

# DOE Loan Program's Advanced Fossil Solicitation and CCUS

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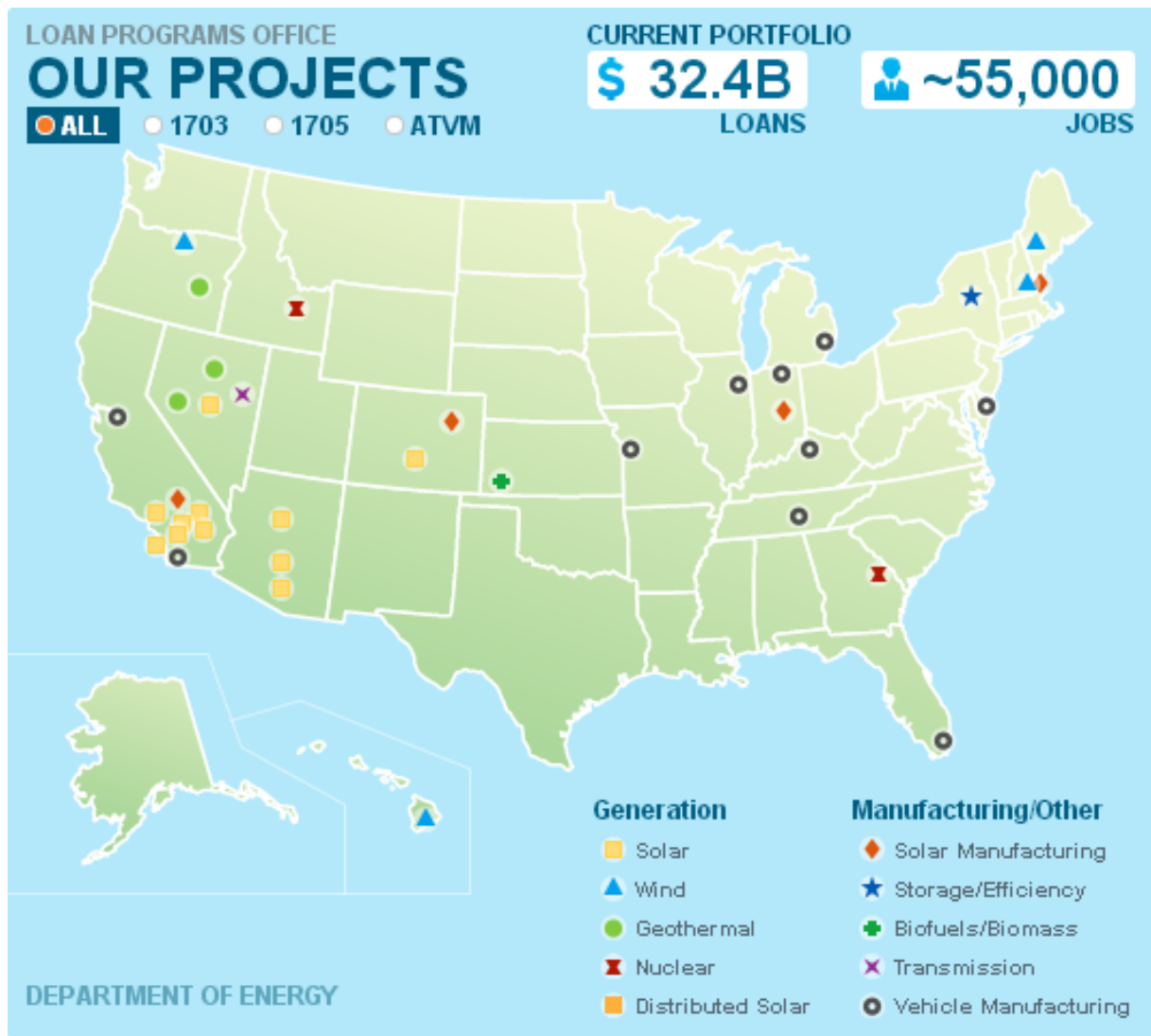


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# Loan Programs Office Has a Strong Portfolio of Projects



