



Insight on Transforming our Global Energy Economy

2015 Annual Meeting

March 11, 2015

Doug Arent



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



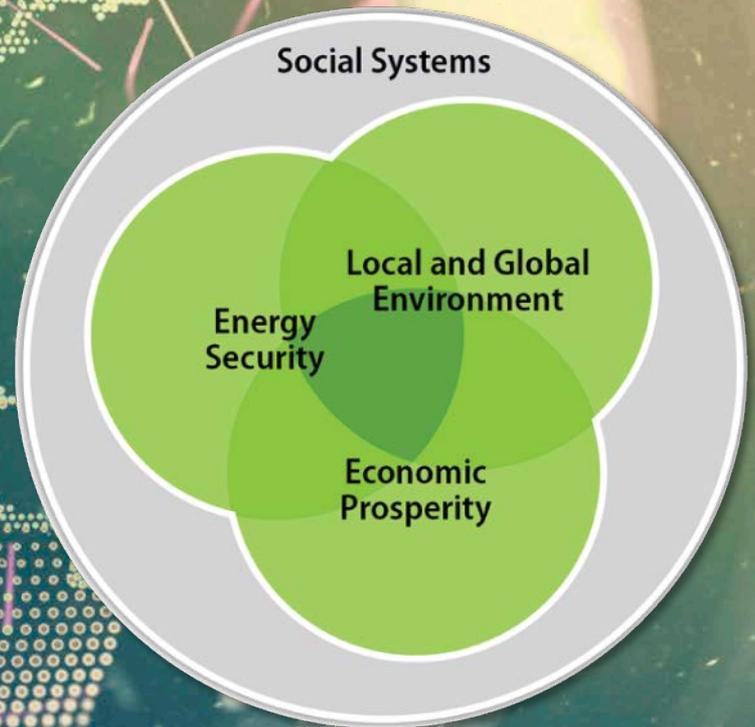
★ Restrooms

Recycling / Composting / Trash

Blue Bin – Recycling	Green Bin – Composting	Gray/Tan Bin - Trash
<ul style="list-style-type: none"> • Plastics 1-7 • Glass • Cans • Paper 	<ul style="list-style-type: none"> • Any food product • Paper Plates • Napkins ,Paper towels, Kleenex • Compostable cups, plates utensils • Tea bags 	<ul style="list-style-type: none"> • Foil and cellophane wrappers • Plastic bags • Styrofoam

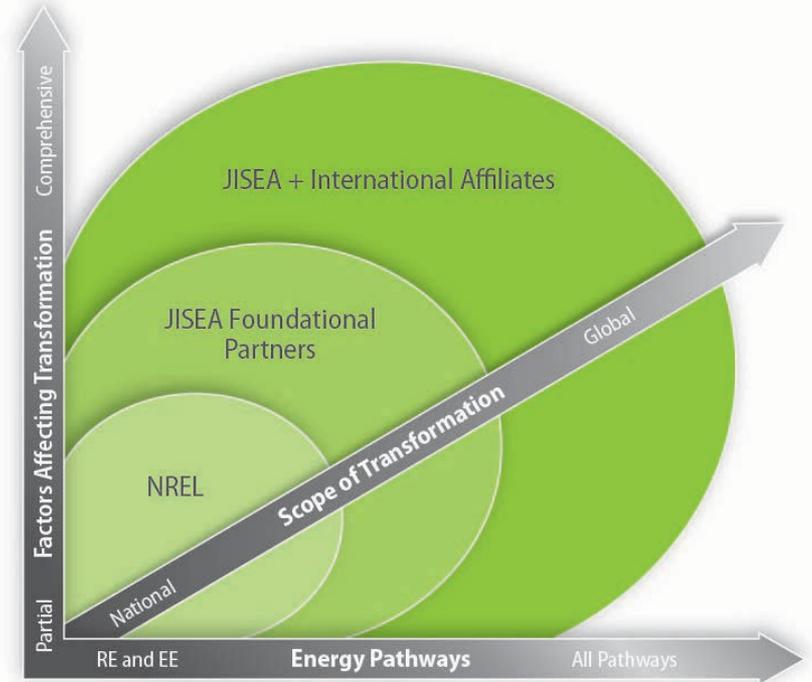
JISEA's MISSION

JISEA research focuses on the intersections of energy, finance, and society. JISEA provides critical clarity and insights to inform decision making through leading-edge interdisciplinary research and objective, credible, cross-functional analysis.



