



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.

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 [website](#) 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.

About the NARUC Center for Partnerships & Innovation

The NARUC Center for Partnerships & Innovation identifies emerging challenges and connects state commissions with expertise and strategies to navigate their complex decision-making. CPI accomplishes this goal by building relationships, developing resources, and delivering training that provides answers to state commissions' questions.

NARUC CPI conducts work in five key energy topics: generation; transmission; distribution; customers; and critical infrastructure, cybersecurity, and resilience. Find all resources and upcoming events at: www.naruc.org/cpi/cpi-home.

Publications and Activities on Key Natural Gas Topics

The following resources can be found on the [NARUC Natural Gas webpage](#). Hyperlinks lead to PDFs of the publications or webinar presentations. To view recordings of past webinars, visit the Natural Gas webpage or [NARUC's YouTube channel](#).

NARUC Committee on Gas Presentations

Through panel discussions and educational sessions, the NARUC [Committee on Gas](#) and [Staff Subcommittee on Gas](#) foster awareness and understanding of issues affecting the transportation, distribution, and sale of natural gas safely, efficiently, and economically. Committee and subcommittee members work closely with the Federal Energy Regulatory Commission and the U.S. Departments of Energy and Transportation. Each month, members meet to hear natural gas experts discuss emerging topics relevant to state utility regulators. Examples of recent meeting topics include pipeline safety, interdependencies between natural gas and the agriculture sector, market status and outlook reports, and natural gas pricing and customer impacts. Find presentation materials and recordings from more than two dozen briefings on the [Natural Gas webpage](#) under Activities.

Leak Detection and Infrastructure Replacement

- [Committee Presentation: PHMSA: Gas Pipeline Leak Detection and Repair NPRM](#), June 12, 2023
During the June 2023 Gas Committee Monthly Meeting, attendees heard from speakers from the Pipeline and Hazardous Materials Safety Administration discuss PHMSA's Pipeline Leak Detection and Repair Notice of Proposed Rulemaking.
- [Committee Presentation: Methane Remote Sensing and Leak Detection](#), December 12, 2022
During the December 2022 Gas Committee Monthly Meeting, attendees heard from a speaker from Carbon Mapper on methane remote sensing and leak detection.
- [Committee Presentation: Con Edison AMI-Enabled Natural Gas Detector Program Briefing](#), October 16, 2020
During the October 2020 Gas Committee Monthly Meeting, attendees heard speakers from Consolidated Edison of New York discuss AMI-enabled Natural Gas Detectors. The presentation also included opening remarks by Commissioner Diane X. Burman, New York.

[Natural Gas Distribution Infrastructure Replacement and Modernization: A Review of State Programs](#), January 2020

This report summarizes natural gas infrastructure replacement statutes and regulations in 41 states and the District of Columbia, with the goal of enhancing coordination across states and sharing promising practices. State regulators can benefit from an understanding of the regulatory and infrastructure context in their states and how other states have implemented infrastructure replacement programs.

[Sampling of Methane Emissions Detection Technologies and Practices for Natural Gas Distribution Infrastructure: An Educational Handbook for State Energy Regulators](#), July 2019

This handbook summarizes methane leaks in the context of the natural gas distribution network. It identifies existing and emerging technologies and practices and outlines partnerships to further the development of novel tools.

Low Carbon Fuels

- [Committee Presentation: Biogas and Renewable Natural Gas Use in Natural Gas Transmission and Distribution Pipelines](#), November 2022

During the November 2022 Gas Committee Monthly Meeting, attendees heard a speaker from the Wisconsin Public Service Commission on the essentials of biogas renewables natural gas transmission and distribution pipelines.

- [Committee Presentation: Net-Zero Emissions Opportunities for Gas Utilities](#), February 7, 2022
During the February 2022 Gas Committee Monthly Meeting, attendees heard speakers from the American Gas Association discuss net-zero emissions opportunities from gas utilities.
- [Committee Presentation: SoCal Gas: Role of Clean Fuels and Business Transformation Workstream](#), November 15, 2021
During the November 2021 Gas Committee Monthly Meeting, attendees heard speakers from SoCal Gas discuss the role of clean fuels and business transformation workstream.
- [Committee Presentation: Investing in Natural Gas Pipeline Infrastructure to Support Net-Zero Targets](#), May 24, 2021
During the May 2021 Gas Committee Monthly Meeting, attendees heard speakers from Columbia University Center on Global Energy Policy discuss the role of investments in natural gas pipelines in aiding the journey towards net-zero.
- [Renewable Natural Gas \(RNG\) Workshop](#), July 23, 2019, Indianapolis, IN
State regulators led an informational workshop at NARUC's 2019 Summer Policy Summit exploring renewable natural gas (RNG) from production to processing, transmission and distribution, and end uses.

