

City of Alexandria Reliability Review
May 13, 2021

Topics

- **Significant Events in 2020**
- **Historical Reliability Performance**
- **Measuring and Assessing Reliability**
- **In Progress and Planned Projects**
- **Ongoing Investments**
- **Miscellaneous Topics**

Significant Events in 2020

Glebe Substation – October 23rd

- Failed equipment near Glebe Substation
- Equipment did not operate as planned
- City of Alexandria – more than 12,000 customers affected; some more than 3 hours

Arlington Substation – June 16th

- Failed equipment in Arlington Substation
- 3,550 customers affected in City of Alexandria; some almost 2 hours

July 22nd Wind Storm

- Widespread outages affecting more than 79,000 customers across Northern Region
- All customers restored by end of day July 23rd

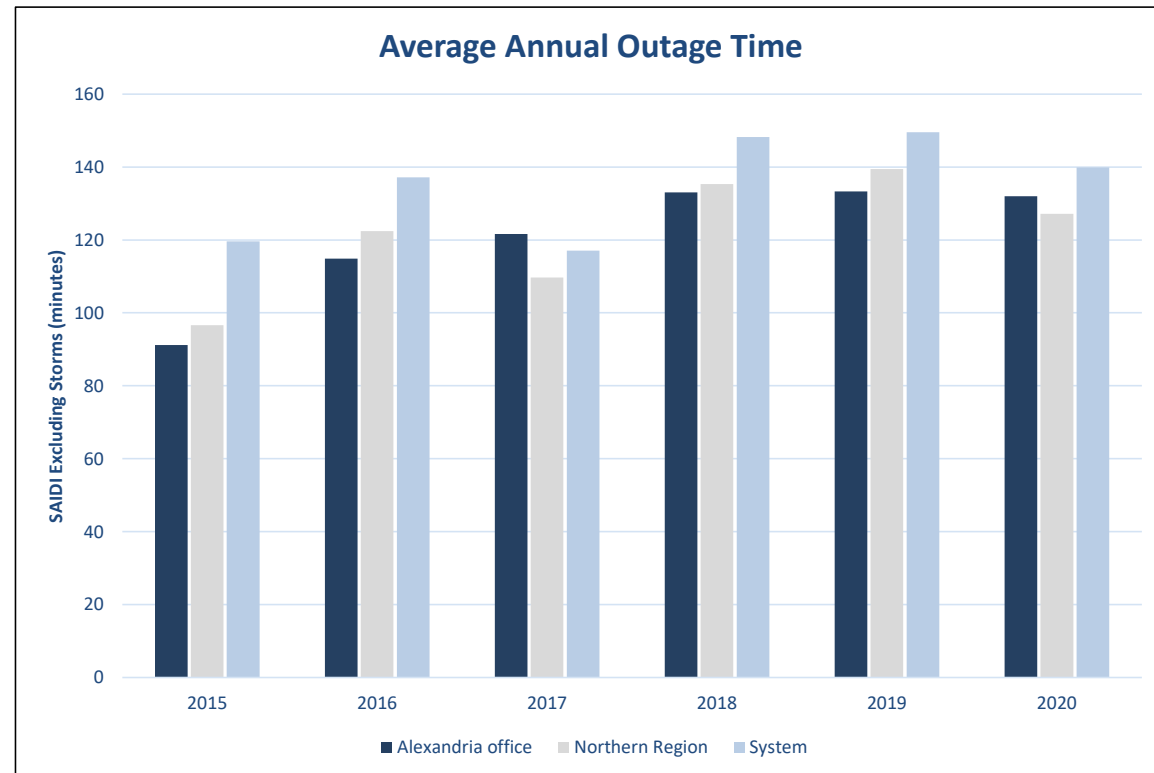
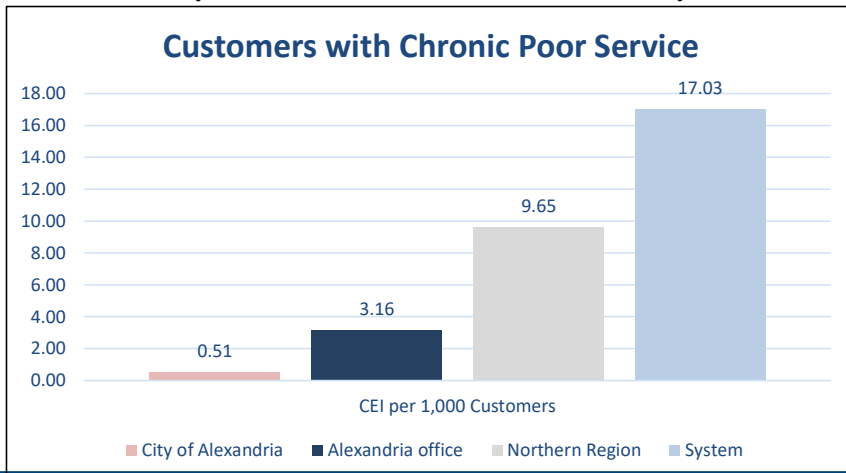
Historical Reliability Performance

Alexandria office

- Typically outperforms Northern region
- On average, 10% better than system

City of Alexandria

- Significantly fewer customers with chronic poor service
- 34 in City of Alexandria vs. 45,000 systemwide



Measuring and Assessing Reliability

Industry standards

- Standard metrics used to measure reliability
- No industry standards for performance

Regulatory standards

- No standards for performance
- Quarterly and annual reporting requirements

Jurisdictional views

- Electric infrastructure is based on operational areas
- Reliability is managed by operational areas – offices and regions

In Progress and Planned Projects

2021

- Rebuild circuit on King Street between Carlisle Drive and W. Rosemont Avenue – 3,600 customers
- Create new alternate circuit for N. Beauregard Street – 1,500 customers
- Install new automatic switching schemes – 3,200 customers

2022

- Rebuild two existing circuits – 5,000 customers
- Convert overhead to underground on N. Beauregard Street – 500 customers
- Install new automatic switching schemes – 7,500 customers

Grid hardening

- Upgrade main electrical lines to reduce damage during storm events
- 10 circuits serving more than 21,000 customers

Ongoing Investments

Vegetation Management

- More than 50% of lines trimmed in 2019/2020; All remaining lines to be trimmed in 2021/2022
- Dominion spends over \$2M annually on tree trimming activities in Alexandria area

Stronger Design Standards

- Hardening system by using stronger poles and other equipment for less damage
- Speeds recovery after severe weather events by:
 - Eliminating outages
 - Less broken poles, wire, and equipment

Strategic Undergrounding

- Focused on most problematic residential lines



Ongoing Investments



Consistent Investments In Key Areas

- Maintenance programs
- Reliability improvements
- Infrastructure for load additions and new customers
- End of life asset replacements
- Maintenance repairs

Alexandria Office Annual Investments

\$(millions)	2018	2019	2020	Total
Capital	\$37.6	\$38.9	\$39.7	\$116.2
O&M	\$7.5	\$7.6	\$7.6	\$22.7
Total	\$45.2	\$46.5	\$47.2	\$138.9

Miscellaneous Topics

Outage Restoration Priority

- Safety
- Critical services
- Main circuit lines
- Residential lines

Customer Service

- Dedicated Elected Official support
- Dedicated City Staff support
- Customer contact center for individual customer concerns

Outdoor Streetlighting

- Approximately 10,600 streetlights, 34% LED
- 46 jobs with outages > 45 days
- 13 jobs with outages < 45 days
- 81% of jobs involve underground work

Thank You