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Modeling, Simulation and Optimisation in Pipeline Network Analysis with Applications to Natural Gas and District Heating Systems

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Message from the Guest Editors

This Special Issue comprises papers on optimal planning, design, and operation of fluid flow pipeline systems across different energy sectors. It intends to investigate the latest challenges and opportunities for natural gas and district heating systems in the context of modeling of energy transport and storage processes, providing high system capacity and reliability and helping to mitigate integration costs of variable renewables across different energy sectors.

Keywords:

- Pipeline systems modeling and control
- Digitalization of fluid systems
- Energy-efficient pipeline transport
- Large-scale energy storage
- Grid flexibility and storage
- Integrated energy system concept
- Sector coupling and energy reconversion
- Fluid flow assurance and systems reliability
- Integration of renewable energies
- Sustainable energy transport system



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Special Issue



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Message from the Editor-in-Chief

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