



**PAPUC**

2023 Safety Seminar  
September 6, 2023

# **Welcome and Thank You**

**Robert Horensky**

**Safety Division Manger**

**Bureau of Investigation and Enforcement**

**Pennsylvania Public Utility Commission**



# HOUSEKEEPING-

- Safety/Fire Alarms
- Busy agenda
  - Breaks
  - Lunch
  - Vendor Room
  - Break out session
  - Trivia sessions with some prizes.
- Vendors
- Professional Development Hours
  - Keep track and turn in at the registration table
- Presentations
- Thank you





# Bureau of Investigation & Enforcement

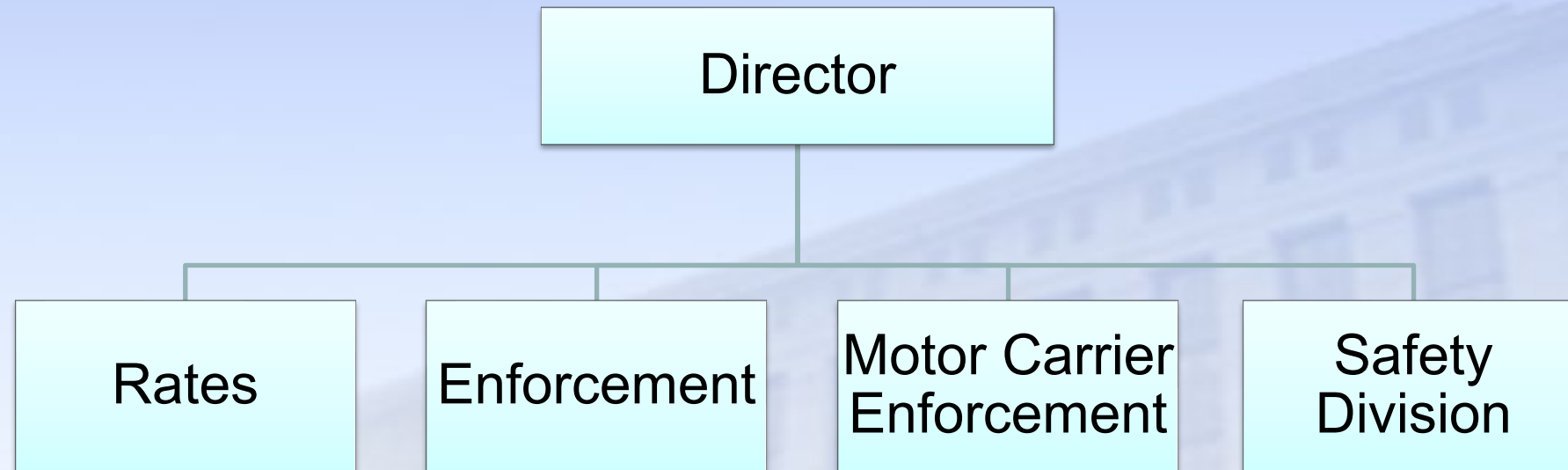


# Purpose

- I&E serves as an independent prosecutory bureau.
  - Director is the Commission’s “Chief Prosecutor”
  - Represents the public interest in Commission proceedings.
- I&E is obligated to balance:
  - the interest of customers
  - the interest of utilities
  - and the welfare of the Commonwealth.



# Organization





# Safety Division

- Pipeline Safety
  - Enforcement of Pipeline Safety Regulations
- Electric Safety
  - Enforcement of safety standards and regulations for certificated distribution utilities.
- Damage Prevention Section
  - Enforcement of Underground Utility Line Protection Law
    - PA One Call Law



# Pipeline Safety

- 24 Inspectors/Investigators and 4 supervisors across the state
- Responsible for enforcing pipeline safety regulations for certificated natural gas pipeline utilities and intrastate hazardous liquid operators in Pennsylvania.
- Monitors compliance with regulations by conducting frequent inspections of pipeline facilities and records of regulated pipeline utilities.
- Investigates incidents which could include fires, explosions and major outages





# Pipeline Safety

- Investigate BCS complaints, phone complaints, email complaints. Types of Inspections and Investigations:
  - Pipeline construction
  - Corrosion
  - Leakage Surveys
  - Damage Prevention
  - Distribution Integrity Management
  - Odor complaints, low pressure, dead vegetation
- Call even if uncertain and for gas leaks anywhere in PA



# Pipeline Safety

- Types of fuels inspected:
  - Natural Gas Operators: 23 private, 12 master meter, and 2 municipal
  - Propane: 6 operators
  - Landfill Gas: 4 operators
  - Hazardous Liquid: 7 operators
  - Intrastate Transmission Line: 31 operators
  - Gathering Line: 27 operators
  - LNG: 3 operators
- Almost 3 million natural gas customers in PA.
- 48,000 miles of gas mains. Gas utilities range from 13 customers to nearly 600,000 customers



# Electric Safety

## Electric Distribution Companies

	Customers	Counties	Miles of Power Line
<i>Large:</i>			
<b>PECO</b>	<b>1.6m</b>	<b>6</b>	<b>29,000</b>
<b>PPL</b>	<b>1.5m</b>	<b>29</b>	<b>45,000</b>
<b>Met-Ed</b>	<b>552,000</b>	<b>14</b>	<b>16,500</b>
<b>PennPower</b>	<b>160,000</b>	<b>6</b>	<b>6,000</b>
<b>Penelec</b>	<b>590,000</b>	<b>29</b>	<b>20,000</b>
<b>West Penn Power</b>	<b>716,000</b>	<b>24</b>	<b>45,000</b>
<b>Duquesne Light</b>	<b>579,000</b>	<b>2</b>	<b>45,000</b>
<i>Small:</i>			
<b>UGI Utilities</b>	<b>62,250</b>	<b>2</b>	
<b>Wellsboro</b>	<b>6,100</b>	<b>1</b>	
<b>Citizens</b>	<b>6,800</b>	<b>1</b>	
<b>Pike Light/Power</b>	<b>4,700</b>	<b>1</b>	
<b>Approximately 25% of all facilities are underground at present and continue to rise.</b>			



# Electric Safety

- Responsible for enforcing safety standards and regulations for certificated distribution utilities.
- Active in Pennsylvania One Call: Call before you dig.
- Respond to and investigate:
  - BCS electric safety complaints
  - phone complaints
  - general public inquiries and complaints.
- Work with TUS's Electric Reliability Section concerning reliability and storm response measures.



# Inspections

- Currently, 4 Electric Safety Inspectors cover the Commonwealth
- Responsible to:
  - Review/Audit/Inspect
  - EDC Inspection and Maintenance Plans
  - Workplace Safety Plans/Programs
  - Damage Prevention Plans
  - Work Site Operations
  - Distribution Facilities



# Damage Prevention Section

Enforcement of the Underground Utility Line Protection Law  
A/K/A the PA One Call Law





# PA One Call Law

Enforcement now under the PA  
Public Utility Commission

Enforce

Reduce

Educate





# PA One Call Law: What to Expect

- Enforce Routine Excavation Ticket Requirements
- Enforce Design Ticket Requirements
- Enforce Complex Project declarations
- The expected results:
  - Decreased Underground Damages
  - Increased Safety for the Commonwealth





# Parting Words





# Commissioners

The Pennsylvania Public Utility Commission is overseen by a group of five commissioners appointed by the state's governor for five-year terms. The group includes a chairman, vice chairman, and three commissioners-at-large.



**Stephen M. DeFrank**  
Chairman



**Kimberly M. Barrow**  
Vice Chair



**Ralph V. Yanora**  
Commissioner



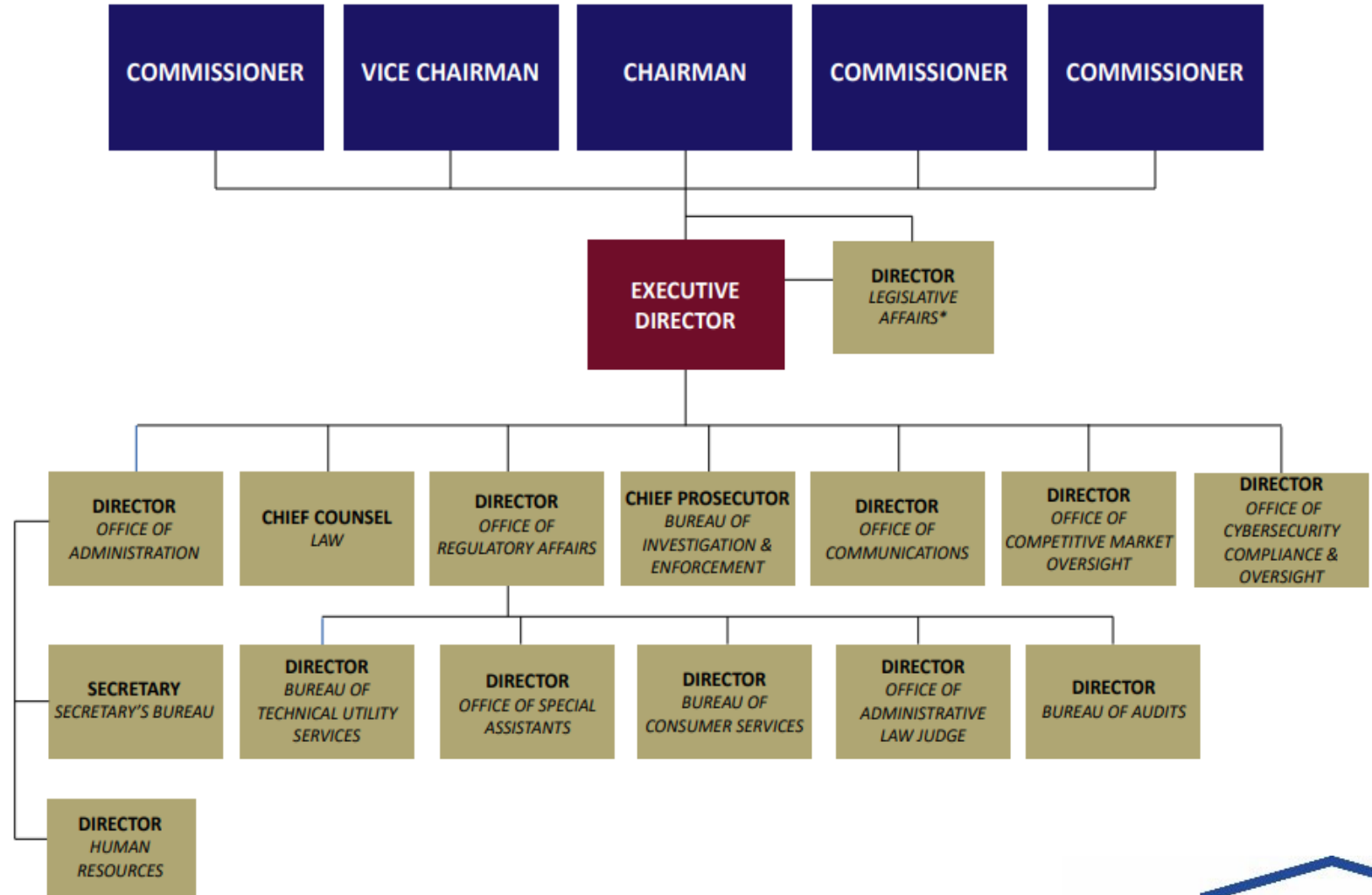
**Kathryn L. Zerfuss**  
Commissioner



**John F. Coleman, Jr.**  
Commissioner

The  
Commission

# PUC ORGANIZATIONAL CHART



\*Dual reporting relationship to Commissioners and Executive Director



# New Executive Director



- New Executive Director, Jennifer Berrier, effective Sept. 11, 2023.





- The Pennsylvania Public Utility Commission oversees the nearly 7,000 entities which provide utility services across the state, including:
- Electricity
- Natural gas
- Pipeline transmission of natural gas and hazardous materials
- Motor carrier transportation of passengers and property
- Railroad crossings
- Telecommunications
- Water and wastewater collection and disposal
- The roles and responsibilities of the PUC continues to evolve as the utility marketplace and technology changes and as legislators amend the Public Utility Code.

