



Natural Gas: A Bridge to Climate Breakdown

AN INVESTOR BRIEF ON OVERCOMING THE
POWER SECTOR'S NATURAL GAS DEPENDENCE

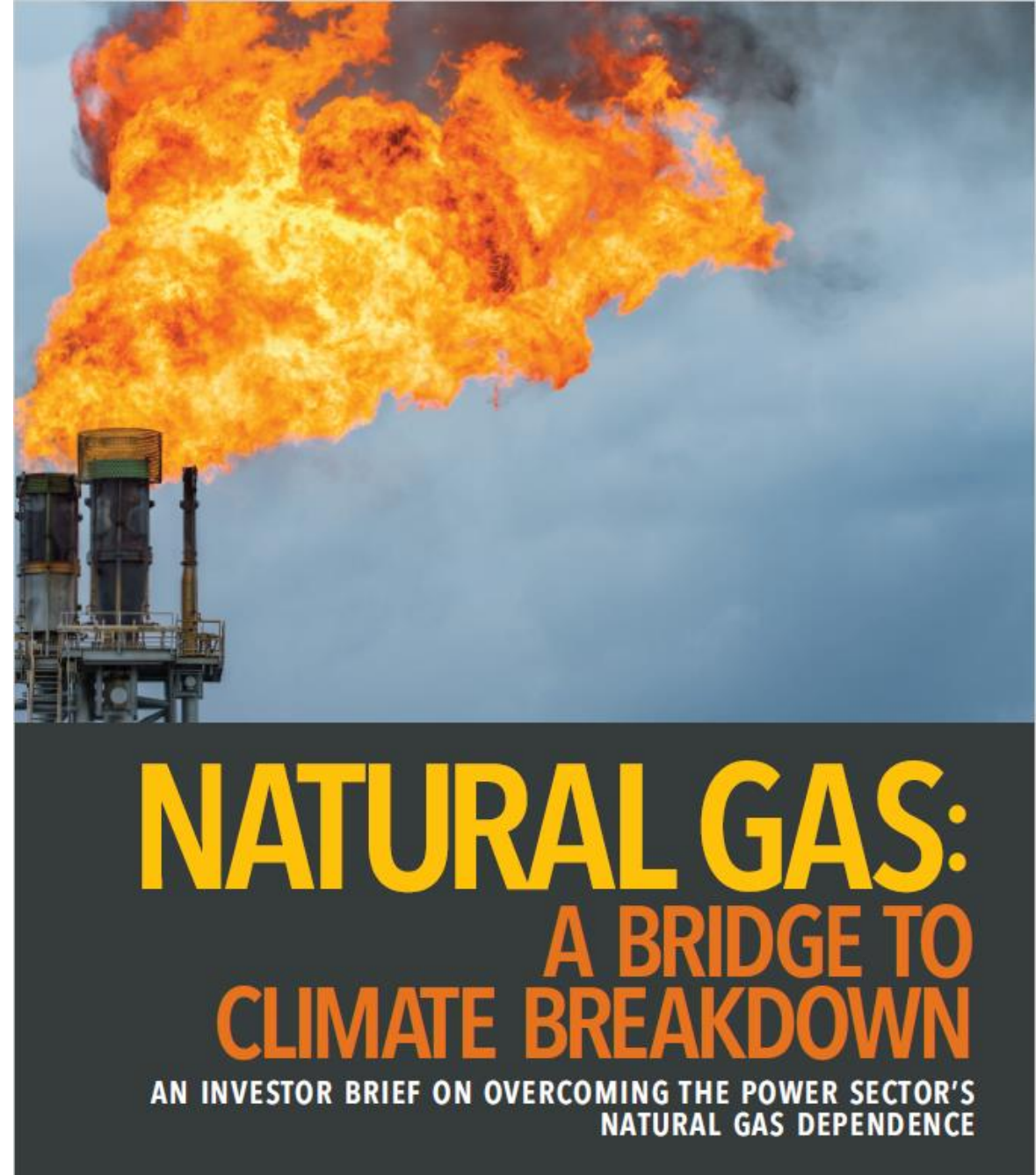


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Agenda

- Agenda overview & webinar logistics (5 min)
- Introduction & report overview (15 min)
- Moderated panel discussion / Q&A (35 min)
- Wrap Up (5 min)