JISEA's GOAL

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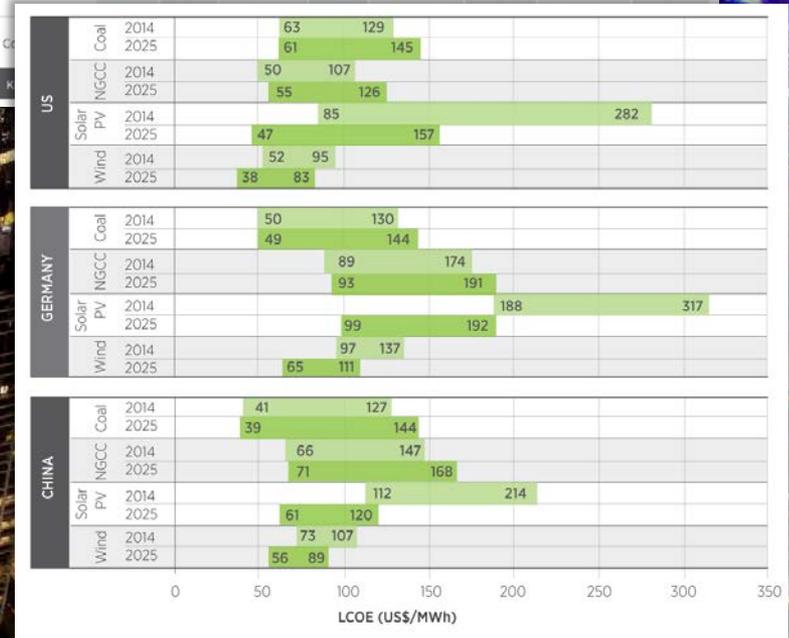
JISEA

Joint Institute for
Strategic Energy Analysis

RENEWABLE ELECTRICITY: INSIGHTS FOR THE COMING DECADE

Renewable electricity is positioned to provide increased value to customers, utilities, and system operators, and contribute to the new wave of electricity systems solutions.

TECHNOLOGY	CONDITIONS FOR NEW PLANTS							
	Average Cost		Technology Innovation Opportunities	Water Impacts	Lifecycle GHG Emissions (kgCO ₂ e/MWh)	Able to Dispatch on Demand	Scalability	Siting and Social Acceptance
NEW PLANTS	Current	Trends						
Wind Onshore	●	●	●	●	●	●	●	---
Wind Offshore	●	●	●	●	●	●	●	---
Solar PV	●	●	●	●	●	●	●	---
Solar CSP w/storage	●	●	●	●	●	●	●	●
Geothermal	○	○	●	○	●	●	●	○
Biopower	○	○	●	●	---	●	●	---
Hydro	○	○	○	---	●	---	○	●
Natural Gas Combined Cycle	---	○	●	●	●	●	●	---
Nuclear	●	●	●	●	●	●	●	●



GETTING GAS RIGHT

As the natural gas landscape continues to shift in the United States and globally, JISEA's natural gas research remains as pertinent as ever.

