

NARUC  Winter  

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Policy Summit

# **Beyond Extreme Weather: Challenges to Ensuring Resilience for Gas Infrastructure and Lessons Learned from Third-Party Damage**

**NARUC Committee on Gas/Committee on Critical  
Infrastructure/Committee on Consumers and the Public Interest**

**Moderator:** Hon. Ann Rendahl, Washington  
Utilities & Transportation Commission

**Panelists:**

- Alicia Gibbs, Director of Natural Gas, Avista
- Paul Maguire, PE, P. Eng, Engineering Manager, Nevada Public Utilities Commission
- Max Kieba, Office of Pipeline Safety – Program Development Division, US DOT, PHMSA



# Avista's Historic Gas Outage

February 2024

# Avista Overview



Electric Natural Gas Electric and Natural Gas

**Serving over 374,000 gas customers in Washington, Idaho, and Oregon**

## Avista Natural Gas Service Areas, Gas Fields, Trading Hubs and Major Pipelines

- Avista Service Territory
- Williams – Northwest Pipeline
- Enbridge – Westcoast
- TC Energy – GTN
- TC Energy – Foothills
- TC Energy – Nova
- Kinder Morgan – Ruby
- Jackson Prairie Storage Project
- Trading Hubs



# Initial Outage Response



# Impressive restoration progress during a historic event

November 9-10th

## System Isolation

- Teams across the company completed shut offs (350+ employees)



November 10-13th

## System Purging and Pressurization

- Engineering and Pressure Control coordinate to bring all zones online (purging air and re-pressuring the system)



November 10-14th

## Customer Relights

- 100+ Avista field employees, 300+ mutual aid employees, 60+ HVAC techs go door-to-door to relight customers



# Mutual aid help came from near and far



# Heartfelt thanks and appreciation expressed by our customers

Katie DeFord

Huge THANK YOU for all the hard work and updates! People coming around have been super helpful and friendly! Amazing job Avista Utilities!

1w

23

Kris Hall Boreen

Wow! What an immense undertaking, and so we'll planned and executed! Thank you, Avista, for taking such good care of us.

1w

57

Teri Williams

Our gas is back on, furnace is fired up and hot water is heating! Nicest guy from Bozeman, Montana got us fixed up. He and his partner are staying at a hotel that has no hot water, and yet they are out here for 18 hours in the wind making sure homes are up and running. Avista, you brought in some great people for this gas issue. People...please make sure and thank them when they come to your house. We've seen them out here since before dawn today and they have not stopped. We are very grateful to all of them.

1w

15

Shelly Foster Bigger

Thank you to all the hard working employees during this very stressful time getting the gas lines all restored!!! You are AWESOME!!

1w

2

Renaye Delano

THANK YOU WORKERS AT AVISTA! I saw you busting your butts going door to door and making sure we are all back on and okay!! GOD bless you guys and Happy Holidays!!! ❤️❤️❤️❤️

Kerri Bice

Avista - you have done an outstanding job.

I can't even begin to wrap my head around the planning and hours worked to solve this issue. 🙏

1w

28

58

Kevin Kelly McKeehan

3 guys from PG&E, San Francisco were in and out in 10 minutes. 2100 block of Alder, Lewiston.

We appreciate them!

1w Edited

2

Debbie Hornbuckle

Hip hip hurray! I have hot water and heat! I'm in Moscow, Idaho Zone 2. Thank you, Avista, for doing it right and safely. The serviceman from Salem Oregon was very upbeat and efficient.

nbpsr sun eucicur

# An Effective Damage Prevention Program is



**Paul Maguire, PE, P. Eng, Engineering Manager**

Public Utilities Commission of Nevada

1150 E. William Street, Carson City, NV 89701-3109

P: 775-684-6143

[puc.nv.gov](http://puc.nv.gov) | [pmaguire@puc.nv.gov](mailto:pmaguire@puc.nv.gov)