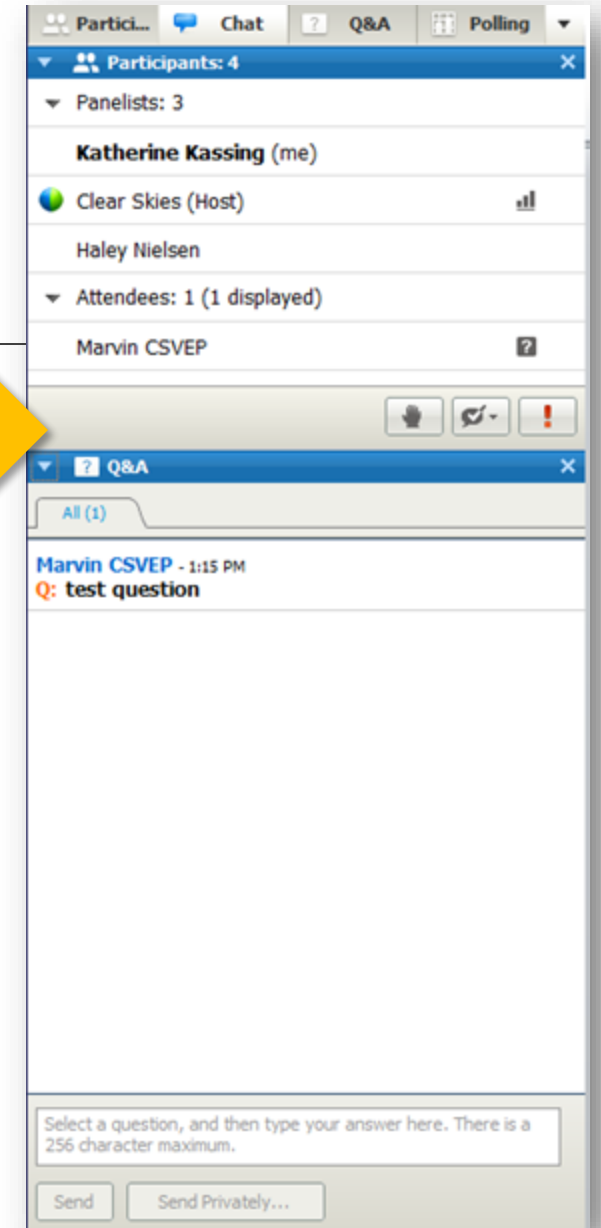
Audience Q&A

Download the report at:

<https://www.asyousow.org/reports/natural-gas-bridge-to-climate-breakdown>

Use the Q&A window to send us your questions

Q&A Window



Presentation & Moderation



Mike O'Boyle
Director of Electricity Policy
Energy Innovation



Lila Holzman
Energy Program Manager
As You Sow

Featured Speakers



Barbara Lockwood
Senior VP of Public Policy
Arizona Public Service Company



Chaz Teplin
Manager in Electricity Practice
Rocky Mountain Institute

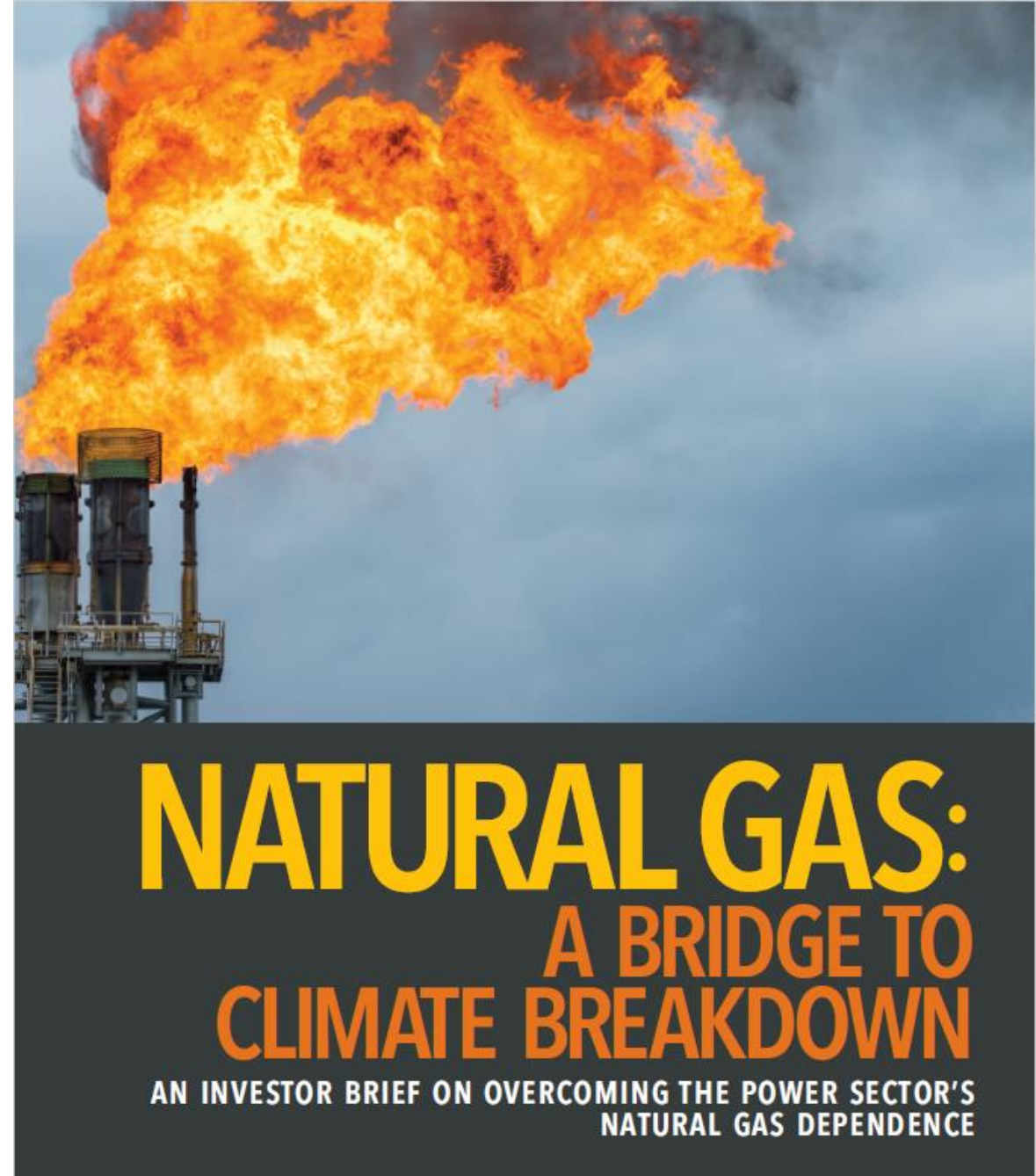


Stephen Byrd
Managing Dir. and Head of Research
for Power & Utilities, Clean Energy &
Midstream Industries
Morgan Stanley

Report Presentation



Mike O'Boyle
Director of Electricity Policy
Energy Innovation



TAKEAWAYS

THREE KEY INSIGHTS

1. New natural gas infrastructure will not depreciate until after 2050
2. Renewable and storage costs will continue to drop, while natural gas infrastructure costs and fuel cost are mature
3. The low-carbon energy transition is a massive capital investment opportunity for utilities

