

This project analyzes power outages, focusing on their impact on customers and demand loss. It identifies key outage causes, seasonal patterns, and the time required for service restoration. The insights aim to improve maintenance, emergency planning, and response efficiency to reduce outage impact and restoration time in the future.



General



Year

2002

2023

NERC Category

All

Event Category

All

Total Customers

361M

Total Events

3,949

Total Duration (Day)

4,718

Demand Loss (MW)

1.19M

Max total Days

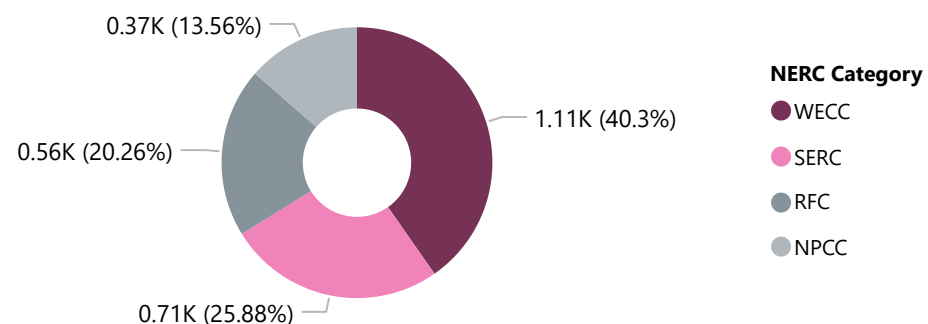
