JISEA Joint Institute for Strategic Energy Analysis

Unique Perspectives On a Transforming Energy Economy

2014 Annual Meeting

March 12, 2014

Doug Arent

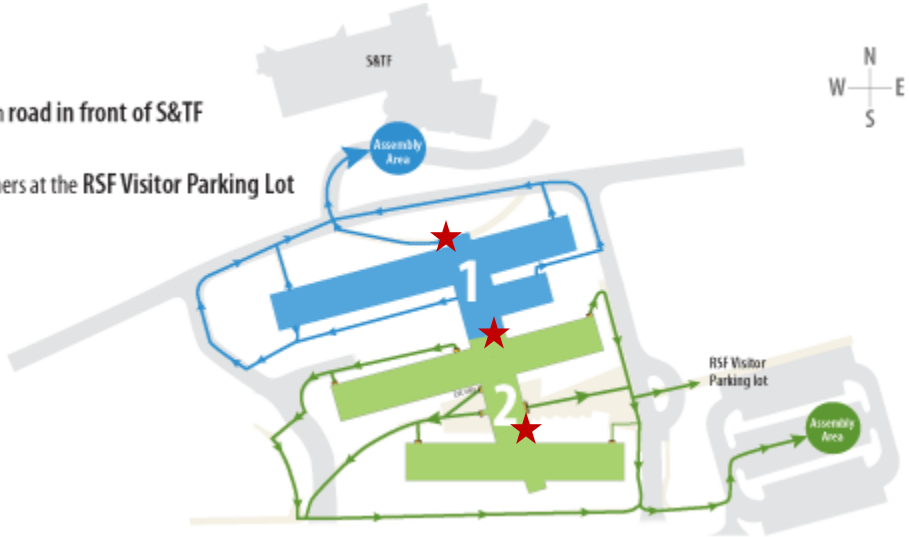
NREL NATIONAL RENEWABLE ENERGY LABORATORY · COLORADO SCHOOL OF MINES · Colorado State University · Massachusetts Institute of Technology · STANFORD UNIVERSITY · University of Colorado Boulder