**Know what's below.  
Call before you dig.**

# Three Factors that Improved Nevada's Damage Prevention Program

- The Commission approved the conversion of numerous small natural gas operators that were just eating up resource. This allowed more resources to be devoted to damage prevention activities;
- The PUCN Staff and Nevada's Gas LDCs reached an agreement to have the LDCs provide real time notification emails of all gas damages such that they could be investigated when they occurred;
- The Nevada Gas LDCs moved away from its line locators doing joint marking, and they stopped paying for locating costs by ticket volume and started paying locators by the hour;

# Get to know you stakeholders

**NNV Linebreak Notification** Firebrand Rd & Heybourne Rd, Minden NV 89423



Nancy Lopez <nancy.lopez@swgas.com>

To Daniel Adesina; Adam Shochat; Amanda Marcucci; Bill Parry; Carson Alexander; Dennis Bott; Hayley Jones; Jamie Haas; Kelly Everson; Kevin Lang; Leah Skinner; Lloyd Gray; Matthew Helmers; Mike Evans; **+9 others**

Reply

Reply All

Forward



Mon 1/22/2024 10:22 AM

You forwarded this message on 1/22/2024 11:25 AM.

[Click here to download pictures.](#) To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

SWG was notified of the following damage. Below is what we know:

Location: Firebrand Rd & Heybourne Rd, Minden NV 89423

Pipe/size: Unknown

Damaging Party: Unknown

Notified at: Douglas County Fire 10:20am

Kind regards,



**SOUTHWEST GAS**



**STATE OF NEVADA GAS EXCAVATION DAMAGE NUMBERS**

Year	One-Call-Tickets	One-Call-Center-Tickets (1,000s)	Change-from-Prev.-YR	%-Change-from-Prev.-YR	Number-of-Gas-Damages-Reported	Gas-Damages-(10s)	Change-from-Prev.-YR	%-Change-from-Prev.-YR	-Gas-Damages-per-1,000-Tickets
2000	103,365	103	%	%	1472	147.2	%	%	14.24
2001	107,785	108	4,420	4.28%	1389	138.9	-83	-5.64%	12.89
2002	133,030	133	25,245	23.42%	1495	149.5	106	7.63%	11.24
2003	161,360	161	28,330	21.30%	1333	133.3	-162	-10.84%	8.26
2004	175,075	175	13,715	8.50%	1237	123.7	-96	-7.20%	7.07
2005	199,630	200	24,555	14.03%	1200	120	-37	-2.99%	6.01
2006	204,485	204	4,855	2.43%	1140	114	-60	-5.00%	5.57
2007	171,550	172	-32,935	-16.11%	768	76.8	-372	-32.63%	4.48
2008	121,815	122	-49,735	-28.99%	550	55	-218	-28.39%	4.52
2009	72,250	72	-49,565	-40.69%	346	34.6	-204	-37.09%	4.79
2010	67,460	67	-4,790	-6.63%	319	31.9	-27	-7.80%	4.73
2011	69,010	69	1,550	2.30%	306	30.6	-13	-4.08%	4.43
2012	74,246	74	5,236	7.59%	305	30.5	-1	-0.33%	4.11
2013	75,531	76	1,285	1.73%	328	32.8	23	7.54%	4.34
2014	82,965	83	7,434	9.84%	356	35.6	28	8.54%	4.29
2015	105,143	105	22,178	26.73%	431	43.1	75	21.07%	4.10
2016	114,101	114	8,958	8.52%	385	38.5	-46	-10.67%	3.37
2017	129,991	130	15,890	13.93%	398	39.8	13	3.38%	3.06
2018	138,910	139	8,919	6.86%	431	43.1	33	8.29%	3.10
2019	150,593	151	11,683	8.41%	341	34.1	-90	-20.88%	2.26
2020	150,145	150	-448	0%	341	34.1	0	0.00%	2.27
2021	169,737	170	19,592	13.04%	365	36.5	24	7.04%	2.15
2022	193,807	194	24,070	14.18%	337	33.7	-28	-7.67%	1.74
2023	200,720	201	6,913	3.56%	307	30.7	-30	-8.90%	<b>1.53</b>



