ADVANCED FOSSIL ENERGY FUNDING OPPORTUNITIES
Mark McCall, Executive Director
November 2-3, 2016
$40 BILLION IN REMAINING LOAN AUTHORITY

LPO investments accelerate the deployment of innovative clean energy projects and advanced vehicle manufacturing facilities in the United States

TITLE XVII

INNOVATIVE CLEAN ENERGY PROJECTS

- Loan guarantees
- Applications accepted via scheduled solicitations

ATVM

ADVANCED TECHNOLOGY VEHICLES MANUFACTURING

- Direct loans
- Applications accepted on a rolling basis
INNOVATION CONTINUES

ADVANCED TECHNOLOGY VEHICLES MANUFACTURING: $16 B
ADVANCED FOSSIL ENERGY: $8.5 B
RENEWABLE ENERGY & EFFICIENT ENERGY: $4.5 B
ADVANCED NUCLEAR ENERGY: $12.5 B

MORE THAN $40 BILLION IN REMAINING AUTHORITY

AS OF OCTOBER 2015
BRIDGING THE FINANCING GAP
PROVIDING CRUCIAL FINANCING FOR DEPLOYMENT
OF FIRST-OF-ITS-KIND ENERGY TECHNOLOGIES

[Diagram showing the stages of technology development and financing needs.]
DEPLOYING INNOVATION

$30 BILLION INVESTED IN MORE THAN 30 DIVERSE PROJECTS NATIONWIDE
LAUNCHING NEW MARKETS
U.S. UTILITY-SCALE PHOTOVOLTAIC SOLAR (PV) PROJECTS >100MW

2010
0
UTILITY-SCALE PV PROJECTS IN THE U.S.

2012
5
LPO PV PROJECTS
$4.6 BILLION IN LOANS

2016
45
PRIVATELY FINANCED PV PROJECTS

1,502 MW

9,479 MW CUMULATIVE

531% MW INCREASE

1705 Program Ends

NOTE: MW totals include projects operating or that have obtained financing. All information as of September 2016.
ACCELERATING COST REDUCTION
UTILITY-SCALE PV SOLAR PRICING & DEPLOYMENT

As deployment of utility-scale photovoltaic solar has increased, delivered costs to consumers has decreased by more than 60%.

Source: GTM Research, SEIA
TITLE XVII OPEN SOLICITATIONS

ADVANCED FOSSIL ENERGY
ADVANCED NUCLEAR ENERGY
RENEWABLE ENERGY & EFFICIENT ENERGY (REEE)

INVESTING in AMERICAN ENERGY

energy.gov/lpo
ELIGIBILITY REQUIREMENTS

TITLE XVII CLEAN ENERGY PROJECTS

- **INNOVATIVE TECHNOLOGY**
  Eligible projects must utilize new or significantly improved technology or systems

- **GREENHOUSE GAS BENEFITS**
  Eligible projects must reduce, avoid, or sequester greenhouse gases

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

- **REASONABLE PROSPECT OF REPAYMENT**
  Eligible projects must be able to repay loan principal and interest. LPO conducts due diligence and underwrites each loan similar to a commercial lender
FINANCIAL TERMS

TITLE XVII CLEAN ENERGY PROJECTS

**LOAN GUARANTEE:** A loan guarantee can support debt from a commercial lender or the U.S. Treasury

**LOAN TENOR:** 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 spread (-0.5-1.5%)

**EQUITY:** LPO can only guarantee up to 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
ADVANCED FOSSIL ENERGY

TECHNOLOGY AREAS OF INTEREST

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
- CO₂ 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 industrial waste recovery
- High-efficiency distributed fossil power systems and microgrids

QUALIFYING PROJECTS ARE NOT LIMITED TO THESE TECHNOLOGIES.
APPLICATION PROCESS

01 APPLICATION-PART I
  • Determine basic eligibility
  • $50,000 fee (Fee does not apply to ATVM)

02 APPLICATION-PART II
  • Confirmatory due diligence
  • Balance of application fee ($100,000/$350,000)
    (Fee does not apply to ATVM)

03 CONDITIONAL COMMITMENT
  • Negotiate term sheet

04 LOAN GUARANTEE
  • Negotiate final agreements
  • Remaining fees