Special Issue

Towards Exascale HPC and Data Intensive Algorithms in the Energy Industry

Message from the Guest Editors

The present Special Issue explores different exascale candidate problems for the energy industry, targeting possible novel algorithms and possible modeling approaches. In this issue, we will focus on the following problems of the energy industry, specially targeting oil and gas, biofuel and wind energy:

- Geophysical exploration for subsalt hydrocarbons
- Reservoir modeling in naturally fractured reservoirs
- Multiphase flows in pipelines with heavy oil
- Molecular modeling of catalysts for heavy oil refining
- Combustion simulation tools to optimize fuel–biofuel design and performance towards more sustainable and greener transport systems
- Develop methodologies to understand and predict the multi-scale atmospheric motion relevant for the operation and performance of wind farms in complex wind situations

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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