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Timothy S. Cragin
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August 23, 2021

Via Electronic Delivery

Ms. Lora W. Johnson, CMC, LMMC
Clerk of Council
City Hall - Room 1E09
1300 Perdido Street
New Orleans, LA 70112

**RE: Council Docket UD-17-04; Bi-Monthly Filing Requirement per
Ordering Paragraph #6 of Council Resolution R-17-427**

Dear Ms. Johnson:

Please find enclosed for your further handling Entergy New Orleans, LLC's ("ENO") report on Customer Interruptions for the period of January 1, 2020 through December 31, 2020, which Report is being filed in the above-referenced docket pursuant to Ordering Paragraph 6 of Council Resolution Nos. R-17-427, dated August 10, 2017 and R-18-98 dated April 5, 2018. As a result of the remote operations of the Council's office related to COVID-19, ENO submits this filing electronically and will submit the requisite original and number of hard copies once the Council resumes normal operations, or as you direct. ENO requests that you file this submission in accordance with Council regulations as modified for the present circumstances.

Thank you for your assistance with this matter.

Sincerely,

A handwritten signature in blue ink that reads "Timothy S. Cragin".

Timothy S. Cragin

TSC/bkd

Enclosures

cc: Official Service List (UD-17-04 *via electronic mail*)

CERTIFICATE OF SERVICE

Docket No. UD-17-04

I hereby certify that I have served the required number of copies of the foregoing report upon all other known parties of this proceeding, by the following: electronic mail, facsimile, overnight mail, hand delivery, and/or United States Postal Service, postage prepaid.

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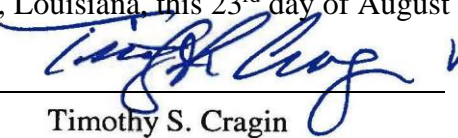
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Dawn Hebert
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Denise T. Turbinton
931 Mazant St.
New Orleans, LA 70117

New Orleans, Louisiana, this 23rd day of August 2021.



Timothy S. Cragin

**ENERGY NEW ORLEANS, LLC'S
YEARLY CUSTOMER INTERRUPTION REPORT
FOR THE PERIOD OF JANUARY 1, 2020 THROUGH DECEMBER 31, 2020**

1. Background

Entergy New Orleans, LLC's ("ENO" or the "Company") electric distribution system operates between 13,200 volts (13.2 kV) and 34,500 volts (34.5 kV). ENO's distribution system serves over 200,000 customers. There are 20 ENO substations that supply power to over 200 distribution circuits, consisting of approximately 1,800 distribution circuit miles, of which approximately 1,200 are overhead circuit miles, and approximately 600 are underground circuit miles.

ENO is geographically divided into four networks, New Orleans East, Algiers, the Central Business District, and Orleans. The four networks comprise the New Orleans Metro Region. ENO's distribution system begins at the substations, where power is transformed from transmission-level voltage into distribution-level voltage, suitable for delivering power directly to residential, and most commercial, governmental, and industrial customers. However, some of ENO's largest commercial, governmental, and industrial customers are connected directly to the Company's transmission system.

This report is filed pursuant to Council Resolution Nos. R-17-427 and R-18-98, which require ENO to file bi-monthly reports with the Council of the City of New Orleans ("Council") detailing various aspects of the Company's reliability performance and to help demonstrate that ENO's efforts to operate and maintain its distribution system that serves customers in New Orleans have been reasonable and effective. The report contains the reliability performance of ENO's distribution system and transmission system during 2020.¹ Specifically, ENO provides customer interruptions² experienced during 2020, except interruptions attributed to Major Events, those that are Mandated by Public Authority, or interruptions that are Momentary in duration. The results are summarized briefly below and detailed in the attached graphs and Excel spreadsheet.

2. YTD Distribution Reliability Performance:

In 2020, distribution-related customer interruptions decreased by approximately 2.83% as compared to 2019, and decreased by 16.22% as compared to ENO's average reliability performance during 2017, 2018 and 2019.³ The highest contributing outage categories to the frequency of customer interruptions reflected herein were emergency switching, primary

¹ Due to a change in the outage tracking system, specific weather-related information is not available on outages as of November 9, 2020. ENO is currently looking into whether this data can be made available in the future.

² "Customer Interruptions" refers to the number of customers who were interrupted during an outage.

³ For the purposes of these metrics, interruptions caused by momentary outages and major events are excluded. Such exclusions are consistent with standard industry reliability indices used by most electric utilities to assess the reliability of their electrical system, which exclude major outage events that cause interruptions to a significant portion of the utility's customer base, momentary outages lasting no longer than five (5) minutes, and which typically occur as a result of temporary faults in the distribution of electricity, and outages that are mandated by a public authority.

conductor failure, crossarm failure, foreign objects, and scheduled interruptions. These outage causes effected approximately 110,478 customer interruptions during 2020, and are consistent with historical interruption patterns, notwithstanding the large amount of significant weather events that affected ENO's service area during the month of October 2020. As described in ENO's Annual Reliability Plan, ENO has installed, and continues to install, devices on targeted circuits that automatically isolate and potentially re-energize undamaged sections of a feeder after a disturbance.⁴ Those devices minimize the impact of an outage by decreasing the number of affected customers.

ENO's Bi-Monthly Customer Interruption Report for the YTD period ending February 29, 2020⁵ described ENO's enhanced safety practices contributable to outages coded as either "scheduled interruption" when the work is preplanned or "emergency switching" when additional customers need to be taken out to support repairs for an emergency outage. Approximately 48,284 customer interruptions during the reportable period were attributable to emergency switching and scheduled interruptions. These accounted for roughly 21.15% of the total customer interruptions during the reportable period. Of further note, ENO took a reduced number of planned outages due to moving contract crews performing reliability work out of the City due to COVID-19.

3. YTD Transmission Reliability Performance:

Transmission-related customer interruptions in 2020 increased by 36.36% as compared to 2019, but decreased slightly, or by about 0.26%, compared to ENO's average transmission-related customer interruptions for 2017, 2018 and 2019. The major causes of transmission-related customer interruptions in 2020 were equipment failure - trip coil, substation transformer failure, insulator failure, and animal-related. Because transmission-related outages in the City have typically occurred at a substation, as opposed to on transmission lines, they can interrupt all customers served from that substation, or from the transformer or breaker associated with the outage. Thus, although transmission-related outages are significantly less frequent than distribution-related outages, when an outage occurs at a substation, often more customers can be affected. However, because of the significant redundancy built into ENO's distribution grid, transmission substation outages can sometimes be mitigated more quickly through remote switching from the Louisiana Distribution Operations Center, resulting in shorter duration of these types of outages. During 2020, there were a total of 11 transmission-related substation outages, with the average duration of those outages being 84 minutes. The Transmission organization is working to improve transmission reliability through the programs and projects described in its 2019 and 2020 Reliability Plans.

⁴ See 2019 Reliability Plan submitted by ENO on January 18, 2019 and 2020 Reliability Plan submitted by ENO on July 17, 2020. ENO's Annual Reliability Plan consists of eight major reliability-focused programs: the FOCUS Program, the Backbone Program, the Internal Program, the Pole Program, the Equipment Inspection Program, the Sectionalization Program, the URD/Cable Renewal Program, and the Vegetation Management Program.

⁵ See Bi-Monthly Customer Outage Report for the Period of January 31, 2020 through February 29, 2020 filed by ENO on July 30, 2020.