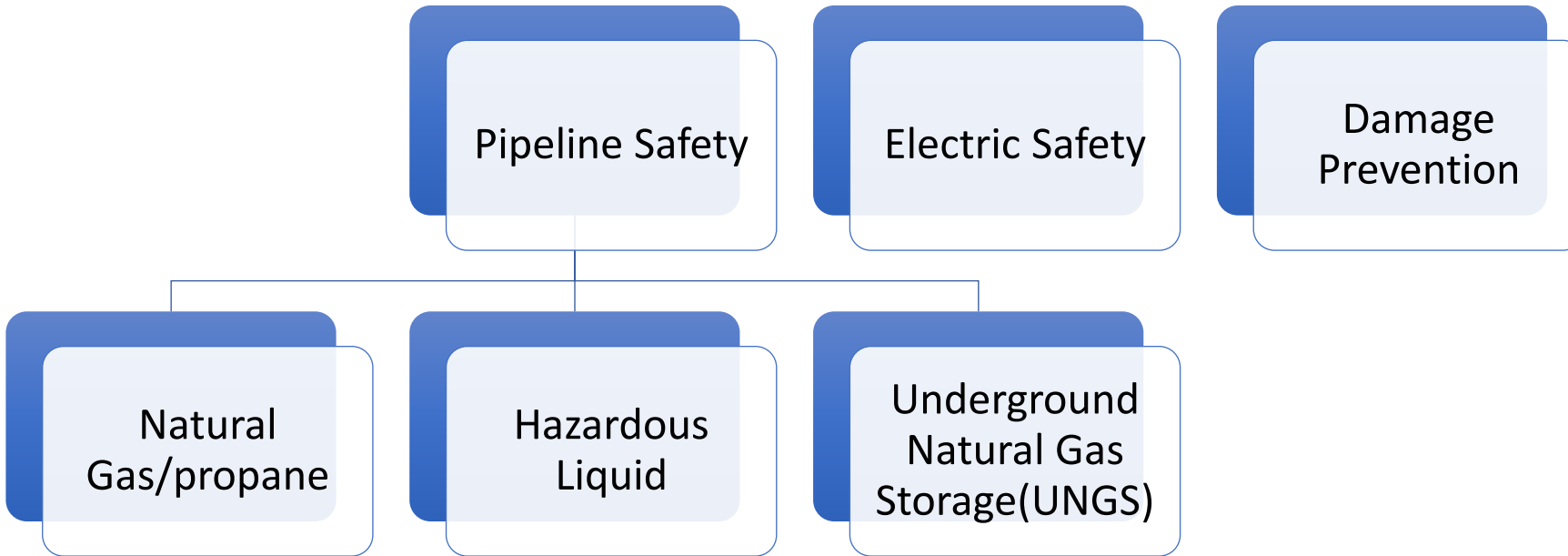




- **Our Mission**

- The mission of the Pennsylvania Public Utility Commission is to balance the needs of consumers and utilities; ensure safe and reliable utility service at reasonable rates; protect the public interest; educate consumers to make independent and informed utility choices; further economic development; and foster new technologies and competitive markets in an environmentally sound manner.

# I&E Safety Division





# **Safety Staff (40)-**

## **1 Manager**

- **4 Field Based Pipeline Safety Supervisors**
  - **24 Pipeline Safety Engineer/Investigators**
- **1 Electric Safety Supervisor**
  - **4 Electric Safety Engineer/Investigators**
- **1 Damage Prevention Supervisor**
  - **5 DPIs**

➤ **Retention and Recruiting**

➤ **Several Safety Vacancies**



# I&E SAFETY DIVISION

## Electric Safety Section:

- Pole attachments
- Ratecase intervention
- Enforcement actions
- Underground faults
- Hiring process
- National meetings with Electric Regulators



# I&E Safety Division

## **Damage Prevention Section:**

- Act 50 Reauthorization
- Annual Report
- Enforcement Actions
  - Act 50 combined / 49 CFR 192
- Focus on Education Component
- More cases to DPC monthly
- Subsurface Utility Engineering (SUE)



# I&E Safety Division

## **Pipeline Safety:**

- **SE – Terri Cooper Smith**
  - **6 Engineer/Investigators**
- **NE – Mike Chilek**
  - **5 Engineer/Investigators**
- **Central – Bob Biggard**
  - **5 Engineer/Investigators**
- **West – Dave Kline**
  - **8 Engineer/Investigators**
    - **Annuitant**



# Pipeline Regulated Facilities-

- Natural Gas Distribution
- Gas- Municipal/ Co-Op
- Hydrogen
- Propane Distribution
- Master-meter Natural Gas
- Natural Gas Intrastate Transmission
- LNG Facilities
- Natural Gas Gathering:
  - Type A
  - Type B
  - Type C
  - Type R (reporting)
- Farm Taps
- Underground Natural Gas Storage (Intrastate)
- Hazardous Liquid
  - Refined Petroleum
  - Highly Volatile Liquid (HVL)
  - Crude?
  - Carbon Dioxide?
- HL Gathering?

# Other duties as assigned...

- Steam
- Water/Wastewater
- Host internal Commission trainings
- Commission/Legislative inquiries
- Press Releases
- NAPS R and PHMSA
- Rate Cases
- RTK and Subpoenas
- Non-jurisdictional investigations
- Reliability and
- Conferences/Presentations
- Interviews/Retention

# 2022 Mileage(gas):

- **Distribution – 49,278 miles**
- **Service Lines- 29,932 miles and nearly 3 million services.**
- **Transmission – 1,156 miles**
- **Jurisdictional Gathering – 4,366 miles**
  - **Type C- 3,506 miles**
  - **Type A- 586**
  - **Type B- 242**
- **LNG – 4 operators, 11 plants, 17 total tanks**
- **LP systems, Master Meters, Municipal, community owned**
- **Underground Storage – 4 operators with 7 fields**
- **Number of operators/units – Over 200 currently**



# 2022 Mileage(HL):

- **2022 Mileage – 81 miles**
- **Products – Refined & HVL**
  - **43 miles refined petroleum products**
  - **38 miles HVL**
- **Breakout Tanks – 4**
- **Number of Operators – 6 operators**
- **Two Public Utility HL operators ~ 1,400 miles**
  - ***Highly volatile liquid* or *HVL* means a hazardous liquid which will form a vapor cloud when released to the atmosphere and which has a vapor pressure exceeding 276 kPa (40 psia) at 37.8 °C (100 °F).**



# National Gathering Mileage

State Name	Type A	Type B	Type C	Type R
TEXAS	4590.7	1000.659	38270.985	91776.506
OKLAHOMA	264.43	688.095	16537.375	55684.251
NEW MEXICO	241.05	96.201	7418.091	21480.018
WYOMING	29.621	0.125	5264.07	8566.393
LOUISIANA	498.83	26.834	5210.766	4492.84
COLORADO	553.81	67.541	4174.74	7020.527
PENNSYLVANIA	601.64	264.17	3522.94	3923.202
NORTH DAKOTA	26.42	23.275	2681.771	8963.764
WEST VIRGINIA	210.54	194.918	2491.507	3456.739
OHIO	424.97	1724.165	1937.272	1817.123
KANSAS	17.725	11.549	1208.427	9696.334
<b>Total</b>	<b>7459.7</b>	<b>4097.532</b>	<b>88717.944</b>	<b>216877.697</b>





# PA Mileage Summary-

- **Over 86,200 miles of PA PUC jurisdictional pipelines**
- **Plus, PHMSA mileage within the Commonwealth-13,544 miles:**
  - **~9,300 Interstate Gas Transmission and**
  - **~4,200 Interstate Hazardous Liquid**
- **PA totals- ~100,000 miles**
- **US totals- 3.3 million miles**

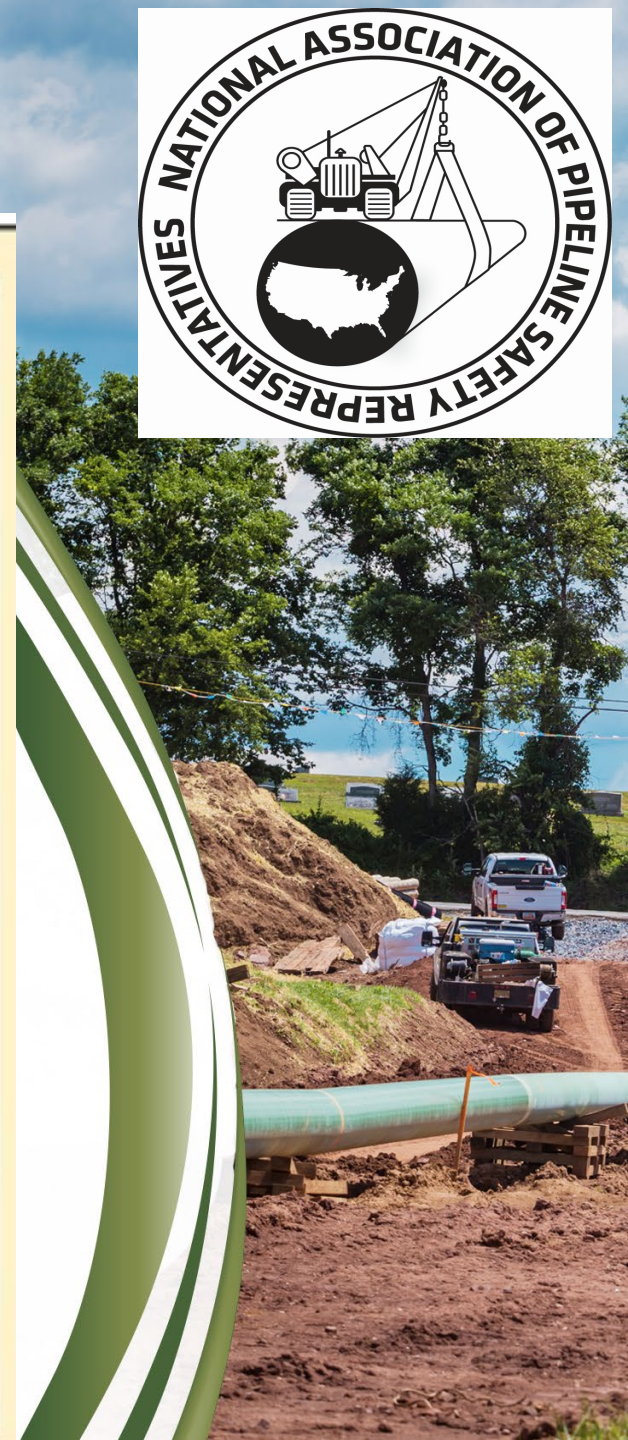
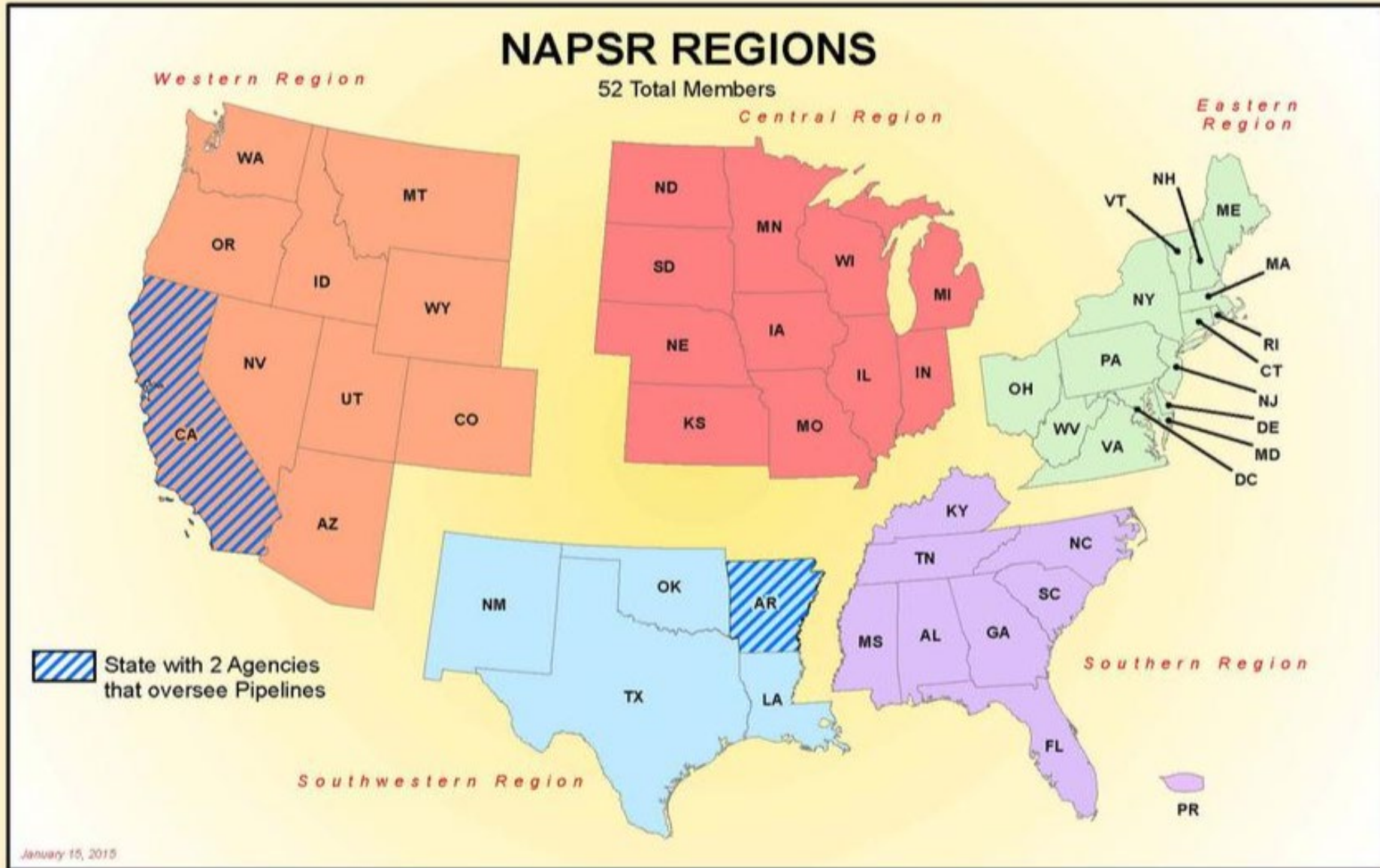
# NAPSR



