



DOE's Loan Programs Office

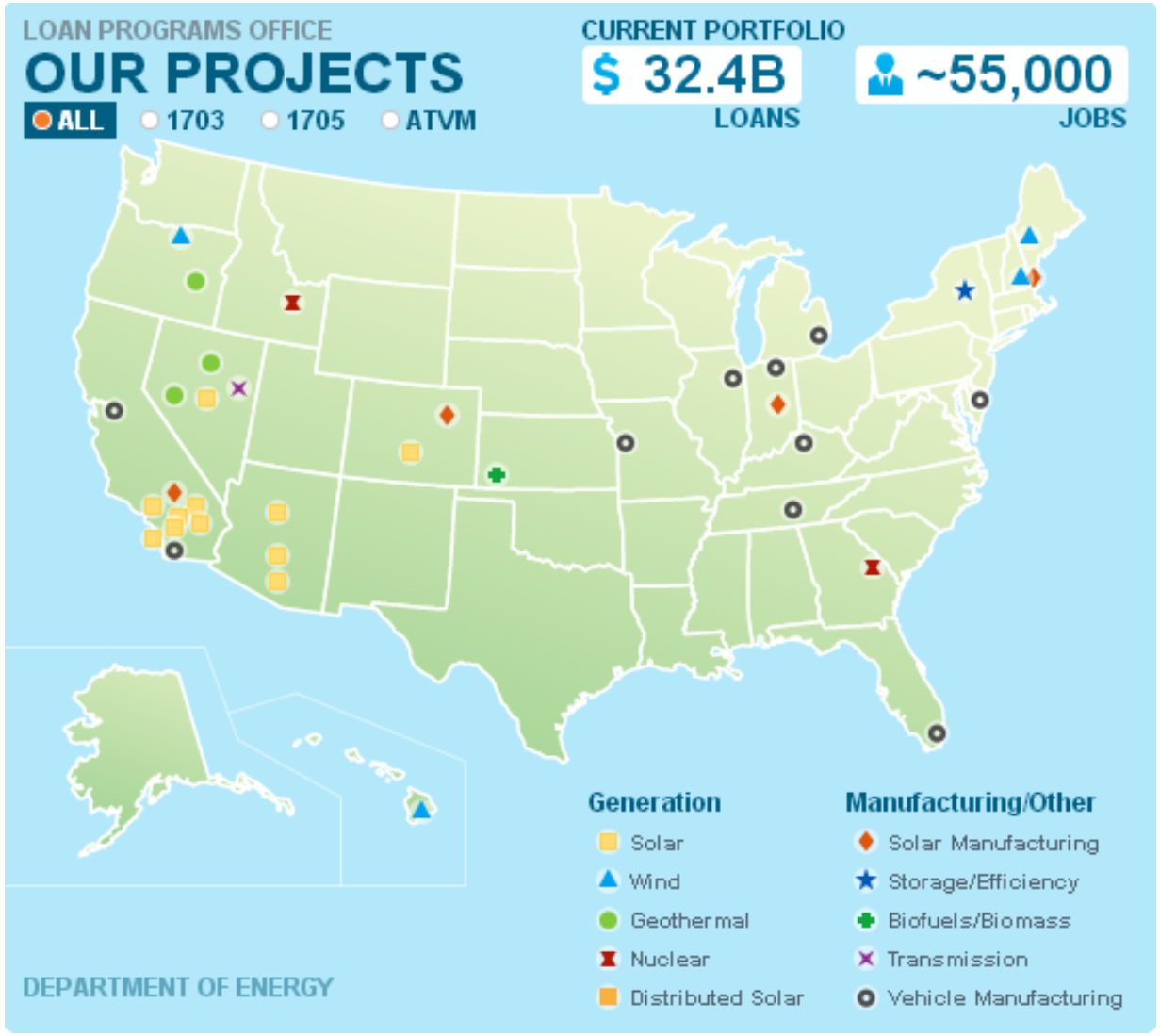
Presentation to the

EEI Environment Executive Advisory Committee

December 2013

U.S. DEPARTMENT OF ENERGY | LOAN PROGRAMS OFFICE

Loan Programs Office Has a Strong Portfolio of Projects



Mission: Accelerate the U.S. commercial deployment of clean energy and advanced vehicle technology