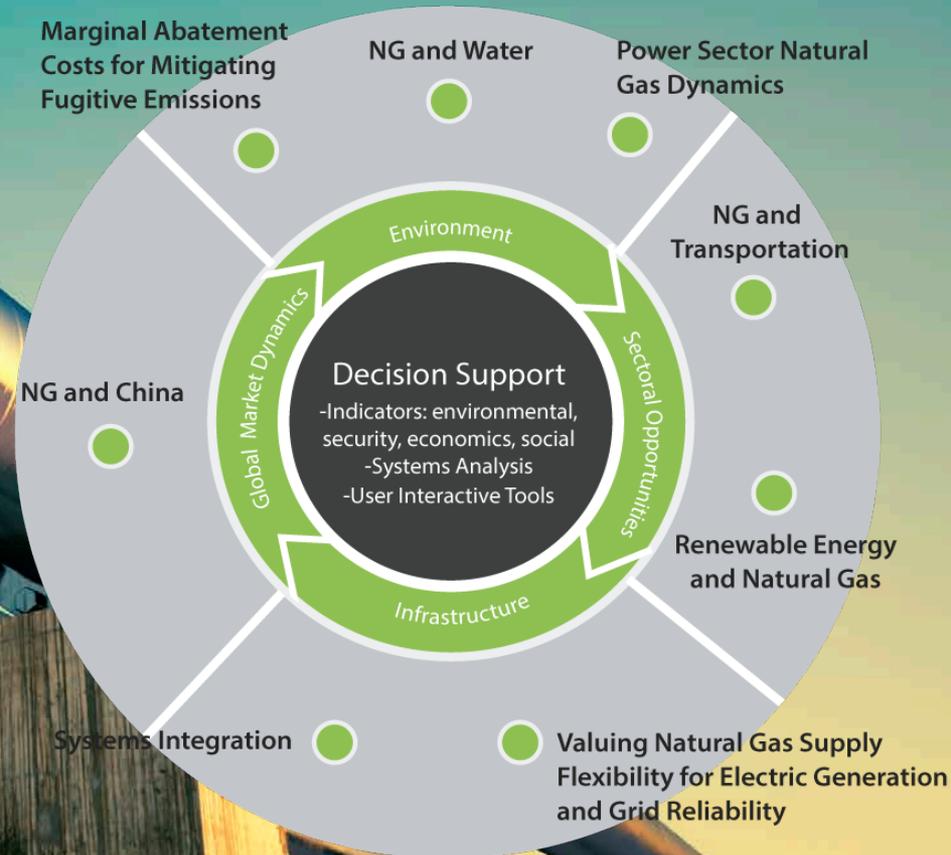
JISEA's past research will help inform a new suite of studies to move the natural gas discussion forward on a productive path.



