

Annual Report to the Board of Trustees on T&D System Reliability

July 26, 2017





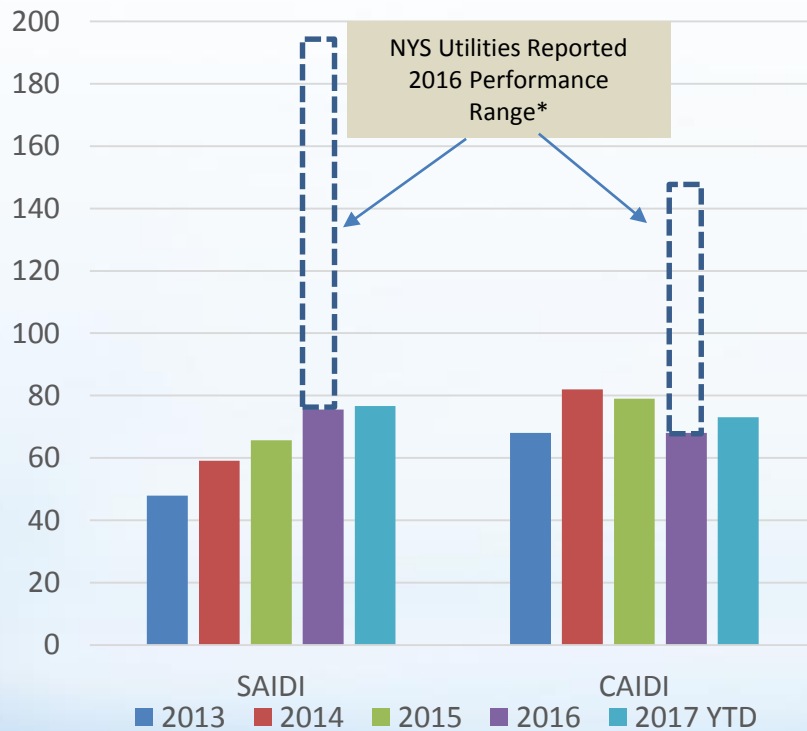
Agenda – T&D System Reliability

- ▲ Metrics
- ▲ Storm Restoration
- ▲ Compliance
- ▲ Smart Grid Progress
- ▲ Initiatives

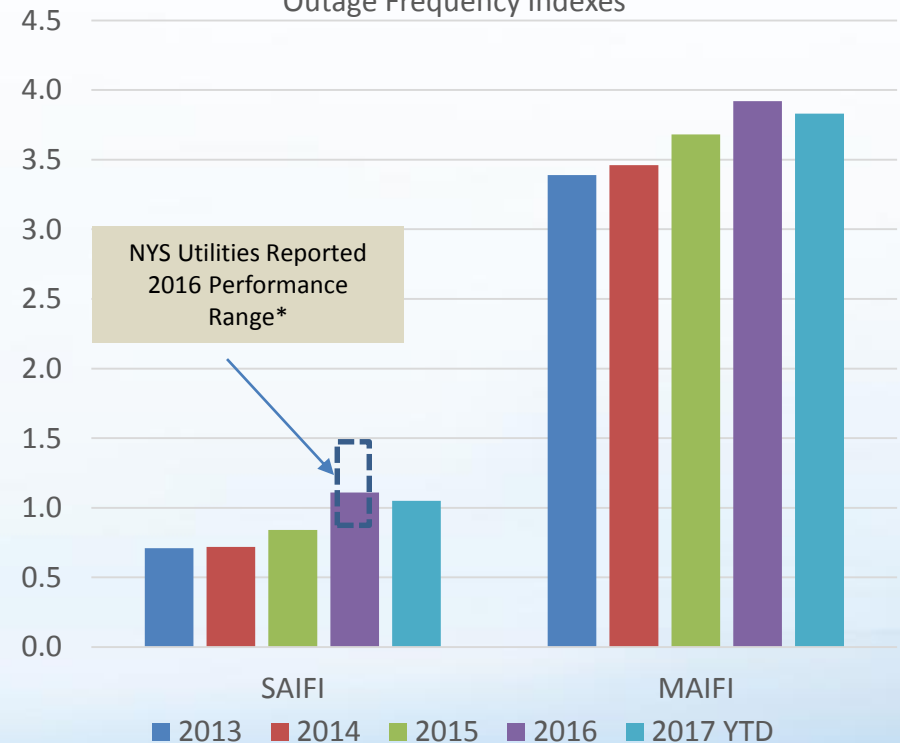


T&D Reliability Metrics

System Average (SAIDI) and Customer Average (CAIDI) Outage Duration Indexes (Minutes)



