



GAS COMMITTEE MONTHLY CALL

PEER-SHARING CALL ON STATE APPROACHES TO GAS STORAGE

OCTOBER 16, 2023

1:00 – 2:00 PM ET



Agenda:

1. Welcome

Chair Tammy Cordova, Nevada

2. State Approaches to Gas Storage

Hon. James Ellison, NM

Hon. Dan Scripps, MI

Hon. Kim David, OK

1. Committee Discussion & Sharing on Gas Storage

Committee and staff subcommittee members

2. NARUC Annual Meeting Overview (panels, resolutions)

Chair Cordova

3. Closing reminders

November Gas Committee Call cancelled

Welcoming suggestions for the Winter Policy Summit Gas panels

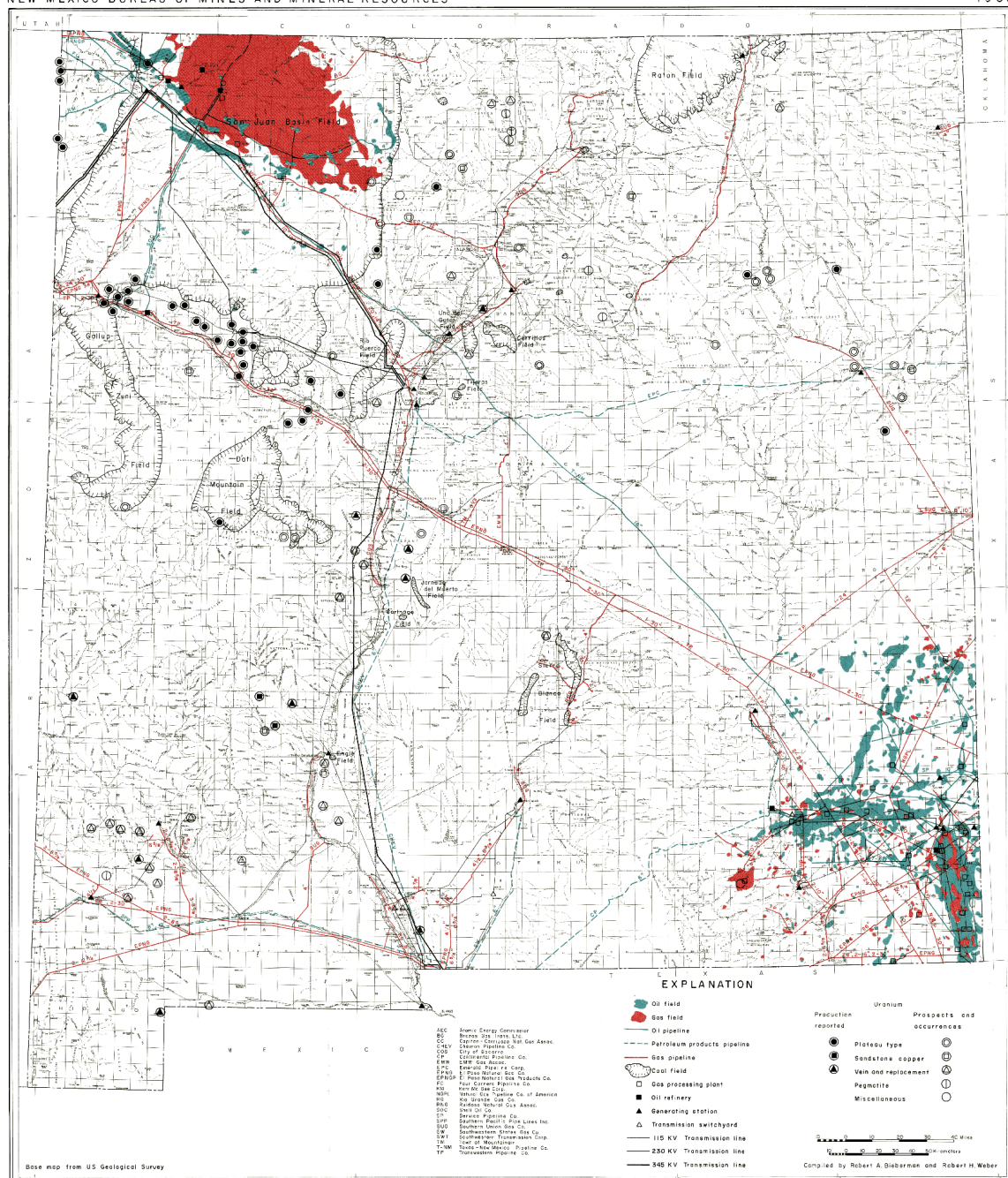


NEW MEXICO
**PUBLIC REGULATION
COMMISSION**

Considerations for New Mexico's Gas Storage

James Ellison
Commissioner
NMPRC

October 16, 2023



NEW MEXICO ENERGY RESOURCES MAP

Natural Gas in New Mexico

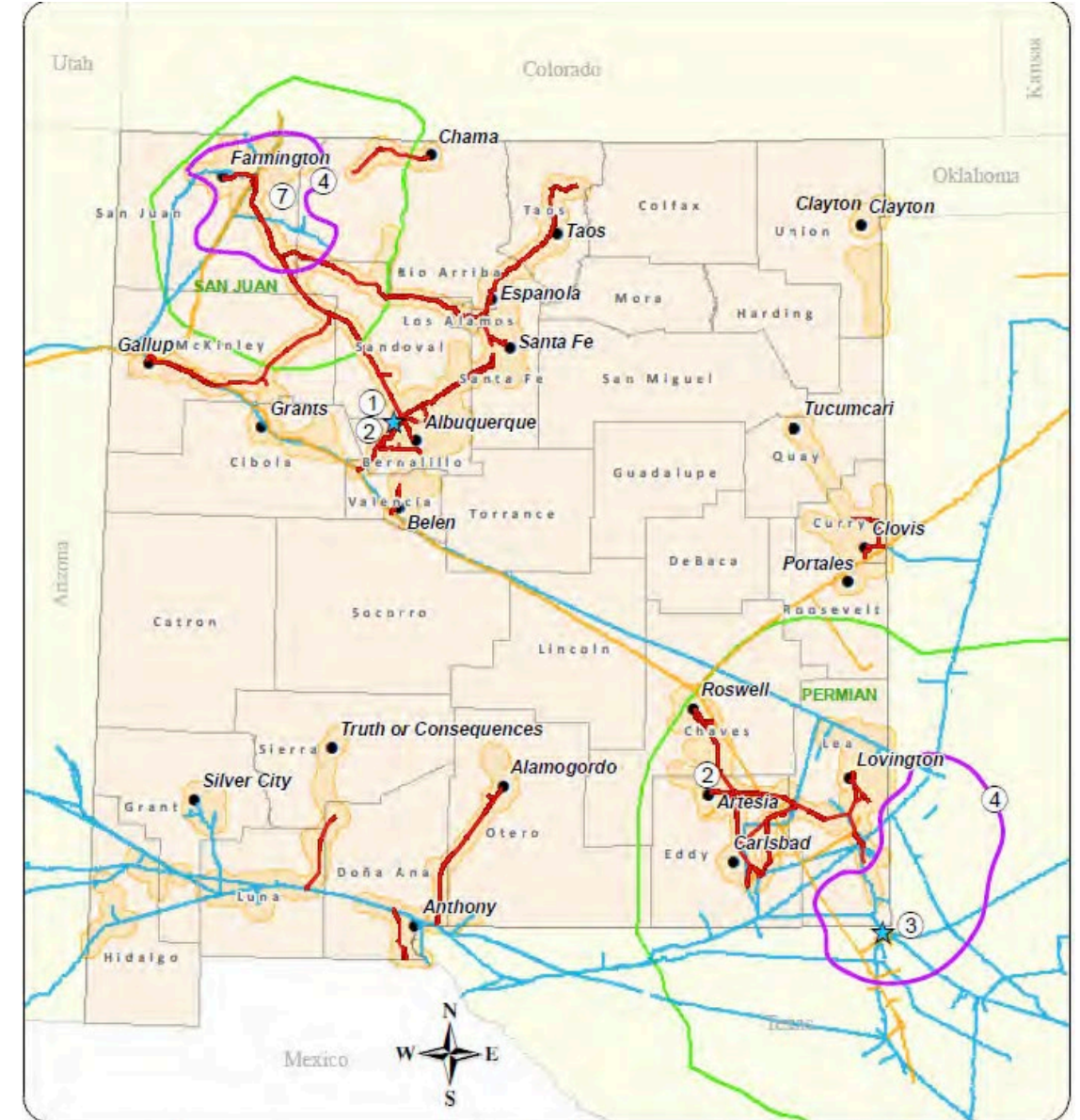
- NM is in the top 10 gas producing states
 - 2.7 Tcf of marketed production in 2022 (7% of US total)
- Consumption in NM is about 10% of production
 - Critical for winter heating
- No gas storage facilities in the state