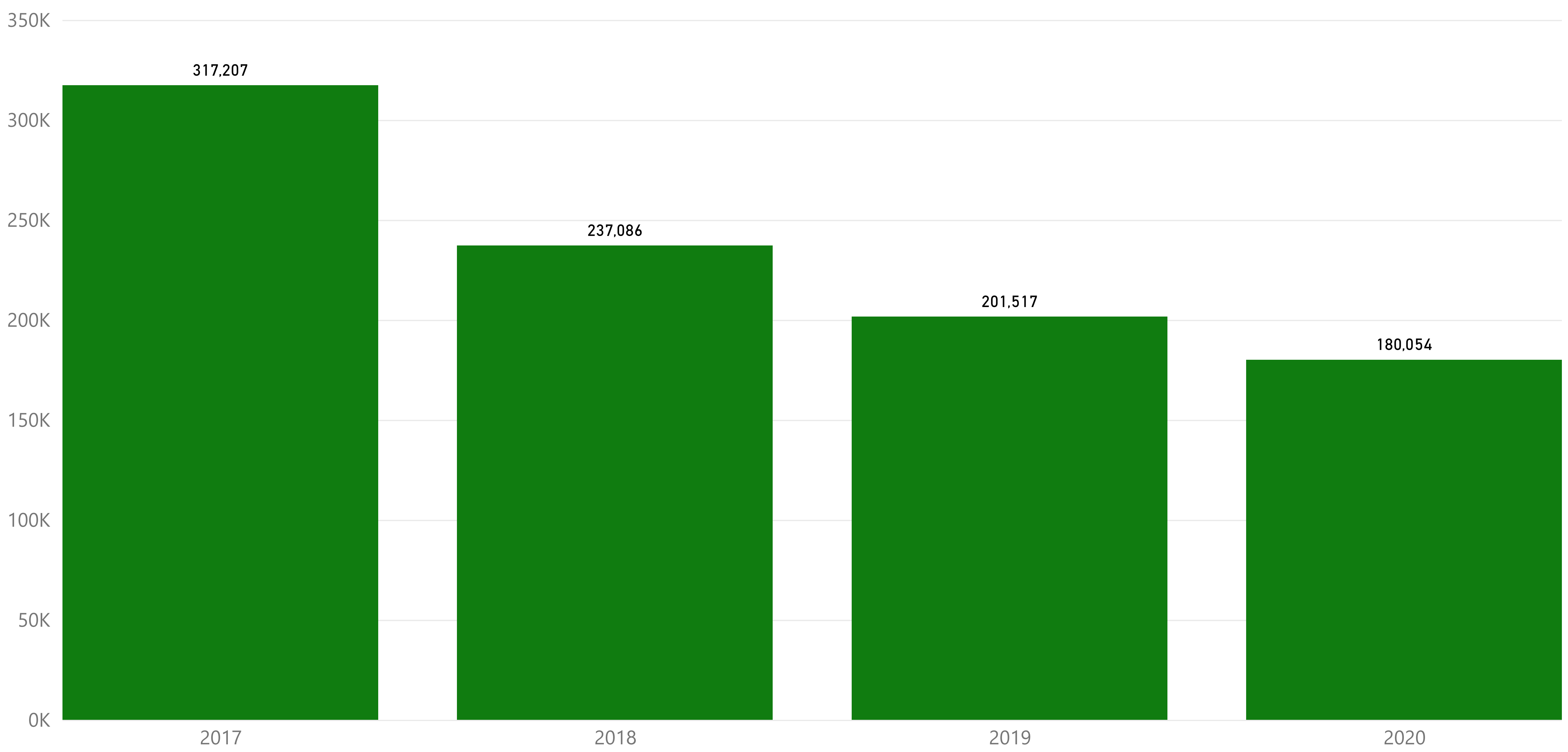


ENTERGY NEW ORLEANS

12/31/2020

Distribution Customer Interruptions (excluding Scheduled and Emergency Switching) by Year
(Jan 1 - Current Date All Years)

Current Data Date





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12/31/2020

Distribution Customer Interruptions (excluding Scheduled and Emergency Switching) by Month by Year
(Jan 1 - Current Date All Years)

Current Data Date

Month ● January ● February ● March ● April ● May ● June ● July ● August ● September ● October ● November ● December





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12/31/2020

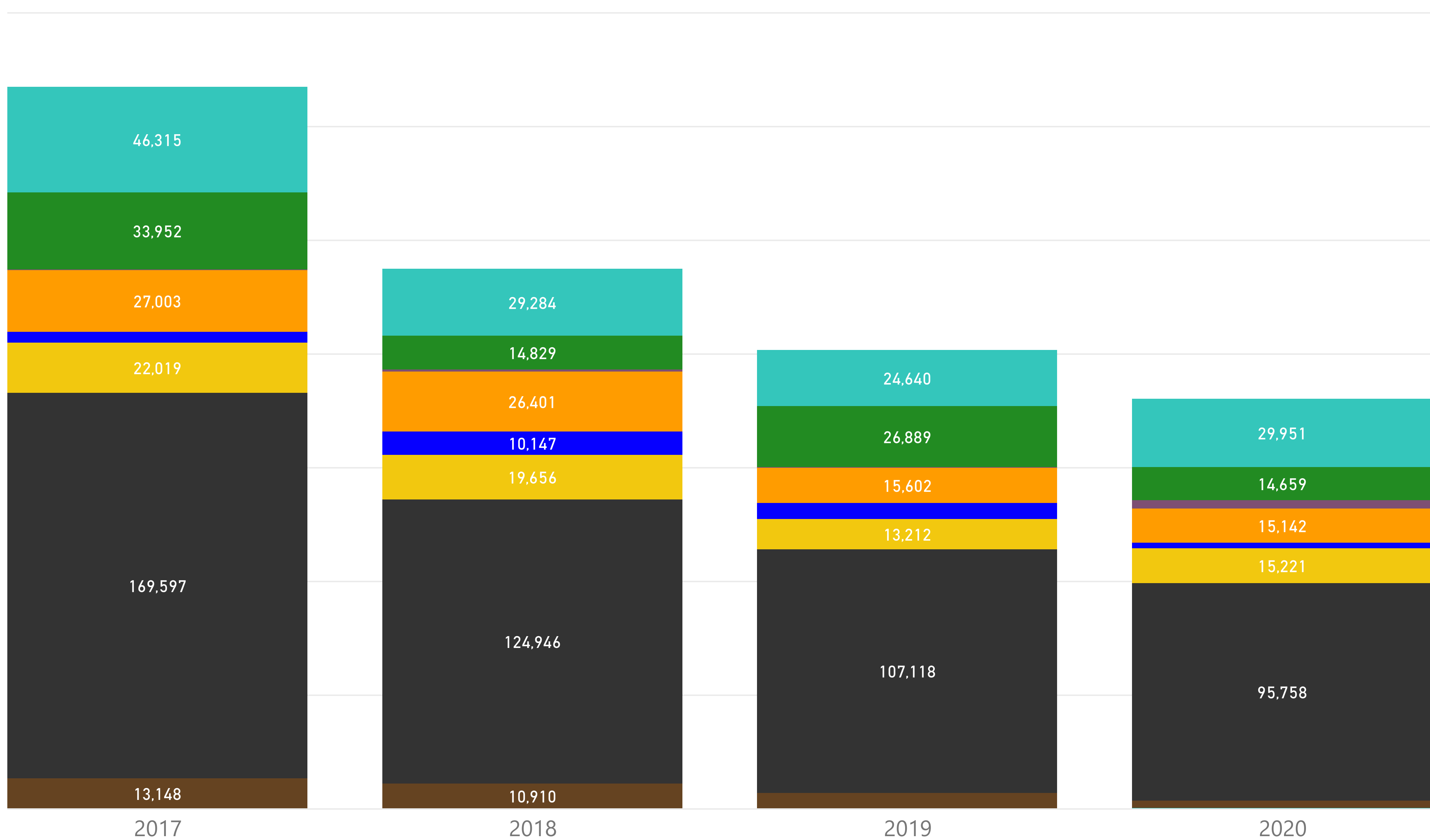
Distribution Customer Interruptions by Outage Cause (excluding Scheduled and Emergency Switching) by Year
(Jan 1 - Current Date All Years)