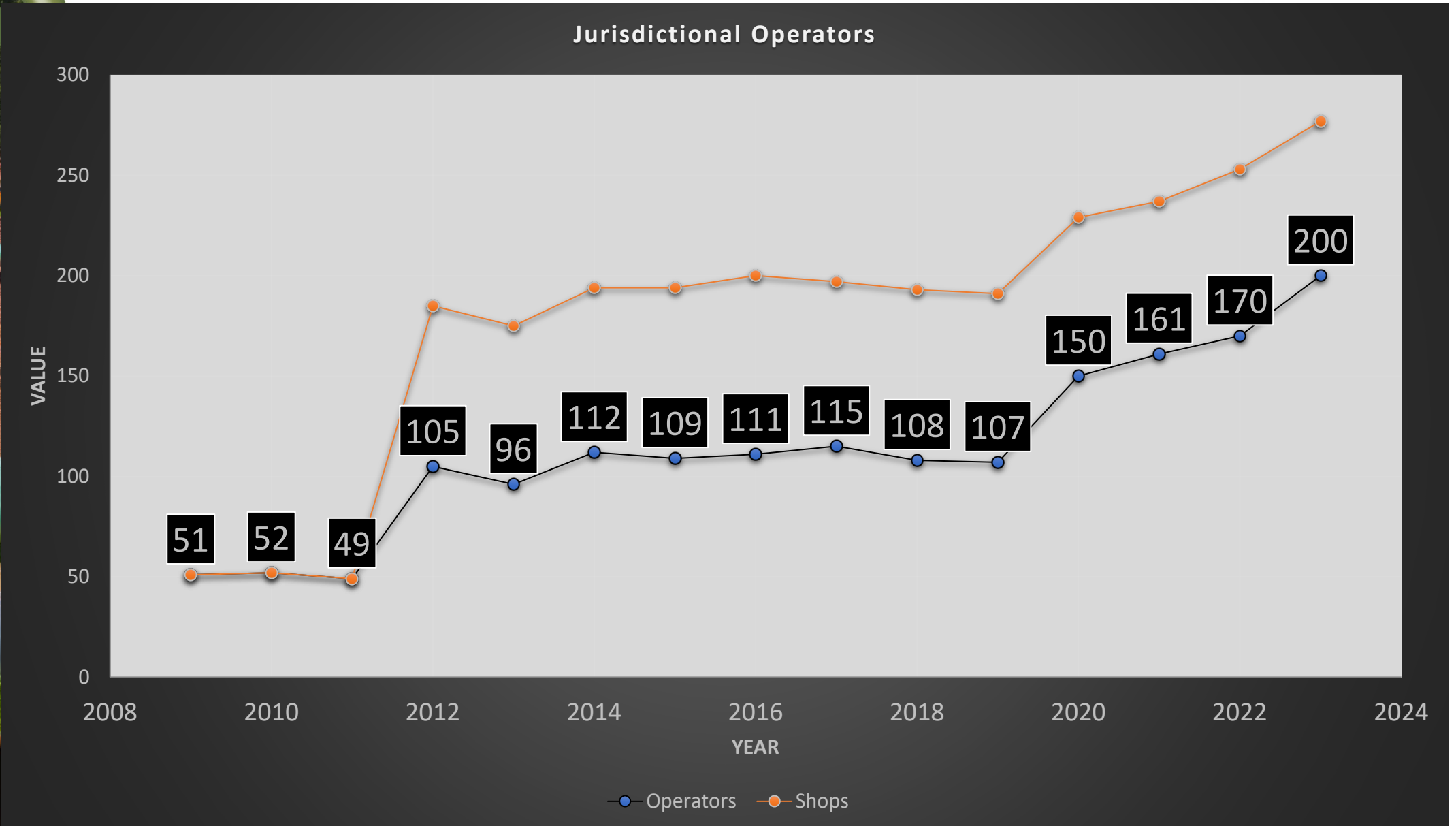
- **Represent 52 state agencies inspecting and enforcing pipeline safety regulations.**
- **Over 400 full time state inspectors conduct approximately 99% of yearly pipeline safety inspections**
- **Inspect approximately 80% of 2.8 million miles**



# NAPSR:



# Jurisdictional Operators



# **I&E Safety Division**

- **Over 2,930 inspection days on Gas and HL**
- **27% were construction inspections**
- **Number of compliance actions: 54 Non-Compliance Letters with 185 violations and several referred for potential enforcement review**
- **Several cases referred to I&E Enforcement for consideration**
- **Workload expected to increase in the coming years**
- **76 different inspection forms**



# Construction:

## Miles remaining:

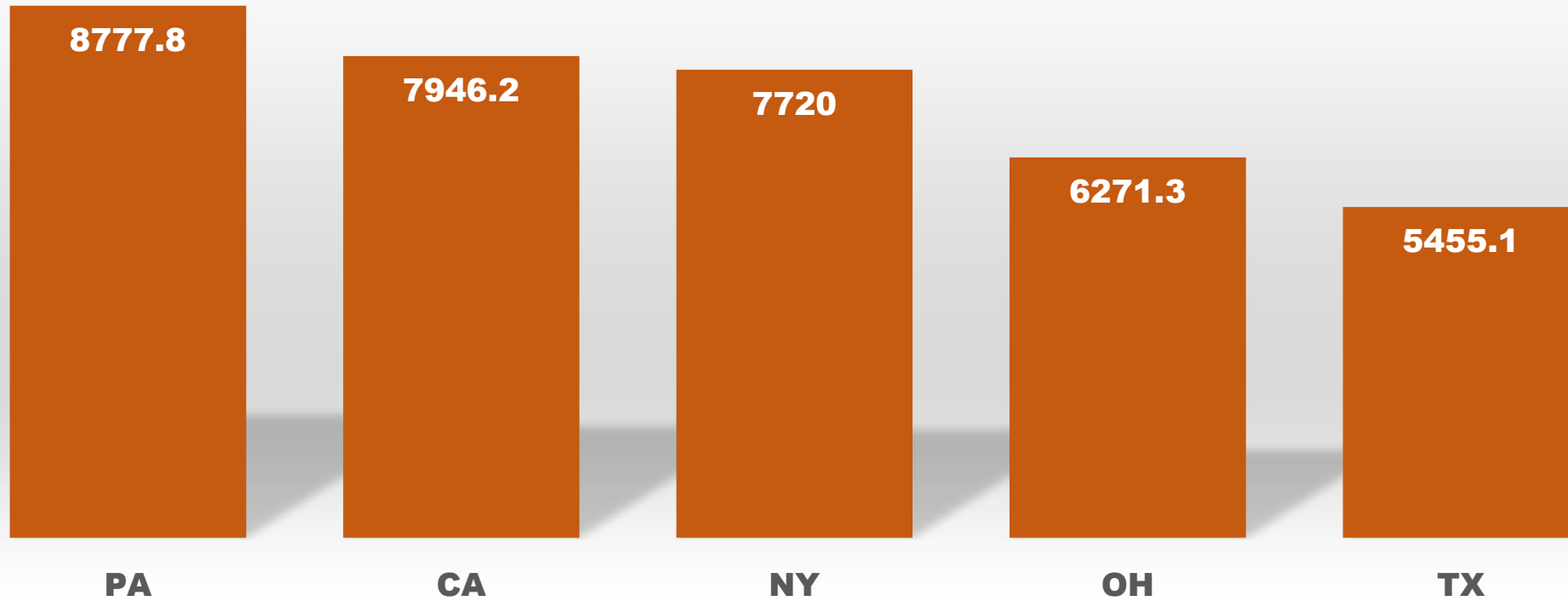
- **2,227 miles of cast iron/wrought**
- **5,241 miles of bare steel**
- **1,173 miles of unprotected coated steel**
- **Plastics**
- **Other**

## New Construction



# National Analysis

2022 MILES OF RISKY MAIN REMAINING



\*Risky main, for the purpose of this analysis: unprotected bare steel, unprotected coated steel, cathodically protected bare steel, cast/wrought iron, ductile iron, and reconditioned cast iron.

### TOTAL RISKY MAIN REMOVED 2019



	TX	NJ	OH	NY	PA
<b>MILES OF RISKY MAIN REMOVED</b>	<b>-578.9</b>	<b>-510.2</b>	<b>-494.3</b>	<b>-490.3</b>	<b>-476.1</b>

### TOTAL RISKY MAIN REMOVED 2020



	PA	NY	OH	OK	TX
<b>MILES OF RISKY MAIN REMOVED</b>	<b>-486.2</b>	<b>-447.6</b>	<b>-353.8</b>	<b>-337.8</b>	<b>-320.8</b>

### TOTAL RISKY MAIN REMOVED 2021

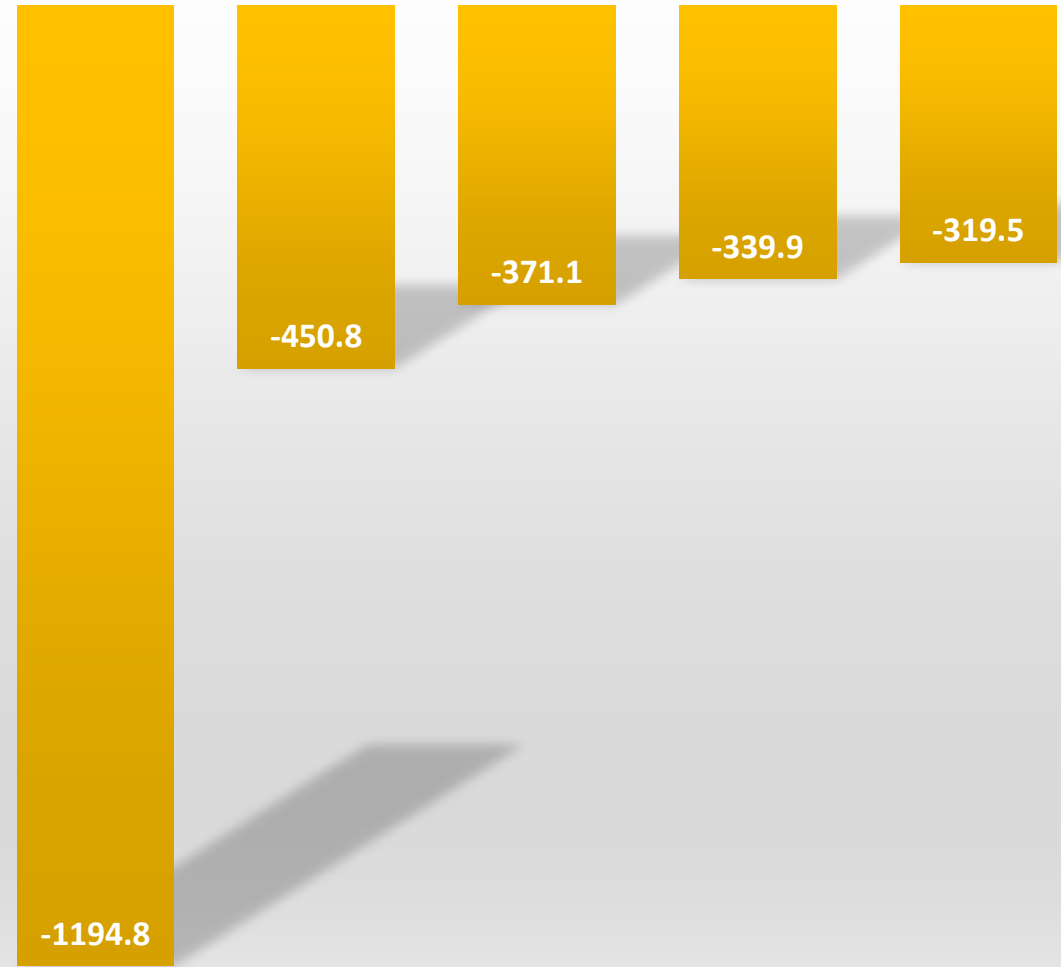


	PA	MI	OH	NJ	TX
<b>MILES OF RISKY MAIN REMOVED</b>	<b>-470.0</b>	<b>-421.6</b>	<b>-417.5</b>	<b>-413.8</b>	<b>-402.7</b>



