

EVERSOURCE NH

Residential Ratepayers Advisory Board

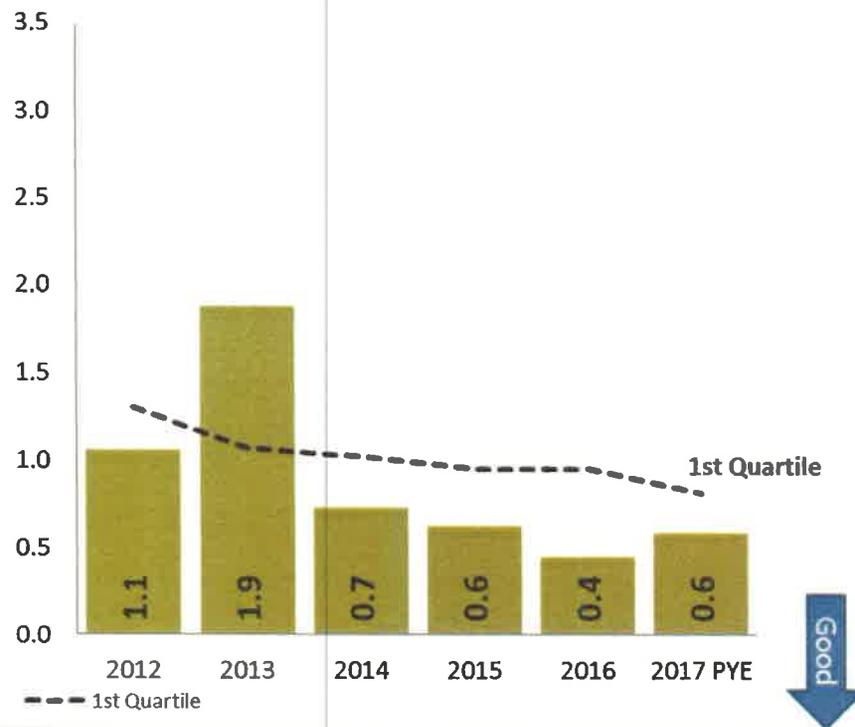
January 22, 2018

Presented by: Paul E. Ramsey
Vice President Operations