Logistics and Safety

RSF Building Evacuation Routes

1 WING A evacuates north and gathers on road in front of S&TF

2 WING B AND C evacuates east and gathers at the RSF Visitor Parking Lot



★ Restrooms

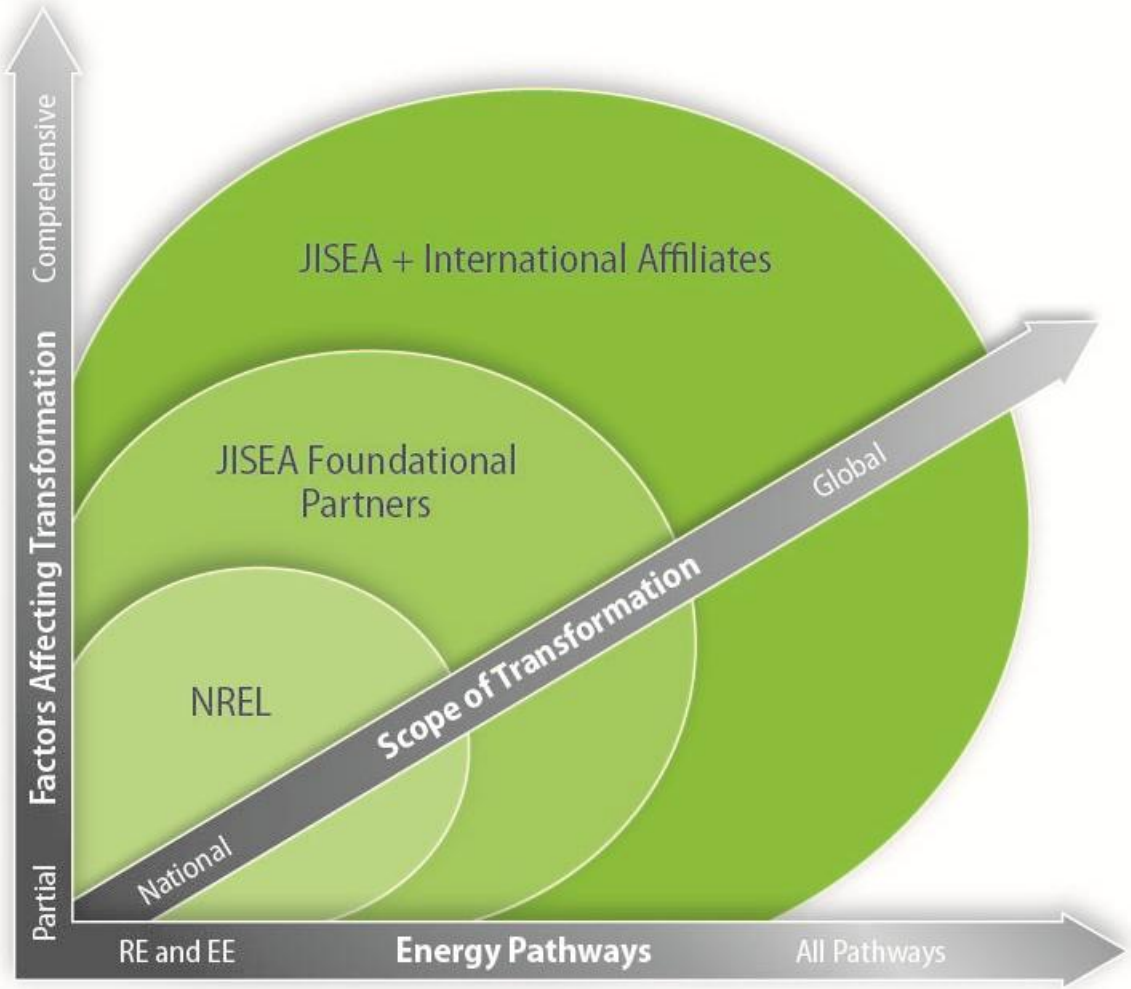
Recycling / Composting / Trash

Blue Bin – Recycling	Green Bin – Composting	Gray/Tan Bin - Trash
• Plastics 1-7 • Glass • Cans • Paper	• Any food product • Paper Plates • Napkins ,Paper towels, Kleenex • Compostable cups, plates utensils • Tea bags	• Foil and cellophane wrappers • Plastic bags • Styrofoam

Informing Energy System Transformations

JISEA research focuses on the intersections of energy, finance, and society. With thought-provoking analysis of energy technologies and energy systems, JISEA materially impacts the national energy agenda and energy systems transformation.

JISEA's Mission Space



Making All This Possible: Teamwork

Program Committee

Advisory Council

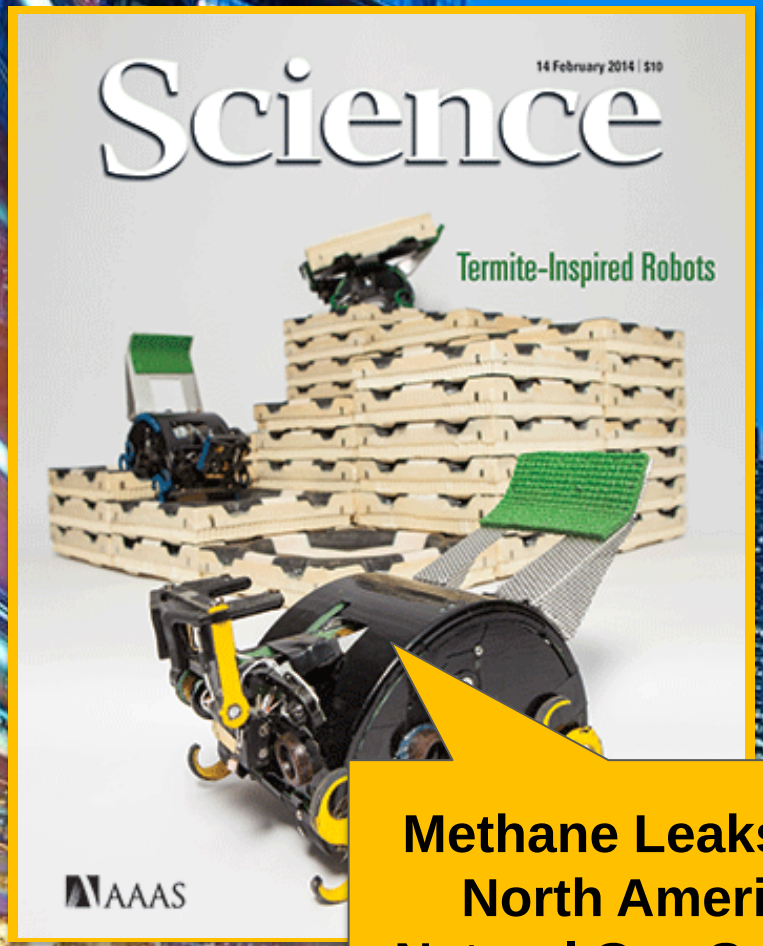
JISEA Joint Institute for Strategic Energy Analysis