131

Total NERC

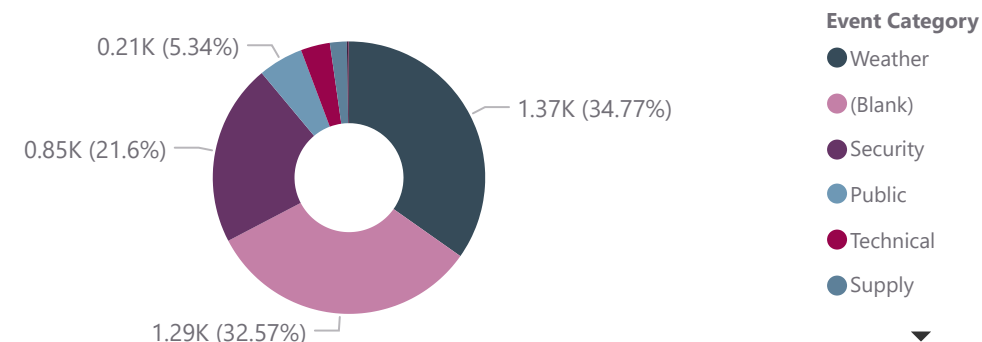
12



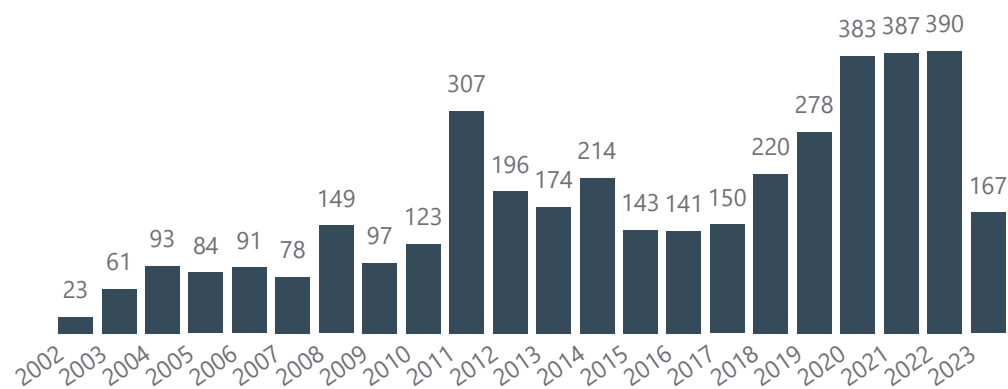
Top 4 NERC region by # Events



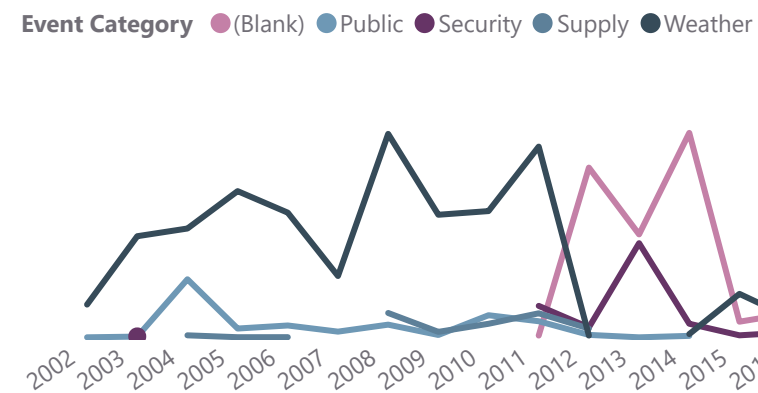
Events Categories Distribution



Events over Years



Total Duration for Top 5 Events by year



NERC Region Analysis



Year

2002

2023

NERC Category

All

Event Category

All

Total Customers

361M

Total Events

3,949

Total Duration (Day)

4,718

Total DemandLoss

1.19M

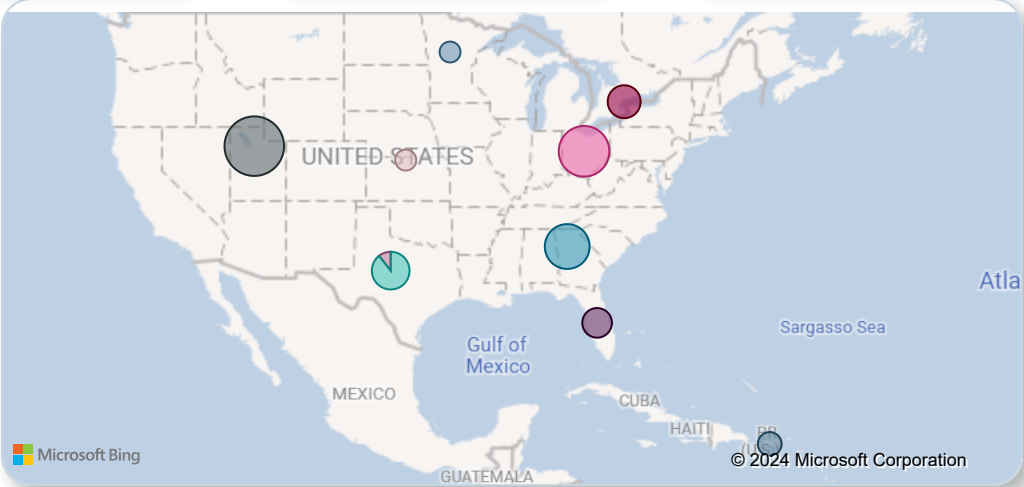
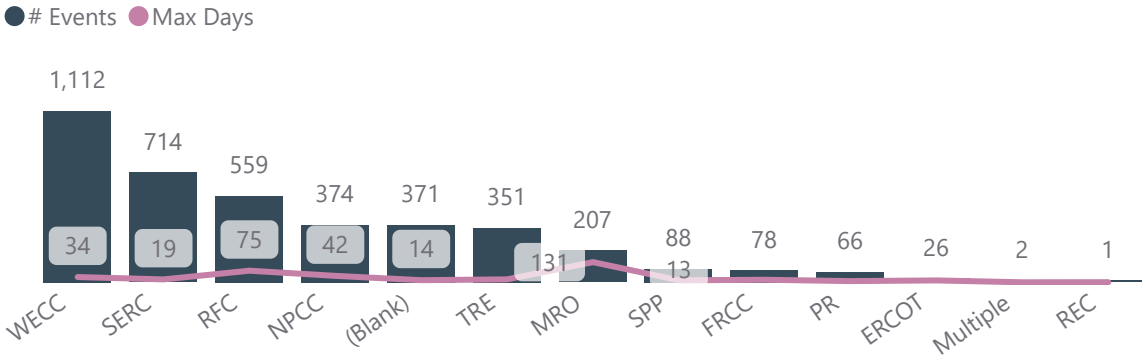
Max total Days