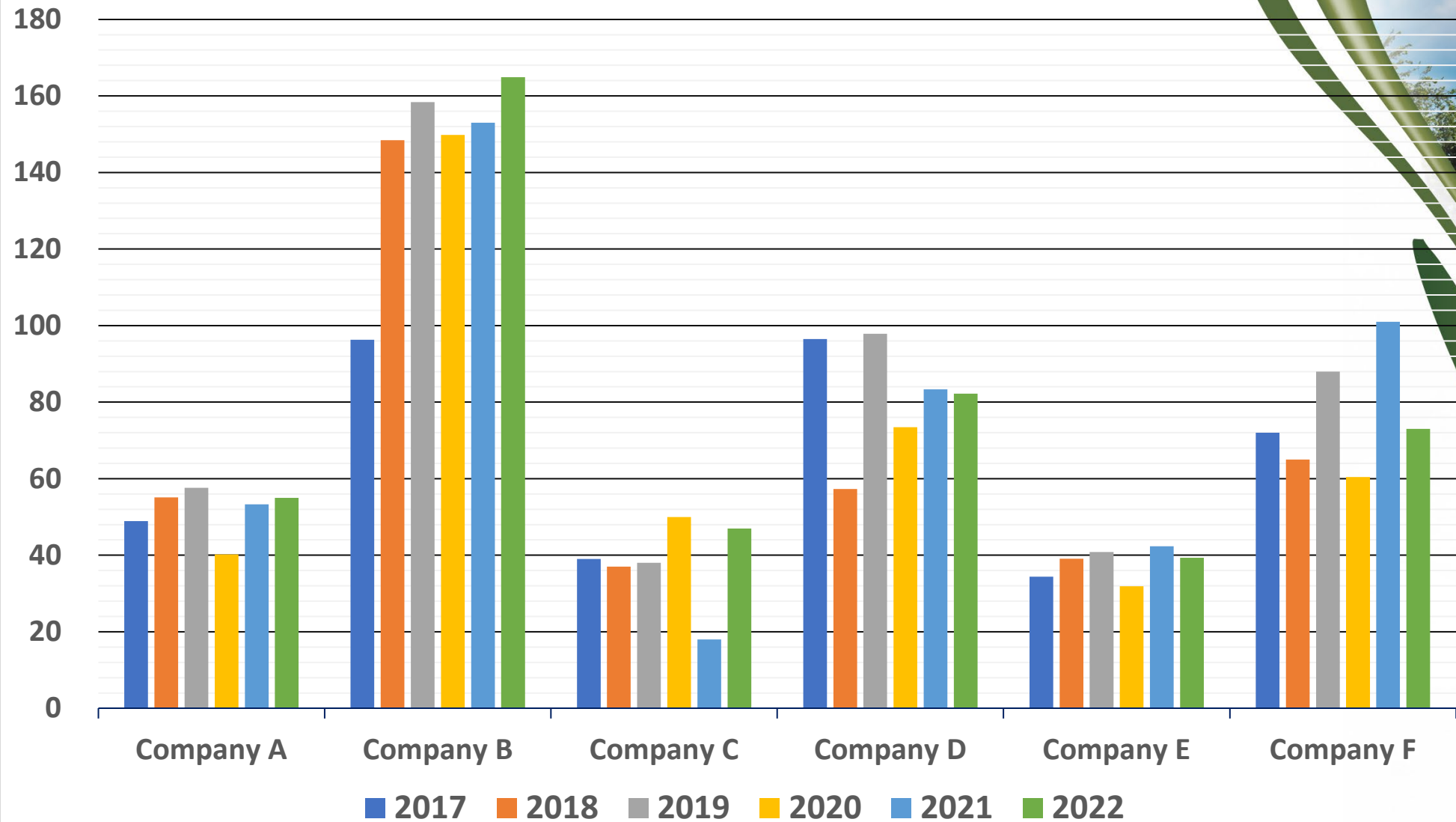


# TOTAL RISKY MAIN REMOVED 2022



	TX	NY	MI	PA	OH
■ MILES OF RISKY MAIN REMOVED	-1194.8	-450.8	-371.1	-339.9	-319.5

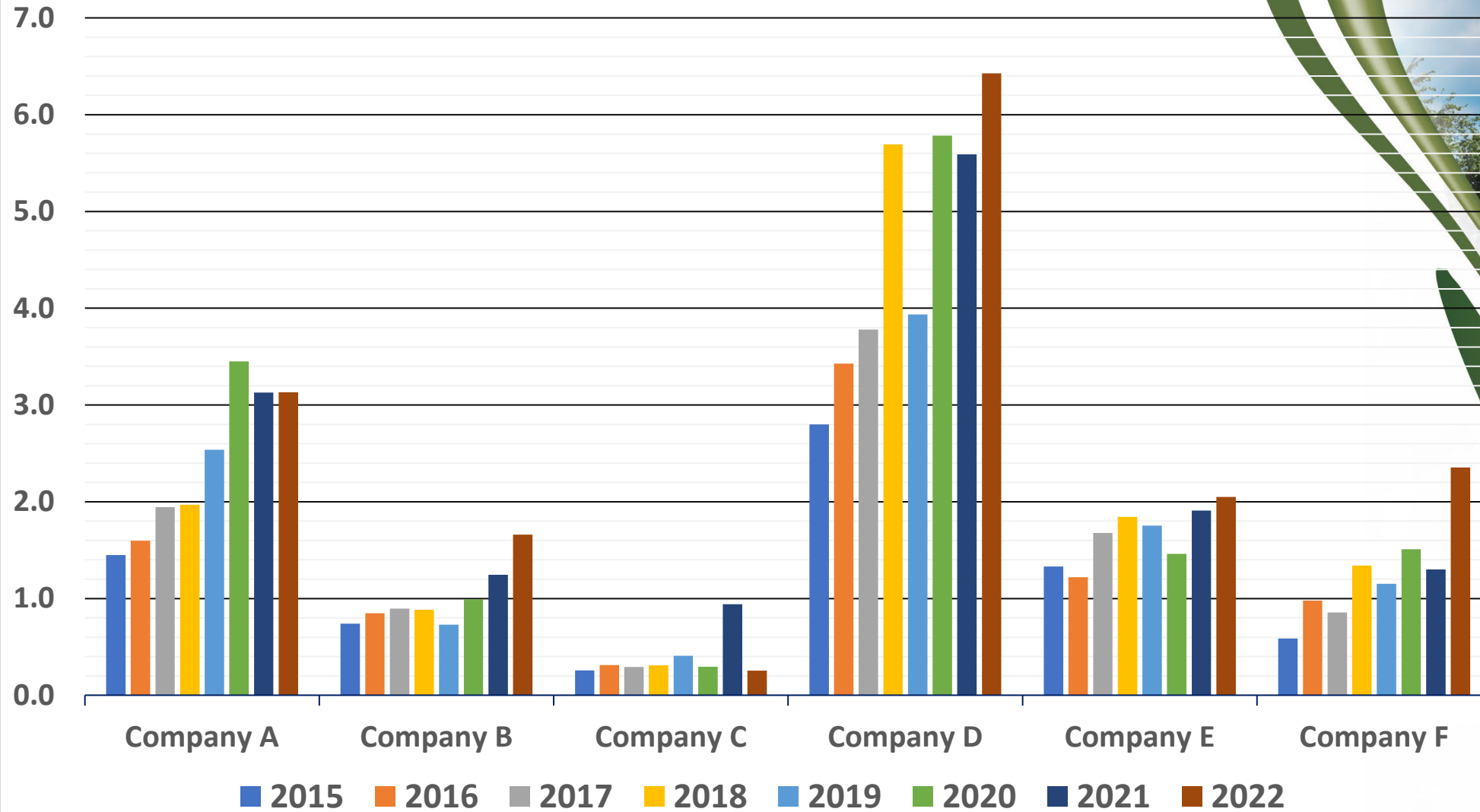
# Annual Miles of Mains Replaced for Each Company (2017 - 2022)



