

Press Release

ROSEN DEVELOPS RESEARCH PROJECT FOR THE ENERGY INSTITUTE ON ASSET INTEGRITY IN REPURPOSING NATURAL GAS INFRASTRUCTURE FOR HYDROGEN

Lingen (Ems), Germany, January 2024 – The ROSEN Group developed a research report commissioned by the Energy Institute to identify current knowledge gaps regarding repurposing natural gas infrastructure for hydrogen. The report is based on a literature review of all ongoing technical work, joint industry projects, and research in this field worldwide.

“The conversion of the existing natural gas infrastructure to the transportation of hydrogen is an important element of the energy transition. While the threats operators face with natural gas infrastructure are still relevant, there are certain characteristics of hydrogen that may increase the risk of some threats more than others”, explains Neil Gallon, Principal Engineer at ROSEN. “As hydrogen is a relatively new energy source, there are at this time some knowledge gaps that need to be addressed in order to safely use the existing assets while transitioning to a decarbonized future.”

Together with the Energy Institute, the ROSEN Group is working on filling these knowledge gaps by reviewing all ongoing technical work, joint industry projects, and research worldwide. The goal of this research is to consolidate all knowledge into a guidance document to enable pipeline operators and other energy companies to safely introduce hydrogen into their existing natural gas infrastructure. The research report focuses on pipelines and certain associated installations from (but not including) the hydrogen production plant up to the customer’s inlet valves.

Whilst work on an initial report identified various gaps and areas requiring further work for safe repurposing, this new report identified a significant amount of work that at least partially addresses these gaps already. The projects examined in the report already provide initial insights but are still ongoing and cannot yet answer all the questions.

„Our aim is to support operators mastering the challenges brought on by the energy transition”, says Marion Erdelen-Peppler, Global Business Line Manager for Hydrogen at ROSEN. “Our unique inspection and testing data pool, combined with our thorough knowledge of the conditions of countless miles of pipeline, empowers us to assess which of these knowledge gaps as addressed in the Energy Institute report are extremely relevant and urgently need to be addressed. The idea of a guidance document for operators and other energy companies is extremely useful for the industry.”



Image ROSEN Group

In ROSEN's hydrogen laboratory in Lingen, Germany, various material and exposure test can be carried out in a hydrogen atmosphere.

About the Energy Institute

The Energy Institute is the chartered professional membership body for the energy industry, supporting over 23000 individuals working in or studying energy and 200 energy companies worldwide. The Institute provides learning and networking opportunities to support professional development, as well as professional recognition and technical and scientific knowledge resources on energy in all its forms and applications.

The Energy Institute is licensed by

- The Engineering Council to award Chartered, Incorporated and Engineering Technician status, and
- The Society for the Environment to award Chartered Environmentalist Status

As registered charity, the Energy Institute serves society with independence, professionalism and a wealth of expertise in all energy matters.

About the ROSEN Group

The ROSEN Group is a globally leading provider of cutting-edge solutions in all areas of the integrity process chain. Since its origins as a one-man business in 1981, ROSEN has rapidly grown and continues to do so. Today, the business is still privately owned and consists of a team of more than 4,000 employees operating in more than 120 countries.

ROSEN's products and services:

- Inspection of critical industrial assets to ensure reliable operations of the highest standards and effectiveness
- Customized engineering consultancy providing efficient asset integrity management

- Production and supply of customized novel products and systems
- Market-driven, topical, state-of-the-art research and development yielding “added-value” products and services

For more information about our approach to hydrogen pipelines and conversion visit <https://hydrogen.rosen-group.com>. For more information about the ROSEN Group, go to www.rosen-group.com.

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