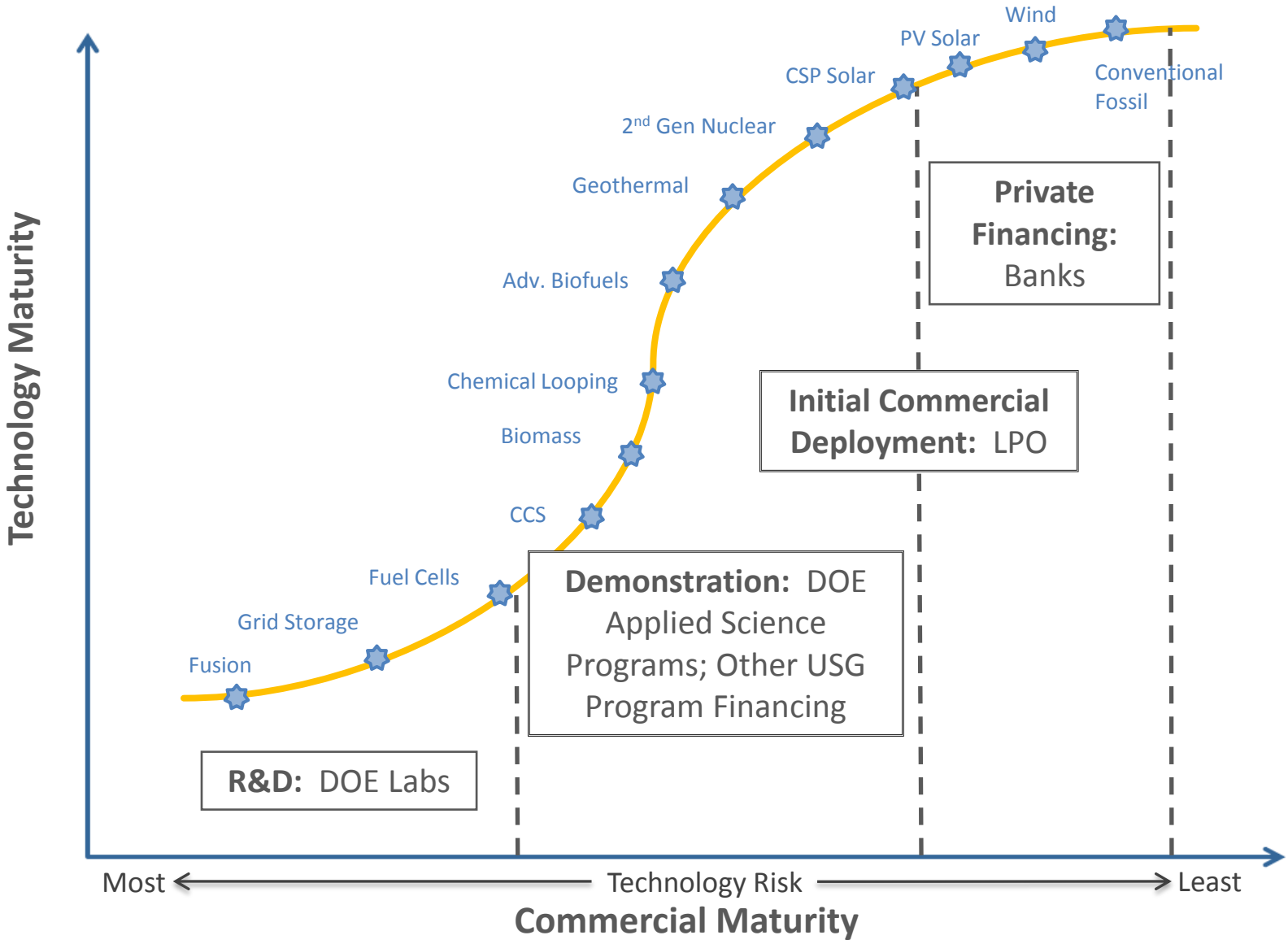
Strong Portfolio: More than 30 projects with committed loan value of ~$32 billion

Diverse Portfolio: Loan authority for fossil energy, renewable energy, nuclear, and advanced vehicles

Solid Performance: Losses represent ~2% of total loans, loan guarantees, and commitments

**The current portfolio includes loans, loan guarantees, and commitments.*

LPO Supports Commercialization of Innovative Technologies



The LPO Portfolio Has Strong Financial Performance

NUMBER OF PROJECTS	MORE THAN 30
TOTAL LOAN / LOAN GUARANTEE AMOUNT COMMITTED	MORE THAN $32 BILLION
DISBURSED	$18.5 BILLION
LOAN LOSS RESERVE ESTABLISHED BY CONGRESS	$10 BILLION
LOSSES AS % OF TOTAL LOAN AMOUNT	APPROXIMATELY 2%
TOTAL ECONOMIC INVESTMENT LEVERAGED	MORE THAN $50 BILLION