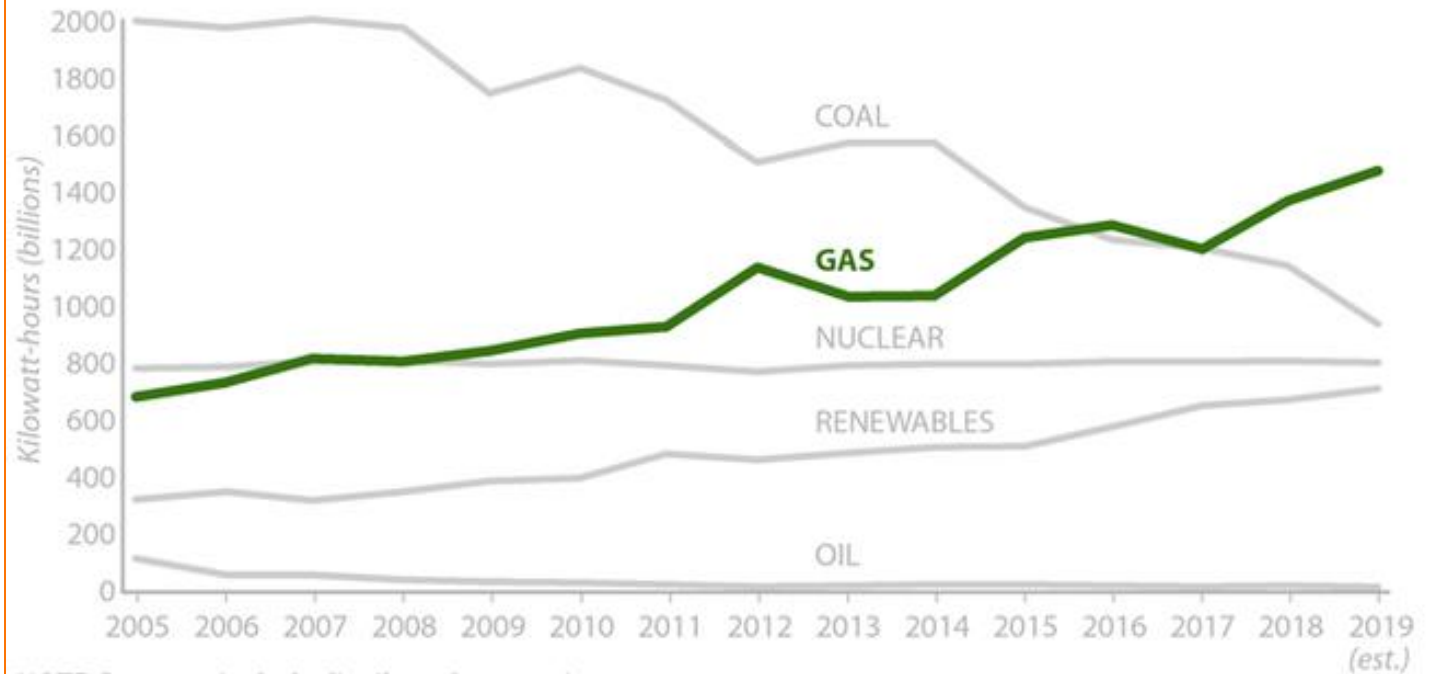


Natural Gas & U.S. Emissions

How did we get here and where are we now?

U.S. POWER GENERATION BY ENERGY SOURCE

Electric power sector only, in billions of kilowatt-hours, 2005-2019



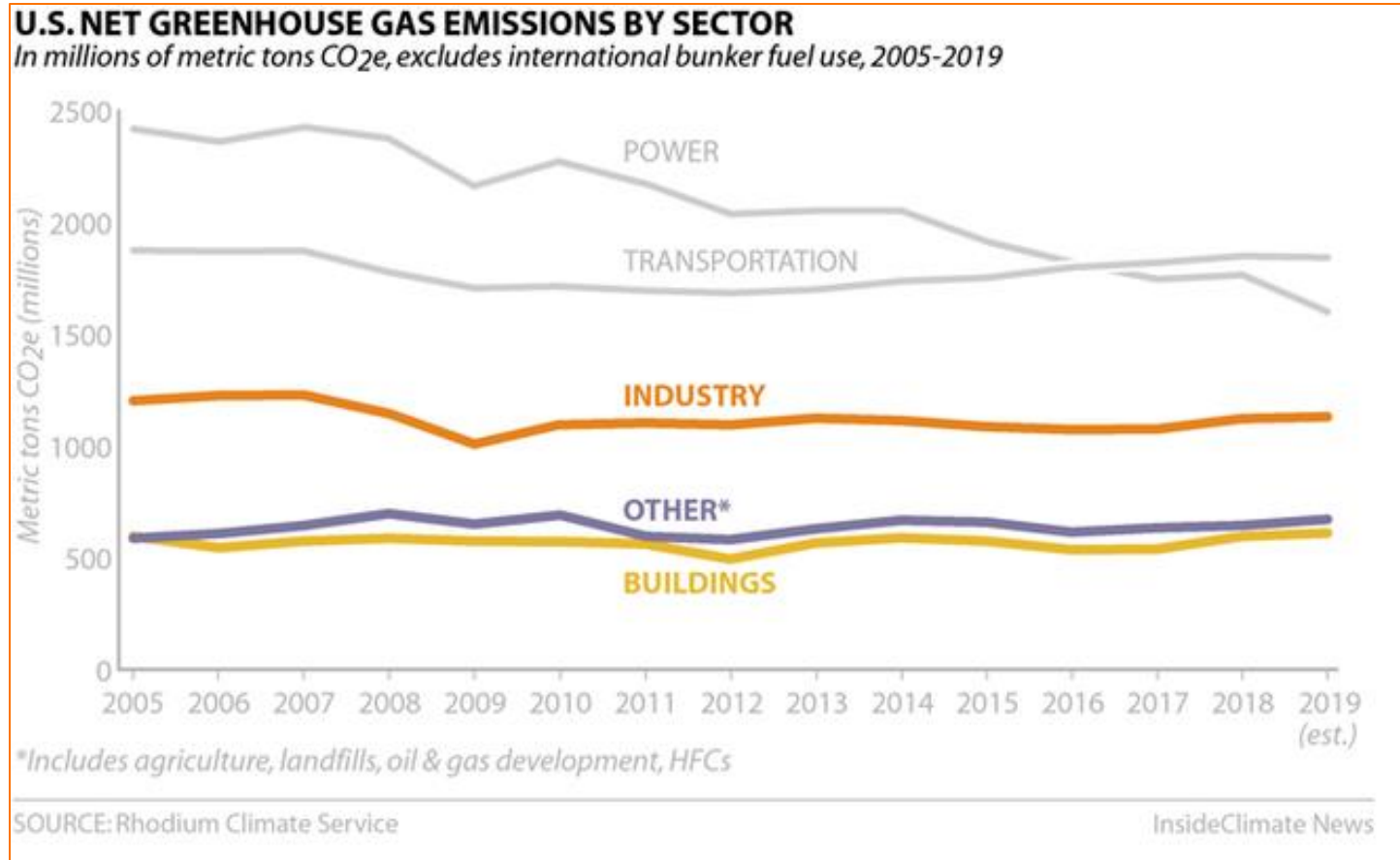
NOTE: Does not include distributed generation