2022 PDM Data (as of 4/6/2023)						
Region	State	2022 Number of Services	Excavation Damages	Damages Per 10,000 Services ((D/C) x 10,000)	National Rank (Low to High)	PHMSA Adequacy Determination
SOUTHERN	PUERTO RICO	487	0	0.00	1	Adequate
EASTERN	VERMONT	41,828	14	3.35	2	Adequate
WESTERN	NEVADA	837,677	337	4.02	3	Adequate
EASTERN	NEW YORK	3,297,060	1,444	4.38	4	Adequate
WESTERN	ARIZONA	1,411,538	710	5.03	5	Adequate
EASTERN	RHODE ISLAND	194,862	99	5.08	6	Adequate
WESTERN	CALIFORNIA	9,161,031	4,794	5.23	7	Adequate
EASTERN	NEW HAMPSHIRE	94,954	54	5.69	8	Adequate
SOUTHWEST	NEW MEXICO	677,099	400	5.91	9	Adequate
EASTERN	CONNECTICUT	471,036	282	5.99	10	Adequate
EASTERN	MASSACHUSETTS	1,372,770	823	6.00	11	Adequate
EASTERN	MARYLAND	1,092,620	779	7.13	12	Adequate
EASTERN	WEST VIRGINIA	389,228	278	7.14	13	Adequate
EASTERN	NEW JERSEY	2,402,501	1,739	7.24	14	Adequate
EASTERN	PENNSYLVANIA	2,913,634	2,264	7.77	15	Adequate
CENTRAL	WISCONSIN	1,739,306	1,371	7.88	16	Adequate
EASTERN	MAINE	42,058	36	8.56	17	Adequate
CENTRAL	MINNESOTA	1,632,110	1,482	9.08	18	Adequate
WESTERN	WASHINGTON	1,344,145	1,221	9.08	19	Adequate
EASTERN	VIRGINIA	1,339,272	1,229	9.18	20	Adequate

West  
Las Vegas  
1992



West  
Las Vegas  
2013



# North Reno 1999



Lemmon Valley Receipt Point

NVE Military Rd Vault

Lemmon Valley Lateral Tap

Walmart Supercenter

MYNT Lemmon

Golden Valley Park

GOLDEN VALL

Image U.S. Geological Survey

Google Ear

1995

Imagery Date: 0/5/2000 30826132.77" N 11085101.40" W elev 5122.9' mag alt 11021

# North Reno 2023



Image © 2024 Airbus

Google



**Pipeline and Hazardous Materials  
Safety Administration**  
**Office of Pipeline Safety**

**NARUC Winter Policy Summit**  
**February, 2024**

**Damage Prevention:**  
**A PHMSA Perspective**

Max Kieba  
Director, Program Development



# A Shared Responsibility

- Nationwide, excavation damage continues to be one of the leading causes of pipeline incidents.
  - As of 2/19/24 for both last 10 and 5 years
    - #1 for Gas Distribution Incidents
    - #3 for Gas Transmission Incidents
- PHMSA works with all stakeholders to advance excavation damage prevention.
  - With excavation damage there are typically three stakeholders involved: the excavator, the operator, and the public. Sometimes excavator can also be the public or operator.



# PIPES Act of 2006

The Act established 9 Elements for an Effective Damage Prevention Program.

1. Enhanced communication between operators and excavators
2. Fostering support and partnership of all stakeholders
3. Operator's use of performance measures for locators
4. Partnership in employee training
5. Partnership in public education
6. Enforcement agencies' role to help resolve issues
7. Fair and consistent enforcement of the law
8. Use of technology to improve the locating process
9. Data analysis to continually improve program effectiveness



# Grants to Support Damage Prevention

- Technical Assistance Grants - \$2.0 million
- State Damage Prevention Program Grants - \$1.5 million
- One-Call Grants - \$1.0 million
- States Base Grants - \$60.5 million