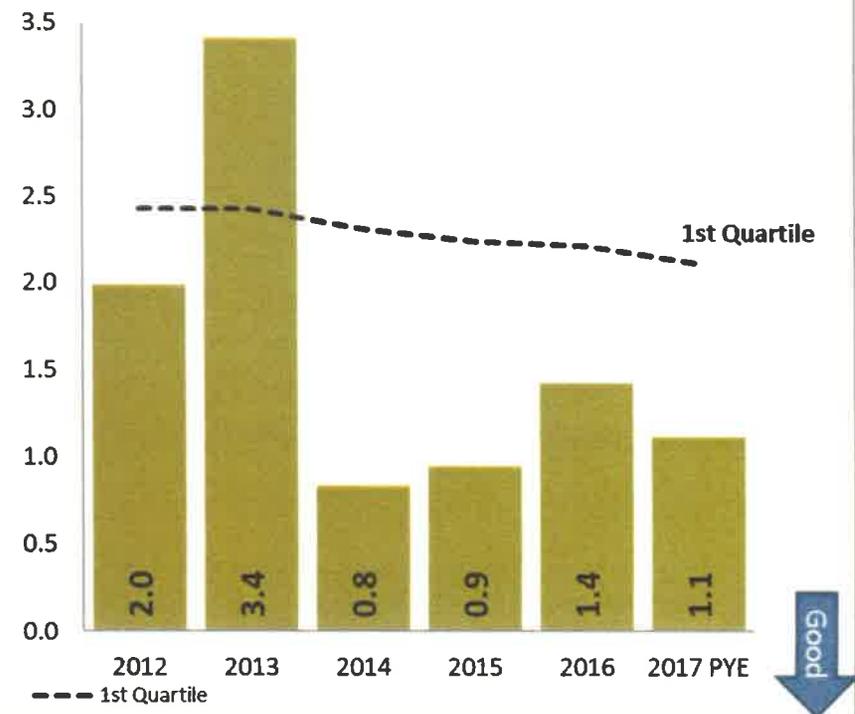
Safety – First and Always

Sustained Excellence through Strong Culture and Leadership

Eversource NH DART Rate