SOURCE: Rhodium Climate Service

InsideClimate News

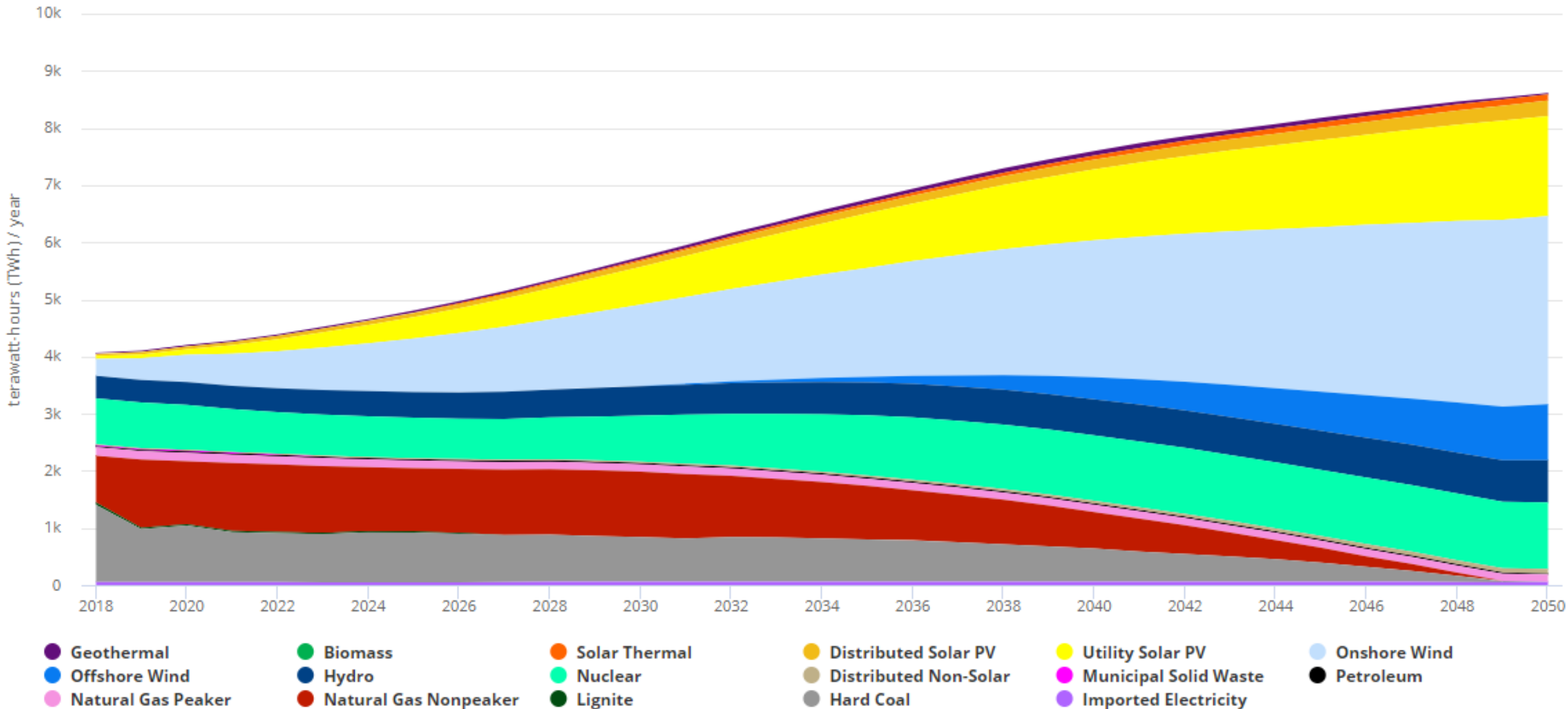
Natural Gas & U.S. Emissions

How did we get here and where are we now?



Where are we going?

Net-zero emissions electricity sector by 2050?