NEW MEXICO
**PUBLIC REGULATION
COMMISSION**

New Mexico Gas Company

- New Mexico Gas Co. is the largest LDC in the state
 - 540,000 customers
 - Base gas supplies from the San Juan Basin
 - Swing winter gas supplies from Kinder Morgan Keystone Storage (2.7 Bcf)



Possible Locations

- ① LNG Storage
- ② Propane/Air Blending
- ③ KM Keystone Storage
- ④ Underground Storage
- ⑦ San Juan Production Wells

Existing Pipelines

- NMGC Transmission Systems
- El Paso Natural Gas Pipelines
- Transwestern Pipelines

- Underground Storage Areas
- Natural Gas Basin Areas
- NMGC Service Areas

* Does not show Existing Distribution Systems

Winter Storm Uri

- Keystone only able to supply ½ of nominated volumes Feb 13 - 18, 2021
- Claimed Force Majeure Event due to “a mechanical failure and low field pressure”
 - The mechanical failure was that several valves on the withdrawal wells were frozen in the shut position
- NM Gas went on the open market and purchased 1,085,000 MMBtu at an average of \$104/MMBtu
 - Total cost of about \$110 million



Ramifications

- Given that pipe freezes are considered a force majeure event in the Keystone contract
 - Is there an incentive for Keystone to winterize?
- Does this force majeure definition contradict FERC's definition
 - Which is that force majeure is something that "could not reasonably be prevented"
- At what point should the cost of natural gas become prohibitive?
 - NMGC claims that they must spend whatever it takes to provide continuity of supply
- Should the only alternative to withdrawing gas from storage have been purchasing gas on the open market at the prevailing price?

Winter Gas Supply Storage Options



- LNG liquefaction, storage, and regas
 - Currently have a 1 Bcf LNG storage application pending
- Create underground storage facility in NM
 - Seems quite an undertaking for an LDC
- Contract with a second TX storage facility to spread the risk
 - Would they winterize any better?
- Hedging / options as an alternative (or a fallback) to storage
- Demand-side management (DSM)
 - Interruptible contracts – none currently, but few industrial customers
 - Residential DSM – none currently

Questions

- What is your experience? Do gas LDCs in your jurisdictions have to maintain supply no matter what the cost?
- Do gas LDCs in your jurisdiction have DSM programs?

A stylized blue outline of the state of Michigan is positioned on the left side of the slide. Overlaid on the map is a grid of hexagons in light blue and white. The title text is located to the right of the map.

