$30 BILLION INVESTED IN AMERICAN ENERGY

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

**Innovative Clean Energy Projects**

The Title XVII program issues loan guarantees to innovative energy projects.

**Advanced Technology Vehicle Manufacturing**

The ATVM program issues direct loans to advanced vehicle and component manufacturing in the U.S.
$40 BILLION IN REMAINING AUTHORITY

- ADVANCED TECHNOLOGY VEHICLE MANUFACTURING: $16 B
- ADVANCED FOSSIL ENERGY: $8 B
- RENEWABLE ENERGY & EFFICIENT ENERGY: $4 B
- ADVANCED NUCLEAR ENERGY: $12.6 B

DRAFT SOLICITATION
NUCLEAR ENERGY
A KEY SOURCE OF CLEAN ENERGY IN THE U.S.

Clean Energy: Nuclear power provides more than half of total U.S. low-carbon electricity (1,311 million MWh)

Key Energy Source: Nuclear power provides 19 percent of total generation in the U.S. (4,068 million MWh)
**LPO HAS SIGNIFICANT NUCLEAR ENERGY EXPERIENCE**

**Closed Financing**

Vogtle Units 3&4 – 2,200 MW AP1000 reactors. $6.5 billion loan guarantees to GPC and OPC

First new nuclear power plant to begin construction in U.S. in 30 years

**Conditional Commitments**

$1.8 billion to MEAG for remaining portion of Vogtle project

$2 billion to Areva Eagle Rock Enrichment Facility

**Pending Applications**

Pending applicants would not need to reapply under the new solicitation or pay fees unless they wish to modify their proposal significantly
BRIDGING THE COMMERCIAL FINANCING GAP

Technology Maturity

Research & Development

Demonstration

Initial Commercial Deployment

Commercial Maturity

Technology Deployment

Technology Risk

Technology Financing

Grants: DOE, National Labs, Private

Debt Financing: LPO

Equity: Private

Debt Financing: Private

Financing Gap

Most

Least

Most

Least

LPO
$12.6 billion in loan guarantee authority

**Nuclear Generation**
- $10.6 billion in remaining loan guarantee authority (2009 Appropriations).
- Eligible projects include nuclear generation.

**Front End Nuclear**
- $2 billion in remaining loan guarantee authority (2009 Appropriations).
- Eligible projects include uranium milling, conversion, enrichment & fuel fabrication.
The draft solicitation identifies four project areas that LPO believes are poised for technical and commercial viability.

**FOUR TECHNOLOGY AREAS OF INTEREST**

- Large Advanced Reactor Projects
- Small Modular Reactor (SMR) Projects
- Uprating/Upgrading Projects at Existing Nuclear Reactors
- Front End Nuclear Fuel Cycle Projects
ELIGIBILITY REQUIREMENTS

- **Innovative Technology**
  - Eligible projects must utilize an innovative technology or system.

- **Located in United States**
  - Eligible projects must be located in the U.S. but may be foreign-owned.

- **Greenhouse Gas Benefits**
  - Eligible projects must reduce, avoid, or sequester greenhouse gases.

- **Reasonable Prospect of Repayment**
  - Eligible projects must be able to repay loan principal and interest.
DEFINING INNOVATIVE TECHNOLOGY

- Project must employ a new or significantly improved technology that is **not** a commercial technology.

- A commercial technology means a technology in general use in the commercial marketplace in the U.S. at the time the term sheet is issued by the Department of Energy.

- A technology is in general use if it has been installed in and is being used in three or more commercial projects in the U.S. in the same general application as in the proposed project, and has been in operation in each such commercial project for a period of at least five years by the time the term sheet is issued.
**What is a Loan Guarantee?**
- Loan guarantee can support debt from a commercial lender or the Department of Treasury.

**Loan Tenure**
- Long term financing is available based on the useful life of the asset – up to 30 years.

**Interest Rates**
- Interest rates set based on equivalent U.S. Treasury rate plus a credit-based liquidity spread (~0.5-1.5%).

**Equity**
- LPO can only guarantee 80% of the total project cost. Most projects have at least 35% equity.

**Co-Lending**
- Co-lending with commercial lenders is encouraged but not required.
LPO Due Diligence Process

Part 1 Application
- Determine basic eligibility
- $50,000 fee

Part 2 Application
- Confirmatory due diligence
- Balance of application fee ($150,000/$300,000)

Conditional Commitment
- Negotiate term sheet

Loan Guarantee
- Negotiate final agreements
- Remaining fees
The Department welcomes public comment on a range of issues and will consider public feedback in defining the scope of the final solicitation. The comment period will be open for 30 days following publication of the draft solicitation.

To submit a public comment, please email: LPO.NuclearSolicitation.Comments@hq.doe.gov.