Opinions and content are that of I&E and I&E does not speak for the Commission



# MM Dollars Spent Per Mile Of Main Replaced For Each Company (2015 – 2020)





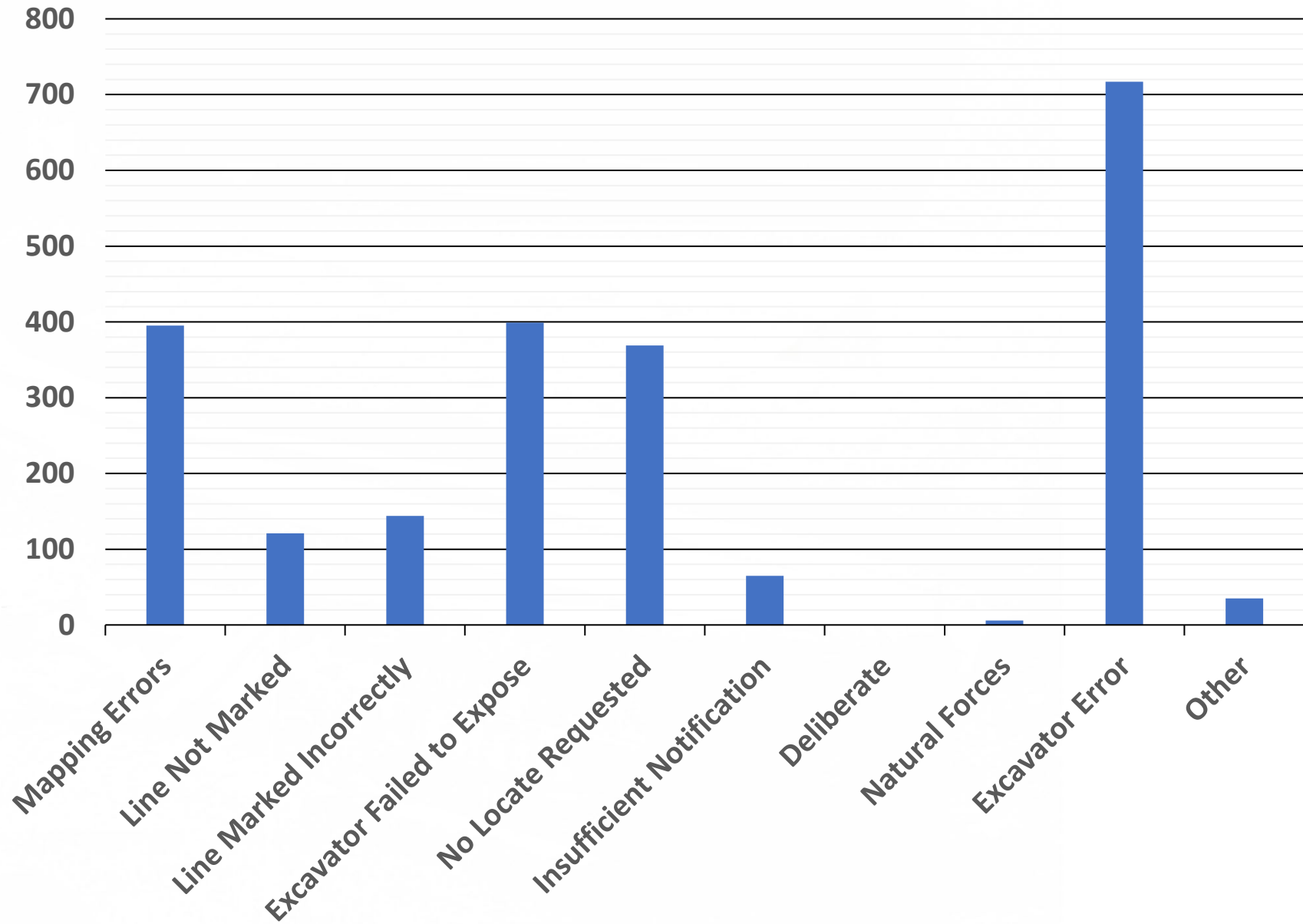
# **2022 updates:**

## **2 Reportable Incidents on Gas in 2022:**

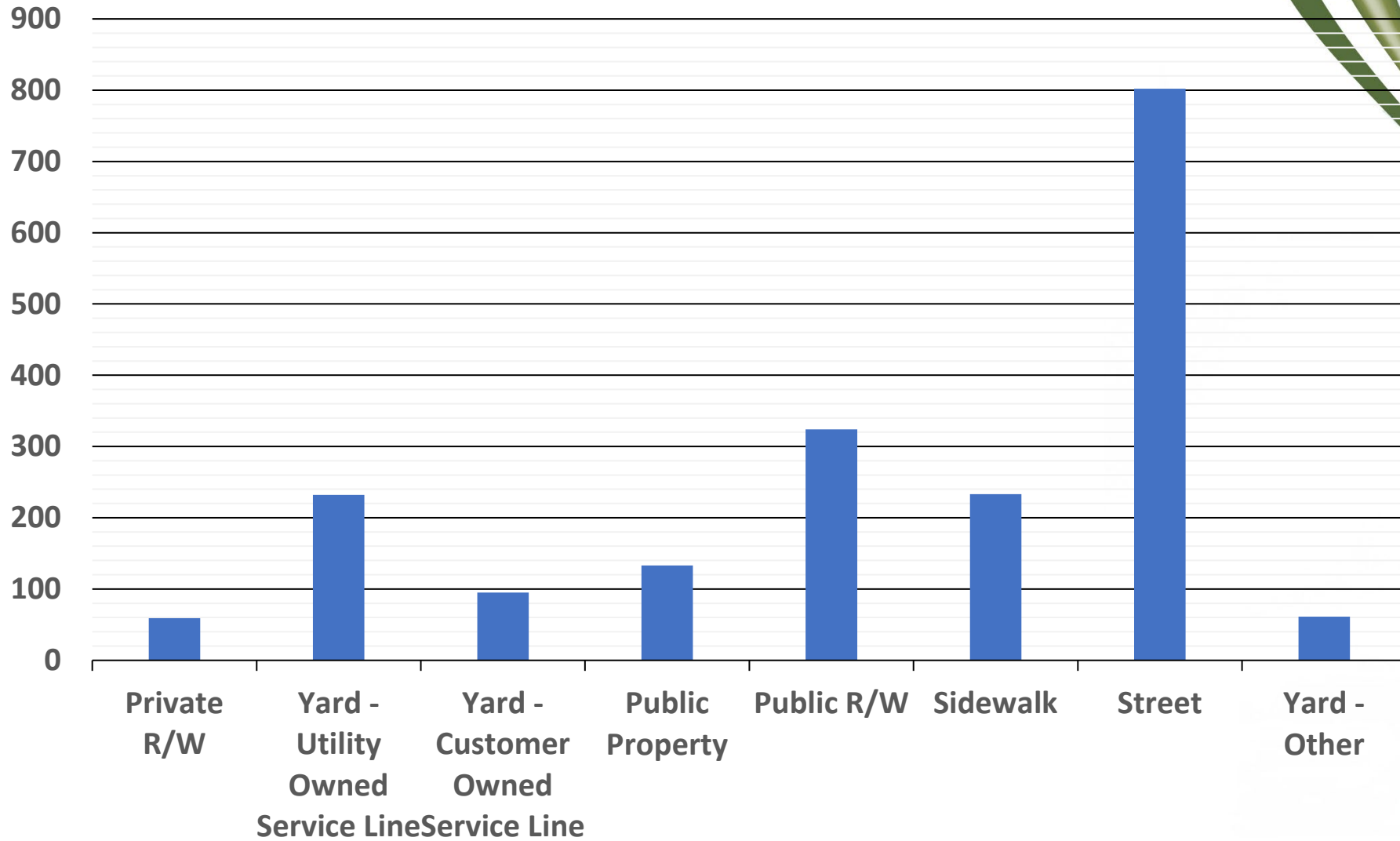
- **Both result of excavation damage.**
- **December 13, 2022  
2304 Crest Dr.  
Harrisburg, PA**
- **Transmission Line  
damaged in Jefferson  
Twp., Cambria County  
July 28, 2022**



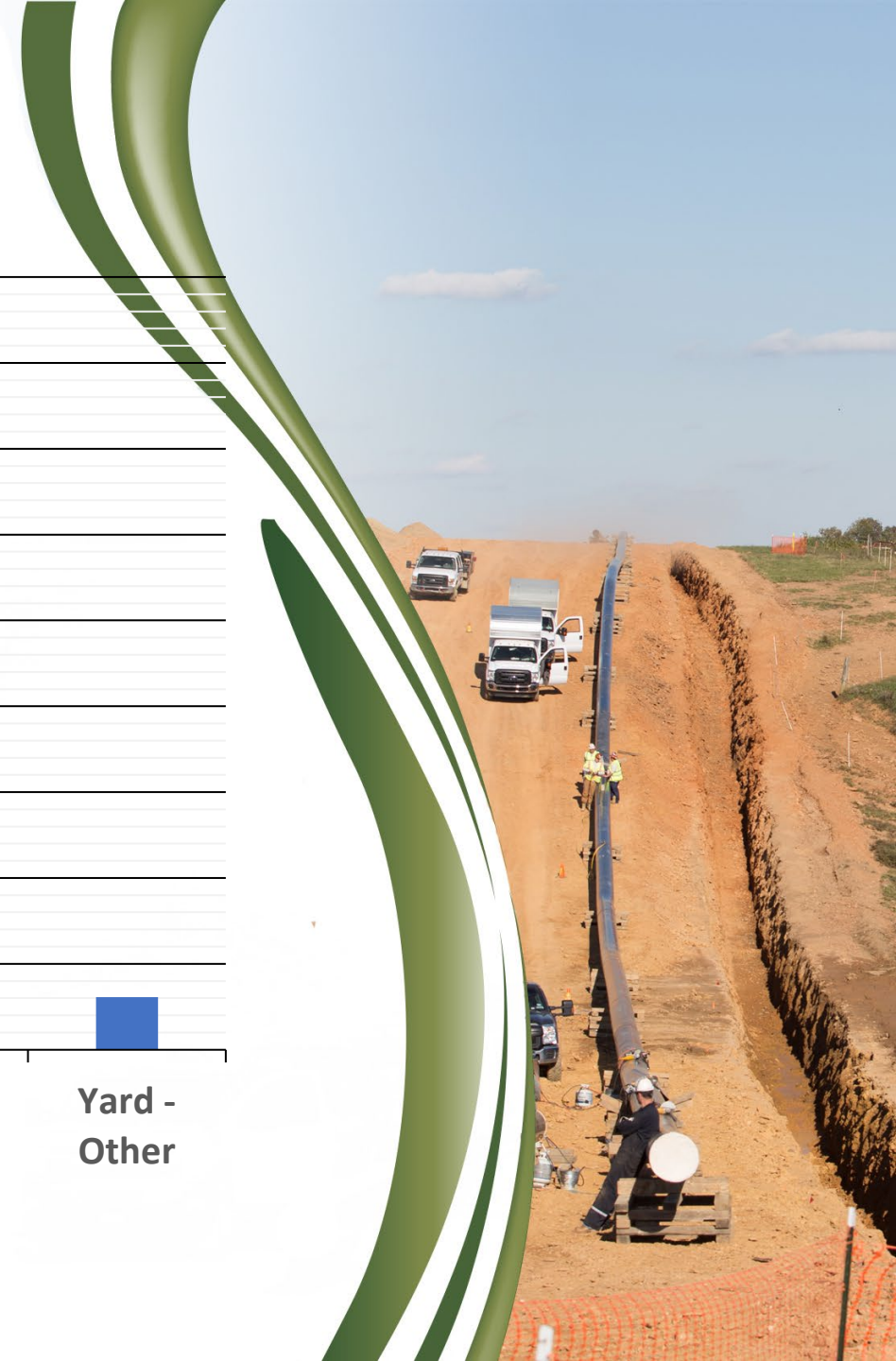
# Number Of Hits Per Reason For Facility Damage



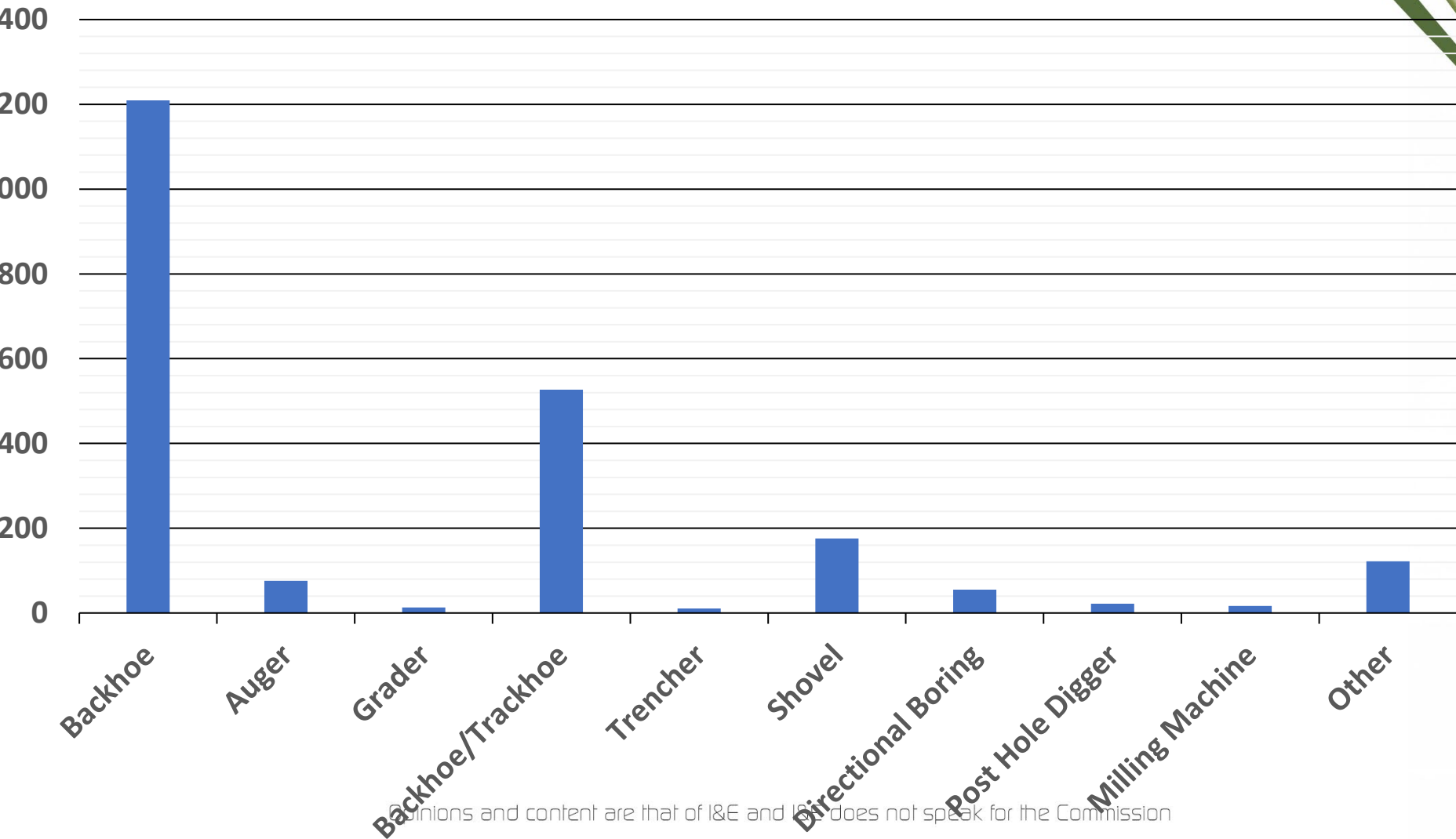
## Number Of Hits Per Facility Damage Location



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# Hits per type of Excavation Damage