System Average (SAIFI) and Momentary (MAIFI) Outage Frequency Indexes

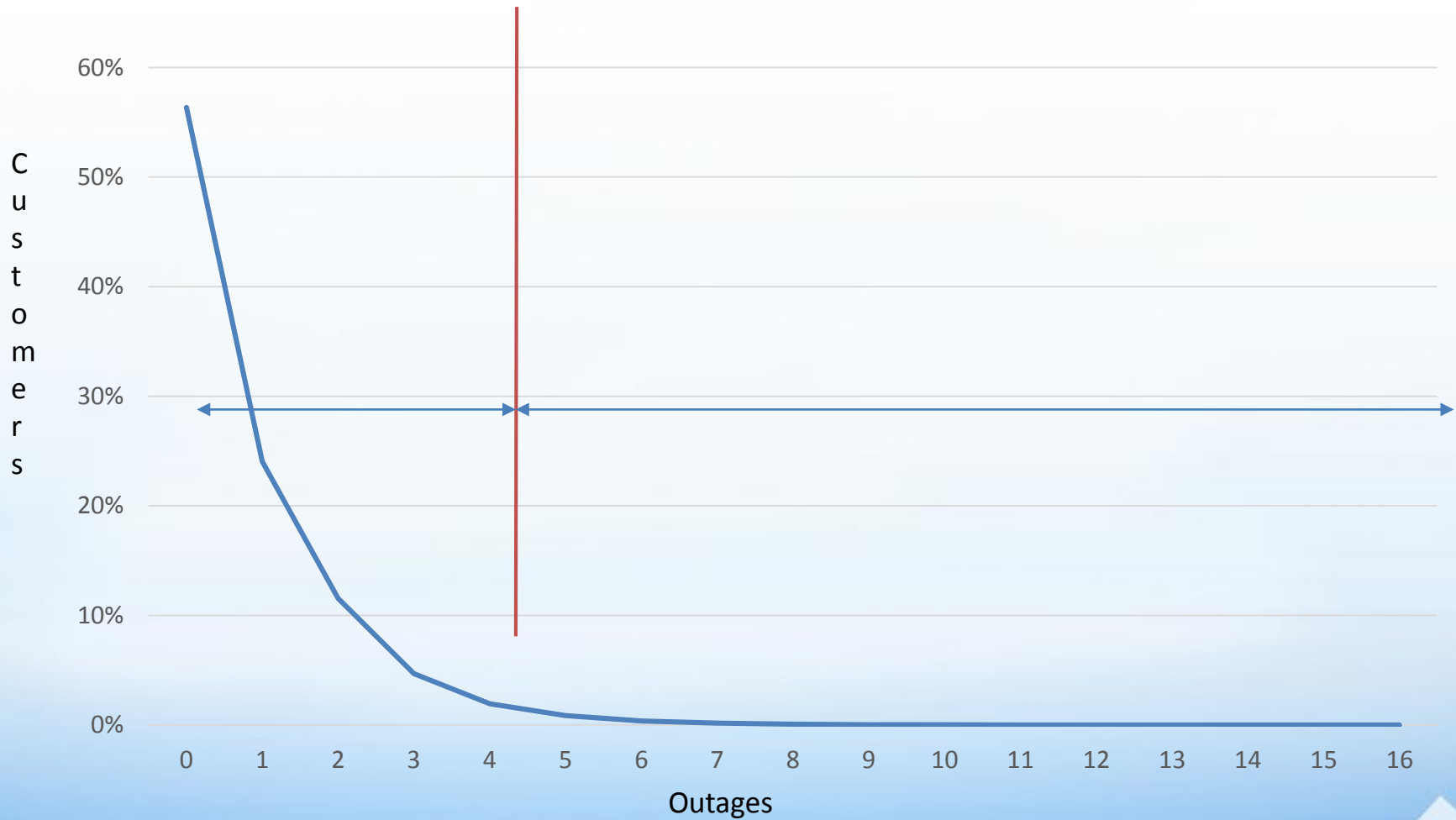


- Excludes Con Edison

Note: Reliability programs have decreased “controllable” outages (e.g., equipment, vegetation) by 10% system-wide in 2017 vs. 2016



Customer Outage Frequency – 2016





Storm Restoration

| Year | No. of Storms | Total Outage Jobs | Total Customer Outages | Cust. Restored Within 4 hrs | Average Outage Duration |
|------------|---------------|-------------------|------------------------|-----------------------------|-------------------------|
| 2014 | 16 | 4,632 | 228,382 | 88% | 125 |
| 2015 | 19 | 5,909 | 408,609 | 88% | 134 |
| 2016 | 20 | 8,689 | 554,664 | 90% | 120 |
| 2017 (YTD) | 7 | 2,704 | 160,284 | 90% | 93 |

▲ NERC Compliance

- ✧ Met requirements for shifting role in operating and planning transmission lines above 100 kV from NYISO to local utilities
- ✧ Responded to NERC Alerts (e.g. Ukraine Incident)

▲ Conducted Annual Operating Studies (NERC, NYISO)

Smart Grid Progress

▲ Automatic and remote switching

- ✧ Adding approximately 900 switches (“ASUs”) as part of the FEMA Storm Hardening program

▲ Advanced Metering (AMI)

- ✧ Installed to date – 31,000 meters
- ✧ 100% of large commercial customers and 34% of system sales by year end

Initiatives to Improve Reliability

- ▲ Non-Reclosure Assurance (“NRA”) Automation (to be completed in 2018)

- ▲ Targeted Programs to Improve Reliability:
 - ✧ Circuit Improvement Program (102 Circuits vs 67 in 2016)
 - ✧ FEMA (Hardened 289 miles, 320 ASUs commissioned vs. 206 miles and 25 ASUs in 2016)
 - ✧ Vegetation Management (3,261 miles, completes four year cycle vs. 2,908 miles in 2016)
 - ✧ Infrared (2,500 miles, 50% higher than historical)
 - ✧ Circuit Patrols (444 circuits to be inspected vs 200 in 2016)

- ▲ Customer Centric Reliability Programs
 - ✧ Multiple Customer Outages
 - ✧ Residential Underground Distribution

- ▲ Inspection and Maintenance Programs
 - ✧ Pole inspections (45,680 Planned vs 35,641 in 2016)
 - ✧ Substation Maintenance (5,718 Planned vs 5,366 in 2016)