NREL National Renewable Energy Laboratory · Colorado School of Mines · Colorado State University · Massachusetts Institute of Technology · Stanford University · University of Colorado Boulder

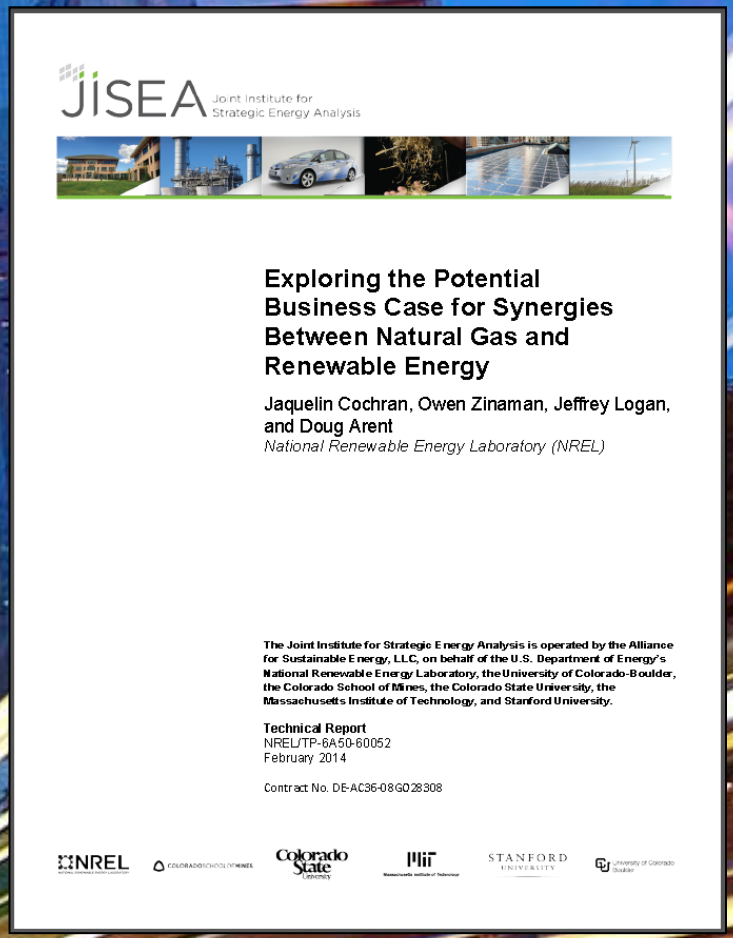
- Eskom
- Baker Institute at Rice University
- International Institute for Applied Systems Analysis
- KTH Royal Institute of Technology
- Masdar Institute for Science and Technology
- Renewable and Appropriate Energy Laboratory, U. C. Berkeley

Sponsors

Building a Foundation for Sound Decisions



Methane Leaks from North American Natural Gas Systems



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Exploring the Potential Business Case for Synergies Between Natural Gas and Renewable Energy

Jaquelin Cochran, Owen Zinaman, Jeffrey Logan, and Doug Arent
National Renewable Energy Laboratory (NREL)