**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.*

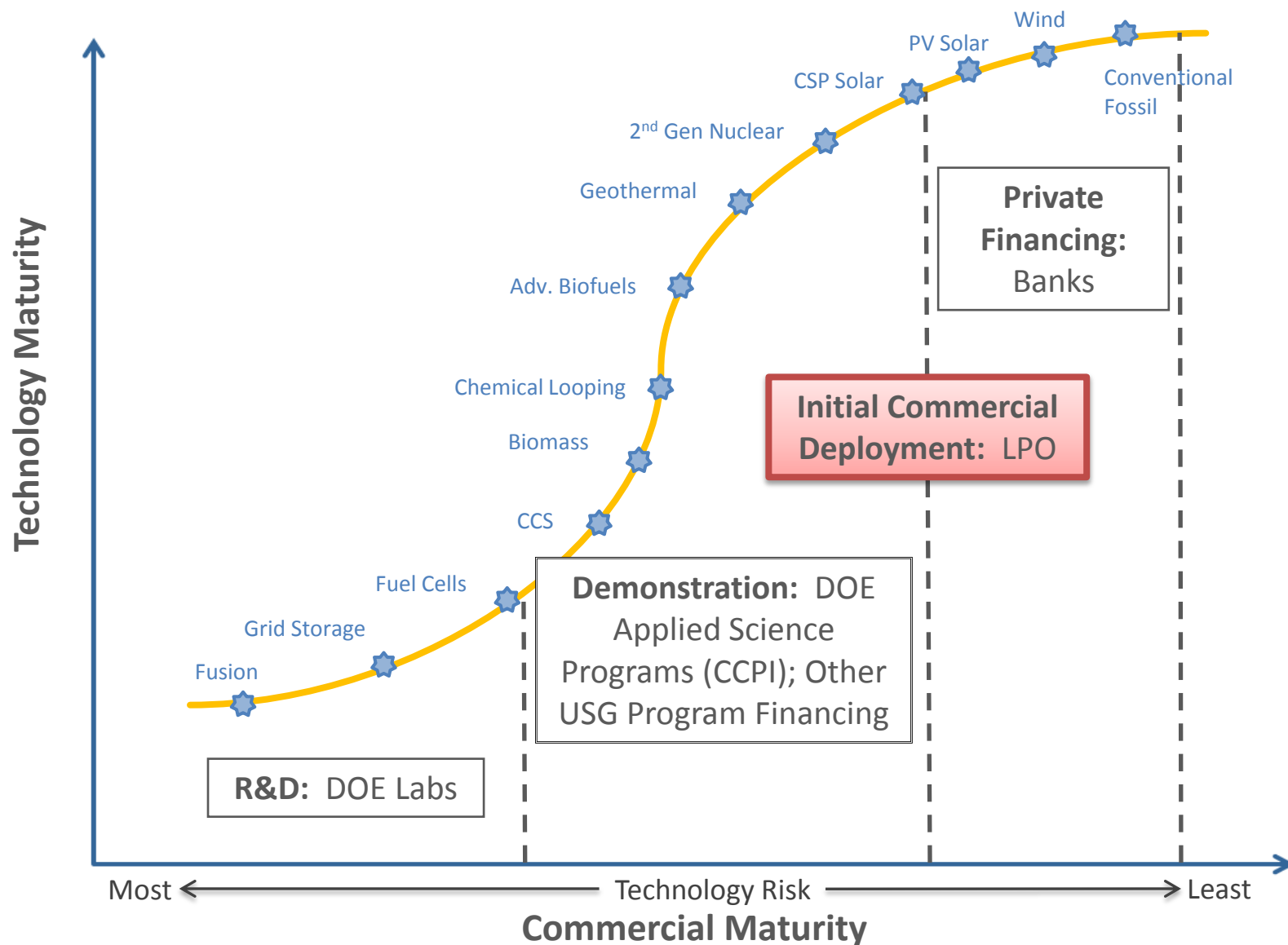


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# LPO Supports Commercialization of Innovative Technologies



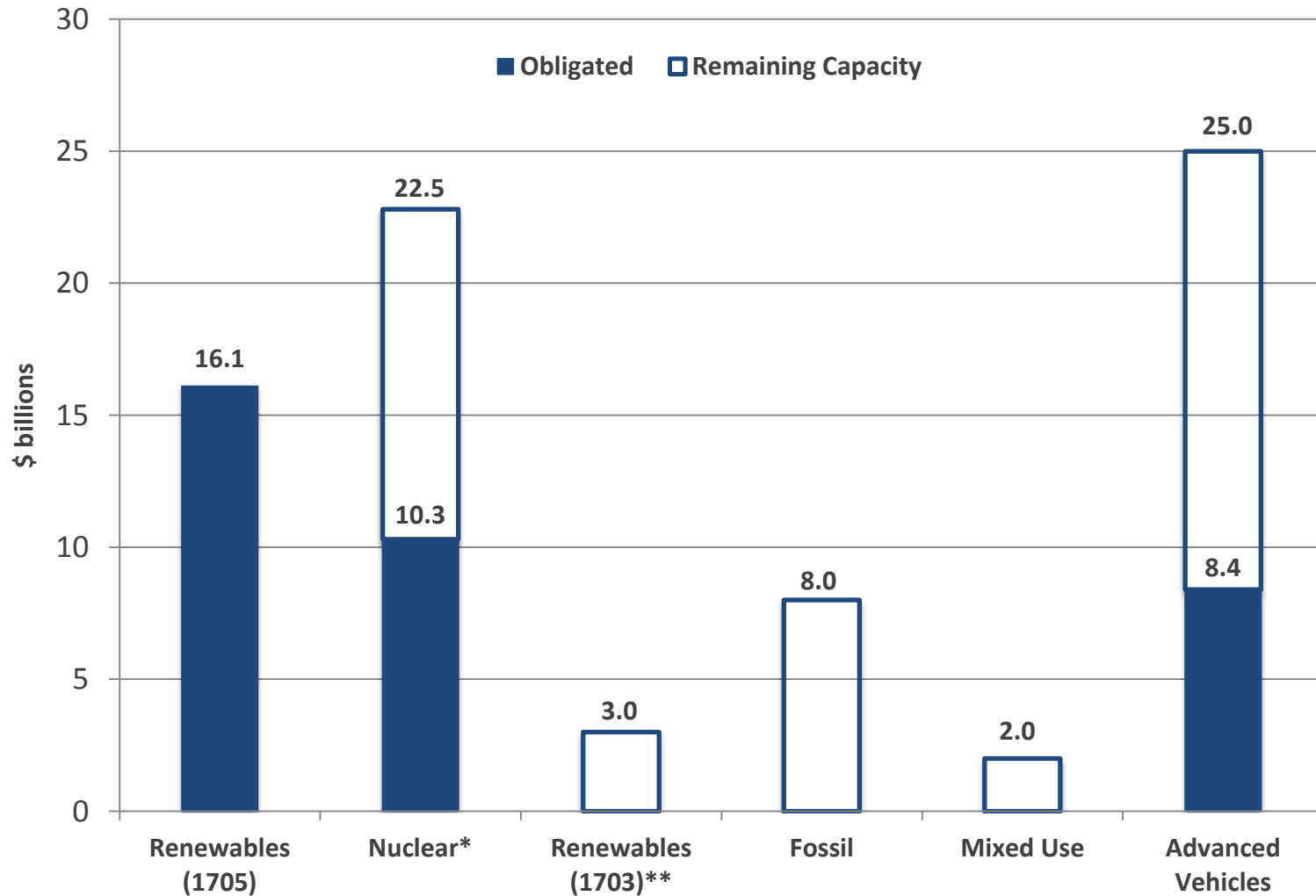
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# LPO Has More than \$40 Billion in Remaining Loan Authority