131

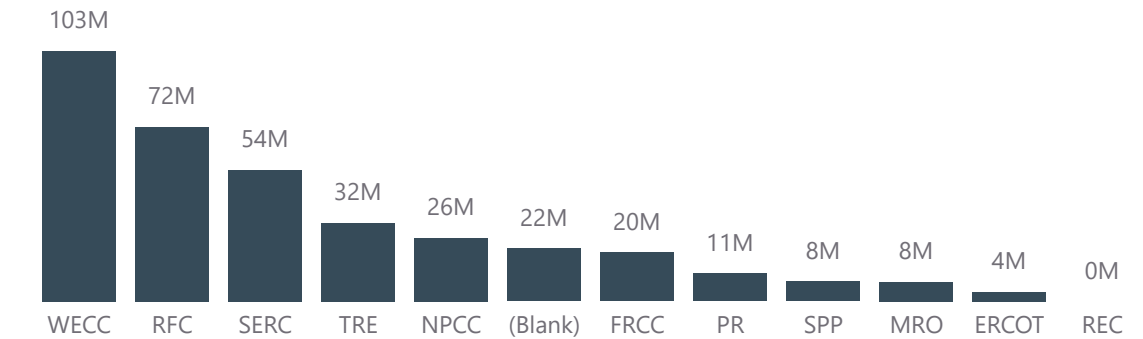
Total NERC

12

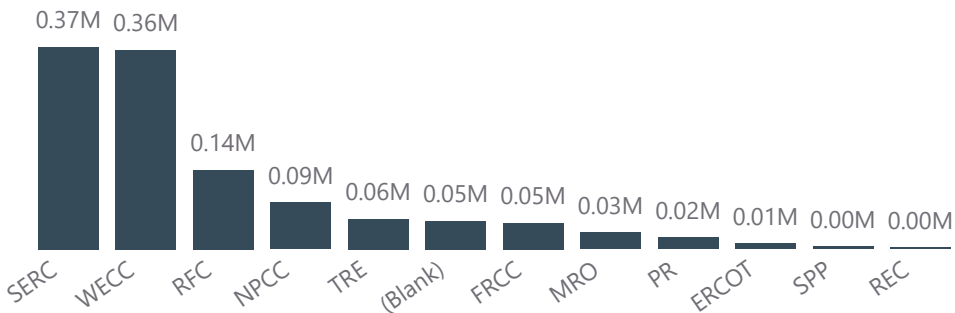
Events and Max Days by NERC Category



Total Customers by NERC Category



Total demand loss by NERC Category



Event Type Analysis



Year

2002

2023

NERC Category

All

Event Category

All

Total Customers

361M

Total Events

3,949

Total Duration (Day)

4,718

Demand Loss (MW)