Current Data Date

Summary Cause Updated

- (Blank)
- Animal
- Equipment Failure
- Lightning
- Human Error
- Public Damage
- Foreign Trouble
- Vegetation
- Other

350K
300K
250K
200K
150K
100K
50K
0K





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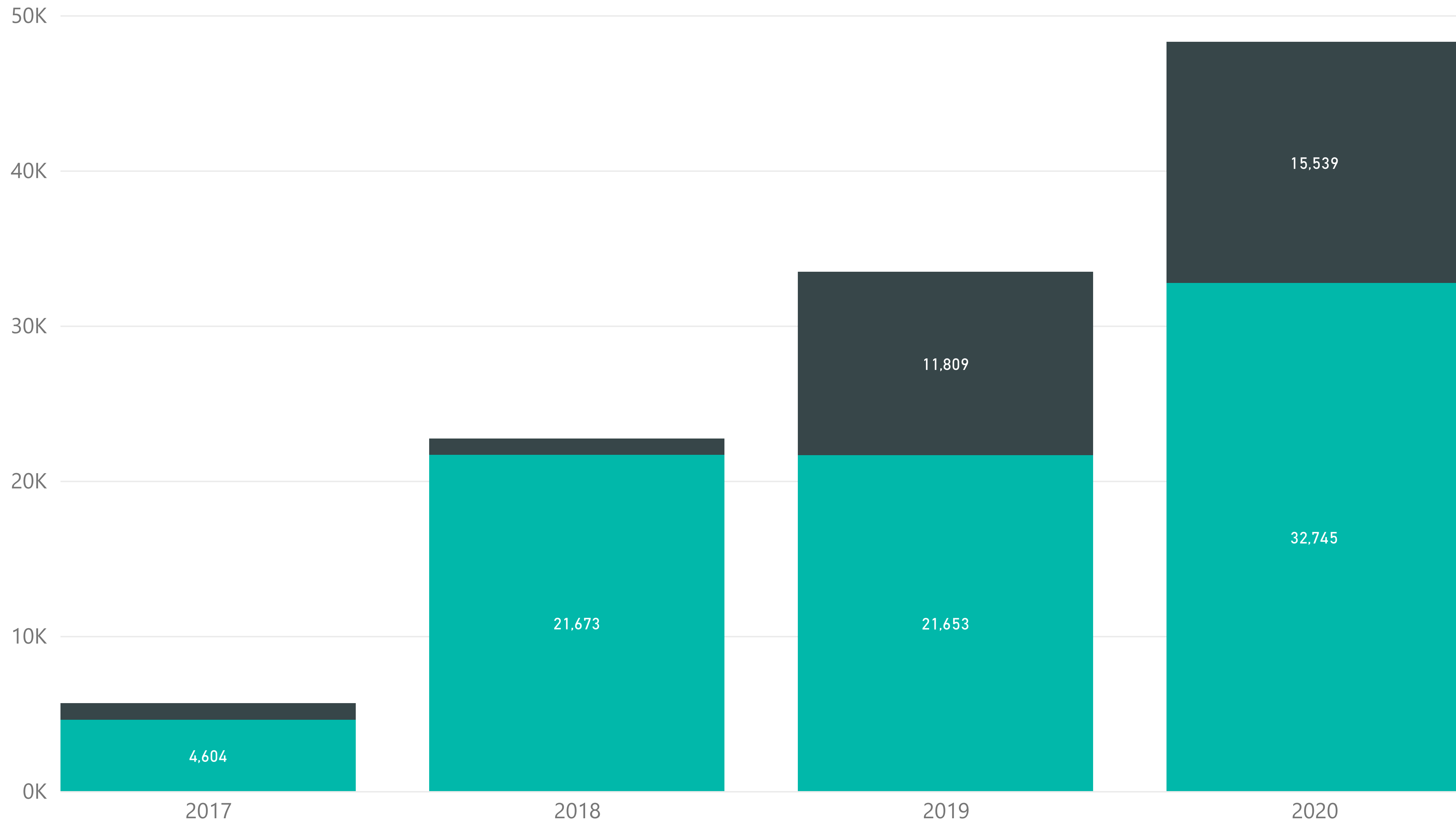
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Distribution Scheduled Interruptions and Emergency Switching Customer Interruptions by Year
(Jan 1 - Current Date All Years)

Current Data Date

Summary Cause Updated

- Emergency Switching
- Scheduled Interruption



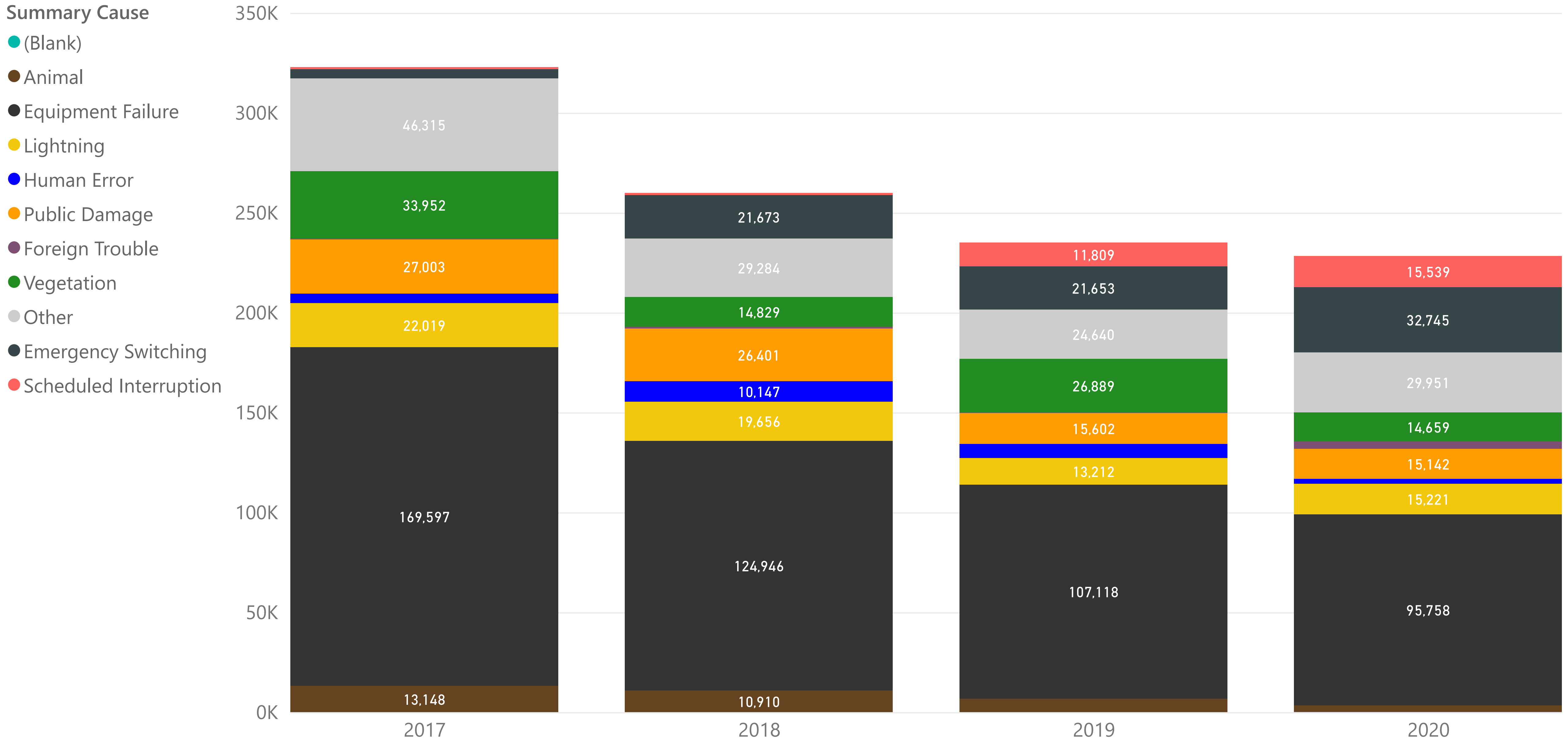


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12/31/2020

Distribution Customer Interruptions by Outage Cause by Year (including Scheduled Interruptions and Emergency Switching)
(Jan 1 - Current Date All Years)

