

### **Embracing Policies That Promote Technology Innovation**

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# **Energy System Fundamentals**

- Scale, time, and capital
- Integrated and interconnected supply chains
- The U.S. energy system structure
- Commodity markets
- Multi-jurisdiction, multi-layered regulatory environment

#### An integrated and interconnected system

Energy Supply Chains

Electricity Production and Distribution

Natural Resource Development

Fuels Production and Distribution

Feedstock for Industrial Production and Manufacturing

#### The U.S. energy system structure

- Unique to the U.S. is the private ownership of natural resources, including minerals, coal, oil, and gas.
- Most of the U.S. energy system is privately owned.
- The U.S. has the largest, most diversified energy system and resource base.
- The U.S. has the largest, most transparent, and most flexible capital market.

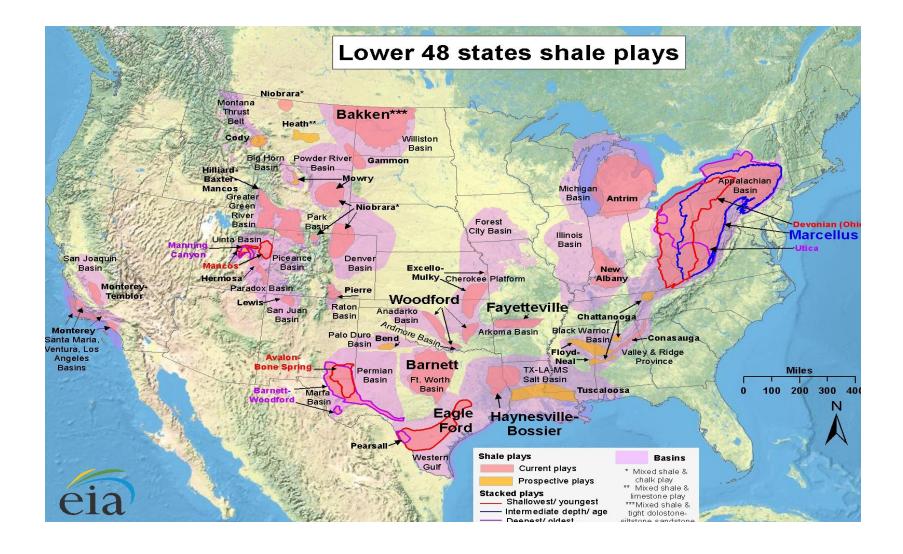
# **Policy dimensions**

- Energy R&D
- Demonstration at scale
- Resource development and land-use management
- Emissions regulation
- Standards

#### Selected energy system opportunities

- Unconventional hydrocarbon resource development
- Smart Grid development and deployment
- Cyber-physical security of energy infrastructures

# Developing shale formations redefines the U.S. oil and gas resource base



# Thank you