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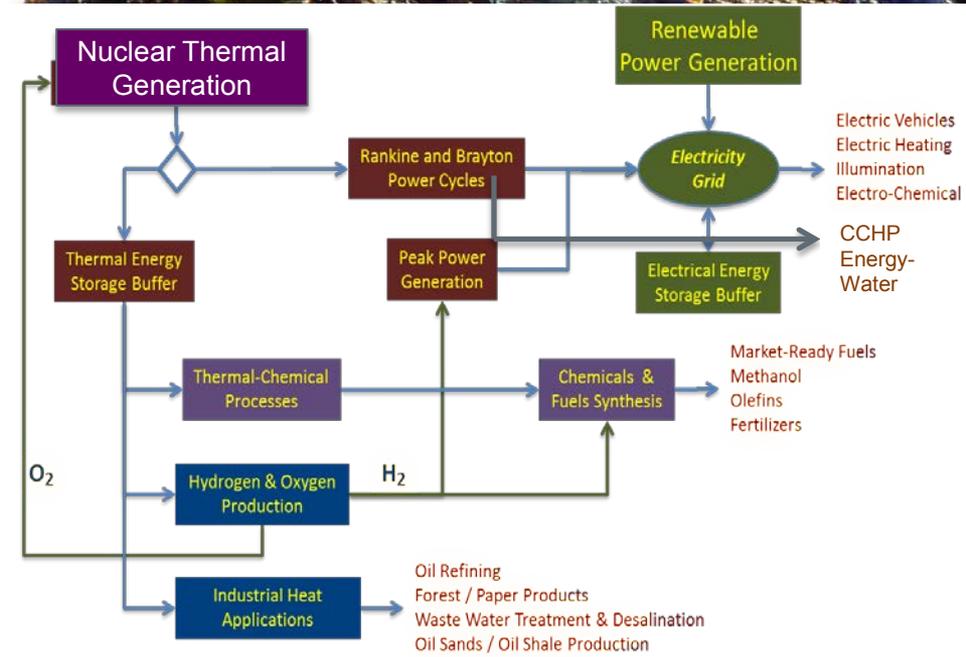
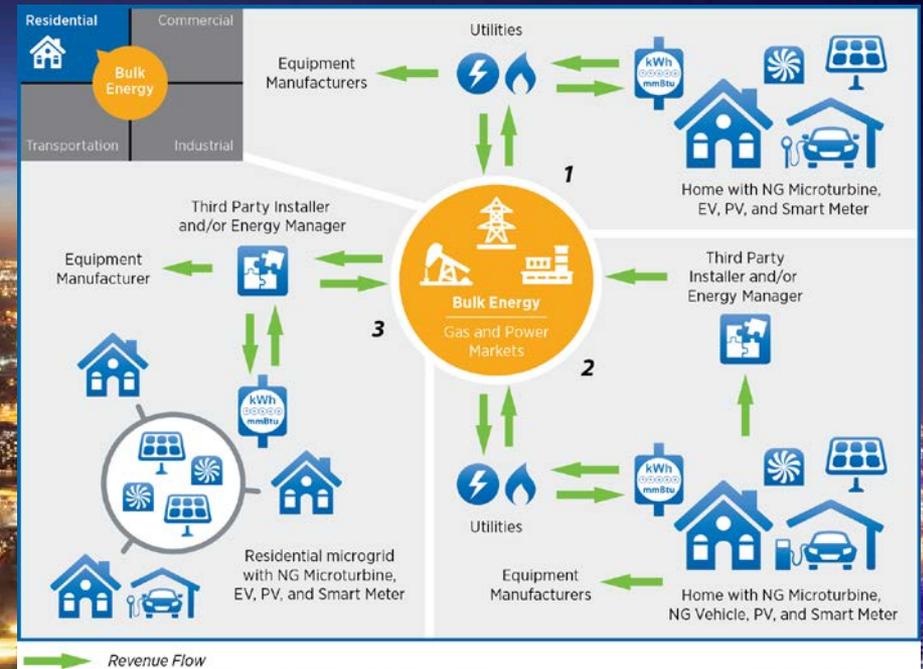
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System Solutions toward a Sustainable Energy Future

Energy, Water, Food, Land Use, Air...

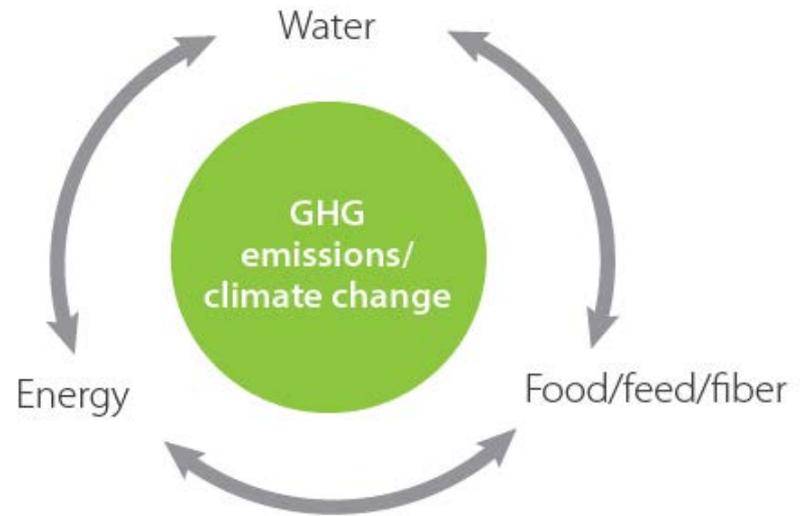
Comfort, Sustenance, Shelter, Mobility, Connectivity....



System Solutions toward a Sustainable Energy Future

Energy, Water, Food, Land Use, Air...

Comfort, Sustenance, Shelter, Mobility, Connectivity....