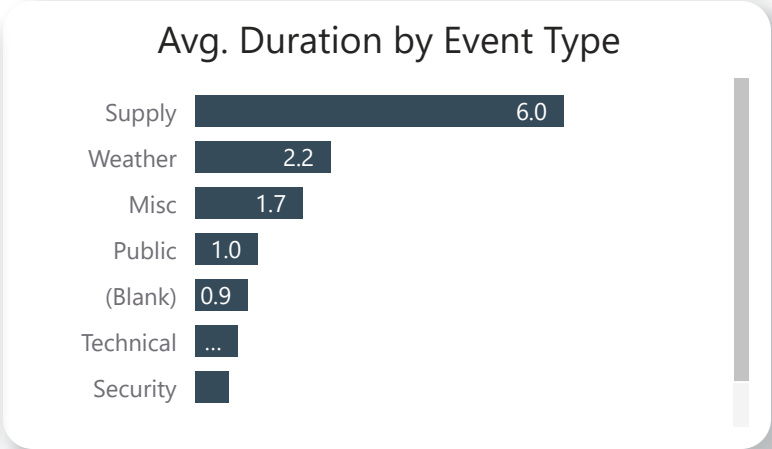
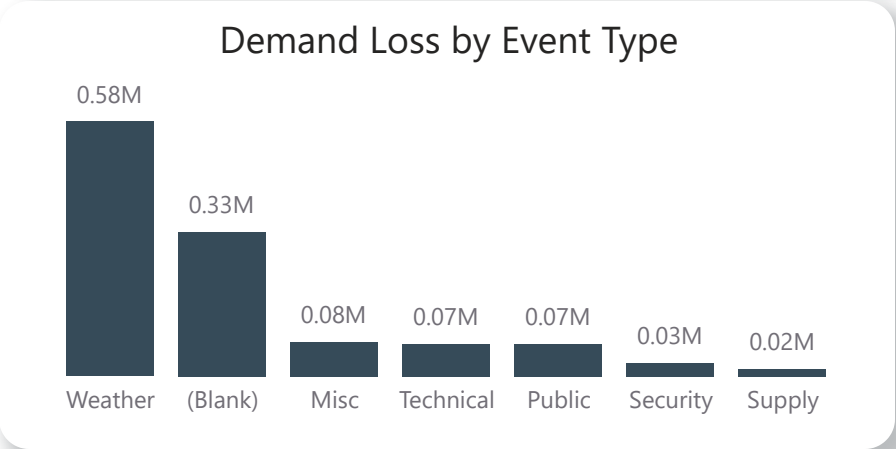
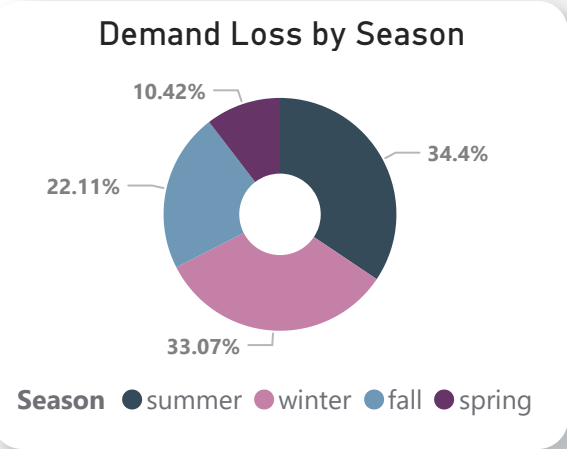
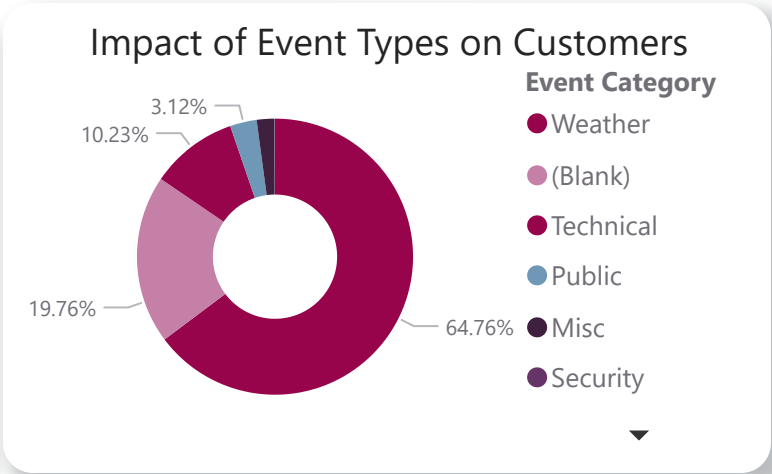
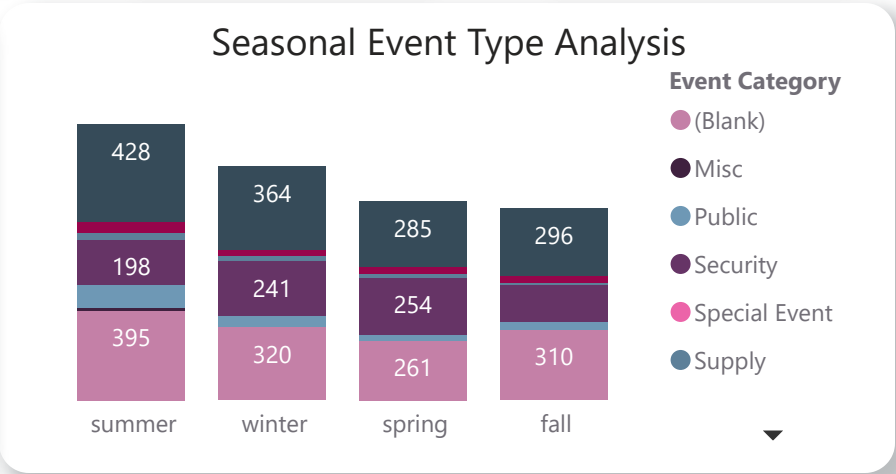
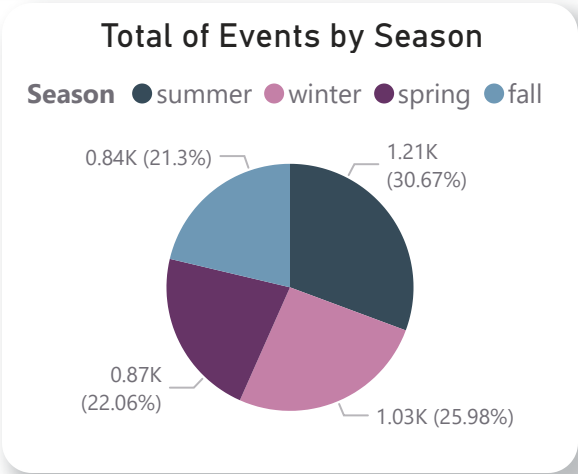
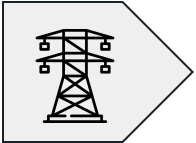
1.19M