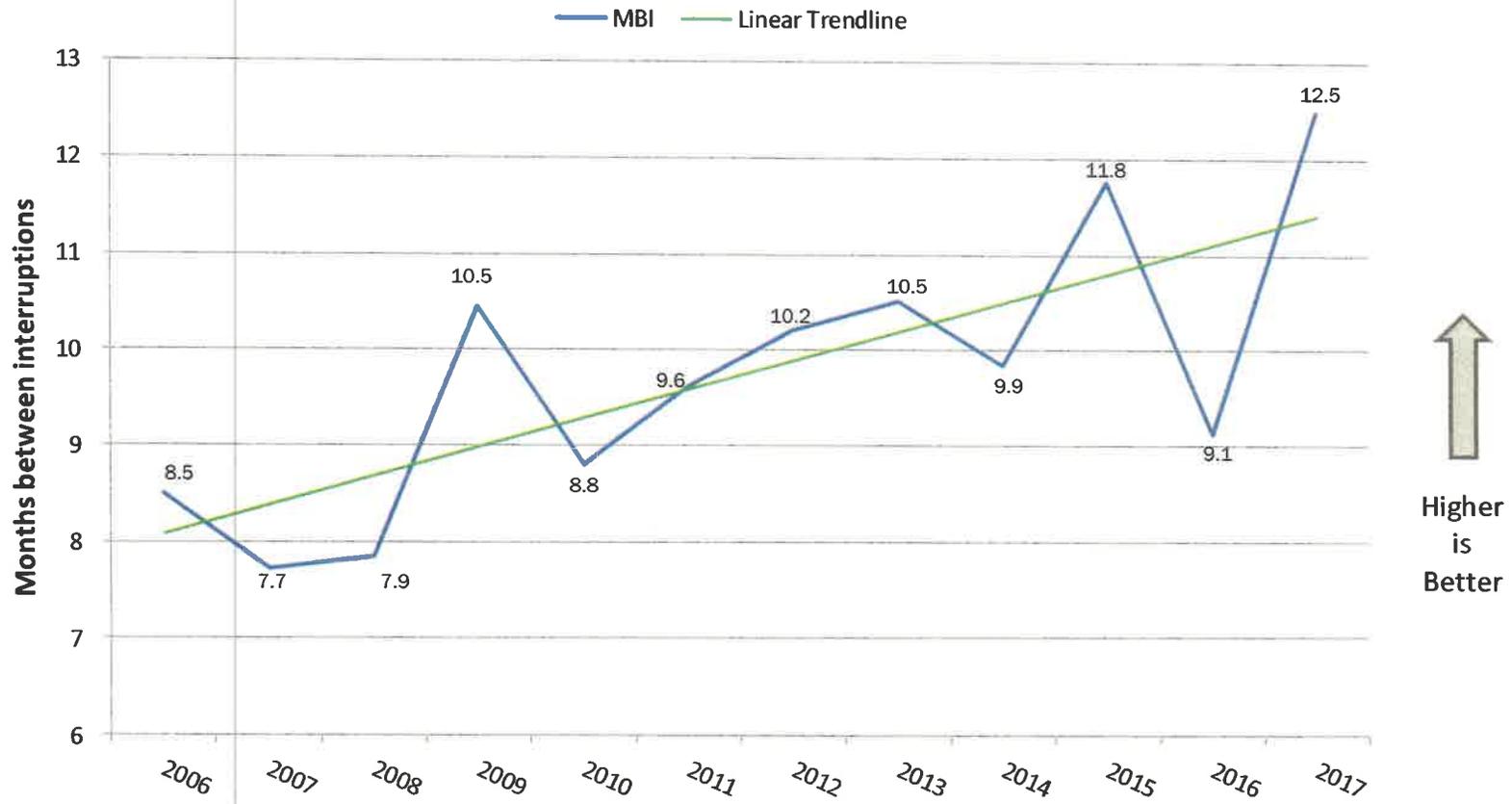


Eversource NH PMVA Rate



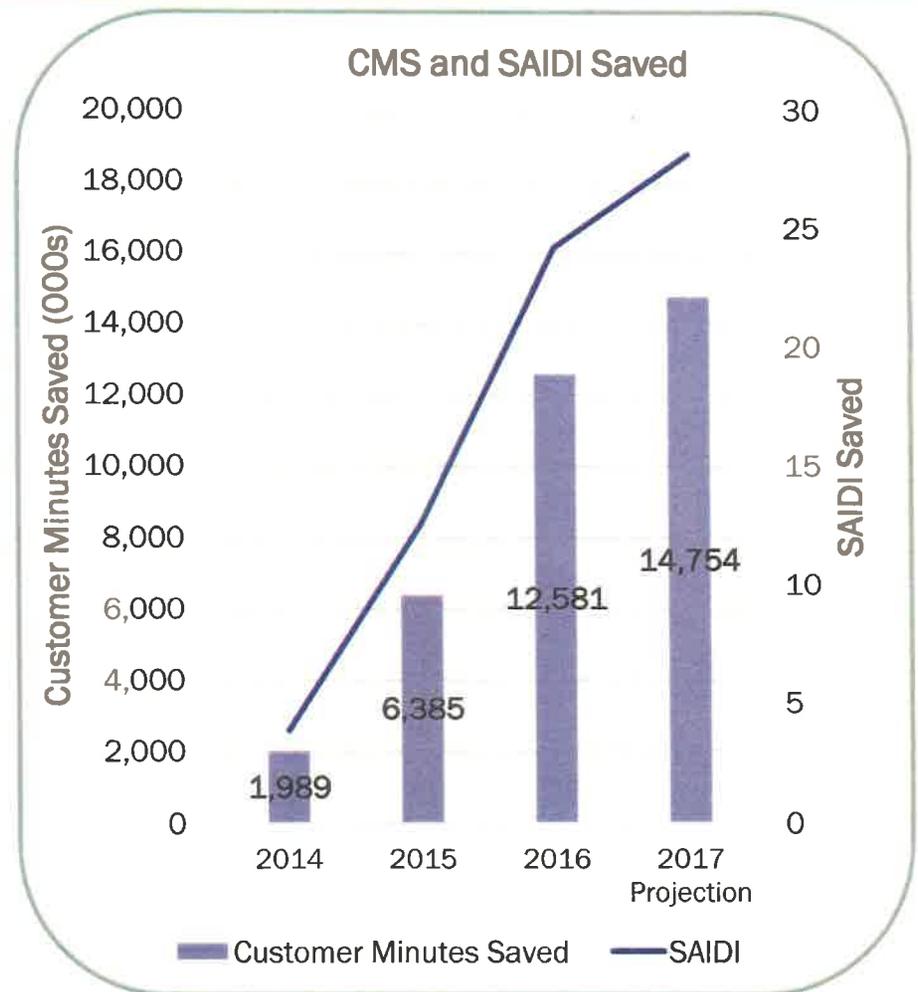
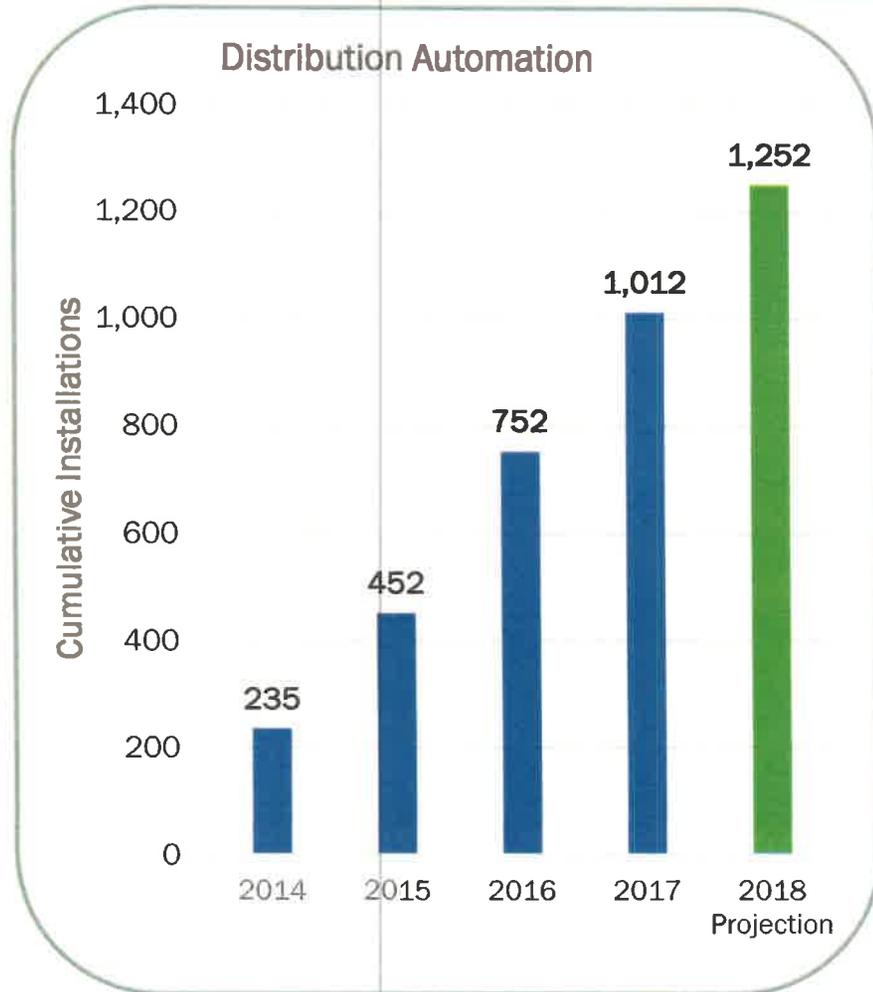
Reliability