[Potential State Regulatory Pathways to Facilitate Low-Carbon Fuels](#), December 2022

This report provides informational context for state utility regulators to understand the impacts and challenges of broader integration of low-carbon fuels such as hydrogen and renewable natural gas (RNG).

Liquefied Natural Gas

- [DOE-NARUC Natural Gas Partnership Site Visit to Savannah, Georgia](#), May 8 - 10, 2023

NARUC members toured Kinder Morgan's Elba Island liquefied natural gas export facility, export facility and the Port of Savannah Fuel Center compressed natural gas fueling infrastructure. Members also heard from Atlanta Gas Light staff on the utility's long-term planning process. This activity was supported by the DOE-NARUC Natural Gas Partnership.

- [Committee Presentation: Natural Gas Markets in an Evolving Energy Landscape](#), April 18, 2022

During the April 2022 Gas Committee Monthly Meeting, attendees heard insights from speakers from the American Gas Association on natural gas markets in the evolving energy landscape.

[LNG: A Local Market – A Global Market – An Introductory Handbook for State Public Utility Commissioners](#), November 2018

This handbook is intended to serve as an introductory tool for utility regulators and other interested readers to understand the basics behind the liquefied natural gas market and facilitate a thoughtful discourse among producers, regulators, and consumers for engagement and communication on the path forward.

Natural Gas Safety and Security

- [Committee Presentation: TSA Briefing on Recent Update to Security Directive for Oil and Gas Pipeline Cybersecurity](#), September 11, 2023
During the September 2023 Gas Committee Monthly Meeting, attendees heard a speaker from TSA on TSA cybersecurity requirements for oil and natural gas owners and operators.
- [Committee Presentation: TSA Cybersecurity Requirements for Pipelines](#), September 19, 2022
During the September 2022 Gas Committee Monthly Meeting (joint with Critical Infrastructure Committee), attendees heard a speaker from American Gas Association discuss TSA cybersecurity requirements for natural gas pipelines.
- [Committee Presentation: Elemental Sulfur and Di-Thiazine Formation in Natural Gas Pipelines](#), March 19, 2021
During the March 2021 Gas Committee Monthly Meeting, attendees heard a speaker from the Illinois Commerce Commission discuss elemental sulfur di-thiazine formation in natural gas pipelines, addressing the issue, recent occurrences, incidents and failures, regulatory requirements, and the path forward.

Non-NARUC Natural Gas Resources

- [Energy Information Association](#)
The EIA publishes extensive reports on natural gas, including information about price to consumers, state prices, and gas consumption by end use. EIA publishes both reports related to gas production and use in addition to providing data sets relevant to the natural gas industry.
- [NAESB Gas-Electric Harmonization Forum](#)
The NAESB Gas-Electric Harmonization Forum convened at request of FERC and NERC to identify solutions to the reliability challenges facing the nation's natural gas system and bulk electric system.
- [Pipeline Basics & Specifics about Natural Gas Pipelines](#), February 2019
The Pipeline Safety Trust provides briefing papers on a variety of topics related to pipeline safety and natural gas. Briefing Paper #02 provides an introduction to natural gas pipelines.
- [Pipeline and Hazardous Materials Safety Administration \(PHMSA\)](#)
Natural gas moves primarily by pipeline in most of the United States. The U.S. Department of Transportation's Office of Pipeline and Hazardous Materials Safety Administration is responsible for developing and administering safety standards. PHMSA maintains a webpage with links to information specific to each state and includes an [April 2019 report](#) produced by the Voluntary Information-Sharing System (VIS) Working Group with a framework for establishing a viable and sustainable pipeline VIS.
- [National Petroleum Council](#)
The National Petroleum Council advises, informs, and makes recommendations to the U.S. Secretary of Energy on matters related to oil and natural gas; NARUC representatives participate as members. Among other materials, NPC produced a December 2022 report on [Principles, and Oil & Gas Industry Initiatives and Technologies for Progressing to Net Zero](#).