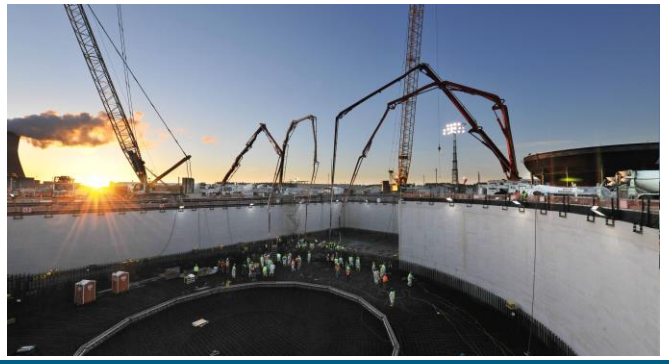
LPO Supports Many of the Largest & Most Innovative U.S. Projects

LPO is one of the largest project finance team in the world supporting:

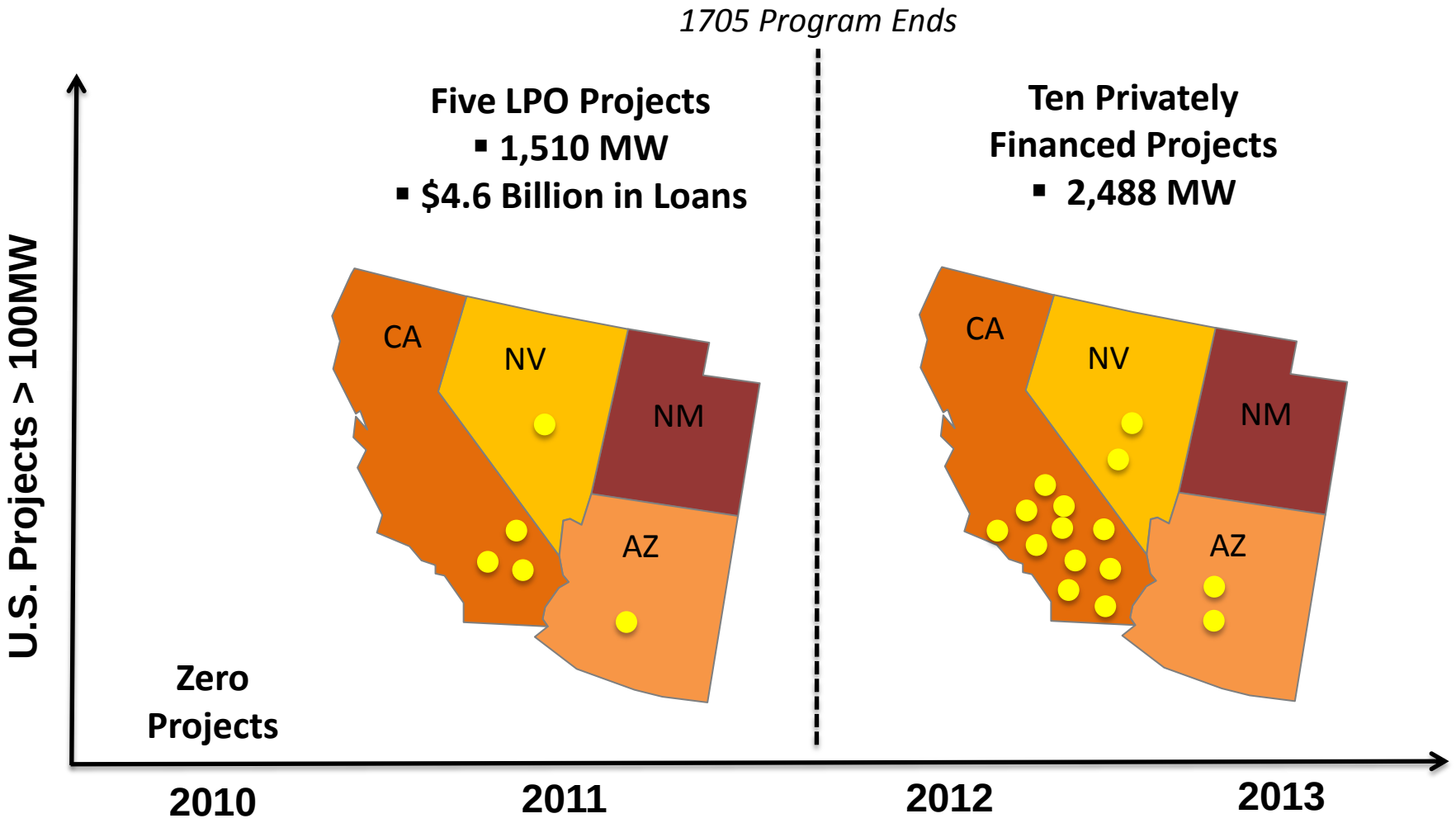
- One of the world's largest wind farms: Shepherds Flat
- Several of the world's largest solar generation facilities and nighttime solar storage systems:
  - Photovoltaic generation: Agua Caliente, Desert Sunlight
  - Large concentrating solar power plants with innovative thermal energy storage: Solana, Solar Reserve Tonopah
  - Largest solar thermal plant: Ivanpah
- Retooled three all-electric vehicle manufacturing facilities: Tesla, Nissan, and Ford
- One of the country's first commercial-scale cellulosic ethanol plants: Abengoa Biomass
- First nuclear power plant to begin construction in the US in the last 30 years: Vogtle