Reliability investments are driving improved customer satisfaction



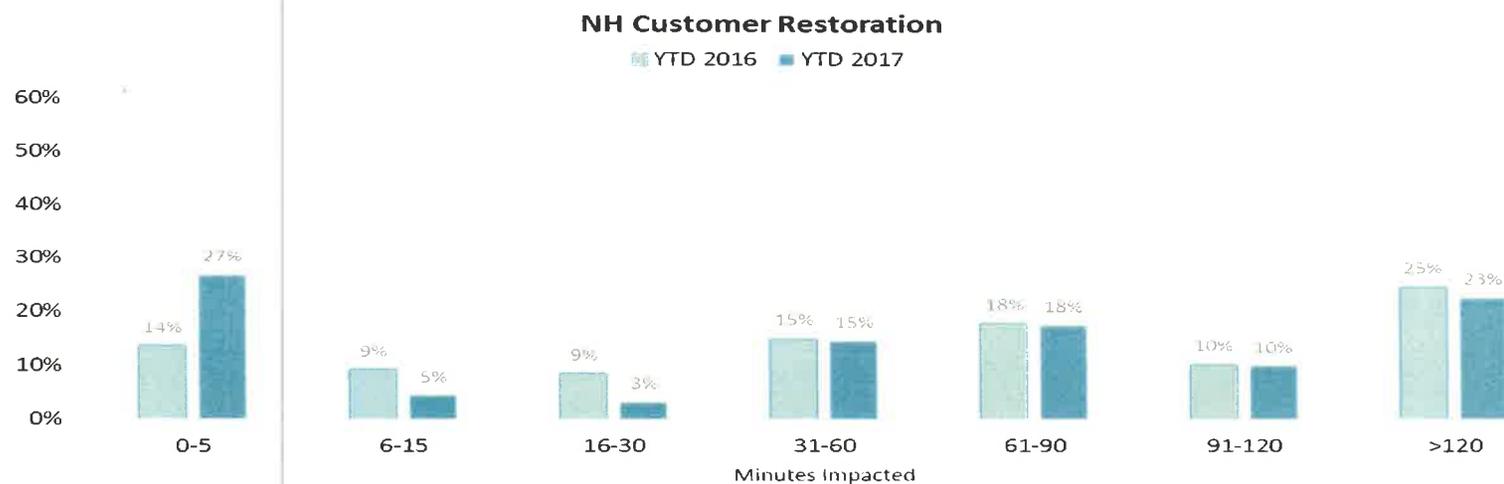
Distribution Automation

Reducing to less than 500 customer blocks will be achieved in 2018; need to increase system redundancy