GLOBAL INSIGHTS, GLOBAL IMPACTS

- Partnering with the Children's Investment Fund Foundation to create and operate a platform for power sector technical support for the Mexican federal government.
- Supporting the South African central government and the state-owned utility Eskom as the country prepares to integrate unprecedented quantities of renewable energy onto its grid.



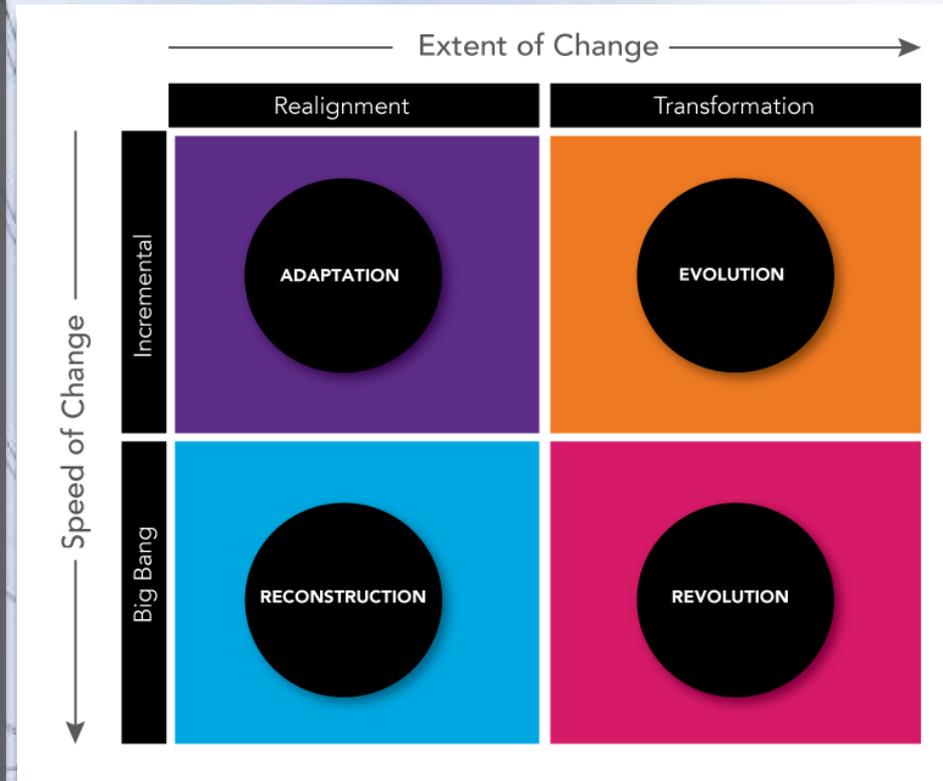
CHINA

- Partnering with the Children's Investment Fund Foundation, the Danish Energy Agency, and CNREC to build capacity and expertise to evaluate renewable electricity options in China



POWER SECTOR TRANSFORMATION

As pathways to new power systems emerge, JISEA's research illuminates those pathways to facilitate the transformation to a modern power sector.