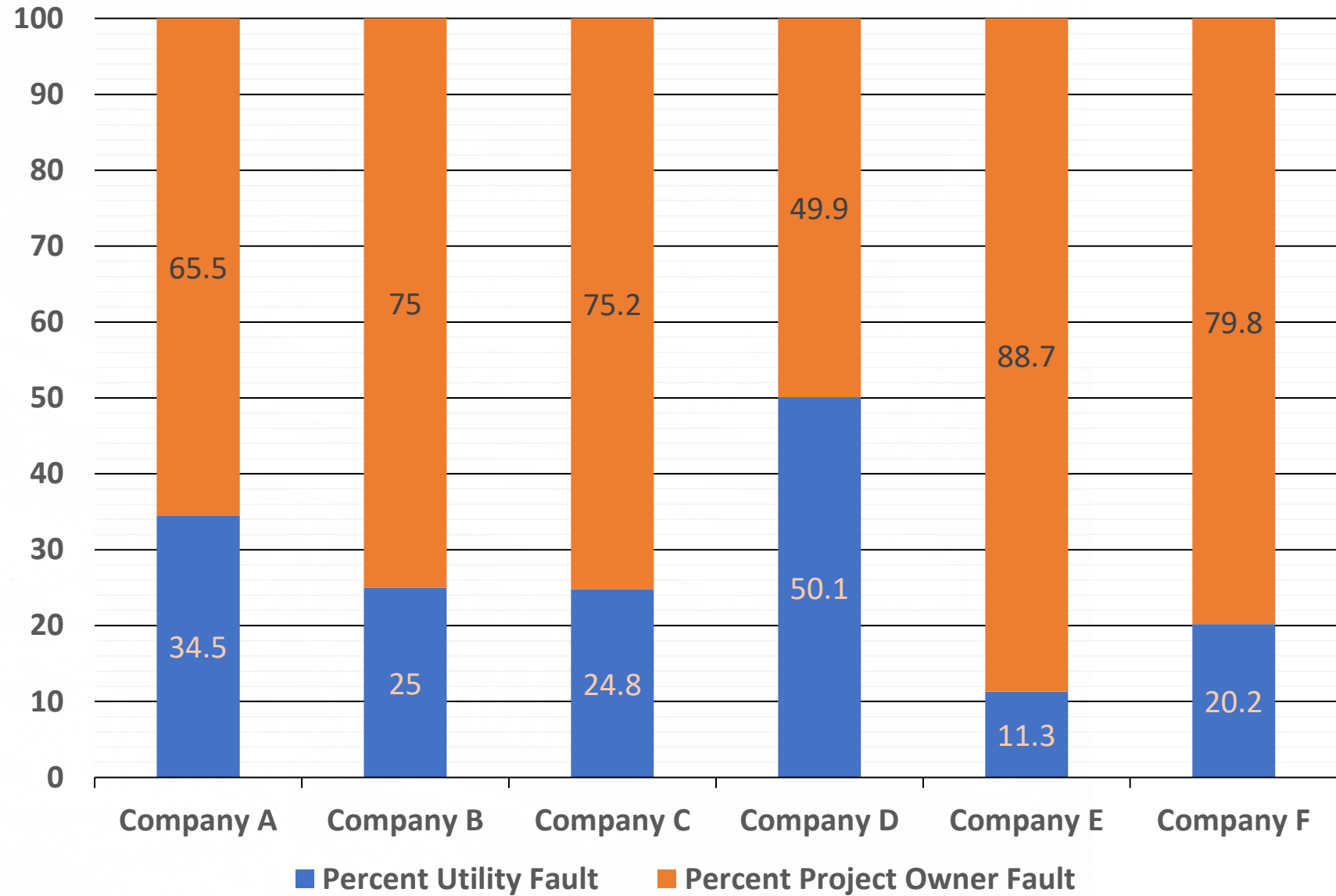


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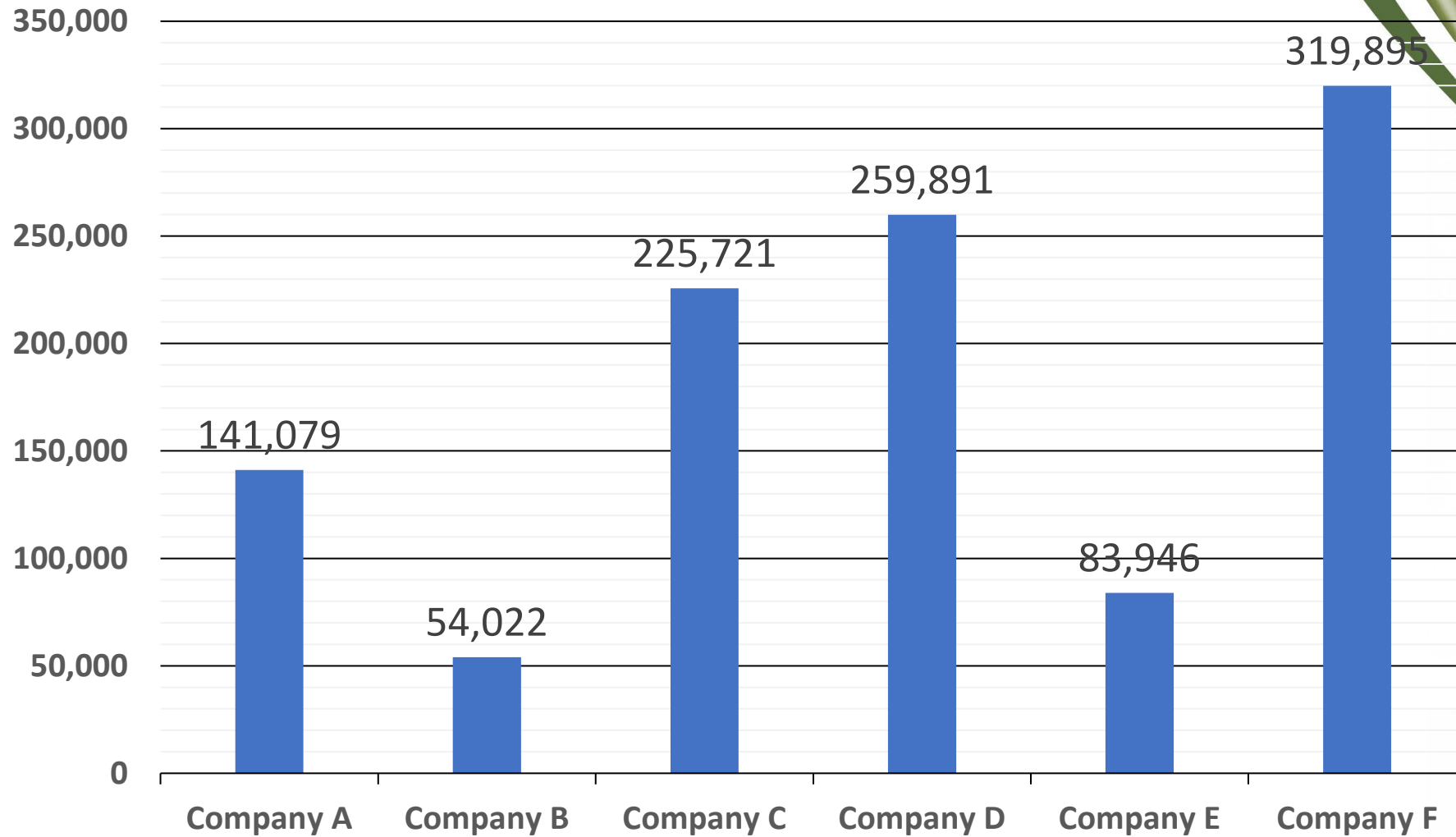


# Damage Fault - Percent Utility & Percent Project Owner Owner

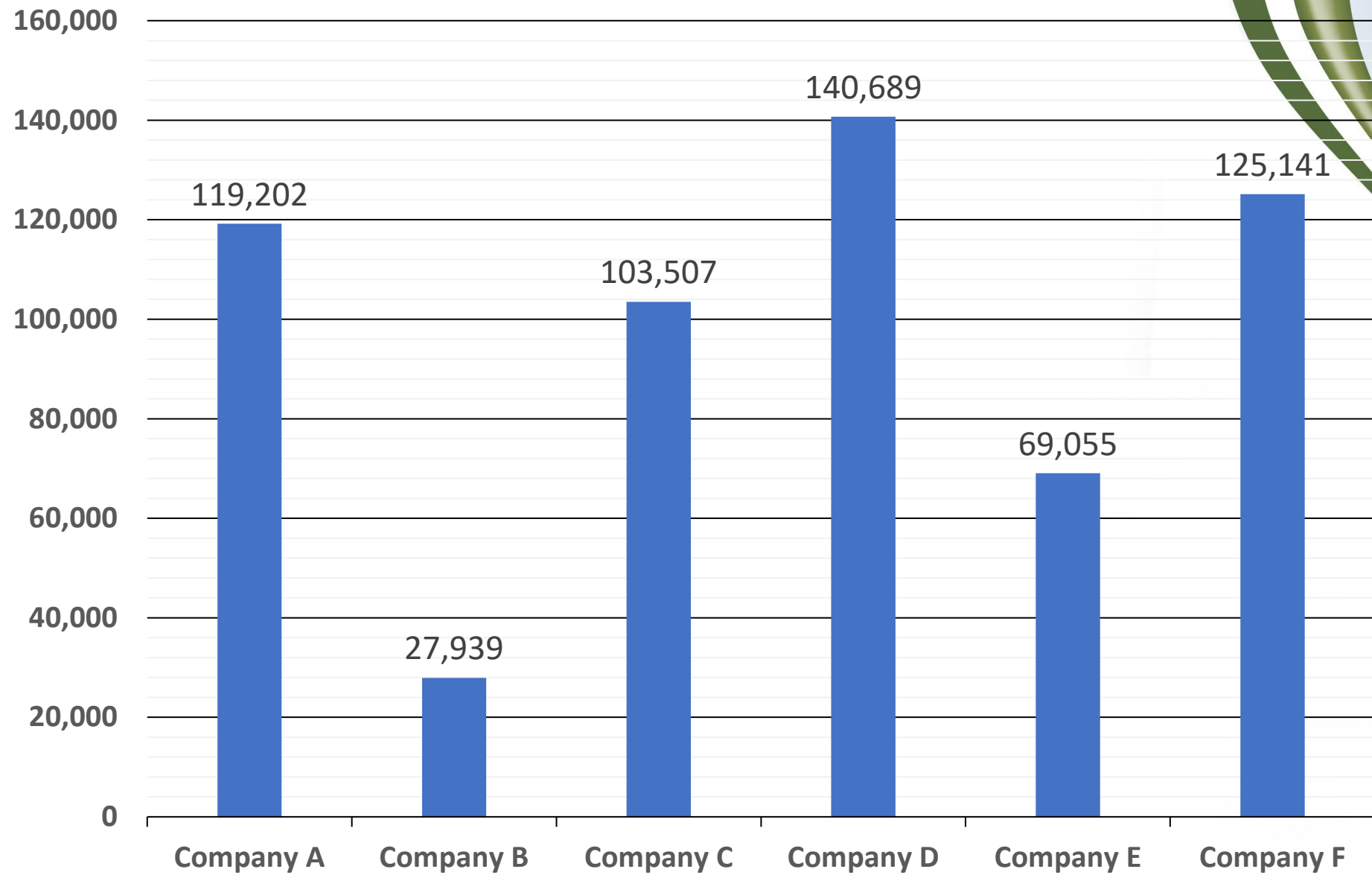




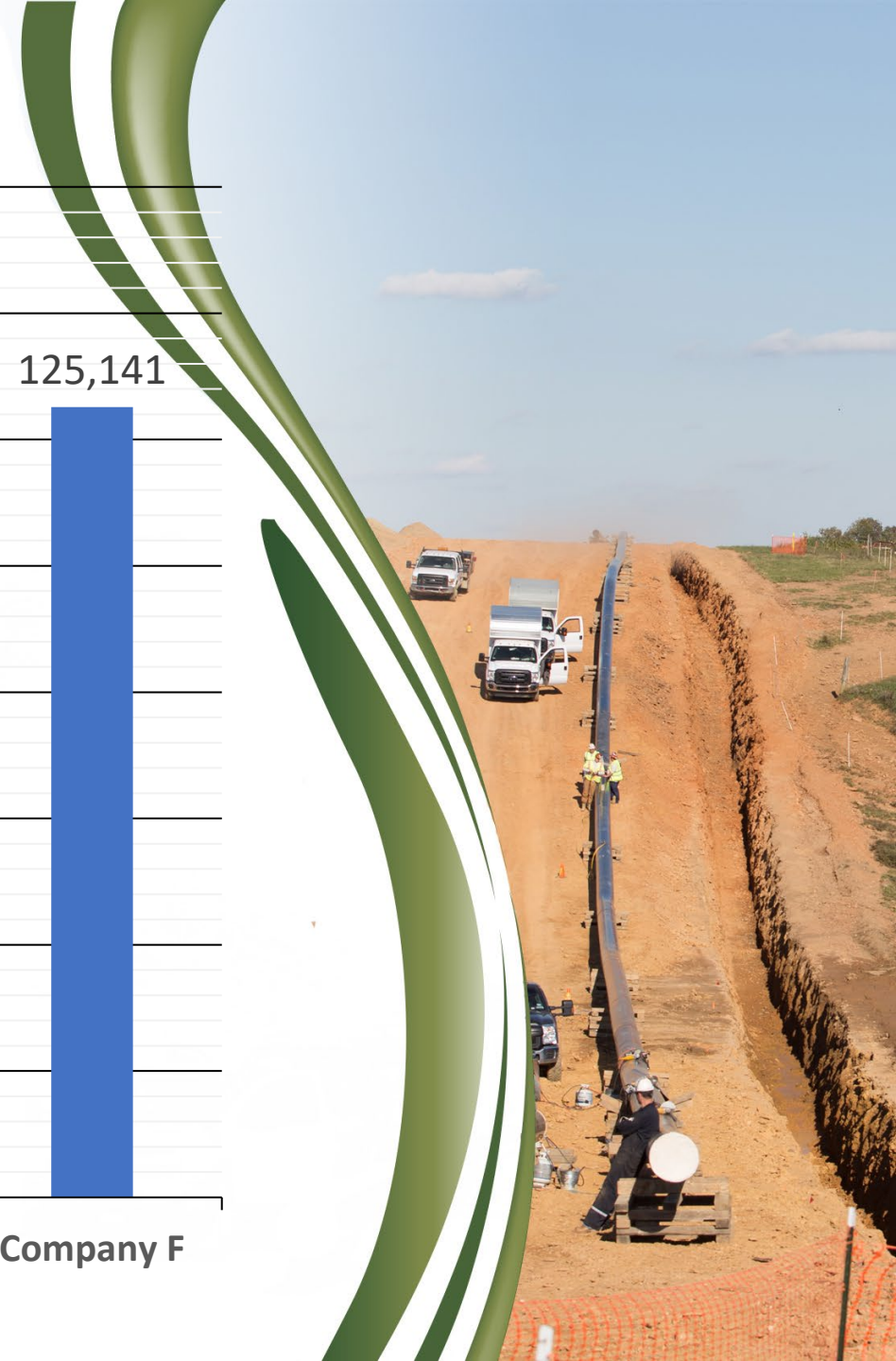
## Total Tickets Received for Each Operator