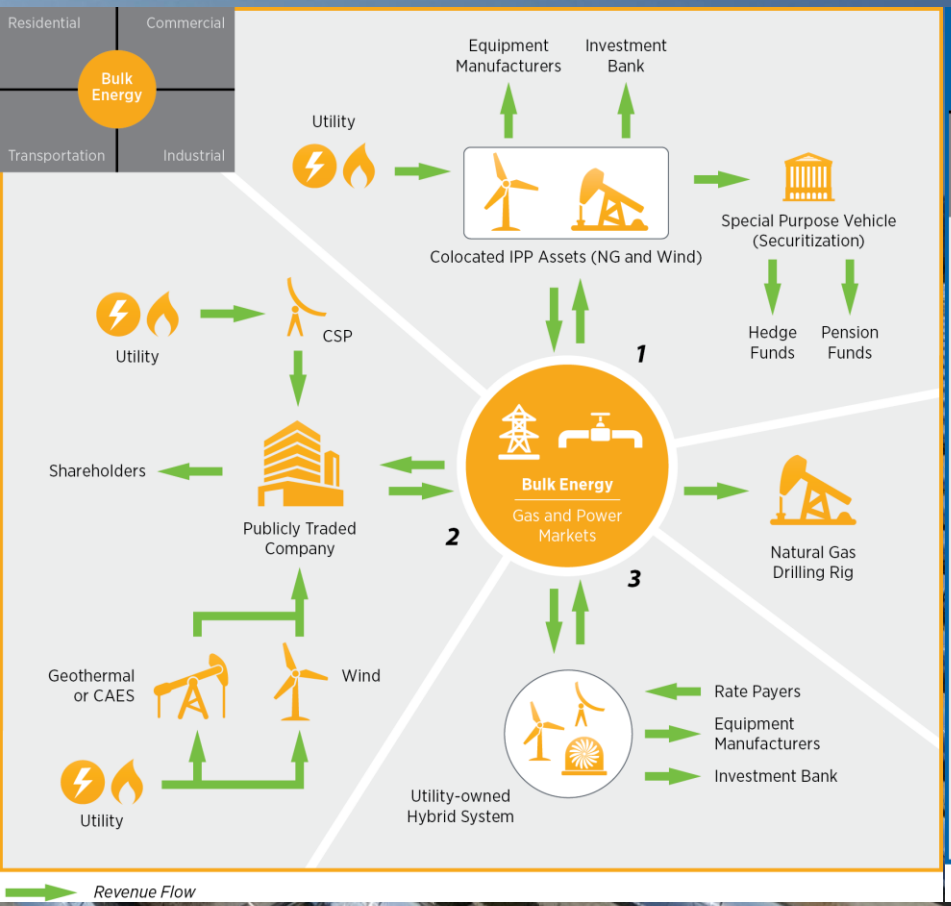
The Joint Institute for Strategic Energy Analysis is operated by the Alliance for Sustainable Energy, LLC, on behalf of the U.S. Department of Energy's National Renewable Energy Laboratory, the University of Colorado-Boulder, the Colorado School of Mines, the Colorado State University, the Massachusetts Institute of Technology, and Stanford University.

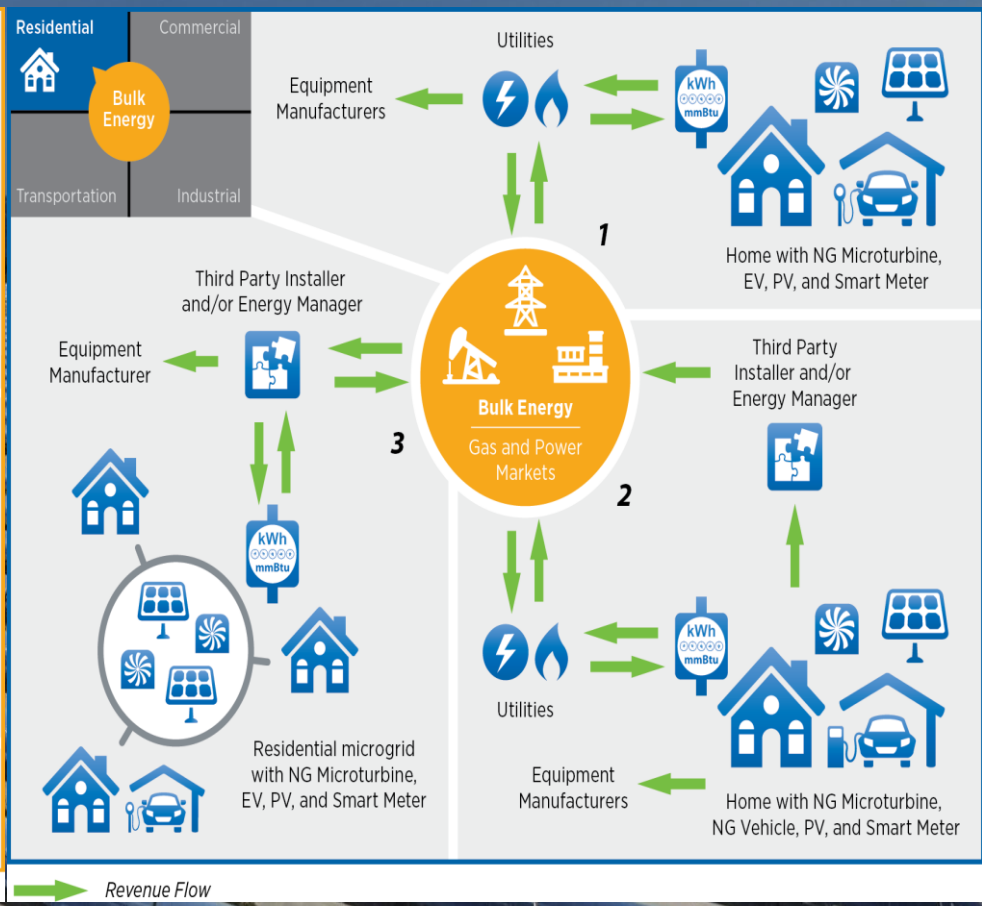
Technical Report
NREL/TP-6A50-60052
February 2014

