

# Artificial Intelligence for Natural Gas Utilities: National Association of Regulatory Utility Commissioners/U.S. Department of Energy Issues Report



**Walter Wright, Jr.**  
wwright@mwlaw.com  
(501) 688.8839

11/10/2020

The National Association of Regulatory Utility Commissioners in partnership with the United States Department of Energy issued a report titled:

*Artificial Intelligence for Natural Gas Utilities: A Primer ("Report")*

The *Report's* objective is intended to:

- Develop awareness of artificial intelligence ("AI") tools and practices among public utility commissions
- Highlight the potential of AI to enhance natural gas utility performance

The lead authors of the Report include:

- Hon. Diane X Burman, Commissioner, New York State Public Service Commission, Chair, NARUC Committee on Gas, Chair of Natural Gas Infrastructure Modernization Partnership and its successor Natural Gas Partnership
- Hon. D. Ethan Kimbrel, Commissioner, Illinois Commerce Commission
- Hon. Tricia Pridemore, Commissioner, Georgia Public Service Commission
- Andreas D. Thanos, Policy Specialist, Gas Division, Massachusetts Department of Public Utilities Chair, NARUC Staff Subcommittee on Gas
- Kiera Zitelman, Senior Manager, NARUC Center for Partnerships & Innovation

The *Report* describes artificial intelligence in this context as:

... the ability of the machine to receive inputs and produce a behavior or reaction similar to that of an intelligent human being.

The primer's objectives are stated to include:

1. offer a set of broadly applicable definitions for AI and related terms, allowing regulators, utilities, and other stakeholders to speak the same language;
2. discuss how AI is currently being implemented in the gas utility sector; and
3. understand the challenges affecting AI solutions and how tools might be implemented in the future.

The primer's organization includes six sections addressing:

1. current environment in which natural gas utilities operate and potential role of AI to enable utilities to achieve performance goals
2. definitions of AI and related terms
3. current opportunities for which AI can offer solutions
  1. replacing aging gas distribution infrastructure,
  2. preventing excavator damage to gas distribution infrastructure,
  3. improving energy efficiency programs,
  4. discussion of how costs and benefits of investments to solve each problem are measured
  5. real-world examples of utility implementation of AI solutions
4. challenges with implementing AI from both utility and regulator perspectives
5. areas in which AI could feasibly be implemented in the near future
6. concluding thoughts – areas for research

A link to report can be found [here](#).