Current Data Date





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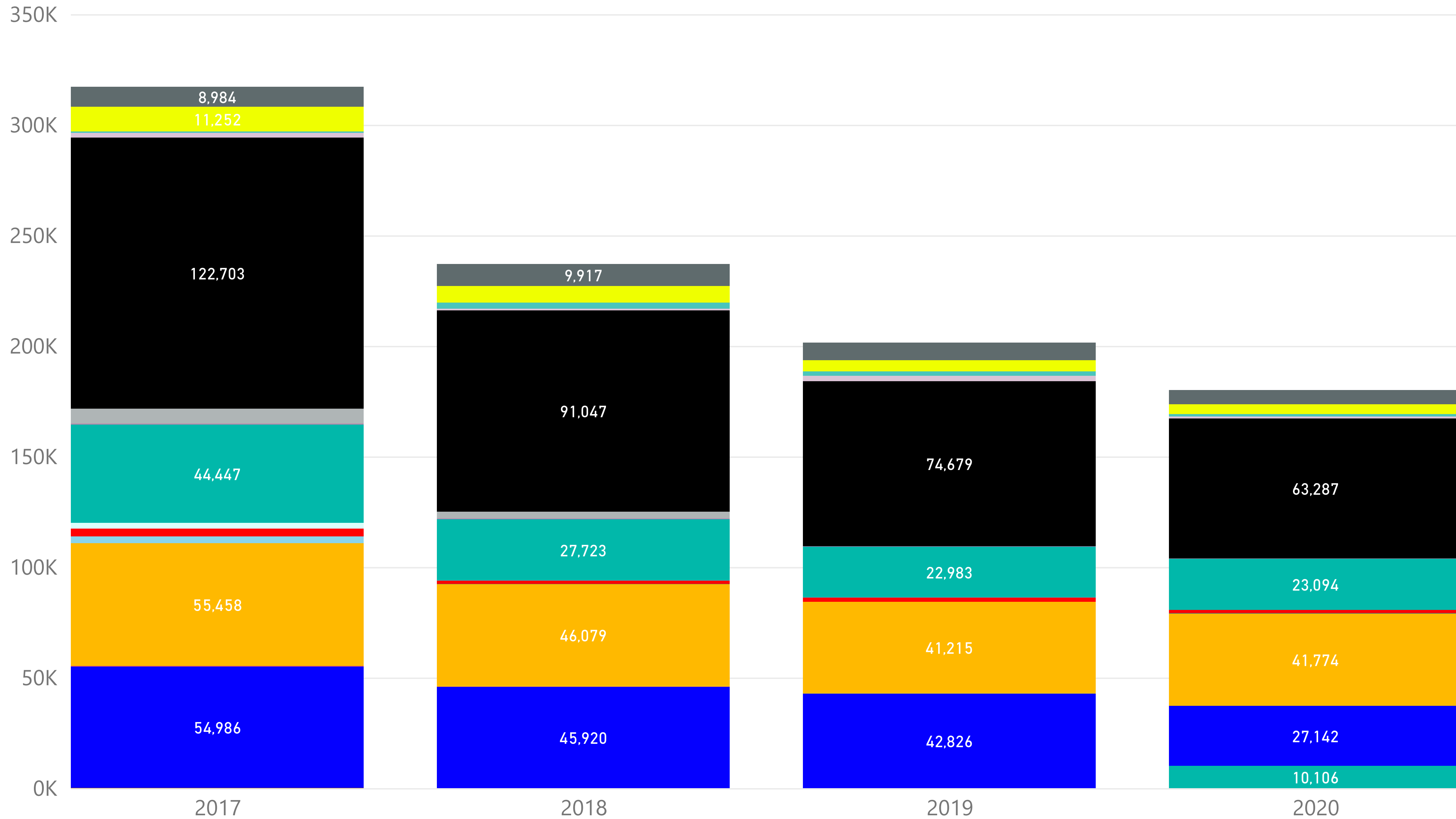
12/31/2020

Distribution Customer Interruptions (excluding Scheduled Interruptions and Emergency Switching) by Device Type by Year
(Jan 1 - Current Date All Years)

Current Data Date

Outage Device Type

- (Blank)
- Auto Transfer Switch
- Crossarm
- Disconnect Switch
- Elbow
- Gang Operated Switch
- Line Fuse
- Network
- Network Breaker
- Open
- Pole
- Primary Conductor
- Primary Meter
- Recloser
- Secondary Conductor
- Secondary Network
- Service Conductor
- Substation
- Substation Breaker
- Switch





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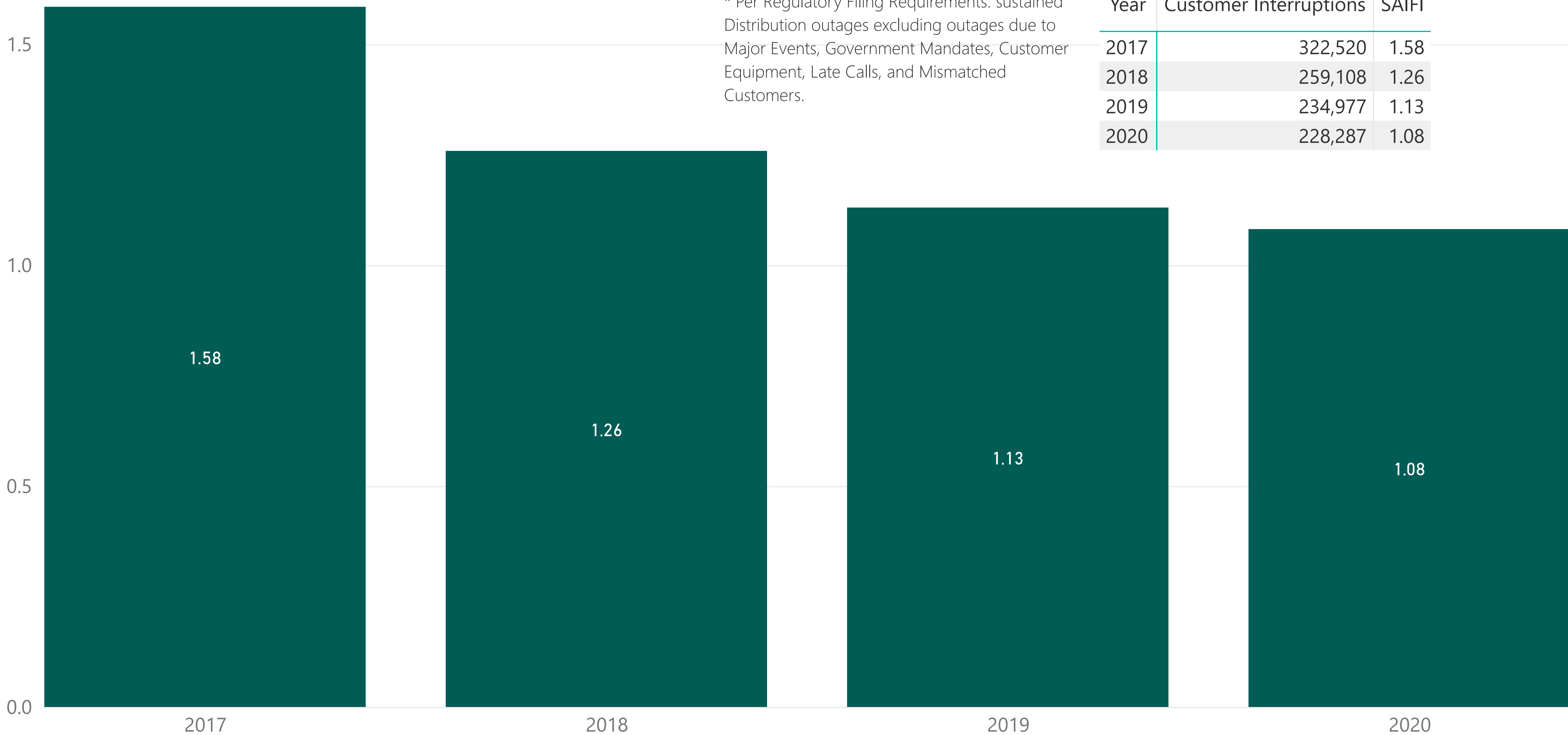
12/31/2020