<https://www.phmsa.dot.gov/grants/pipeline/ops-grants-overview>



# Top Priorities of PHMSA's Damage Prevention Program

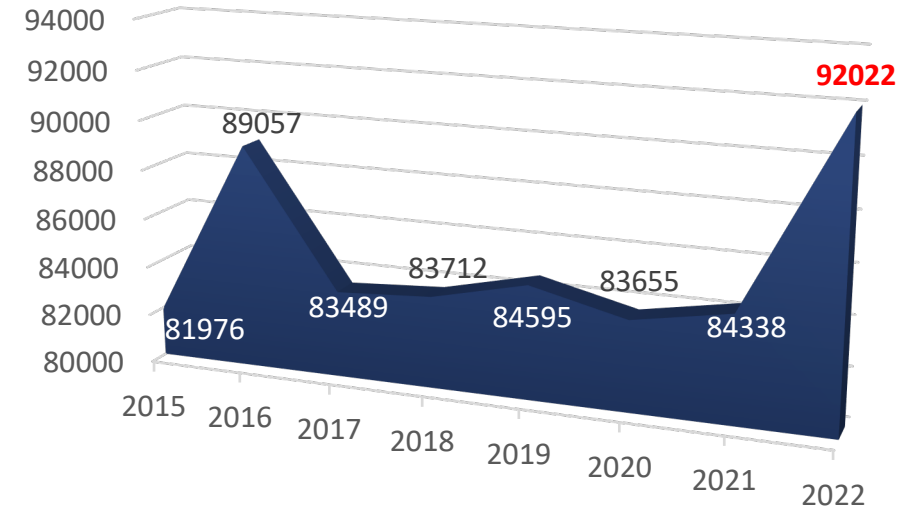
- Influencing change at the state level
- Advocating change through transparency
- Using data to inform policy
- Serving as damage prevention resource to empower stakeholders
- Supporting damage prevention research
- Promoting broad damage prevention awareness
- Collaborating with all stakeholders



# Top 25

- 1229 Gas Distribution (GD) operators
- 92,022 excavation damages
- 25 GD operators account for:
  - 52% (48,006) of all GD excavation damages
  - 45% (16,242,953) of all one-call tickets
- Damage /1000 notices of excavation for 18 of the 25 operators is above the national average of 2.38

## Excavation Damages - National

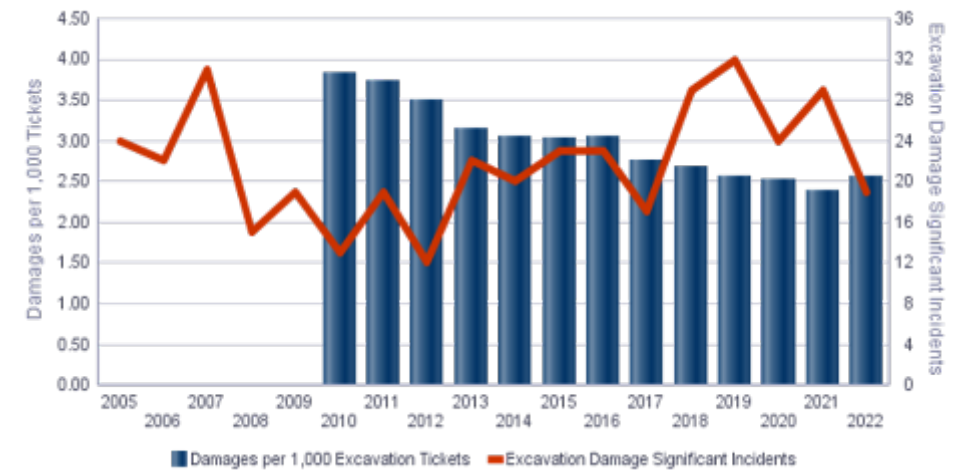


Data as-of 03-22-2023



# Shared Responsibility

- Work with 25 operators with the most damages
  - Focus on those with poor performance indicators
    - Damage /1000 notices of excavation
    - Excavation leaks per 1000 services
    - Damages per 1000 miles of main
- Meet with operators and states
- Review performance expectations under Distribution Integrity Management Program (DIMP)
- Measure progress regularly