System Operation Center

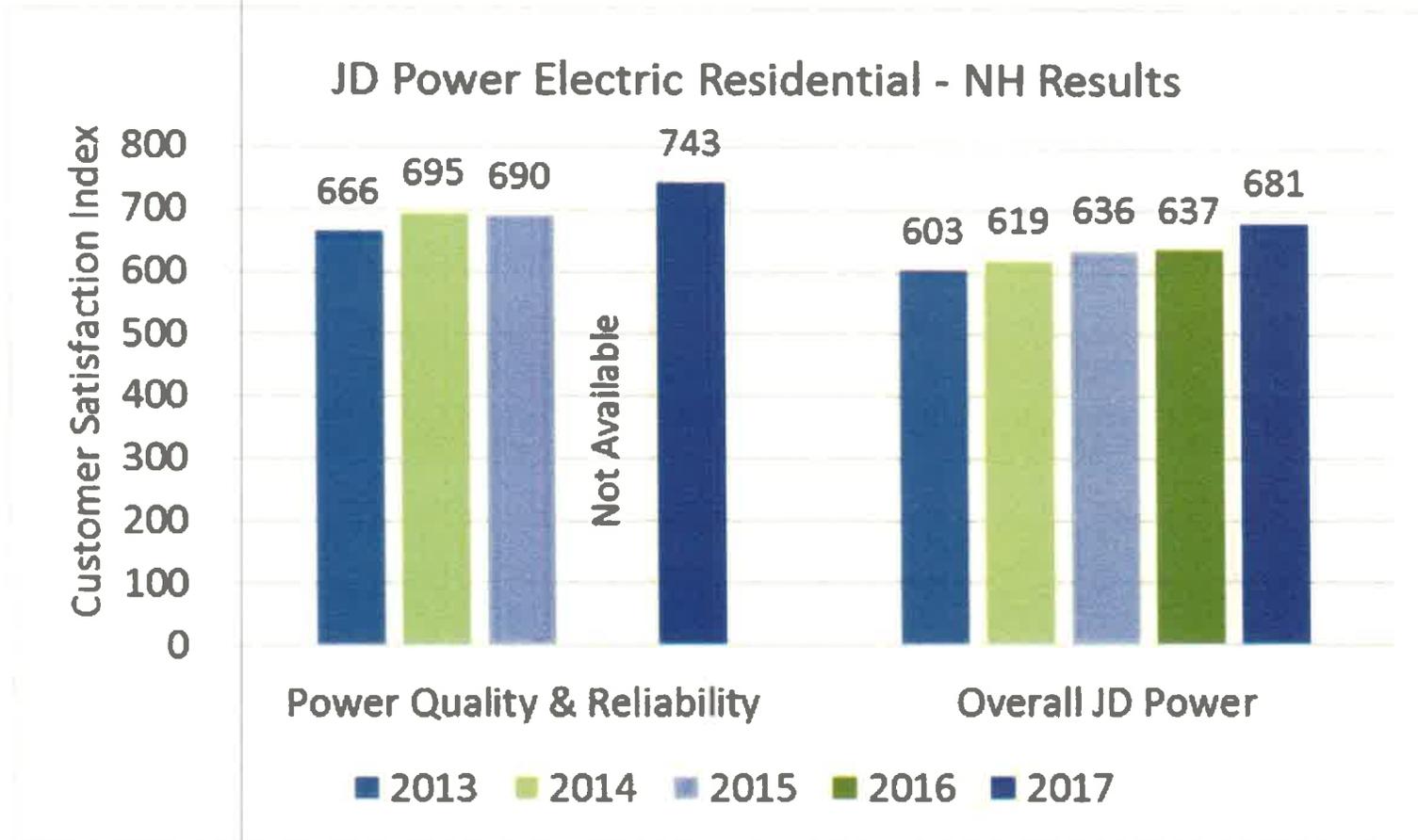
Automation coupled with increased situational awareness results in fewer customers being impacted



NH Customer Restoration - YTD December		2016	2017
Total Customers Impacted		800,353	690,471
Number of Customers Restored within 5 Minutes		109,060	184,741
Percent of Customers Restored within 5 Minutes		14%	27%

Customer Satisfaction

Improved reliability is significant driver of customer satisfaction



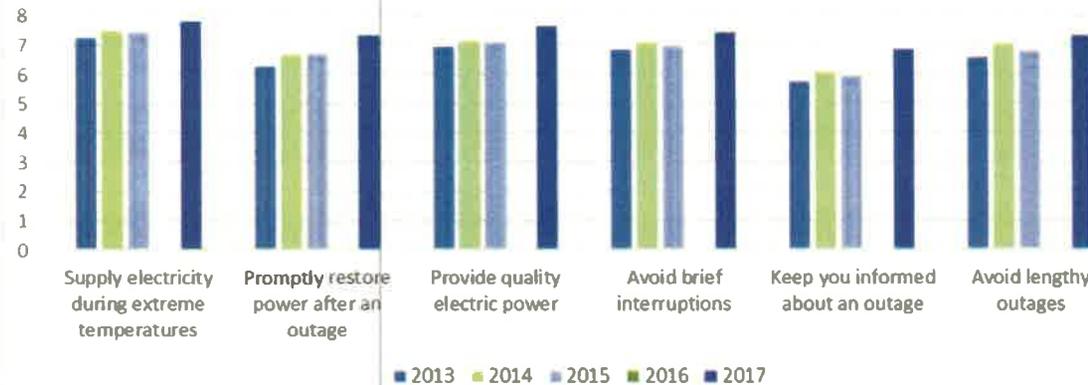
Customer Satisfaction Drivers

Overall JD Power results show improvement, with the Power Quality and Reliability component being a significant driver (28% weighting according to JD Power).