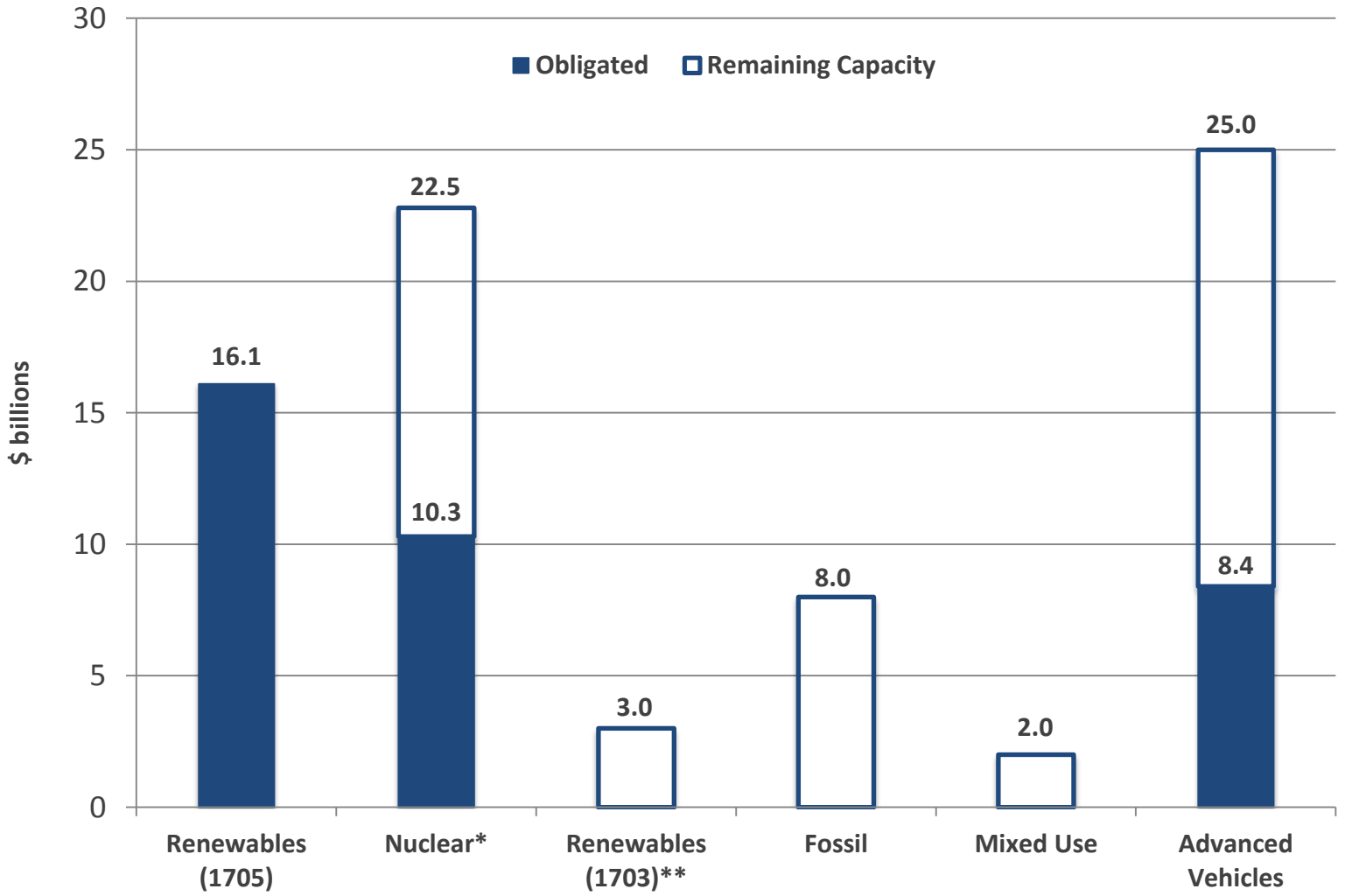




LPO Launched Utility-Scale Photovoltaic Market in the U.S.