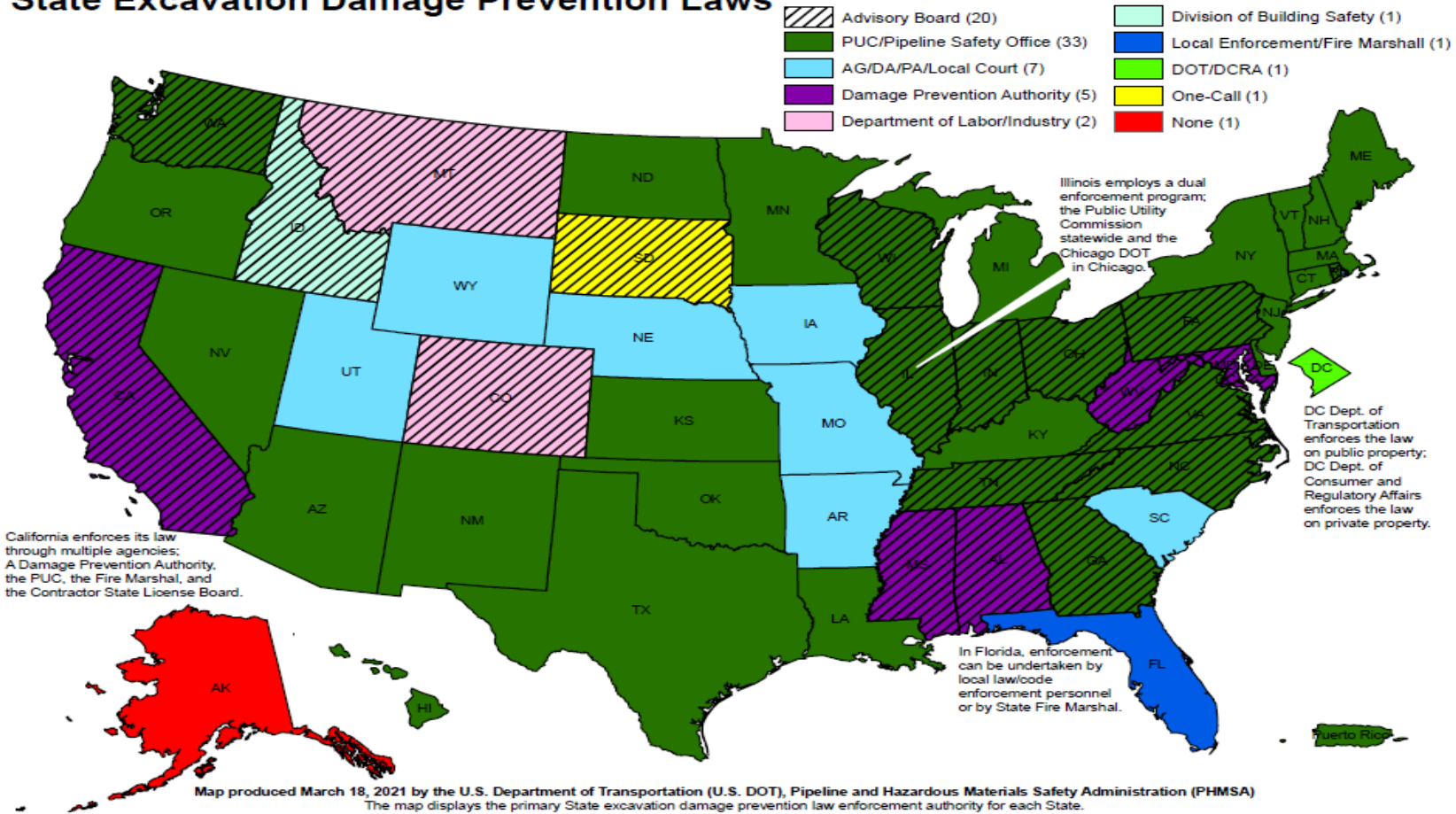


Data as-of 03-22-2023



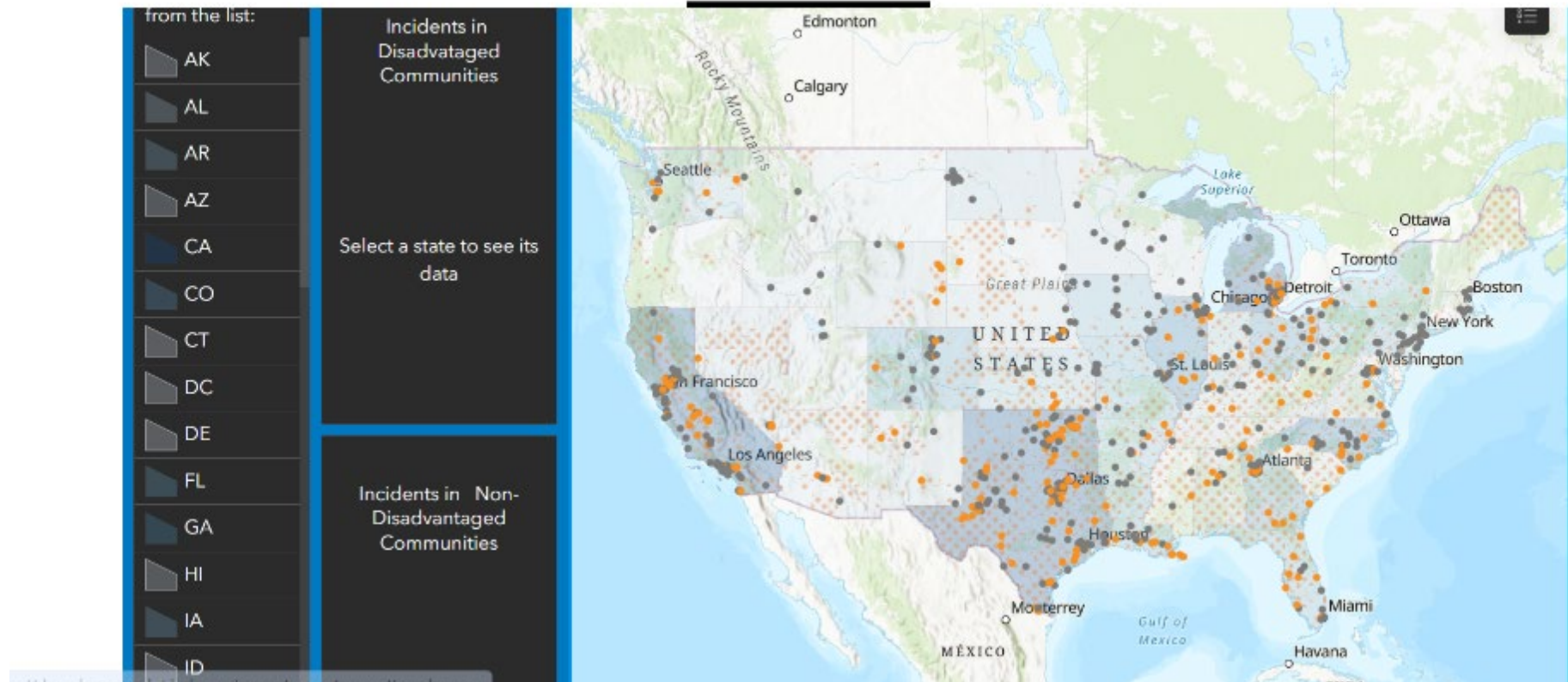
# Enforcement

## Organizations with Enforcement Authority for State Excavation Damage Prevention Laws



# Public Mapping Tools

Disadvantaged Communities - Home   Gas Distribution   **Excavation Damage**   Gas Transmission   Hazardous Liquid



# Equity Tools

- PHMSA created 4 new mapping tools to visualize **reportable** pipeline incidents for:
  - Gas Distribution
  - Excavation Damage
  - Gas transmission
  - Hazardous Liquid
- Allow users to view pipeline incidents in disadvantaged communities, as defined by DOT in the Justice40 initiative.
- The tools are now public. <https://dac-phmsa-usdot.hub.arcgis.com/>
- Offer state-by-state analysis of pipeline incidents that allows users to view the cause of pipeline failures, the operator of the line, and the communities impacted.
- These tools support PHMSA and state efforts to determine areas with a high concentration of incidents and follow up with the necessary actions.
- The tools use pipeline incident data from 2013 through 2023 (partial year) and will be updated annually.