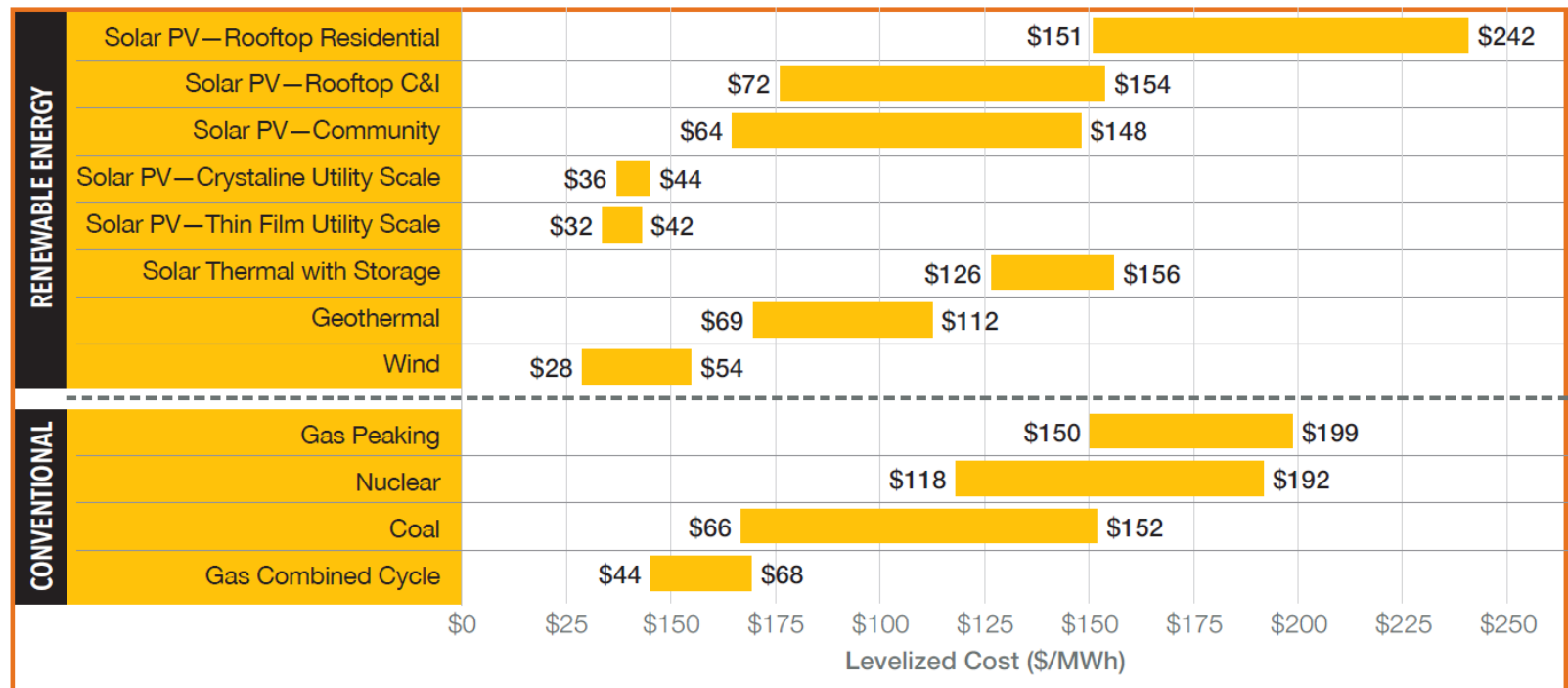
4 Types of Risk Identified

1. Portfolio Harms & Physical Risks of Climate Change
2. Policy & Public Pressure Risks
3. Financial Risks of Natural Gas Investment
4. Risks & Opportunities in Utility Decarbonization

Financial Risks of Natural Gas Investment

Renewables are now the
cheapest source on a
levelized cost basis...

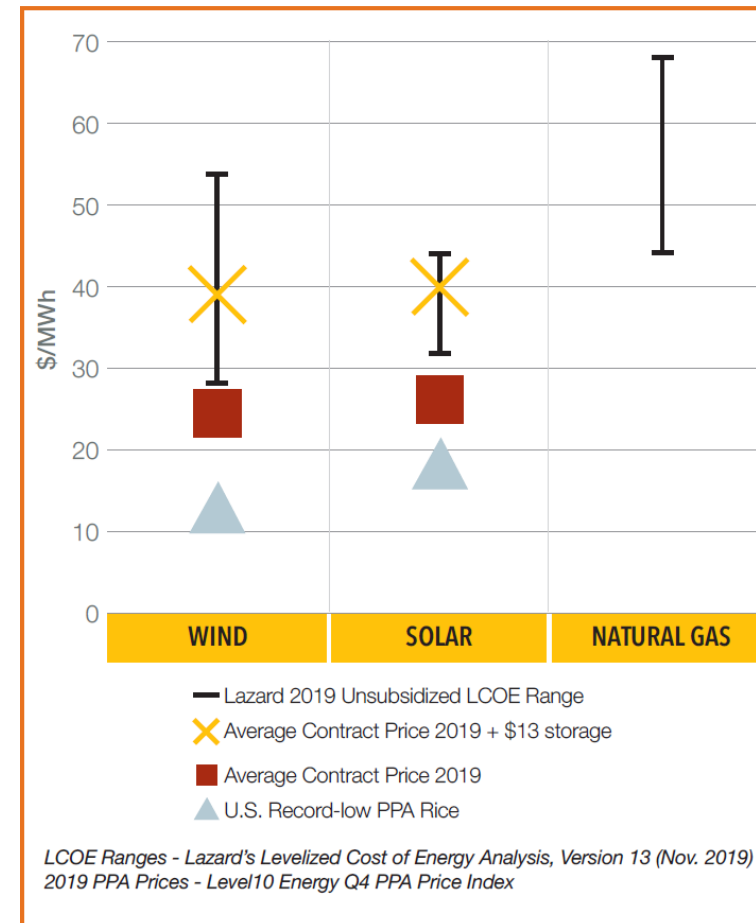
But what about natural gas
dispatchability?