Contract No. DE-AC36-08GO28308

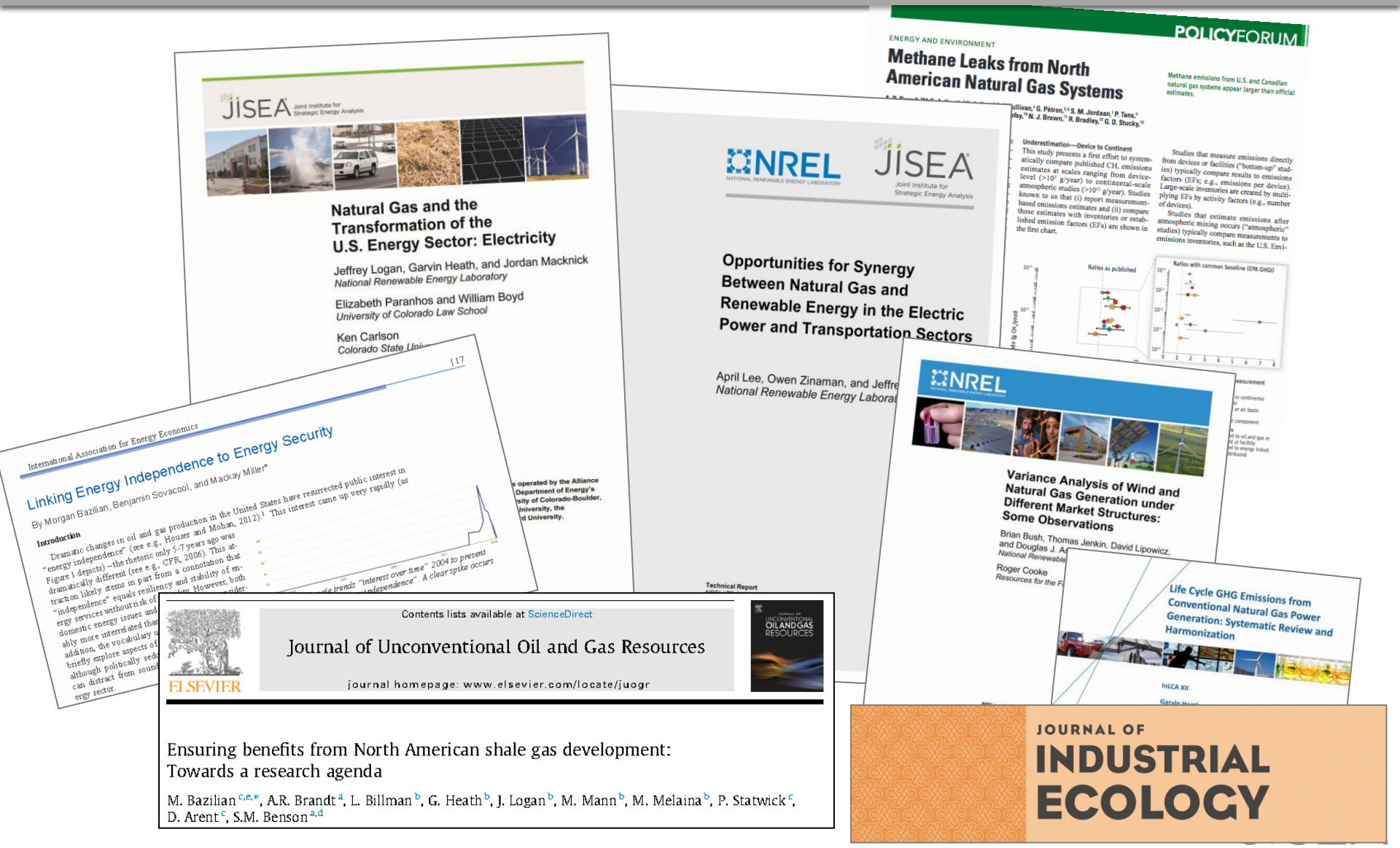
NREL · Colorado School of Mines · Colorado State University · MIT · Stanford University · University of Colorado Boulder

