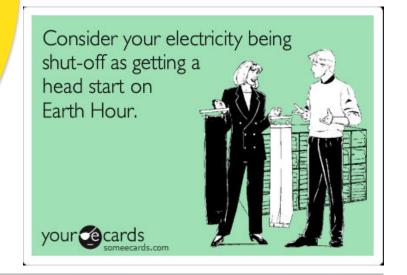
Dynamic Pricing

- Opt-in basis only
- Percentage of income payment plan (PIPP)
- Deliver demand responsive energy efficiency services



Protections from Remote Disconnects

- Retain all notice provisions, including in-person visit to home
- Retain / introduce restrictions for days, temperatures, and health
- Reduce power to "basic needs" provision (e.g. 1 kWh / day, with increases as bills are paid)
- No or minimal disconnect and reconnect fee for remote reconnection



Link Efficiency Services to Low-Income Billing & Payments

- Auto-enroll in EE programs through electronic requests for home energy visit
- Deliver targeted savings tips through home energy apps

Pilot LIHEAP
renewable projects
offer chance to test
new billing & payment
approaches

System for tracking



Ensure that Utilities Offer Comprehensive EE / RE Portfolio

Renters and owners

- All building types
 - Single & multifamily
 - Public & private
- Full range of measures
 - Electric, gas, and fuel
 - New construction & retrofit
 - LEDs, electronics, major appliances, behavior, weatherization





Thank you!

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