

# CCS AND NATURAL GAS IN THE ENERGY TRANSITION

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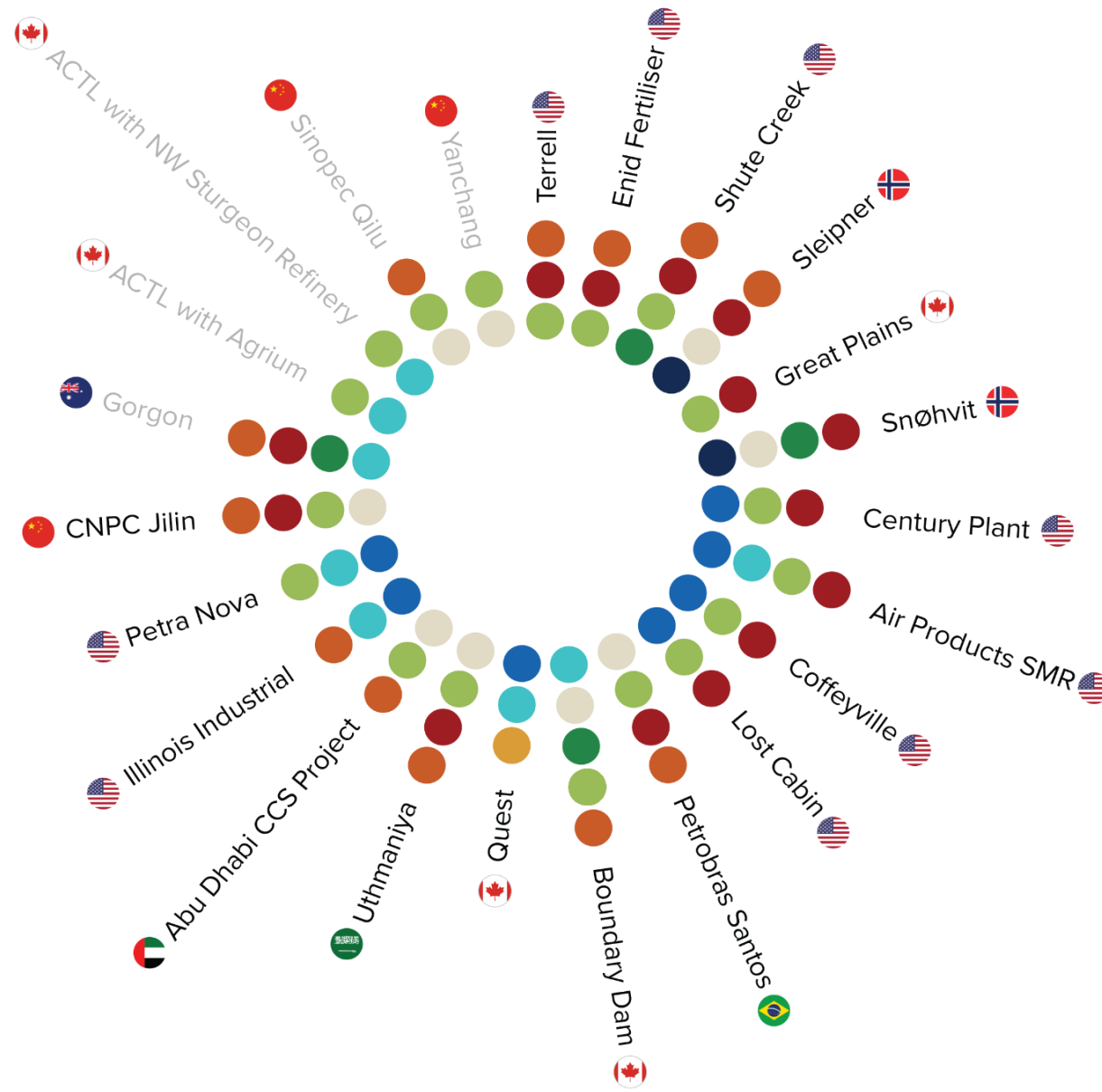
# WHAT IS THE ROLE OF NATURAL GAS + CCS IN A CLEAN ENERGY FUTURE?

*“CCS is a set of technologies that capture CO<sub>2</sub> from large emission sources or from atmosphere and safely stores them underground.”*

- **Industry:** Gas processing is the one of the lowest-cost opportunities to deploy CCS today
- **Power:** Natural gas generation with CCS can provide clean and dispatchable power
- **Hydrogen:** Natural gas with CCS (through steam methane reforming) can enable a new hydrogen energy economy



# WHAT HAS WORKED SO FAR?



## POLICIES & PROJECT CHARACTERISTICS

- Carbon Tax
- Tax Credit or emissions credit
- Grant Support
- Provision by Government or SOE
- Regulatory Requirement
- Enhanced Oil Recovery
- Low Cost Capture
- Low Cost Transport and Storage
- Vertical Integration

The companies in light grey are under construction.



# WHAT CAN POLICYMAKERS DO?

- Establish a value on carbon to create a financial incentive for investing in CCS
- Governments to play the critical role of enabling the development of shared transport and storage infrastructure
- Implement a legal and regulatory framework that clarifies storage operators' liabilities
- Consider providing capital support to attract private capital to CCS investments in the early stages of deployment



# WHAT IS ACTUALLY HAPPENING?

A growth in CCS policy confidence across multiple jurisdictions:

**EU:** Mobilizing the Innovation Fund

**USA:** Enactment of 45Q (tax credit) legislation

**UK:** Creation of the UK CCUS Council and Action Plan

**Norway:** Government support for Full-Scale CCS project ('Northern Lights')

**Japan:** Government commitment to establish a hydrogen society by 2030

**China:** Supporting CCUS pilots, amending Environmental Impact Guidance to address CCS