Efficient, Economically Attractive Options



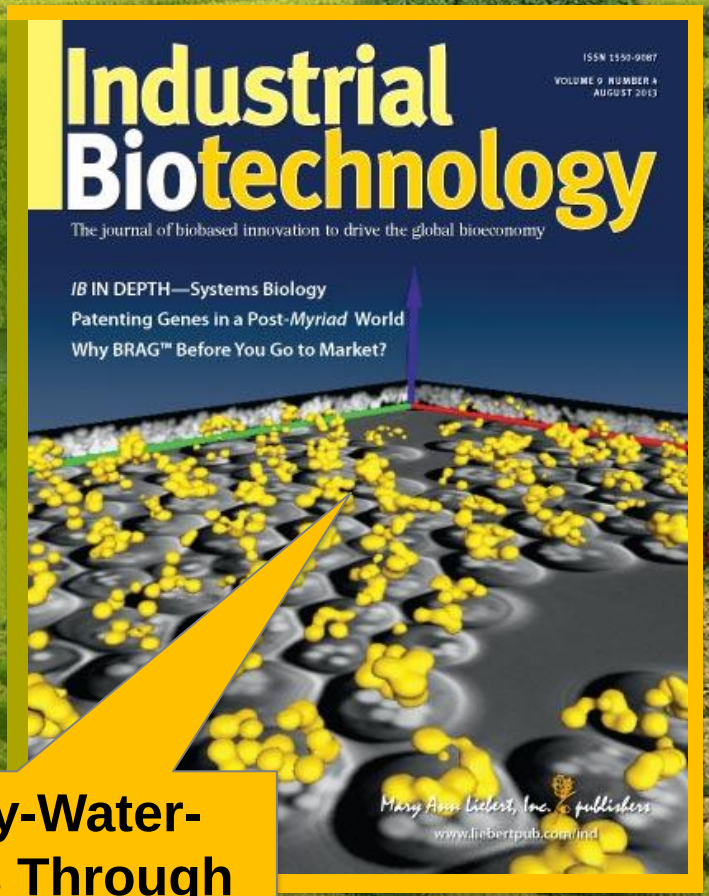


Leading Nationally and Internationally



Advancing Our Understanding of Human-Earth System Interactions

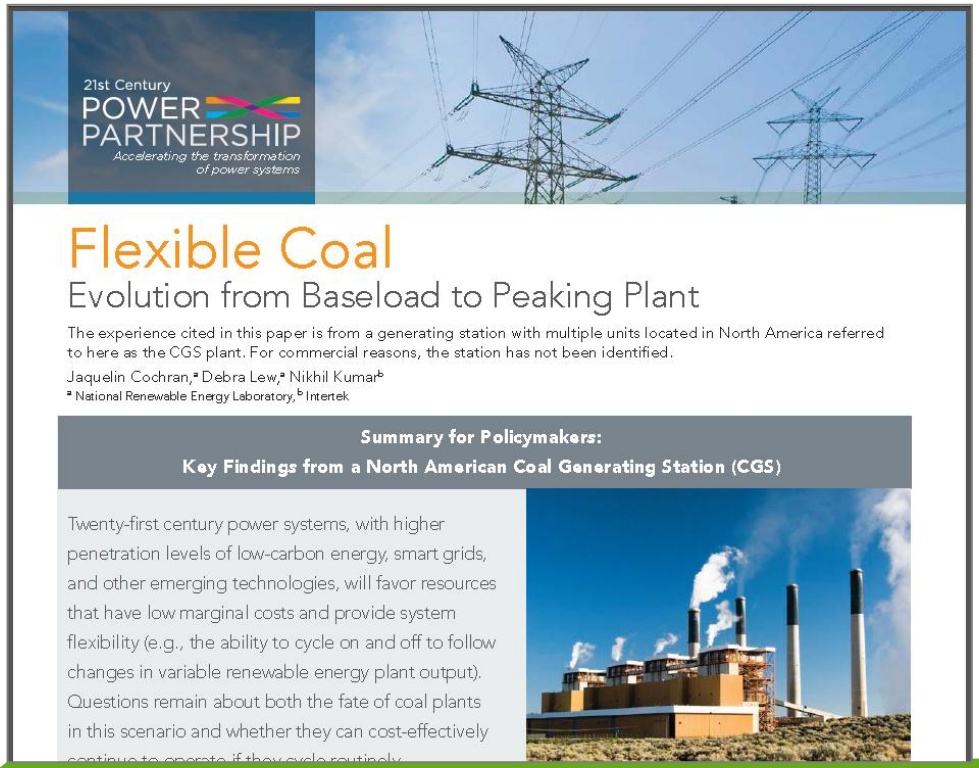
Energy systems integration is a critical research and development area that will underpin the energy system of the future.