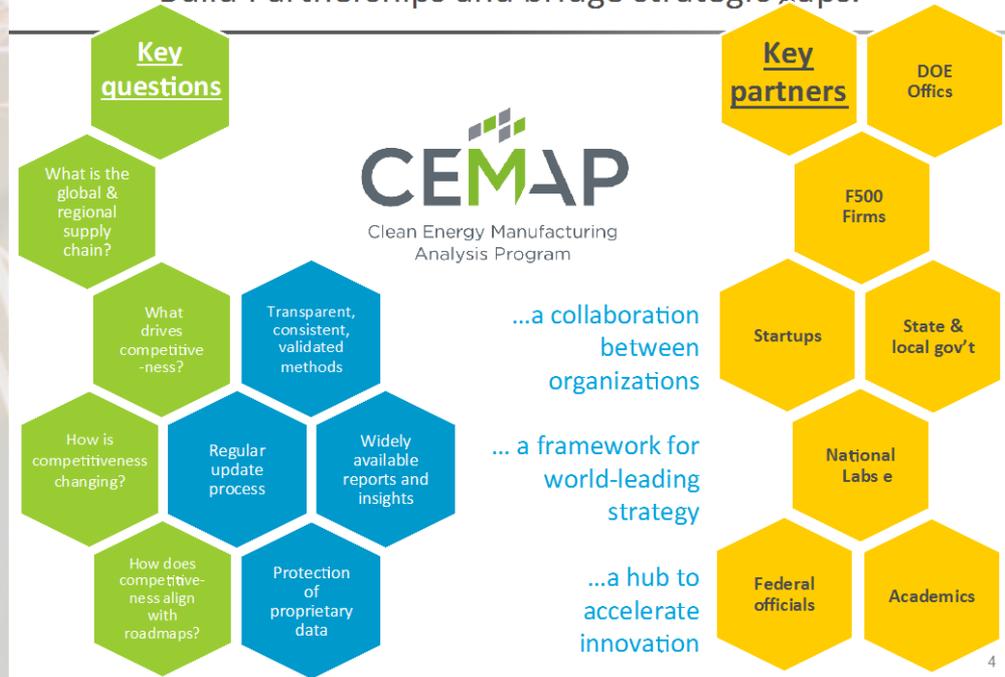
CEMAP

Clean Energy Manufacturing Analysis Program

Led by JISEA on behalf of DOE, CEMAP seeks to be the definitive world leader of credible, objective analysis on clean energy manufacturing sought by world leaders to inform choices to promote economic growth and the transition to a clean energy economy.



Build Partnerships and bridge strategic gaps.

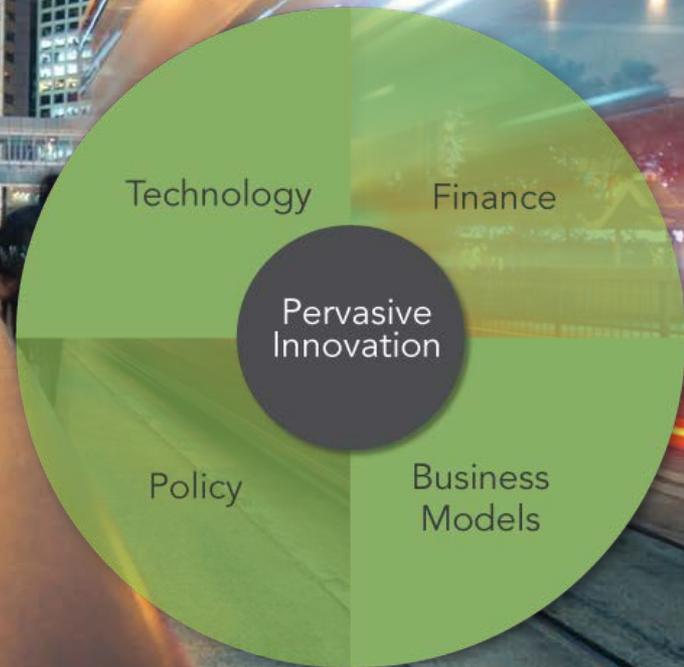


FUTURE INNOVATION

Analysis, tools, partnerships
and Insights...

that help inform energy related
decisions.

UNU-WIDER-JISEA Edited Book
on the Political Economy of
Clean Energy Transitions



Agenda

Wednesday

- 2:15 Global Power Sector Transformation
- 3:15 Break
- 3:30 Social/Behavioral
- 4:30 Financing Clean Energy
- 5:30 Shuttle to Reception
- 6:00 Reception – Table Mountain Inn, Golden

Thursday

- 8:30 Continental Breakfast
- 9:00 Getting Gas Right
- 10:15 Break
- 10:30 Intergenerational Transformation
- 11:30 A Conversation with the JISEA Program Committee
- 12:15 Wrap up and Next Steps
- 12:30 Lunch and poster sessions
- Afternoon Tours and Research Discussions