Michigan's Natural Gas Storage Landscape

NARUC Committee
on Gas

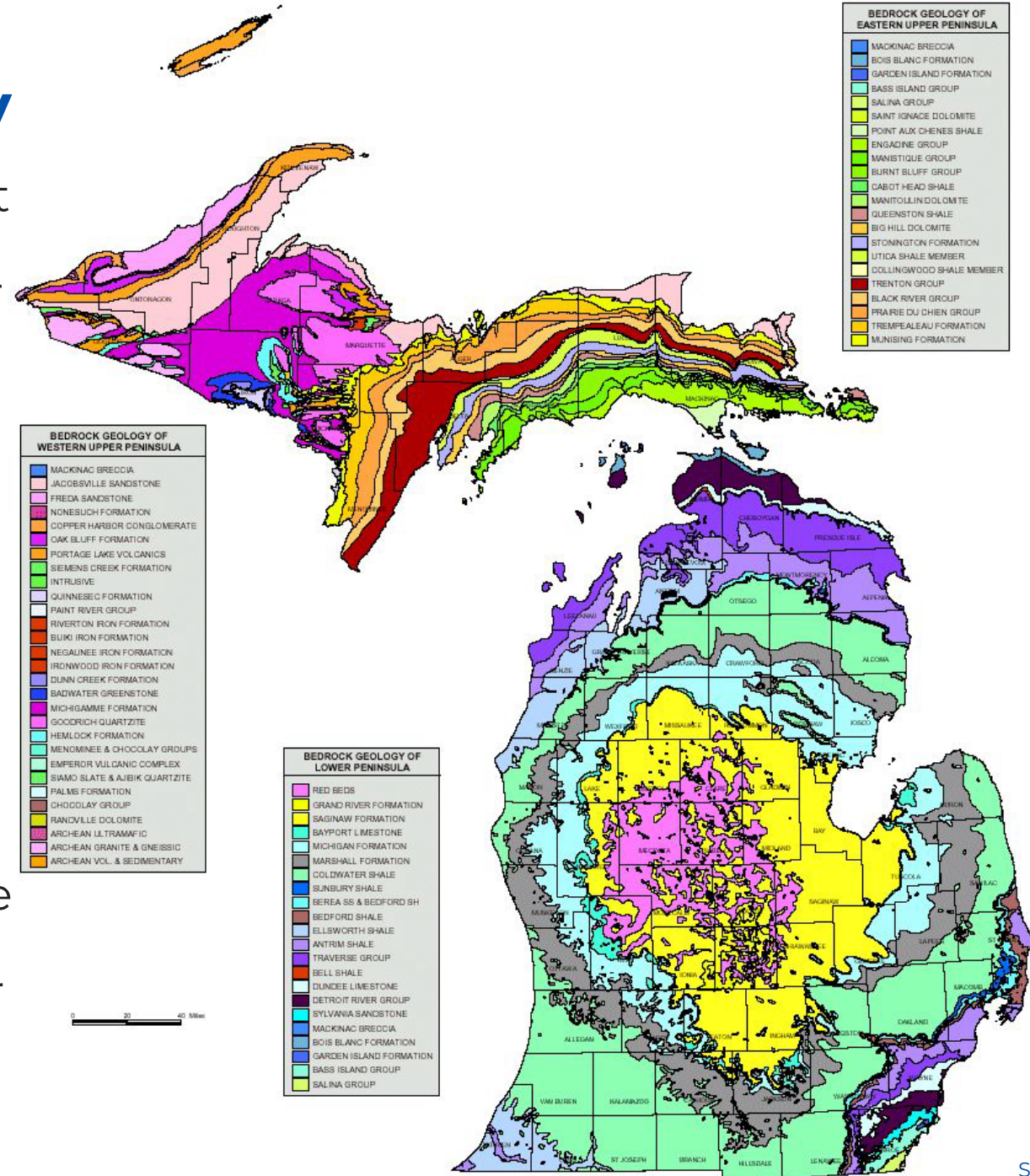
Dan Scripps

Michigan Public
Service Commission

October 16, 2023

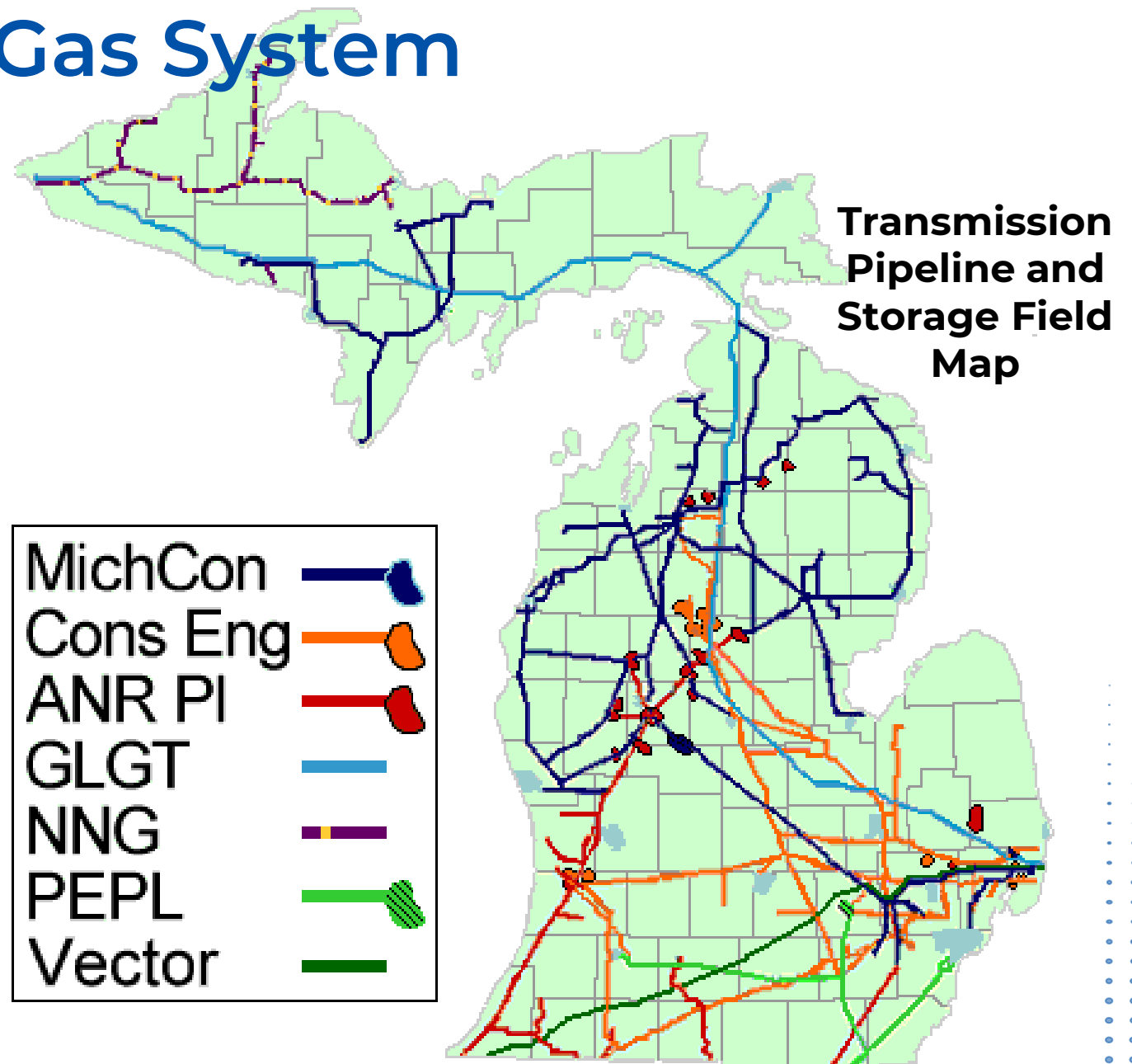
Michigan Geology

- Michigan's 1.1 trillion cubic feet of underground storage capacity is more than any other state in U.S. and one-eighth of nation's total
- Michigan accesses this capacity via 44 natural gas storage fields and ~670 BCF working volume
- Natural gas used as primary heating fuel >75% of Michigan households
- Michigan also leverages this unique geology as leading state in U.S. for residential propane consumption and early adopter for carbon capture, utilization, and storage