\*Includes nuclear generation and front-end nuclear projects.

\*\*Imputed loan authority. Actual loan volume will depend on actual credit subsidy rates for projects.



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# 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 Once Final Solicitation is Published



# Four Key Eligibility Requirements for Advanced Fossil Projects

## Innovative Technology

The project must employ new, or significantly improved, technology as compared to commercial technologies in service in the United States.

## Reduce Greenhouse Gases

The project must avoid, reduce, or sequester anthropogenic emissions of greenhouse gases.

## U.S.-Based Projects

The project must be located in the United States.

## Financial Viability

The project must assure a reasonable prospect of repayment of principal and interest.

*\*complete eligibility requirements can be found in the Final Solicitation*



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# 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



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# The Advanced Fossil Solicitation Covers Four Technology Areas\*



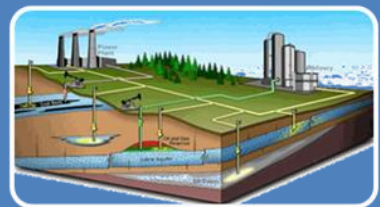
## Advanced Resource Development

- 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<sub>2</sub> 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.*



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# The Application Process & Loan Guarantee Conditions

## Easy to Apply

- New Online Portal for Applications
- Final Solicitation Will Provide Complete Application and Eligibility Information
- LPO Encourages Co-Lending Participation

## Two-Part Application

- Part I initially determines project eligibility and readiness to proceed.
- Part II includes the full application process, complete underwriting, and negotiation of terms of the loan guarantee.

## Application Fees

- \$1 million application fee (Partial due for Part I, Remainder at Part II)
- Fees to cover the LPO's administrative costs, as required by Title XVII of the Energy Policy Act of 2005.

## Credit Subsidy Cost

- Successful applicants that receive a loan guarantee must pay the Credit Subsidy Cost.
- Credit Subsidy Cost is the net present value (NPV) of the estimated long-term cost to the U.S. government of a loan guarantee as determined by FCRA (the Federal Credit Reform Act of 1990, as amended)



## Learn More: Advanced Fossil Energy Solicitation

- **For further information on the draft Advanced Fossil Energy Solicitation**, please visit: <http://loanprograms.energy.gov/resource-library/solicitations/advanced-fossil-energy-projects-solicitation/>
  - This website includes the Draft Solicitation, factsheet, press releases, other ppt presentations, and Federal Register Notices
- **To request a meeting with LPO personnel regarding the draft Advanced Fossil Solicitation**, please sent the meeting request to Brendan Bell at [LPO.FossilSolicitation.Meetings@hq.doe.gov](mailto:LPO.FossilSolicitation.Meetings@hq.doe.gov).
- **For additional technical questions on the draft Advanced Fossil Energy Solicitation**, please send questions to [LPO.FossilSolicitation.Questions@hq.doe.gov](mailto:LPO.FossilSolicitation.Questions@hq.doe.gov).
- **For general information on LPO**, please go to: [www.loanprograms.energy.gov](http://www.loanprograms.energy.gov)



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



For further information on LPO, please visit: [www.lpo.energy.gov](http://www.lpo.energy.gov)



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