Distribution SAIFI by Year
(Full Calendar Years)

Current Data Date

* Per Regulatory Filing Requirements: sustained Distribution outages excluding outages due to Major Events, Government Mandates, Customer Equipment, Late Calls, and Mismatched Customers.

Year	Customer Interruptions	SAIFI
2017	322,520	1.58
2018	259,108	1.26
2019	234,977	1.13
2020	228,287	1.08





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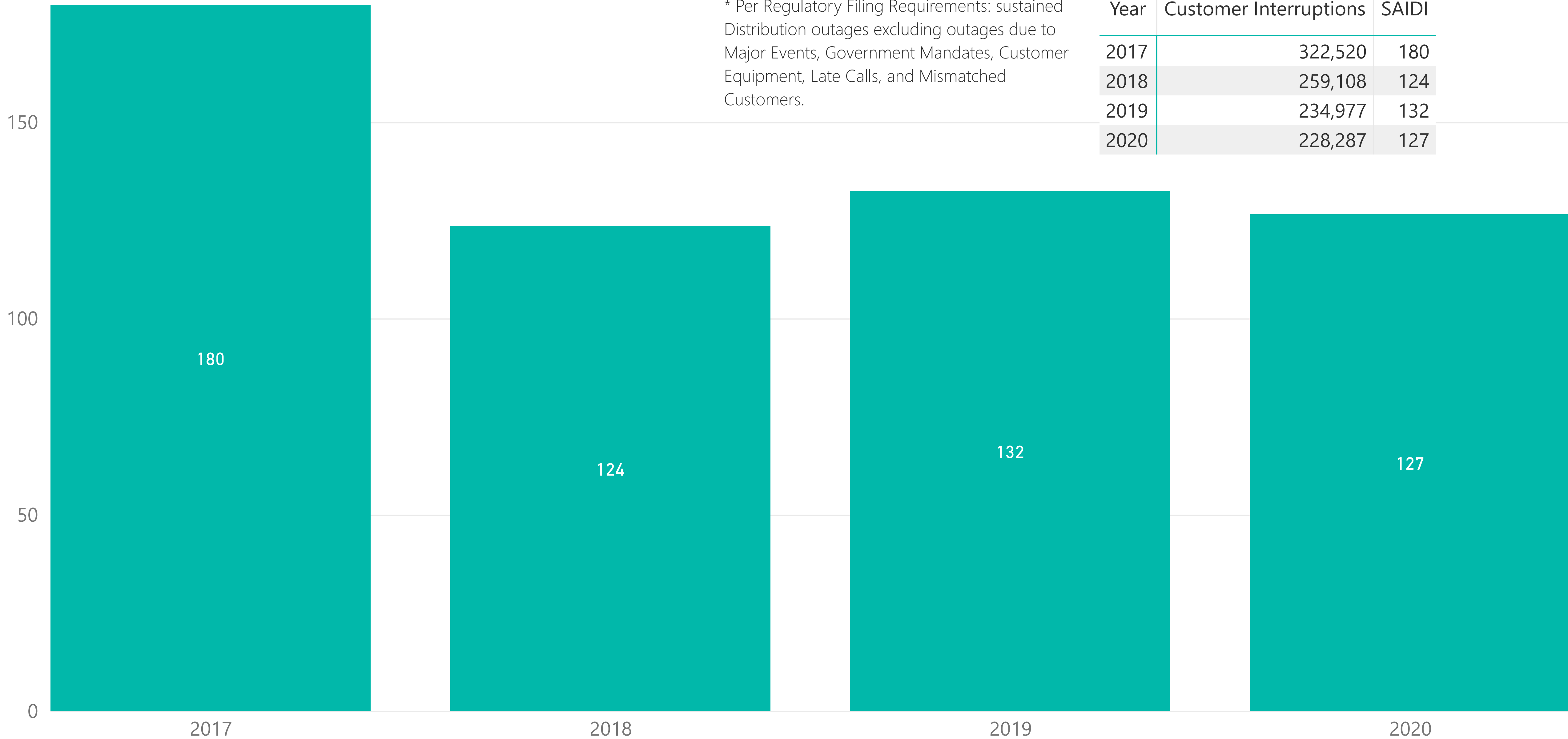
12/31/2020

Distribution SAIDI by Year
(Full Calendar Years)

Current Data Date

* Per Regulatory Filing Requirements: sustained Distribution outages excluding outages due to Major Events, Government Mandates, Customer Equipment, Late Calls, and Mismatched Customers.

Year	Customer Interruptions	SAIDI
2017	322,520	180
2018	259,108	124
2019	234,977	132
2020	228,287	127