Michigan's Natural Gas System

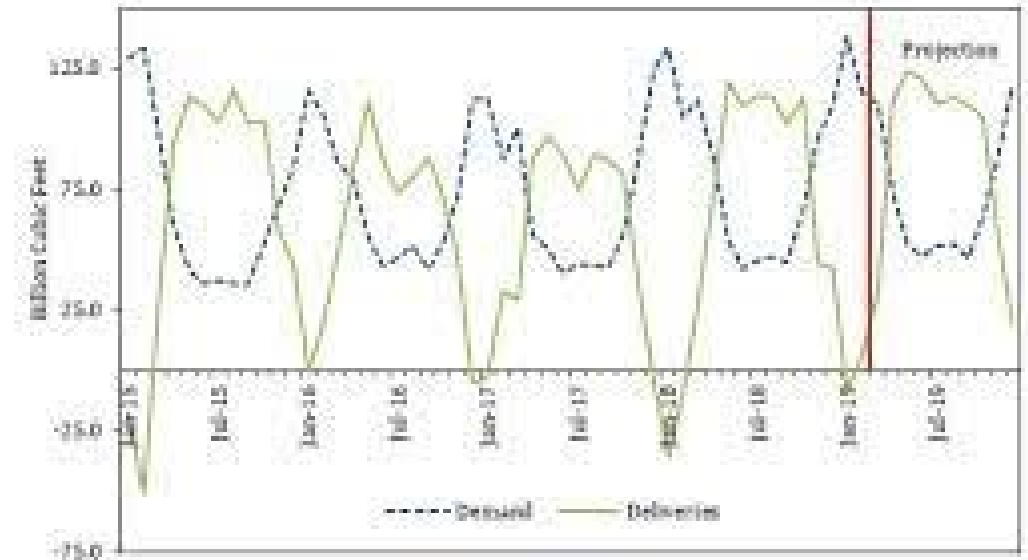
- MPSC has jurisdiction to regulate retail natural gas rates and conditions for service, including metering and billing, to residential, commercial and industrial customers for seven natural gas utilities
- MPSC also has jurisdiction over the siting of intrastate natural gas pipelines
- >59,000 miles of distribution pipelines, 3.3 million service lines, and 9000 miles of transmission and gathering pipelines
- Jellybean shapes on map to right show Michigan's 44 storage field locations