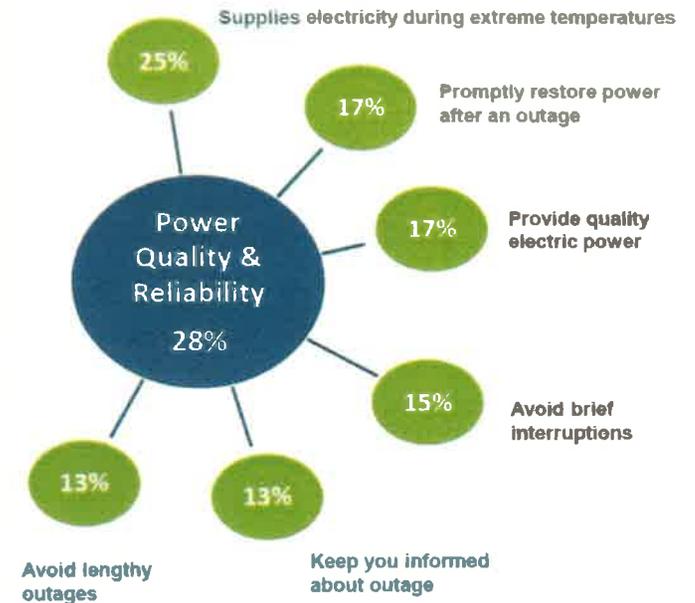
JD Power Electric Residential - NH Results



JD Power Electric Residential - NH Results (Power Quality & Reliability Attributes)



Power Quality & Reliability Attribute Questions



2016 / 2017

Customer experience improvements

- Contact Centers - Revised CSR Hiring Process (2016 Q3)
- Redesigned Bill: Residential & Small/Mid Business (2016 Q4)
- Outage Alerts (Unplanned on Blue Sky Days) via Text/Email/Preference (2016 Q4)
- Bill & Payment Alerts via Text/Email/Preference (2017 Q3)
- Web/Digital option for Bill/Pay (2017 Q4)
- Begin analysis of all customer “touch points” to improve customer experience

2018 / 2019

Customer upcoming improvements

- Local Payment Processing – shift from Texas to MASS (2018 Q2)
- Text-to-Pay
- Web/Digital – Additional interaction capability through “Virtual Assistant”
- Outage Alerts (for Planned Outages) via Text/Email/Preference
- Move-In and Move-Out : Improve overall experience across all channels, including enabling enrollment of all preferences in first interaction
- New customer on line survey to collect real time feedback
- Online Communities (aka Virtual Customer Panel) Implementation
- Propose an approval of fee-free credit card

2018 Key Initiatives Summary

Category	Initiatives
Strategic	<ol style="list-style-type: none">1. Complete NH Generation divestiture and transition to competitive supply2. Extend Reliability Enhancement Program (REP)
Reliability	<ol style="list-style-type: none">1. Execute Reliability Enhancement Plan2. Integrate mobility into work processes3. Support Work Management System replacement4. Support Siting and Construction for Major Reliability Projects5. Implement Transmission reliability strategy
Customer	<ol style="list-style-type: none">1. Improve Outage Communications2. Expand SOC controllership further into the distribution system3. Improve New Customer Process & Communications4. Implement Customer Satisfaction Improvement Strategy
Employee	<ol style="list-style-type: none">1. Maintain first quartile safety performance2. Implement workforce staffing plan3. Execute Employee Engagement Plan
Community	<ol style="list-style-type: none">1. Expand Community involvement2. Expand Manchester Community College (MCC) partnership
Clean Energy	<ol style="list-style-type: none">1. Obtain final approvals and commence Northern Pass construction2. Implement Net Metering regulatory order3. Implement new Energy Efficiency Resource Standard (EERS)4. Participate in NH energy strategy proceedings (Grid Modernization, DG, EV, Storage)

2018 New Hampshire Capital Plan

Eversource plans to invest over \$200+ million in transmission and distribution systems