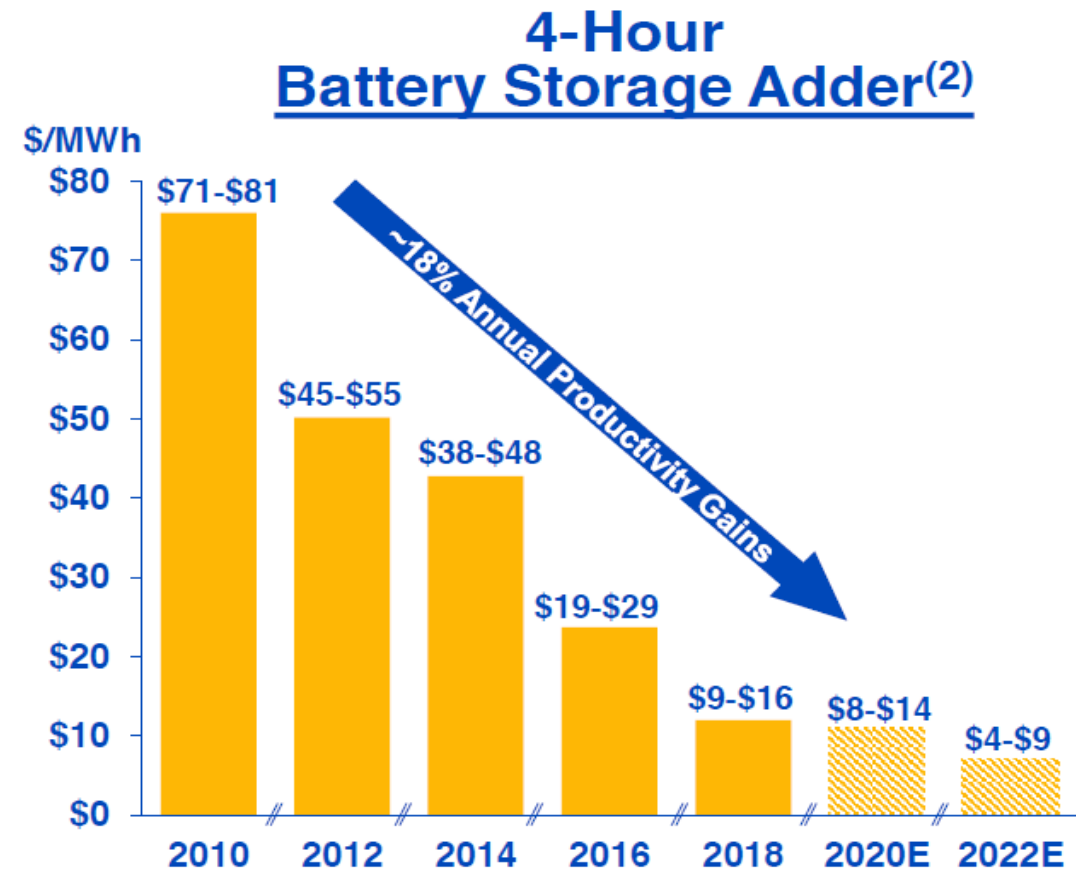
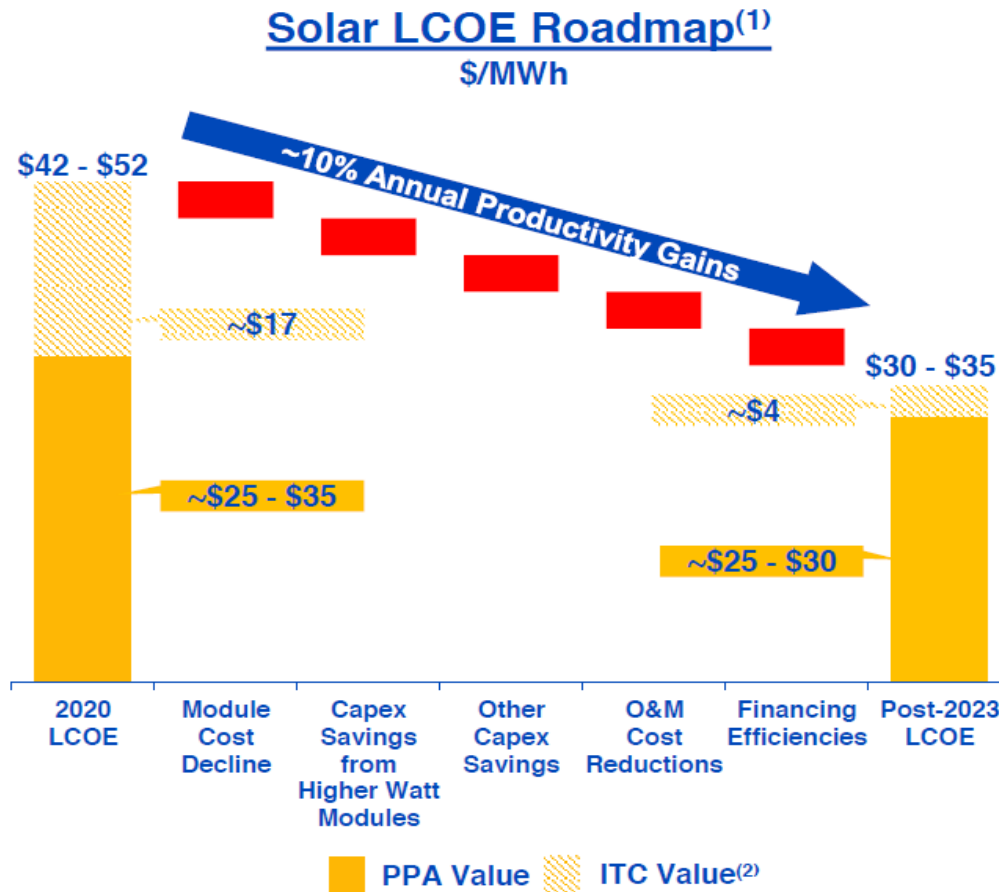
Financial Risks of Natural Gas Investment

Solar plus storage is already cheaper than new natural gas according to existing contracts...