Cost Recovery and Regulatory Highlights

- Utilities purchase natural gas in the summer and store it underground until needed during colder months
 - Previously done primarily for economic reasons; increasingly used to ensure firm supply
- MI law allows for:
 - A complete one-for-one annual cost recovery of the gas sold to customers if purchased in a reasonable and prudent manner, including commodity and transportation costs
 - This recovery also includes any gas that was injected into storage and sold to the customer later that year
 - The cost of lost gas or gas used operationally by the Company as fuel for storage compressors is not recovered through this annual process because it was not sold
 - General rates outside this annual process incorporate amounts to recover lost gas, company use gas, and amounts to maintain the Company's delivery and storage facilities

Michigan Natural Gas Supply and Demand



Vulnerabilities



January 30, 2019 Fire at Ray Compressor Station in Armada, MI

- In January 2019, a fire at Consumers Energy's Ray compressor station took place during a Polar Vortex
- Ray is Consumers' largest storage field and serves significant portion of MI's natural gas needs during winter months
- Fire strained gas system and threatened supply to various parts of the state
- Severe emergency avoided by:
 - Alternative supplies from natural gas pipelines and other storage fields
 - Limited natural gas used for electricity production
 - Coordinated w/ large C&I customers to curtail usage
 - Requested all customers conserve energy
- Underground storage is typically more reliable than pipes, but still need ability to access supplies