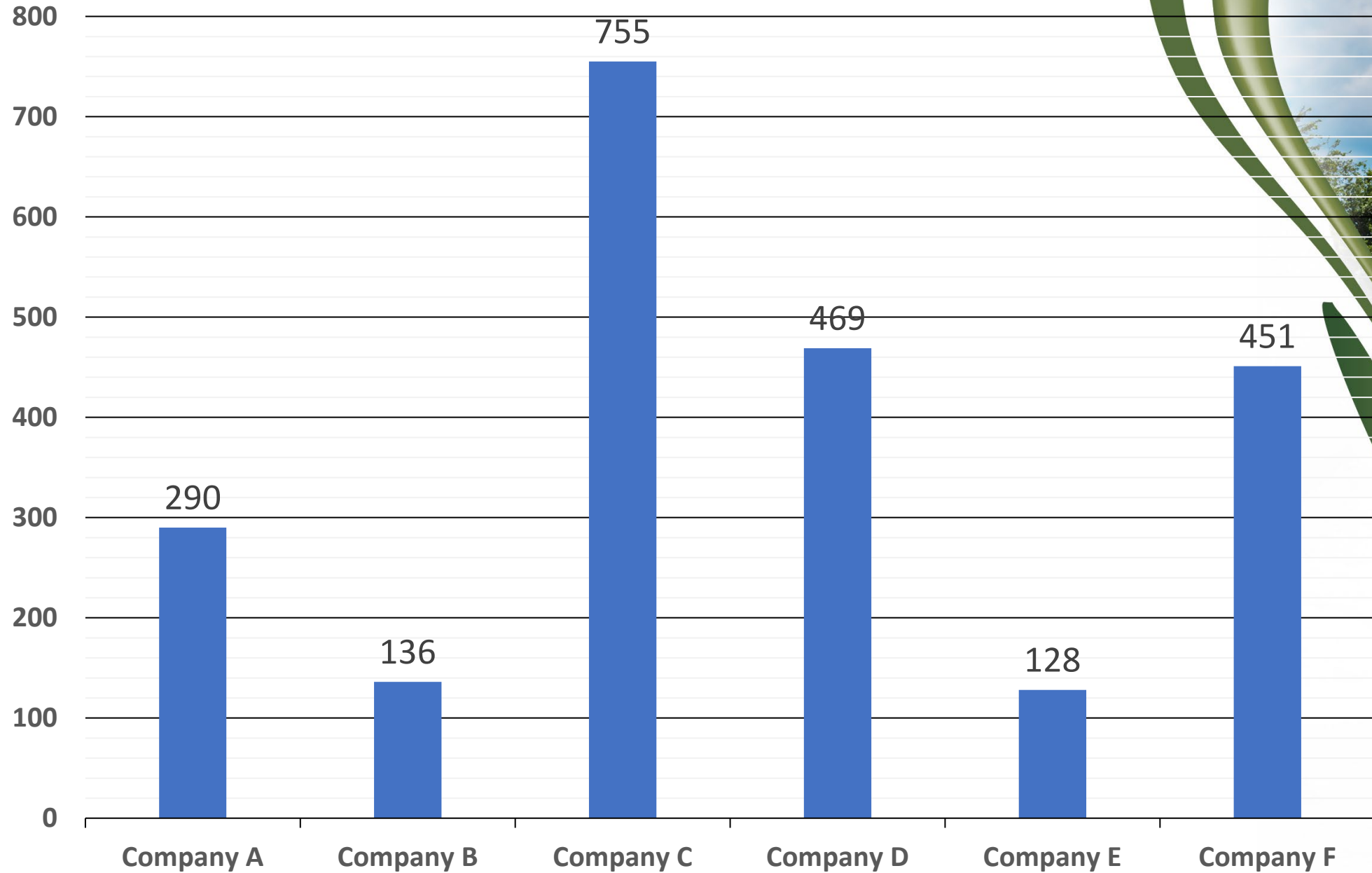
# Total Tickets Marked for Each Operator



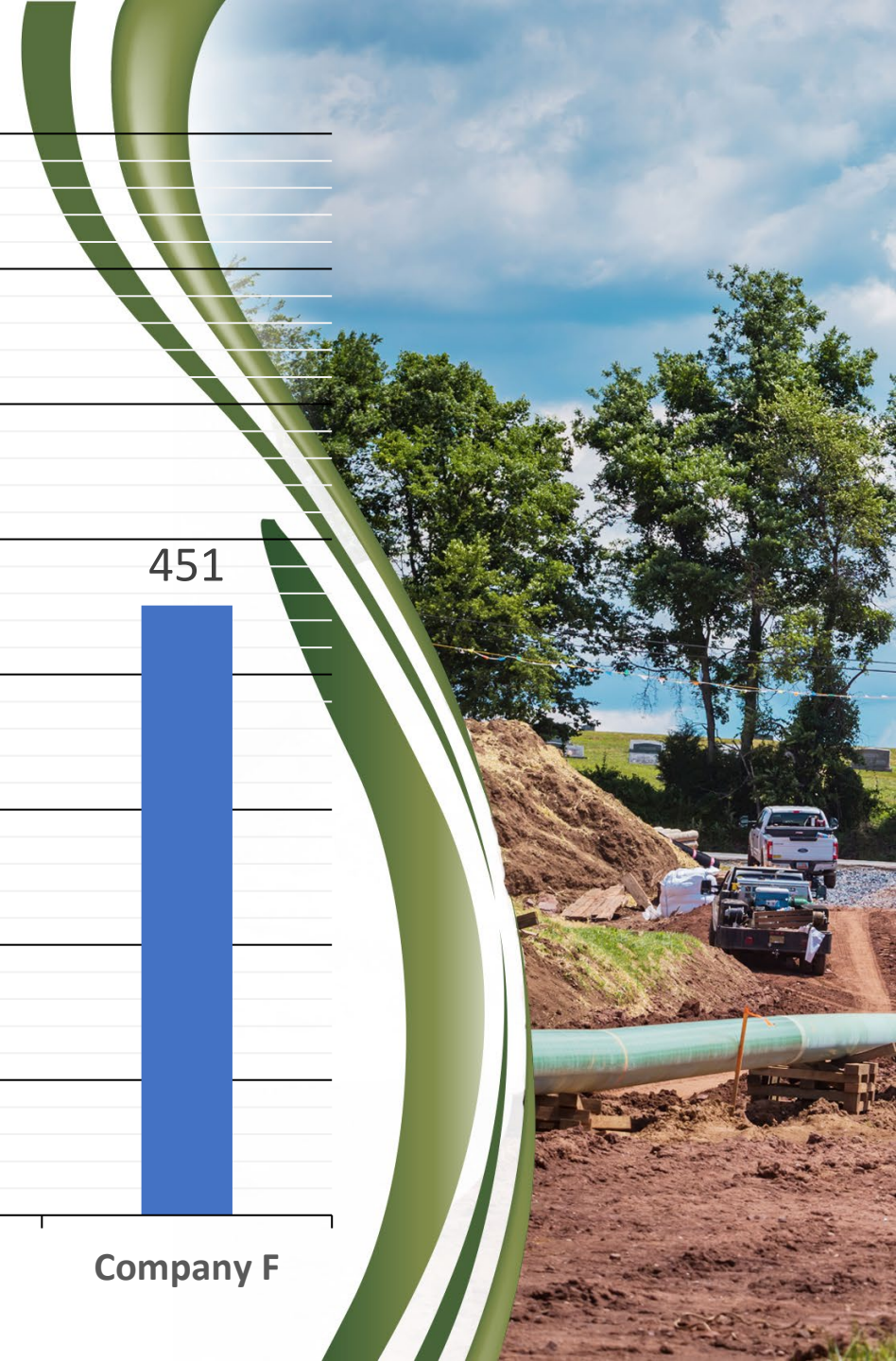
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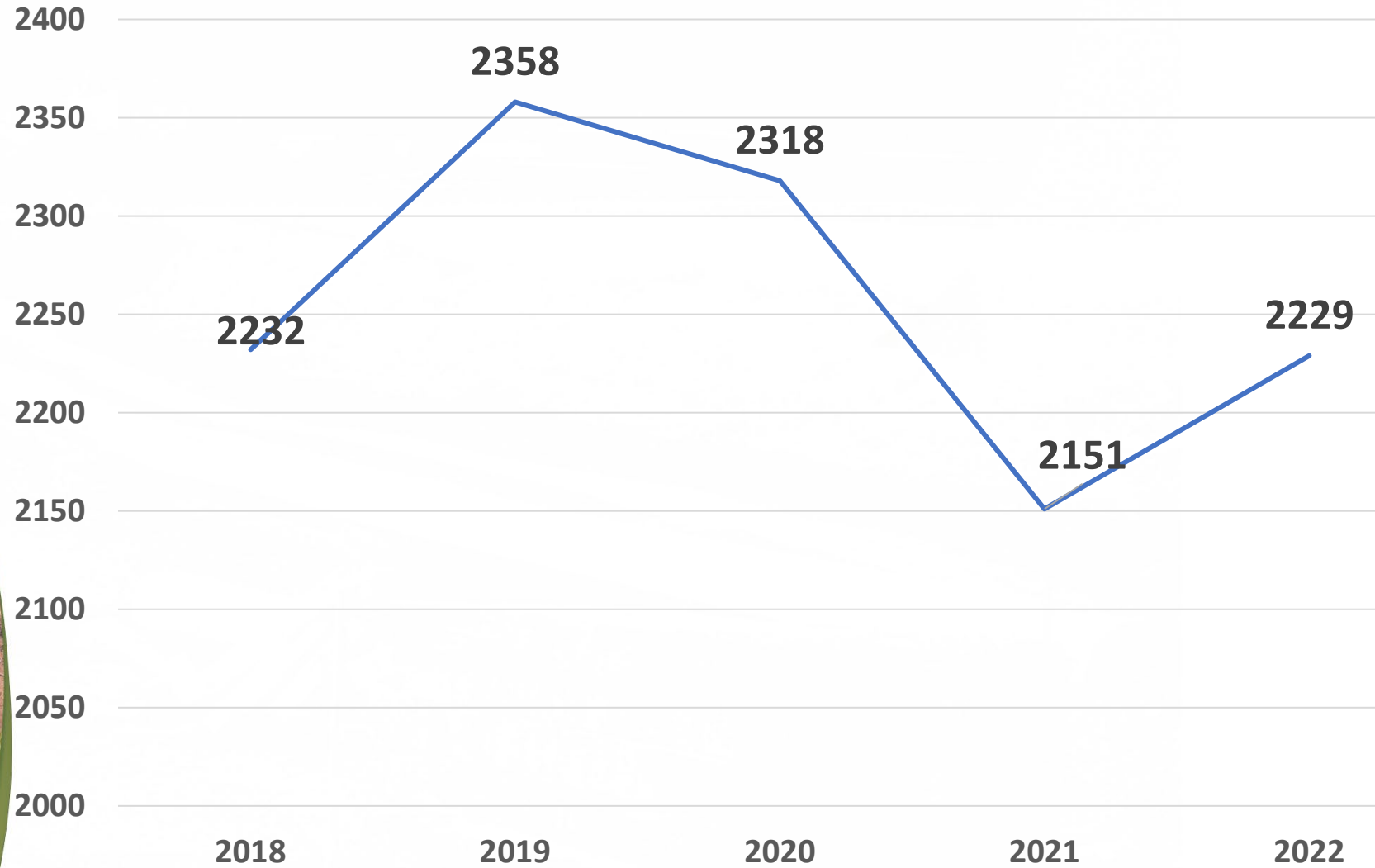
# Total Line Hits for Each Operator



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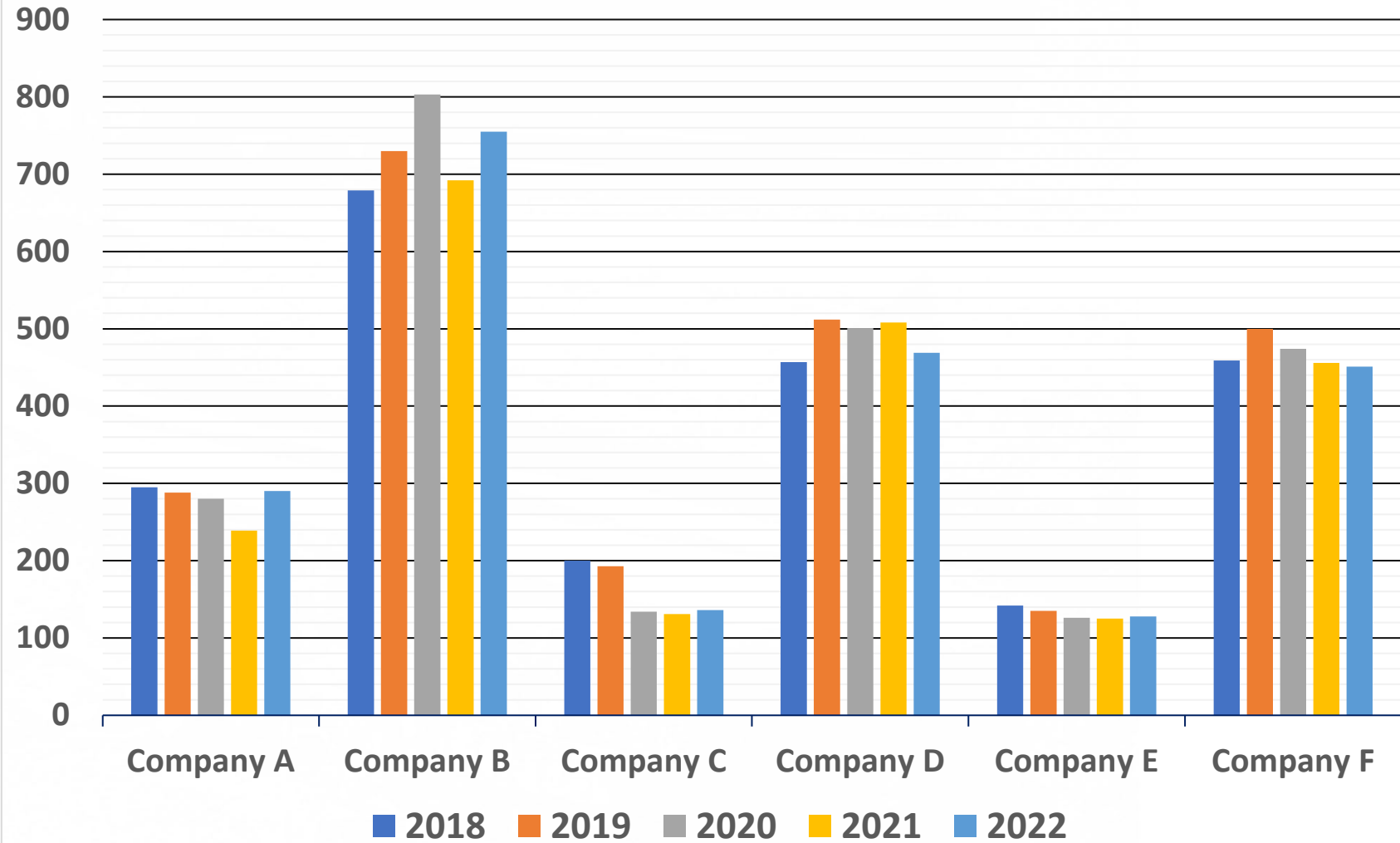