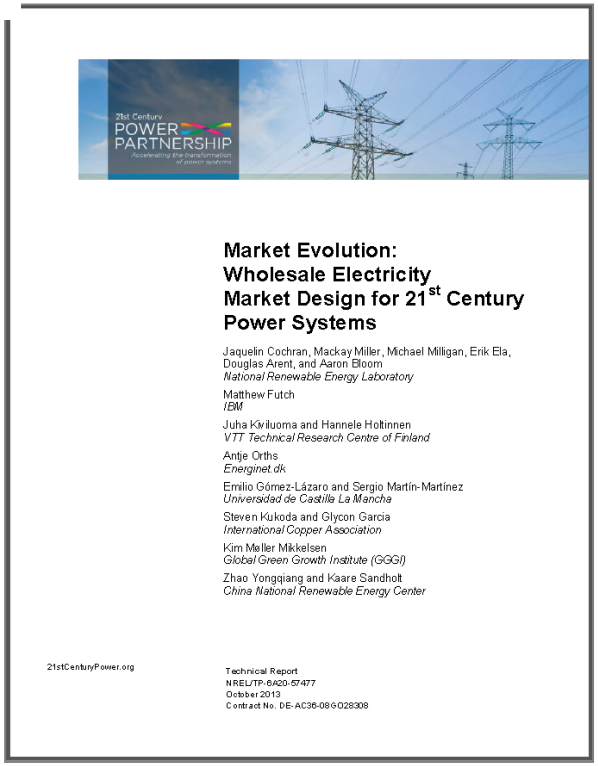


The Energy-Water-Food Nexus Through the Lens of Algal Systems

Supporting Global Initiatives

21st Century POWER PARTNERSHIP





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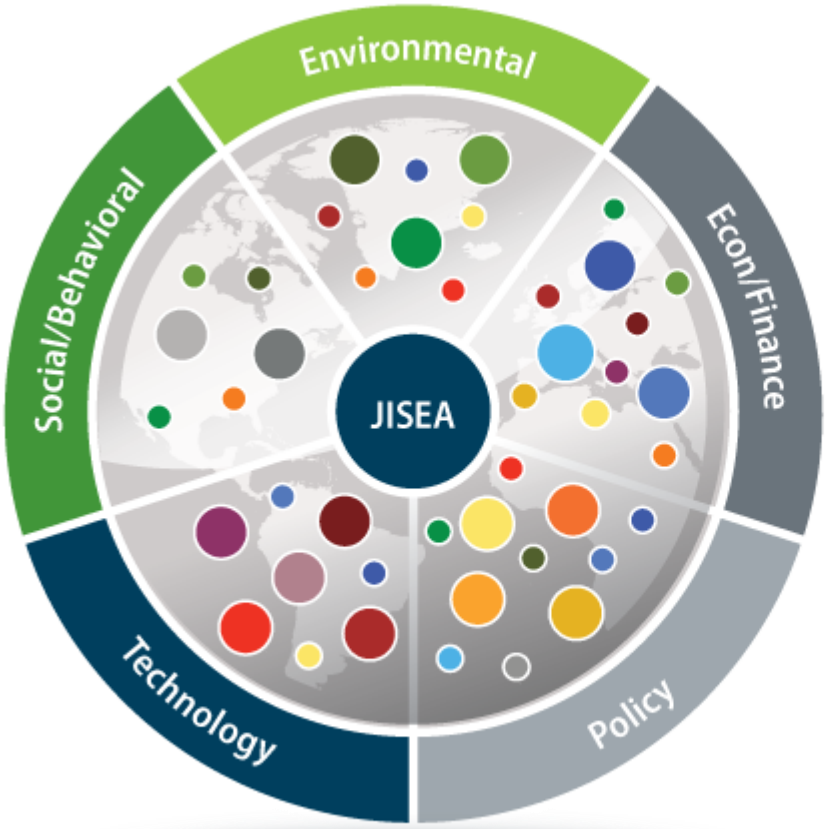
Funding Innovative Research