Taking advantage of tax credits.



Financial Risks of Natural Gas Investment

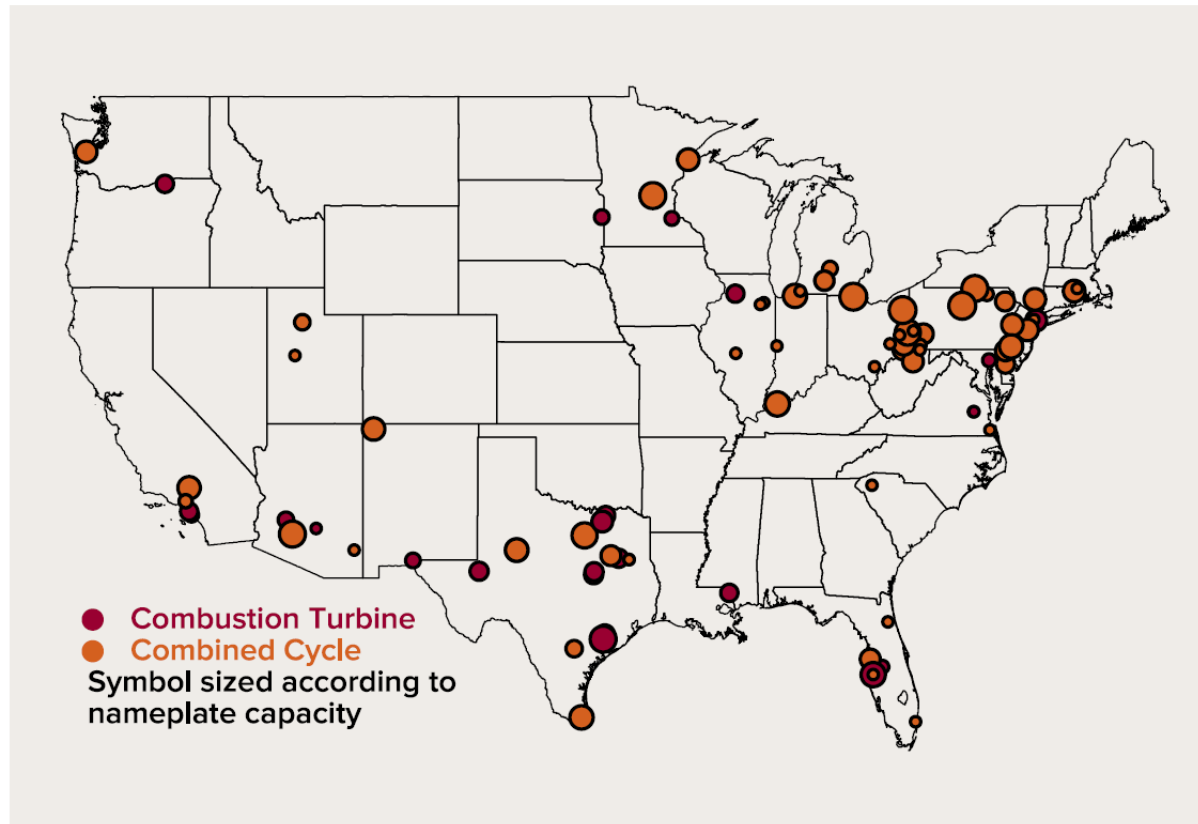


Source: NextEra Analysis 2019



And Yet...

ANNOUNCED GAS-FIRED GENERATION PROJECTS



In “*The Growing Market for Clean Energy Portfolios*” Rocky Mountain Institute found utilities had announced 68 gigawatts in new natural gas investment as of 2019, potentially creating billions in stranded costs.

Risks & Opportunities in Utility Decarbonization

Risks

- Operating grids with very high (80%+) shares of renewables
- Failing on a 'Just Transition' from fossil fuels
- Parent company climate goals at odds with subsidiaries



Risks & Opportunities in Utility Decarbonization

Opportunities

- Steel for Fuel
- ‘Electrify Everything’



Recommendations:

Opportunities for Investor Engagement

Utility Engagement

- Encourage decarbonization targets
- Is new gas compatible with?
- Scrutinize planning and modelling
- Investment in innovation
- Are lobbying funds promoting status quo?
- Potential governance changes

Policymaker Engagement

- Encourage and guide financial transition policies such as securitization
- Utility business model transformation policy
- Engage with state regulators and utility-focused forums
- Support investment in innovation
- Support strong state policy signals