# Total Number Of Damaged Facilities Per Year For All Operators Combined



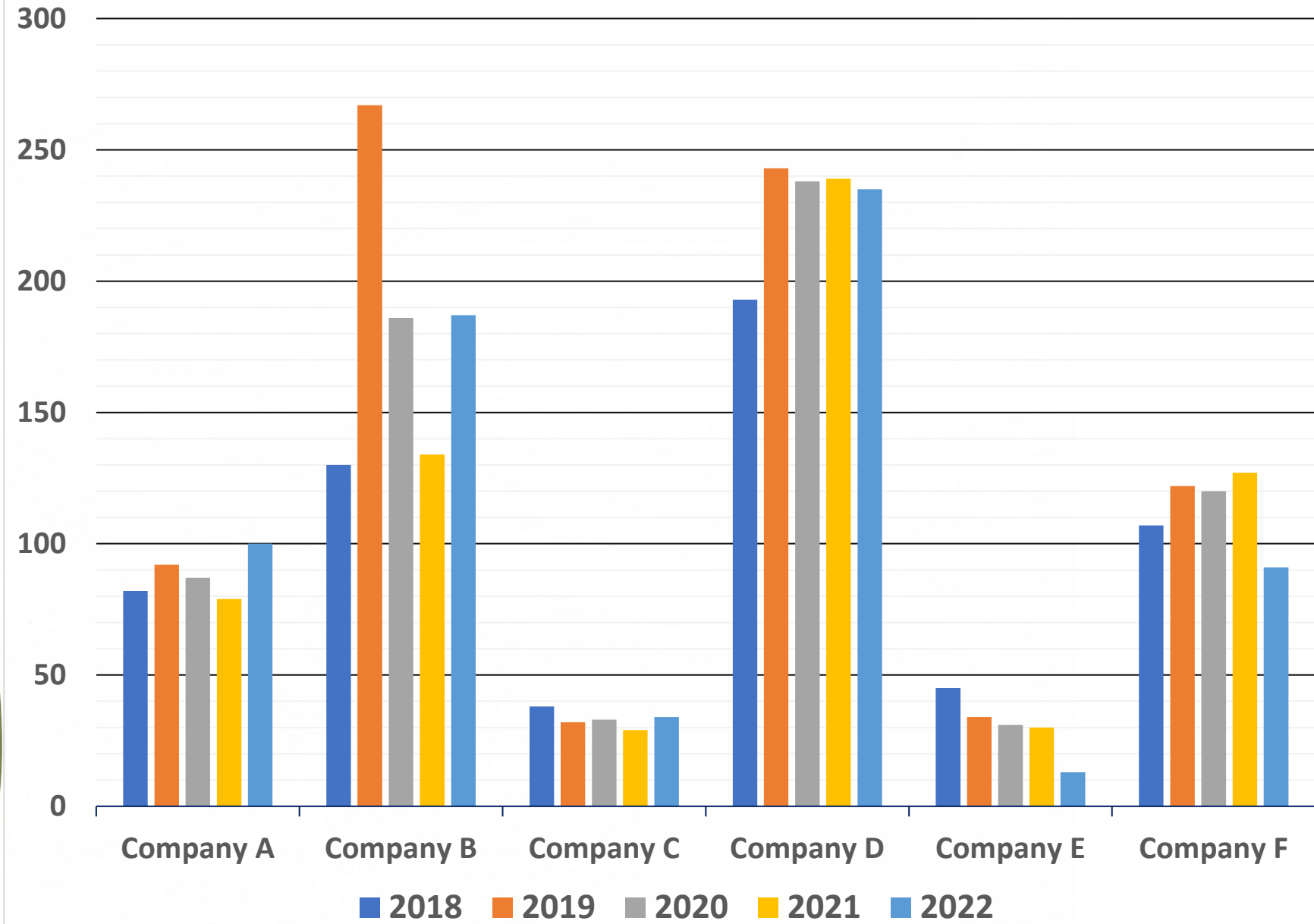


## Total Number Of Damage Facilities Per Year For Each Operator

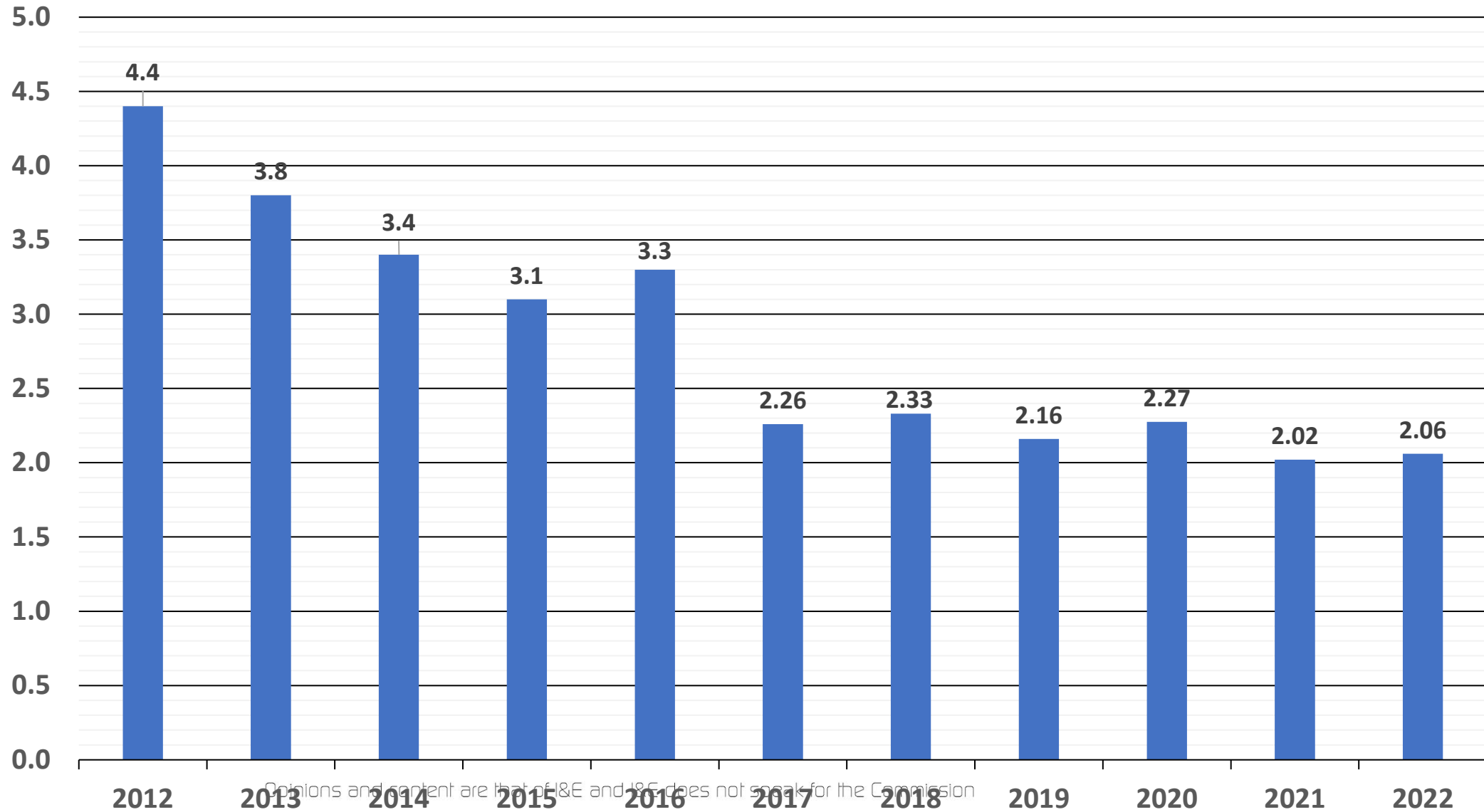




# Utility Fault Line Hits

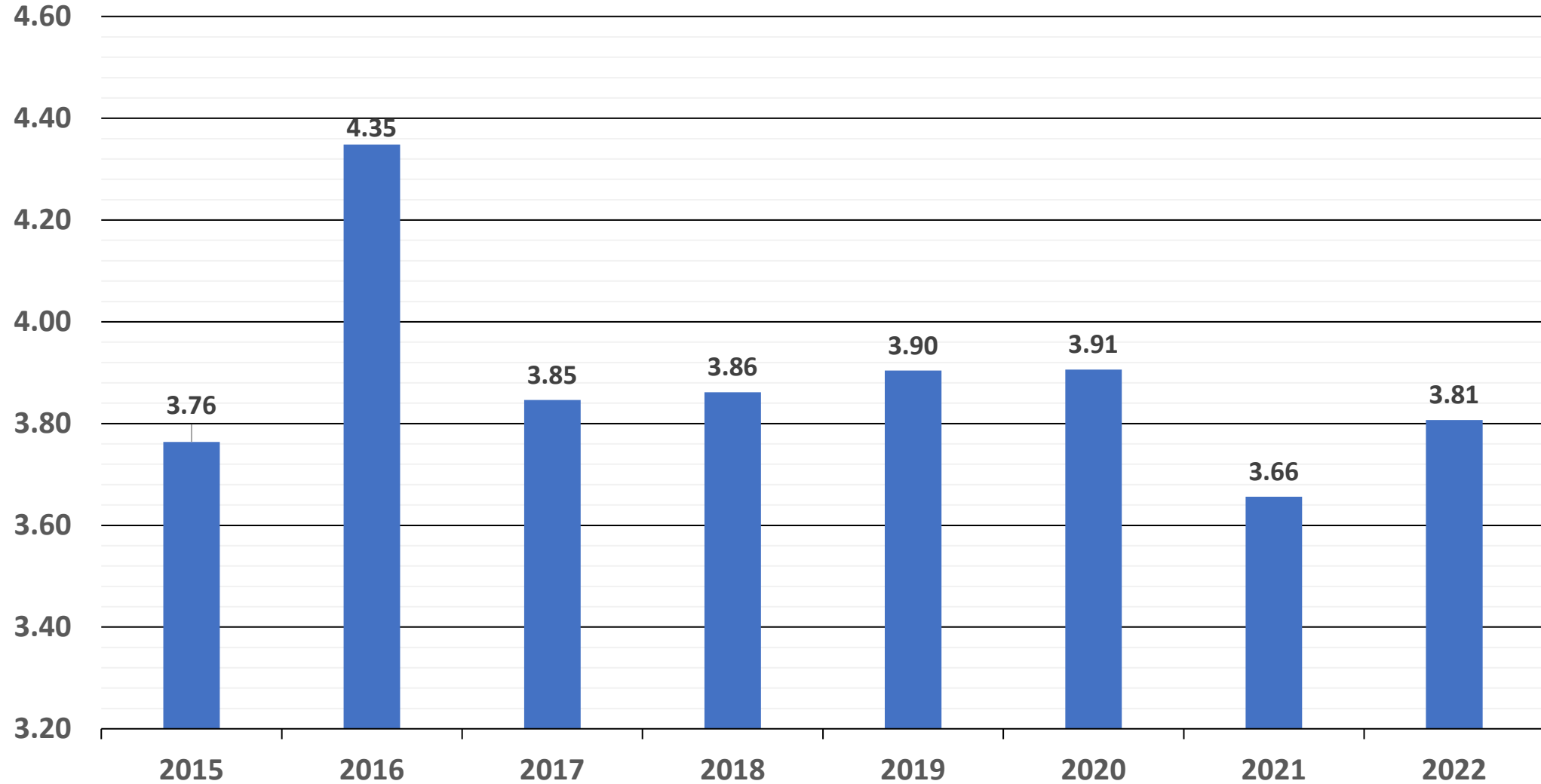


## Total Gas Line Hits in PA Per 1,000 Tickets Received



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## Total Gas Line Hits in PA Per 1,000 Tickets Marked



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# . Thank you

- Robert Horensky
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