LPO Has More than $40 Billion in Remaining Loan Authority



*Includes nuclear generation and front-end nuclear projects.
**Imputed loan authority. Actual loan volume will depend on actual credit subsidy rates for projects.

Next Steps: Advanced Fossil Energy Projects Solicitation



LPO Provides Project Finance Debt Capital

- $8 Billion in Loan Guarantee Authority for Fossil Energy
- Long-Term Financing Available



What is an Advanced Fossil Energy Project?

- Projects Must Be Innovative, Utilize Fossil Energy
- Reduce Greenhouse Gas Emissions
- Located in U.S. with Reasonable Prospect of Repayment



Timeline for Accepting Applications

- Draft Solicitation Published in June 2013
- Final Solicitation Expected Winter 2013
- Applications Accepted When Final Solicitation is Published

The Advanced Fossil Solicitation Has Broad Applicability

- **Projects May Utilize any Fossil Fuel**
  - Including, but not limited to, coal, oil, natural gas, shale gas, coal bed methane, and methane hydrates
- **Covers the Full Fossil Fuel Value Chain**
  - Projects can include, but are not limited to, extraction, generation, greenhouse gas removal, and efficiency improvements
- **Solicitation is Open to a Wide Variety of Applicants**
  - Power plants, mines, refineries, utilities, project developers, and factories
  - Public and Private Sector infrastructure, such as universities, airports, and hospitals
  - Others



The Advanced Fossil Solicitation Covers Four Technology Areas*



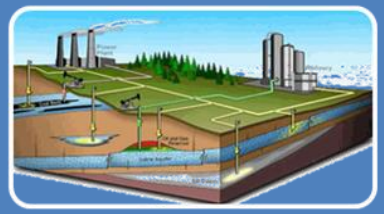
Advanced Resource Development

- Coal-bed methane recovery
- Novel oil and gas drilling



Low Carbon Power Systems

- Chemical looping or process that isolate fuel from air during combustion
- Fuel cells which convert chemical energy into electricity without combustion



Carbon Capture

- CO_2 capture from traditional coal or natural gas electricity generation
- Permanent geologic storage or utilization in enhanced oil recovery (EOR)

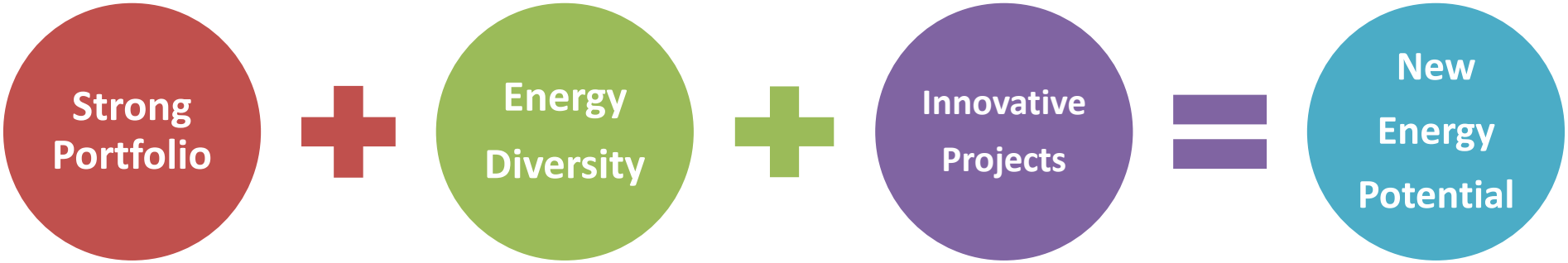


Efficiency Improvements

- Combined heat and power (CHP) and waste recovery
- High-efficiency distributed fossil power systems, and microgrids

**Qualifying projects may include but are not limited to the technologies within.*

Final Thought: LPO Can Provide a Bridge for U.S. Energy Innovation



For further information on LPO, please visit: www.lpo.energy.gov