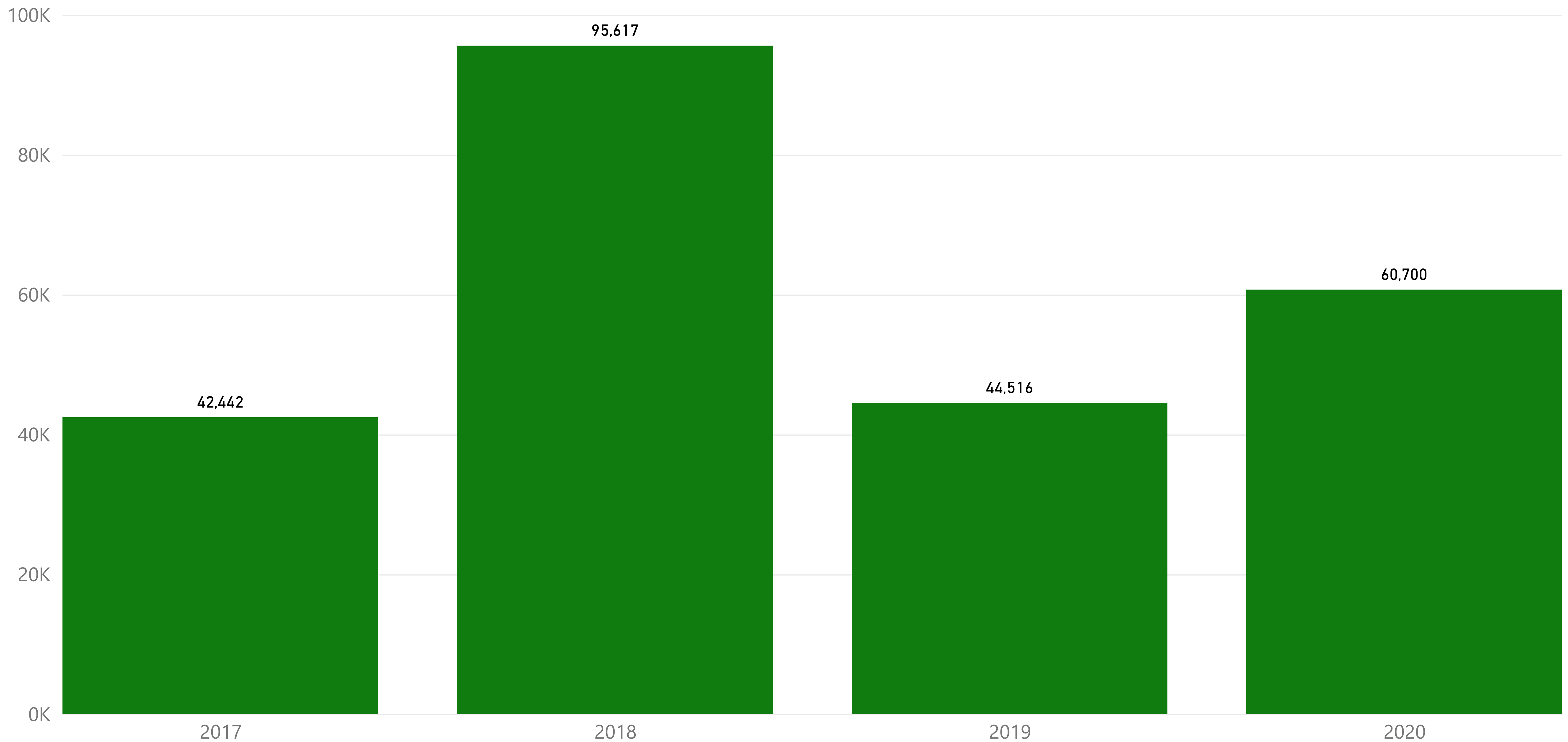


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11/16/2020

Transmission Customer Interruptions (excluding Scheduled, Mandated and Emergency Switching) by Year
(Jan 1 - Current Date All Years)

Current Data Date





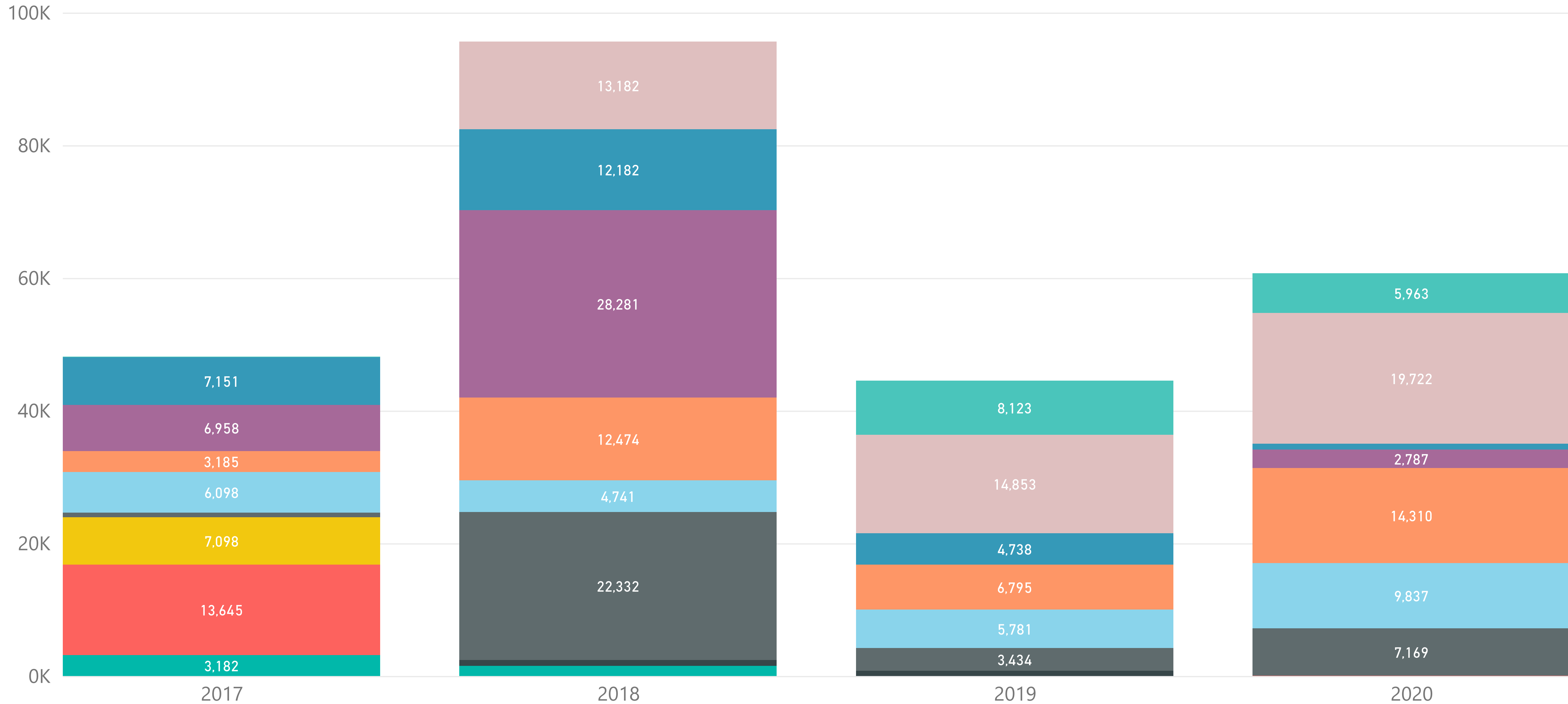
ENTERGY NEW ORLEANS

11/16/2020

Transmission Customer Interruptions (excluding Scheduled and Emergency Switching) by Month by Year
(Jan 1 - Current Date All Years)

Current Data Date

Month ● January ● February ● March ● April ● May ● June ● July ● August ● September ● October ● November