Thank you



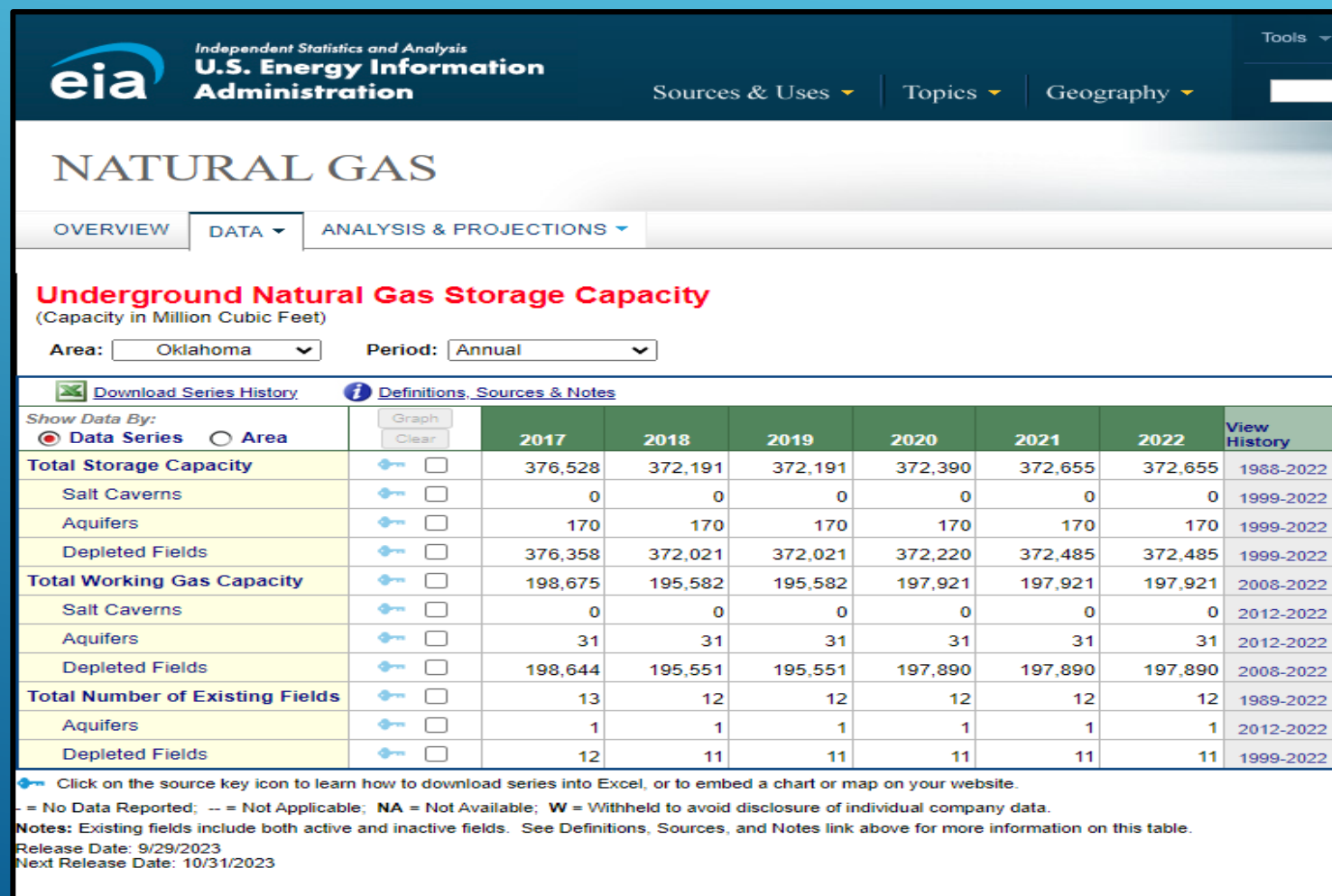


OKLAHOMA CORPORATION COMMISSION

Vice Chairman Kim David



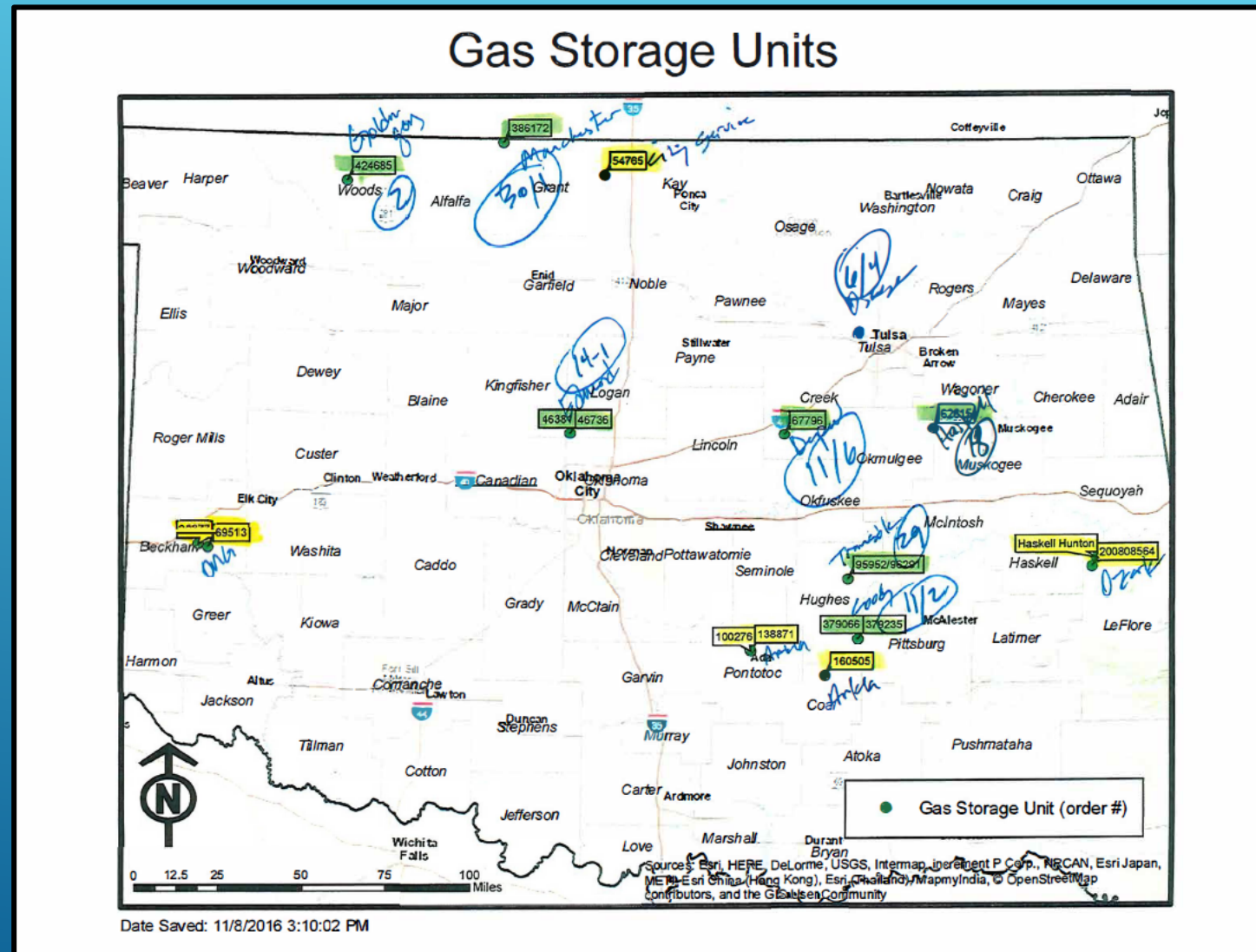
OKLAHOMA'S TOTAL GAS STORAGE CAPACITY 372.66 BCF



Natural Gas Storage Capacity that Oklahoma Regulates

Operator	Injection/Withdrawal Wells	Observation Wells	Capacity BCF	Injection BCF Yearly	Withdrawal BCF Yearly	Year in service	Maximux Depth	Minimum Depth	Maximum PSI
ONEOK-Edmond Storage	14	11	46.75	21.9	24.97	1961	6463	6442	1933
ONEOK-Depew Storage	12	7	56.3	18.61	20.31	1950	3283	3251	1323
ONEOK-Haskell Storage	6	0	13.2	0	0.86	1944	875	814	58
Energy Transfer-Stuart	11	3	12	4.38	3.97	1993	3330	3100	919
Energy Transfer-Wetumka	29	3	25.75	24.67	24.85	1973	2600	2450	685
Spire/Salt Plains	30	1	22.74	7.15	7.16	1995	3800	3750	1711
Golden Gas	2	2	1.1	0.59	0.64	2020	6422	6412	920
	104	27	177.84	77.3	82.76				

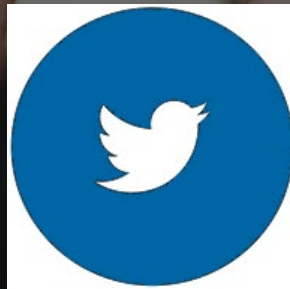
OKLAHOMA GAS STORAGE WELL LOCATIONS



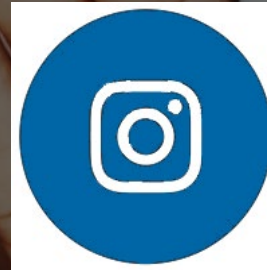
Contact the OCC



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twitter.com/PUDOCC



instagram.com/okcorpcomm



[OKLAHOMA.GOV/
OCC](https://OKLAHOMA.GOV/OCC)



contactkimdavid@occ.ok.gov



405-521-2211



OKLAHOMA
Corporation
Commission

Committee Discussion & Sharing on Gas Storage



- *How does your state handle gas storage?*
- *Have any recent events related to gas storage impacted your state?*