Distribution

Basic Business

New Customer connections

Peak Load/Capacity

Reliability

Transmission

System Upgrades/Peak
Load

System Replacements

NERC/ISO regulations

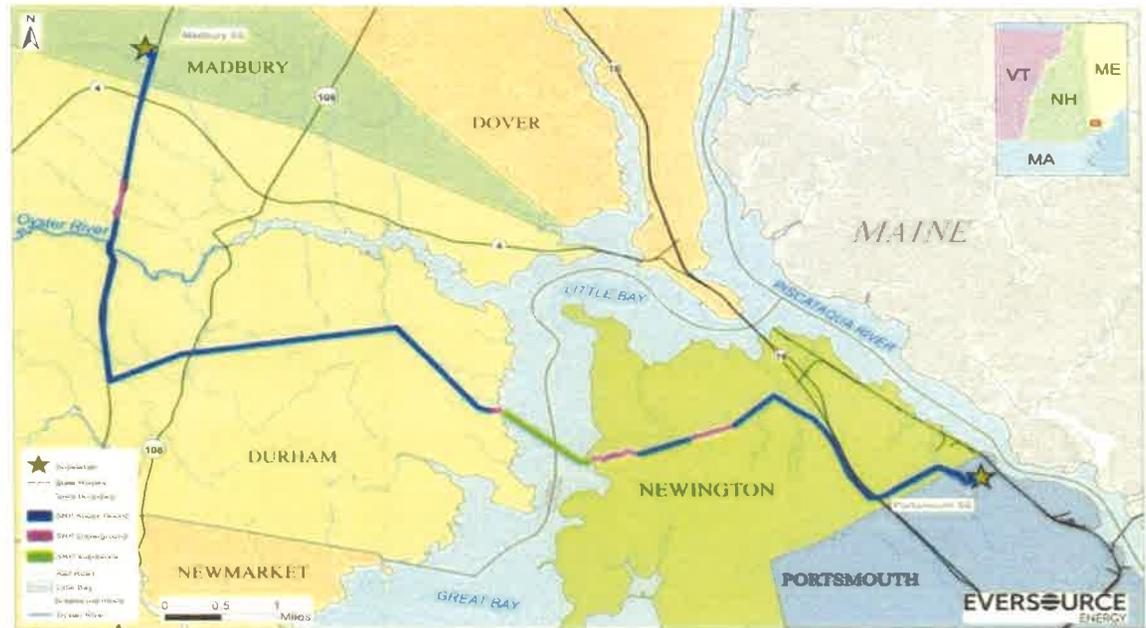


Over \$200+M T&D
system investment in
2018

Seacoast Reliability Project

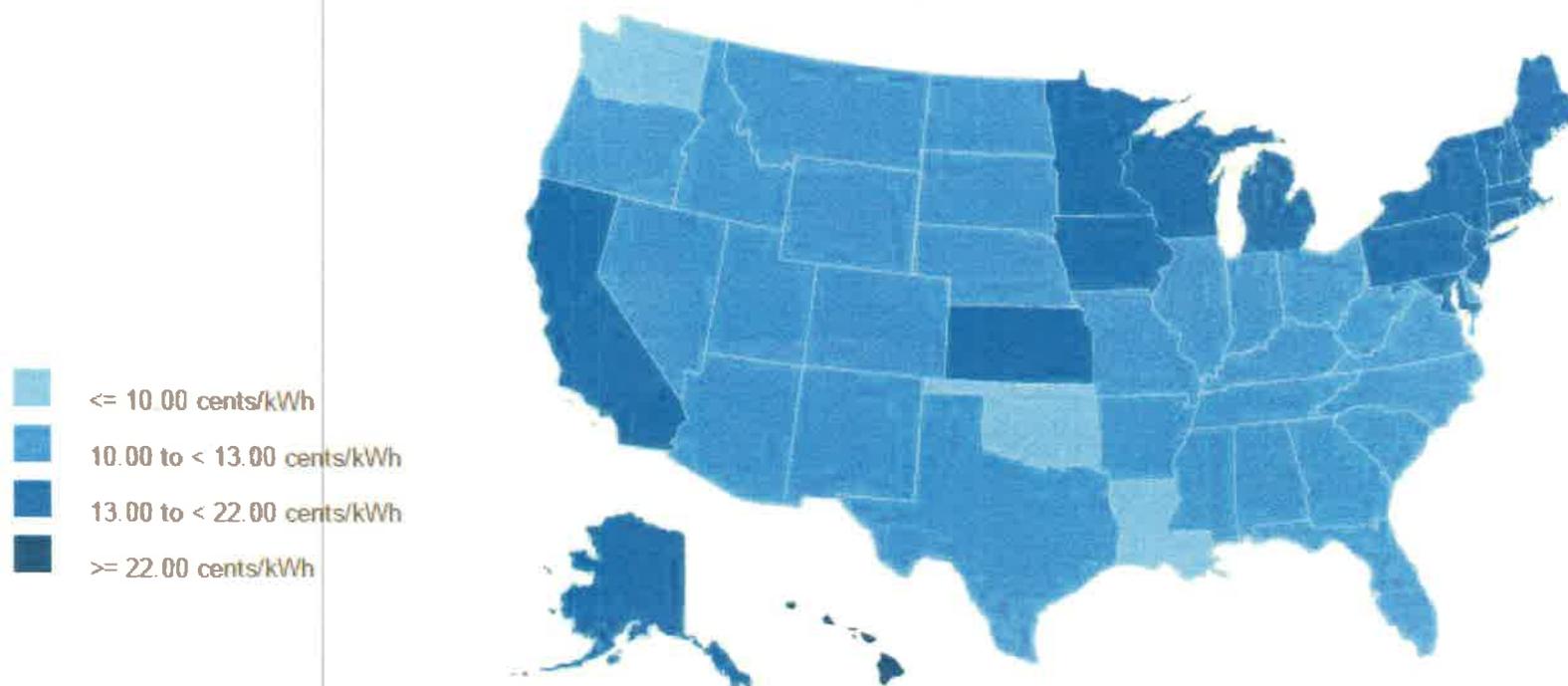
Project is important to growing area of service territory