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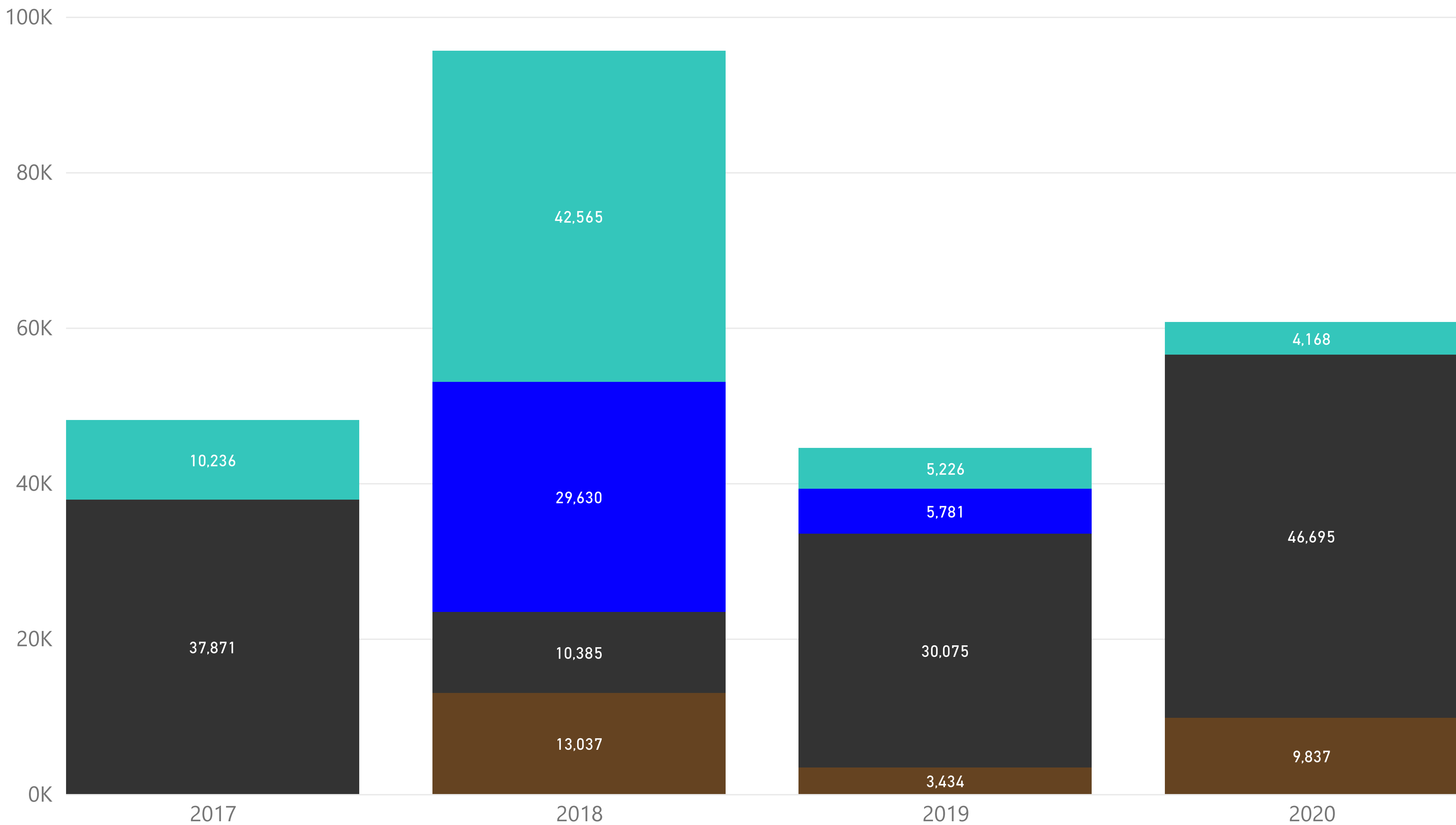
11/16/2020

Transmission Customer Interruptions by Outage Cause (excluding Scheduled and Emergency Switching) by Year
(Jan 1 - Current Date All Years)

Current Data Date

Summary Cause Updated

- Animal
- Equipment Failure
- Human Error
- Other



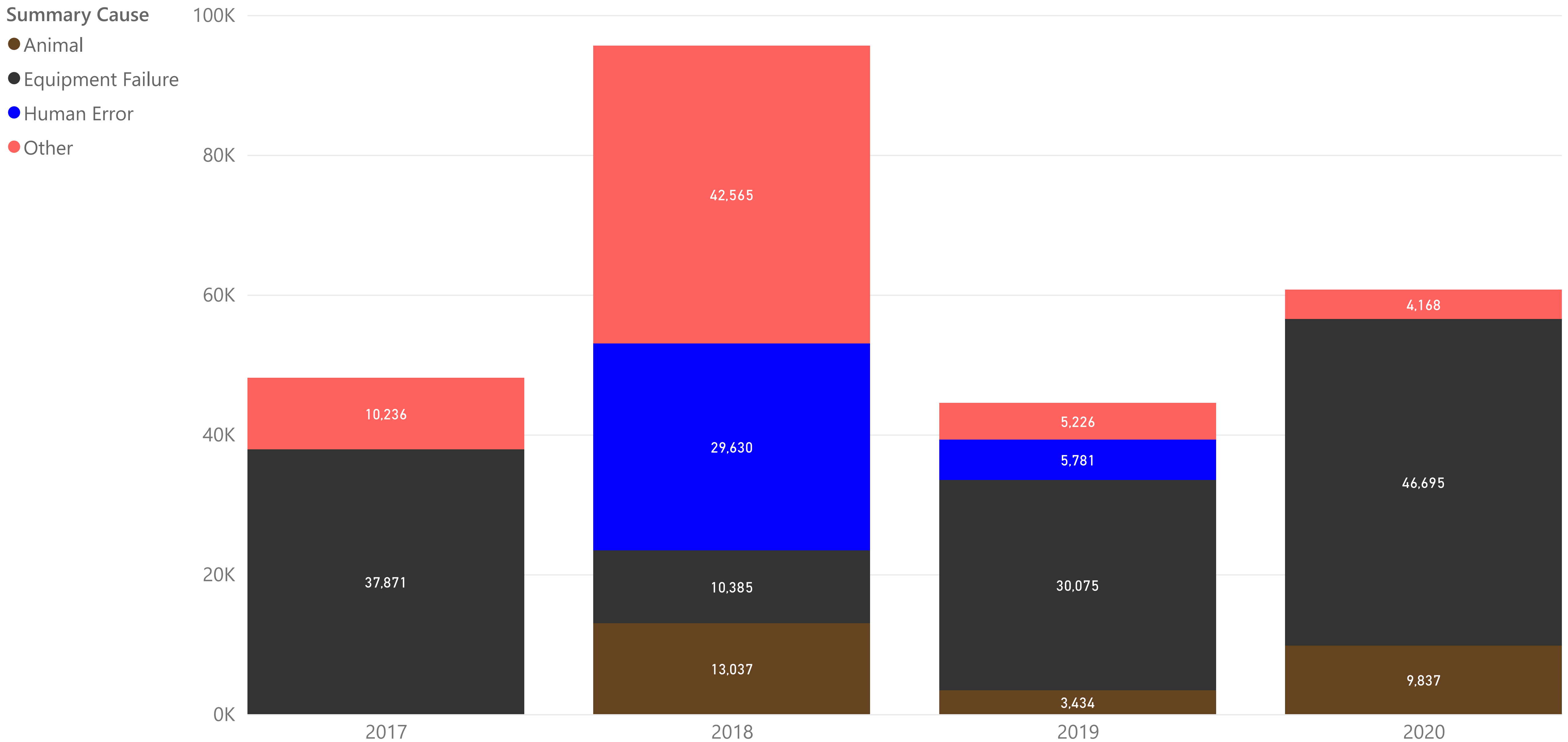


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11/16/2020

Transmission Customer Interruptions by Outage Cause by Year (including Scheduled and Emergency Switching)
(Jan 1 - Current Date All Years)