- *Is your state facing any challenges associated with gas storage?*
- *Does your state have any novel or successful approaches to gas storage?*

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NARUC Annual Meeting Overview



Sunday

Task Force on Gas Resource Planning

1:00 – 5:00 pm PT

Staff Subcommittee on Gas

Certified Natural Gas— What are we learning from Pilot Studies and Early Adopters?

2:30 – 3:30 pm PT

California Dreamin': Where can Hydrogen take us?

4:00 – 5:00 pm PT

Monday

Gas Committee Business Meeting

11:00 – 12:00 pm PT

Tuesday

Concurrent Session B3: U.S. LNG Exports – Supporting Global Partners & Understanding Domestic Growth Opportunities

2:15 – 3:15 pm PT

Wednesday

General Session: Gas-Electric Coordination: How can State Regulators Lead the Way?

10:15 – 11:30 am PT

NARUC Annual Meeting



- “Junk and jewel” pipeline capacity *resolution?*
 - **Choice 1:** *Yes for Junk & Jewel Resolution*
 - **Choice 2:** *No for Junk & Jewel Resolution*
- *Any other expected resolutions?*
- **Substantial resolution deadline:** *Monday, October 30, 2023*
 - *Please reach out to Chair Cordova if you are planning a resolution*



Closing reminders

- November 6th Gas Committee Call is cancelled
- It's time to start thinking about the NARUC Winter Policy Summit, please reach out to Chair Cordova if you have a topic of interest for a future panel