- New 12.9 Mile 115kv Line
- 10.5 Miles of overhead construction
- 1.3 miles of underground construction
- 1.1 mile submarine cable crossing
- State and federal approval processes are underway
- Construction start by late 2018
- \$84.3M Projected Investment
- 2019 In-Service Date



Average Price of Electricity in Residential Sector - July 2017

- **U.S. Average retail price per kilowatt-hour is 13.12 cents/kWh**
- **NH retail price per kilowatt-hour is 18.98 cents/kWh – 5th highest in U.S.**



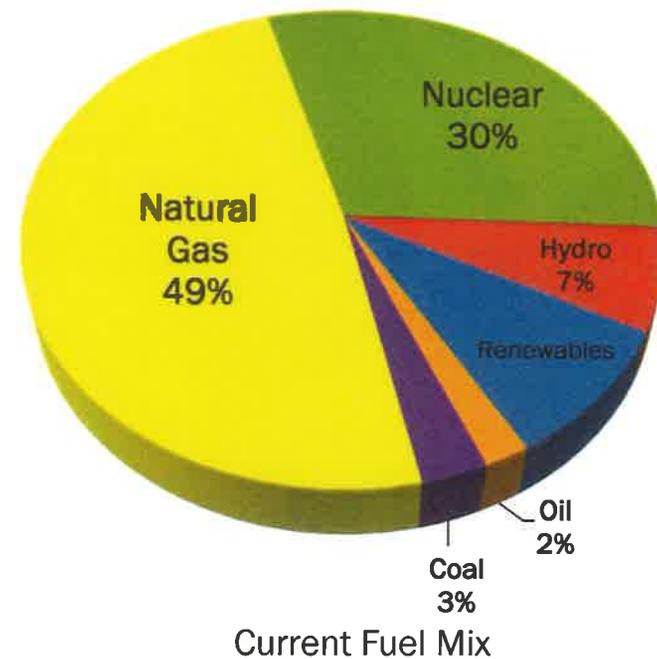
Source: Energy Information Administration,
<http://www.eia.gov/electricity/data> and www.eia.gov/electricity/monthly

Two Major Energy Challenges

1 Power Plant Retirements



2 Over-Dependence on Gas



Source: ISO New England's 2016 Regional Energy Outlook

ISO New England releases (Jan 2018) Operational Fuel-Security Analysis –

“the possibility that power plants won’t have or be able to get the fuel they need to run, particularly in winter”

1) Study focused on 5 variables:

- a) power plant retirements (coal, oil, nuclear)
- b) LNG availability
- c) oil tank inventories
- d) imported electricity
- e) renewable resources

2) Looked at 23 possible future resource combinations during winter of 2024/2025

ISO New England releases (Jan 2018) Operational Fuel-Security Analysis –

Study conclusions:

- 1) “All but four (19 out of 23) scenarios result in fuel shortages requiring load shedding” (rolling blackouts)
- 2) “The model in this fuel-security analysis does not directly consider fuel costs as a factor in meeting regional demand”
- 3) “the possibility that power plants won’t have or be able to get the fuel they need to run, particularly in winter – is the **foremost challenge to a reliable power grid in New England**”
- 4) “Higher levels of LNG, imports, and renewables can minimize system stress and maintain reliability; to attain these higher levels, delivery assurances for LNG and electricity imports, as well as transmission expansion, will be needed.”

Transmission and Distribution Asset Inventory

Transmission and Distribution asset inventory

	Miles of Line	Wood Poles	Steel Structures
Transmission 345 kV	252	1,626	545
Transmission 230 kV	8	107	0
Transmission 115 kV	768	8,659	513
Distribution Overhead	12,000	277,566*	346
Distribution Underground	1,800		
Total	14,828	281,392	1,387

*Represents Eversource NH ownership or maintenance area only