Current Data Date





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11/16/2020

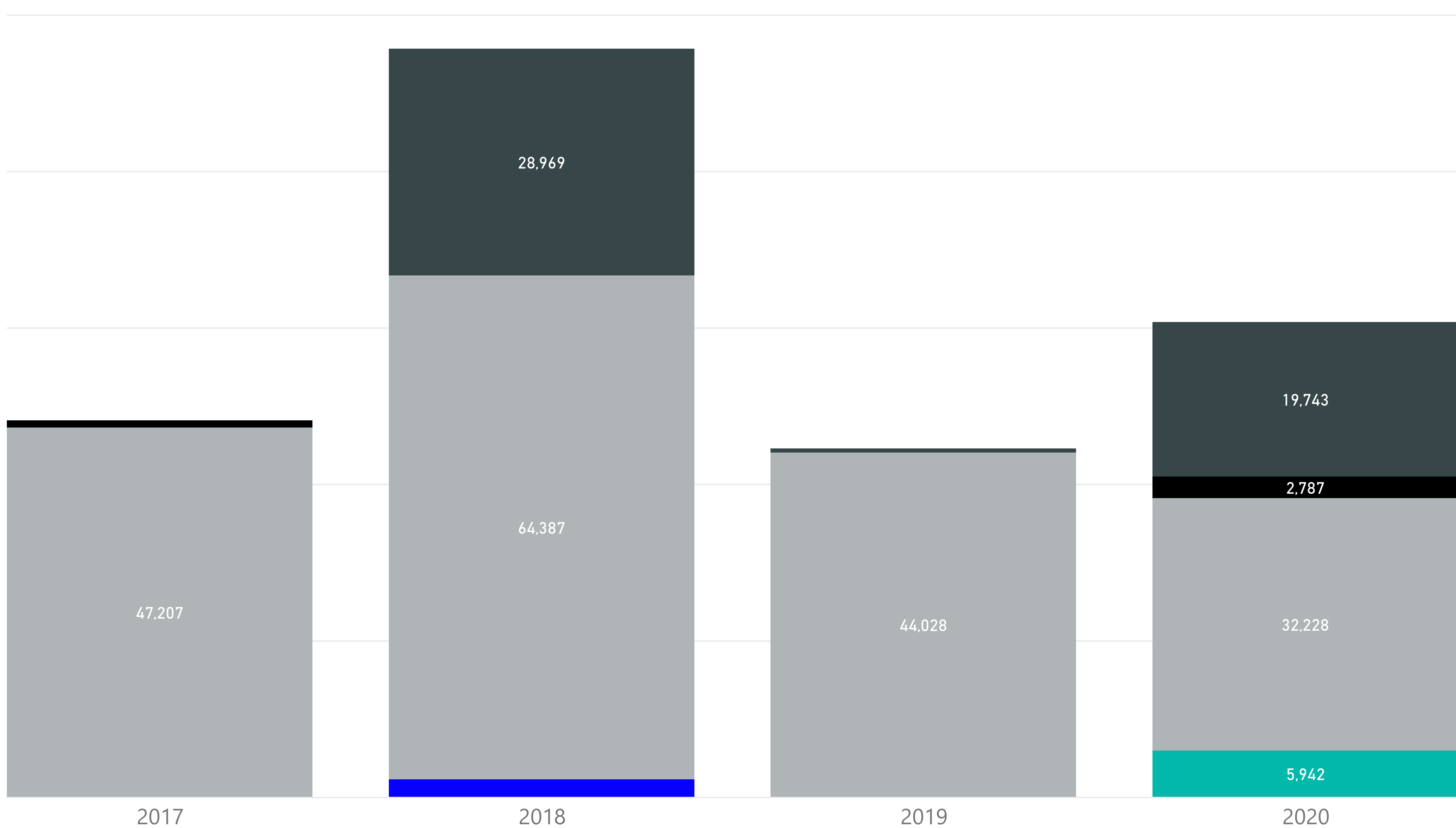
Transmission Customer Interruptions (excluding Scheduled and Emergency Switching) by Device Type by Year
(Jan 1 - Current Date All Years)

Current Data Date

Outage Device Type 100K

- (Blank)
- Disconnect Switch
- Substation
- Substation Breaker
- Transmission

100K
80K
60K
40K
20K
0K



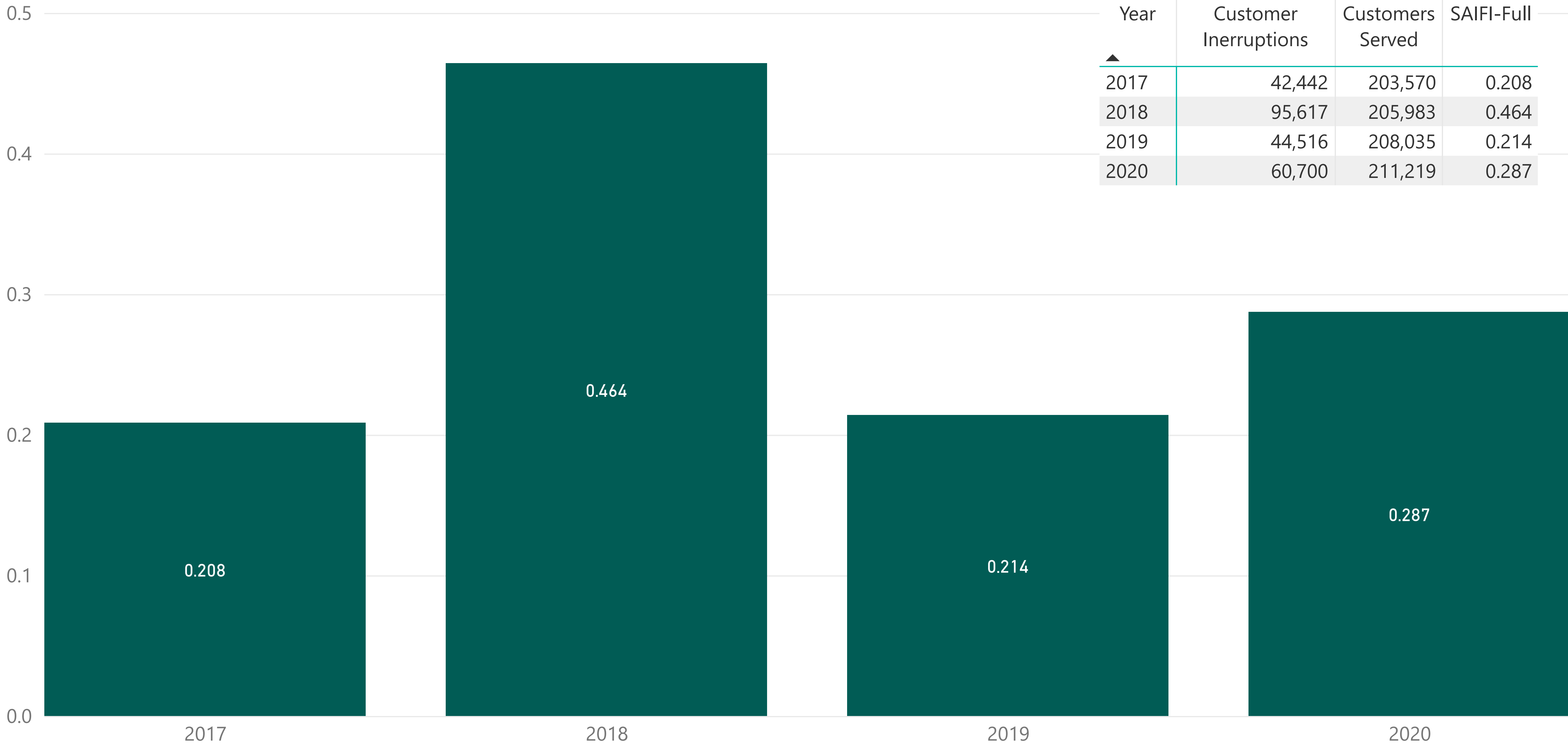


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Transmission SAIFI by Year
(Full Calendar Years)

11/16/2020

Current Data Date





ENTERGY NEW ORLEANS

Transmission SAIDI by Year
(Full Calendar Years)

11/16/2020

Current Data Date