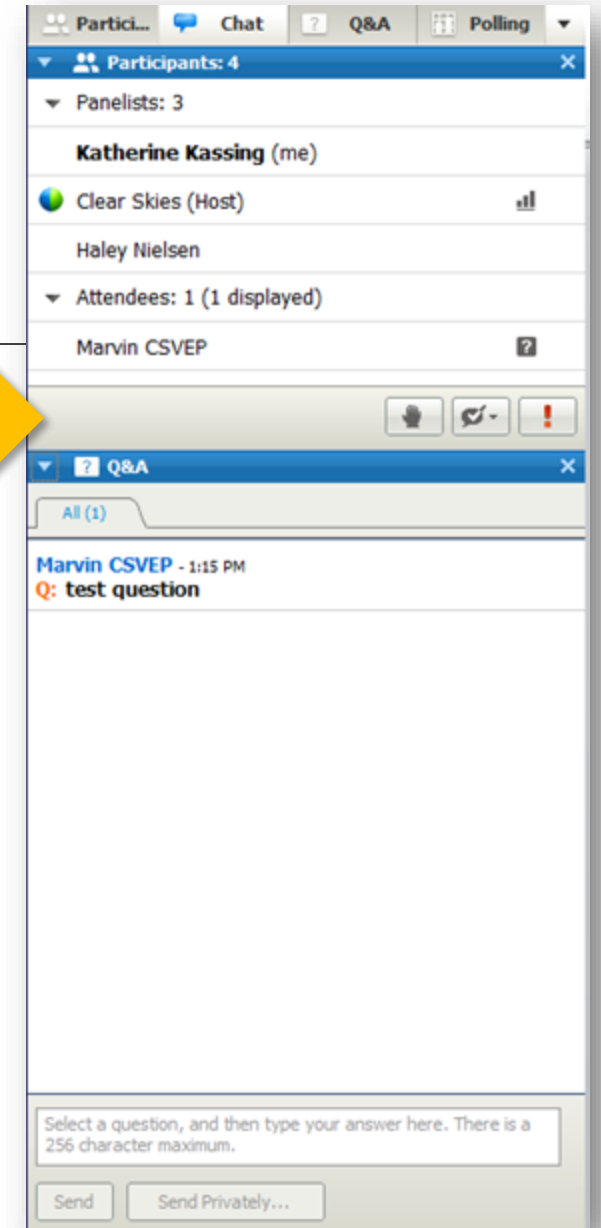
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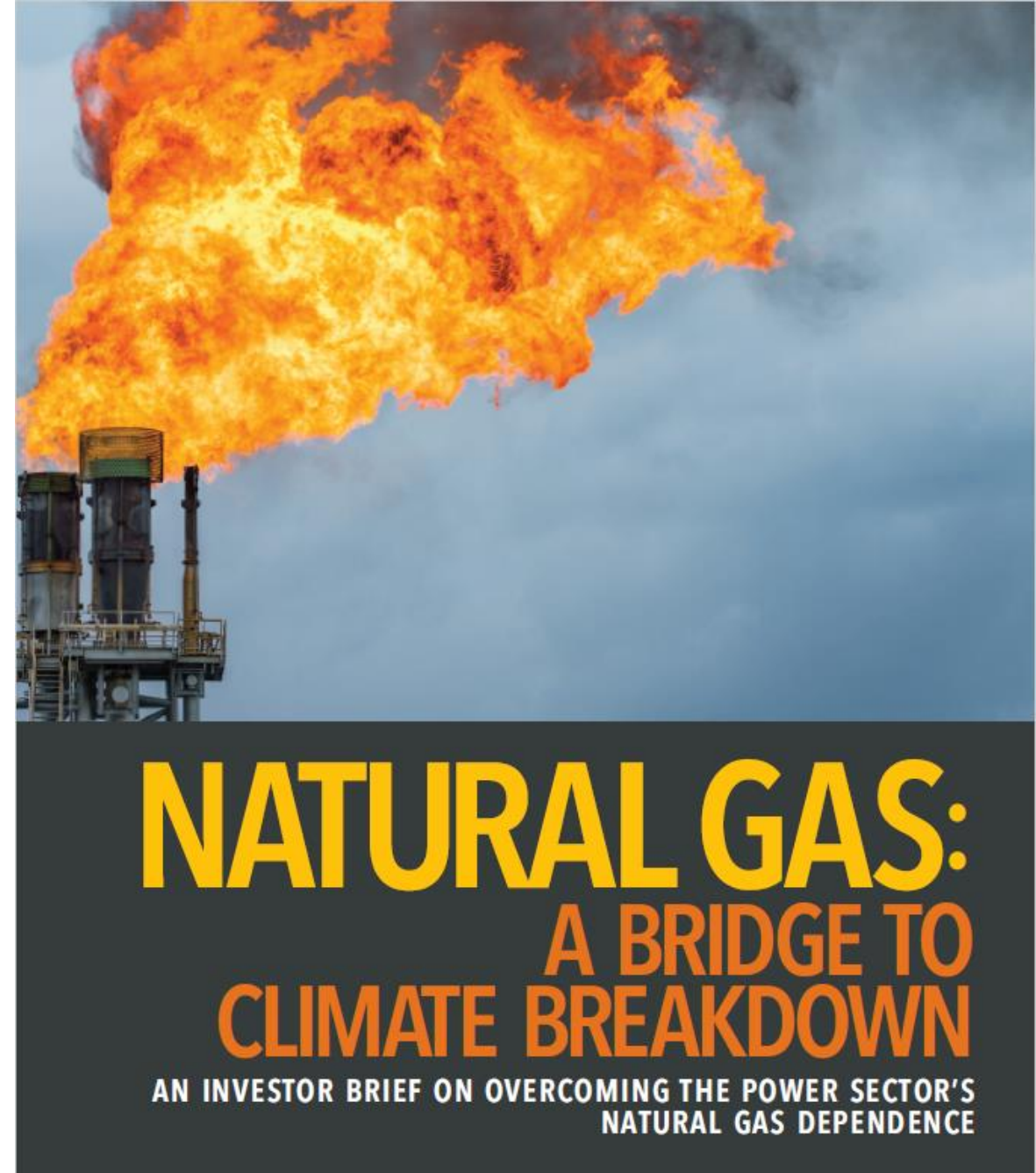
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Panel Moderation



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