# Conclusions

- Underground facilities have become increasingly complex and congested.
- Almost all the damages to underground facilities are preventable and most frequently occur due to a breakdown in the damage prevention process.
- We all share the responsibility for preventing excavation damage as we maintain and repair the existing underground infrastructure and build new ones to serve this Nation in the future.



# Thank You!



Community Toolbox/Stakeholder Communications at  
<http://primis.phmsa.dot.gov/comm/>

Includes damage prevention initiatives, information on grants, incidents and mileage data, and more.

Updates are coming soon! Aiming to update completion of all stakeholder pages by August 1, 2024



**“Power Sips and Connections”  
at 2:45 p.m. in the Foyer**

**Check App for sessions and  
room names**

**The General Session will begin  
at 3:15 p.m. in the Potomac  
Ballroom**

# Relevant NARUC resources:



**NARUC**  
National Association of Regulatory Utility Commissioners

## Certified Natural Gas: Primer, Regulatory Landscape, and Contributions Toward a Low-Carbon Future



Kiera Zitelman, Technical Manager, NARUC Center for Partnerships and Innovation

U.S. Department of Energy–National Association of  
Regulatory Utility Commissioners Natural Gas Partnership

February 2024

Certified Natural Gas:  
Primer, Regulatory  
Landscape, and  
Contributions Toward a  
Low-Carbon Future



bitly



**NARUC**  
National Association of Regulatory Utility Commissioners

## Essential Guide to NARUC Natural Gas Resources



### Overview

NARUC members are increasingly seeking more information about natural gas infrastructure needs, impacts, and the role of Public Utility Commissions (PUCs). This guide connects commissioners and commission staff to essential natural gas resources that NARUC has developed. All of these resources can be found on the [NARUC Natural Gas webpage](#).

The NARUC Center for Partnerships & Innovation collaborates with the U.S. Department of Energy to maintain the DOE-NARUC Natural Gas Partnership (NGP). The NGP supports members in learning about emerging technologies and regulatory options, particularly around leak detection, infrastructure modernization, enhancing pipeline safety and reliability, and a broad range of issues relating to natural gas regulation. For more information, contact Kiera Zitelman, [kzitelman@naruc.org](mailto:kzitelman@naruc.org).

### Foundational NARUC Resources on Natural Gas and the Role of PUCs

The resources below provide a starting point for the many topical resources and activities throughout this guide.

#### [Task Force on Natural Gas Resource Planning, 2023-2025](#)

The NARUC Task Force on Natural Gas Resource Planning provides a forum for members to envision novel process approaches for considering natural gas distribution resource planning in their states. Visit the [webpage](#) for new resources and to keep up-to-date on task force activities.

#### [Artificial Intelligence for Natural Gas Utilities: A Primer, October 2020](#)

Artificial intelligence, machine learning, predictive analytics, and other applications of data analysis and statistical methods show great potential for improving the efficiency, reliability, and safety of the nation's natural gas infrastructure. In this resource, NARUC defines terminology and summarizes relevant applications and case studies for natural gas distribution utilities.

#### • [Innovation Webinar: Incorporating AI into Resilience-Informed Utility System Planning, June 2023](#)

#### [Report of the NARUC Task Force on Natural Gas Access and Expansion, November 2017](#)

The report provides states with educational tools and information on policies, mechanisms, and practices that utility regulators can use to help extend natural gas service to unserved and underserved areas.

Essential Guide to  
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