- Energy H_2O Nexus
- Energy and Water
- Marginal Lands
- Financial Models
- GIS Optimization
- Ancillary Markets
- Model Integration
- Waste to Energy
- Sustainability Analysis
- Energy-Specific Models
- Microgrids
- CO_2 Mineralization
- Nuclear and RE
- Lo-Temp Geothermal
- Hydropower
- High RE and DR
- EE Retrofits

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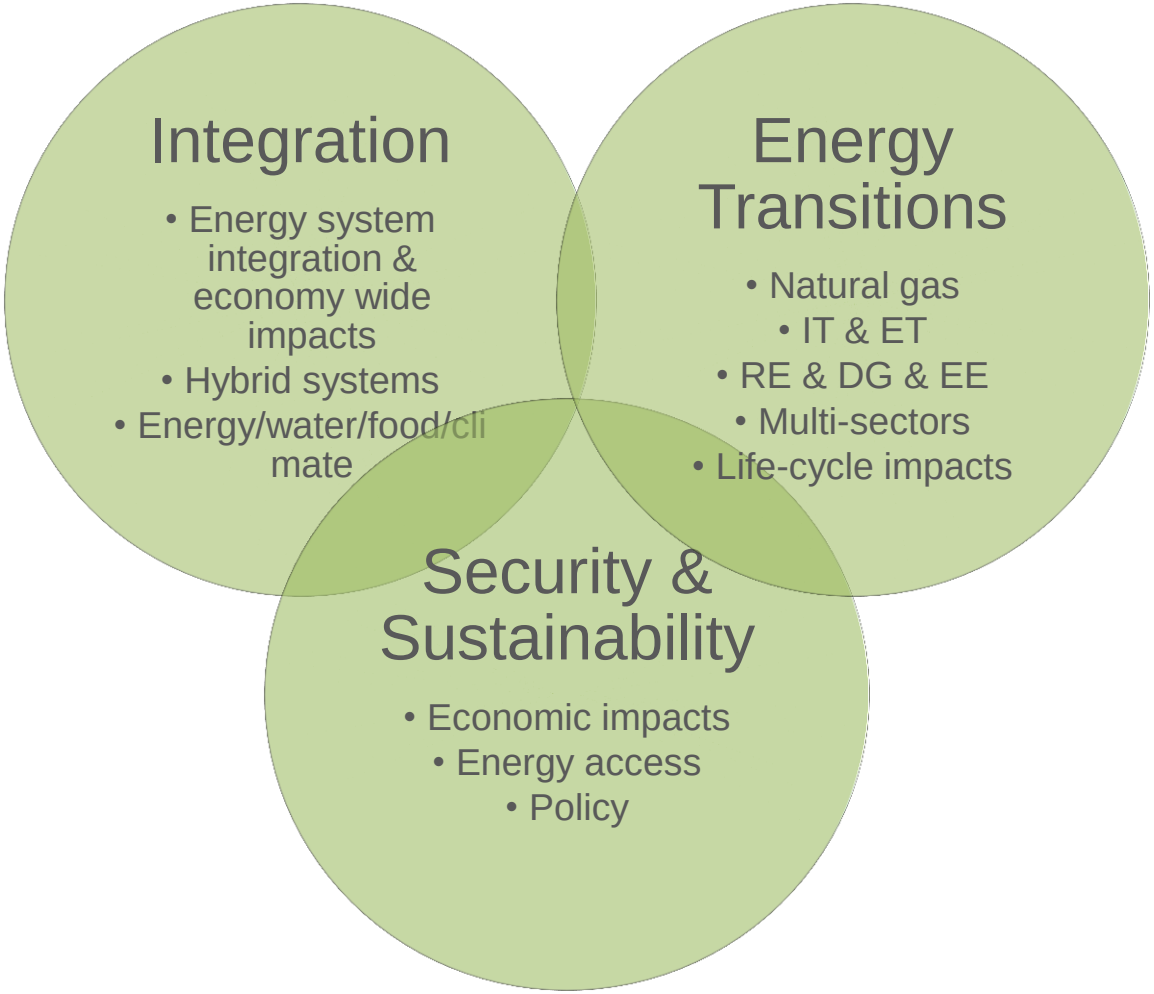
Looking Ahead



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Learn More

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