Max total Days

131

Total NERC

12



Customers Analysis



Year

NERC Category

Event Category

Total Customers
361M

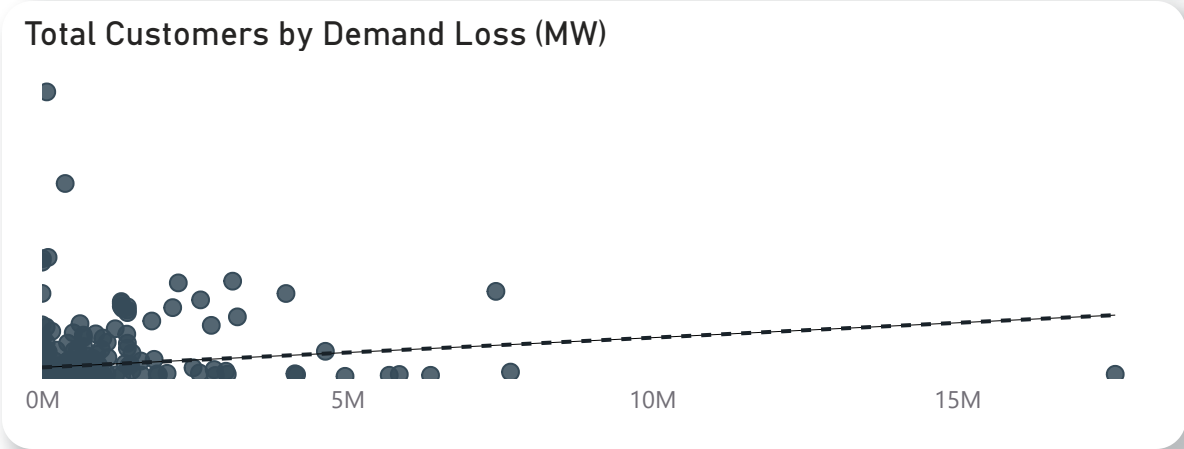
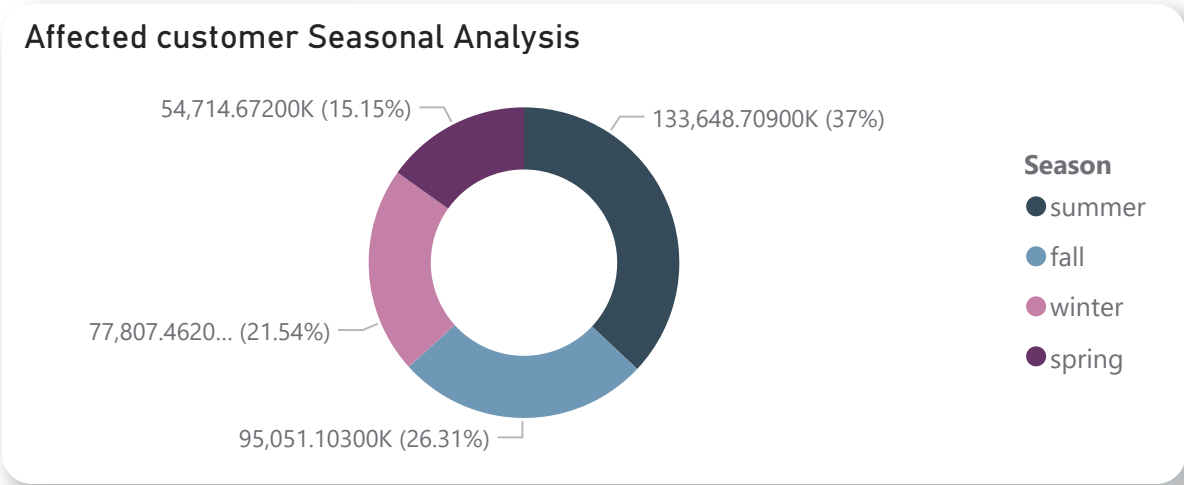
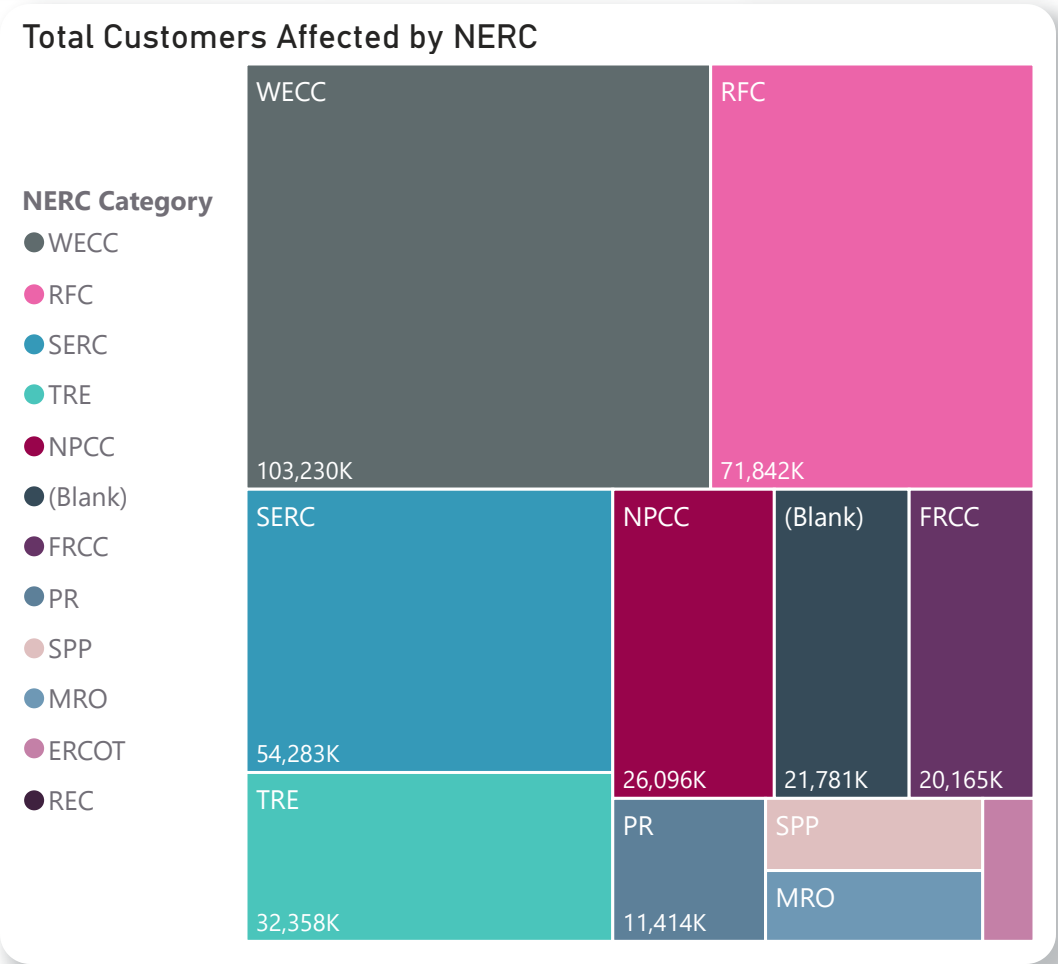
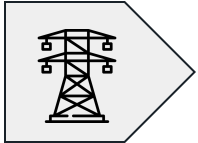
Total Events
3,949

Total Duration (Day)
4,718

Demand Loss (MW)
1.19M

Max total Days
131

Total NERC
12



Analysis Over Time



Year

2002

2023

NERC Category

All

Event Category

All

