



U.S. DEPARTMENT OF ENERGY

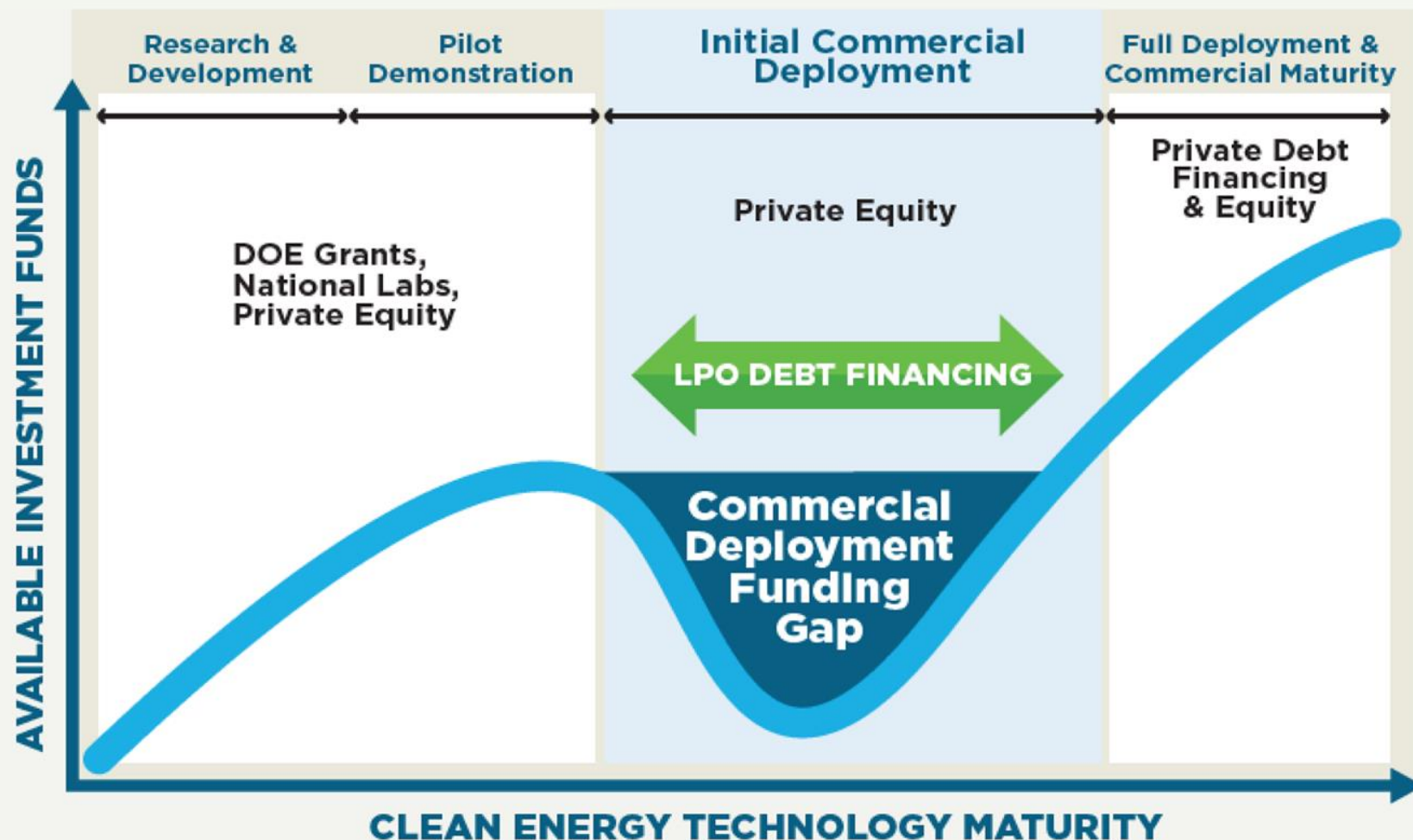
# LOAN PROGRAMS OFFICE

**INVESTING *in*  
AMERICAN ENERGY**

[energy.gov/lpo](https://energy.gov/lpo)

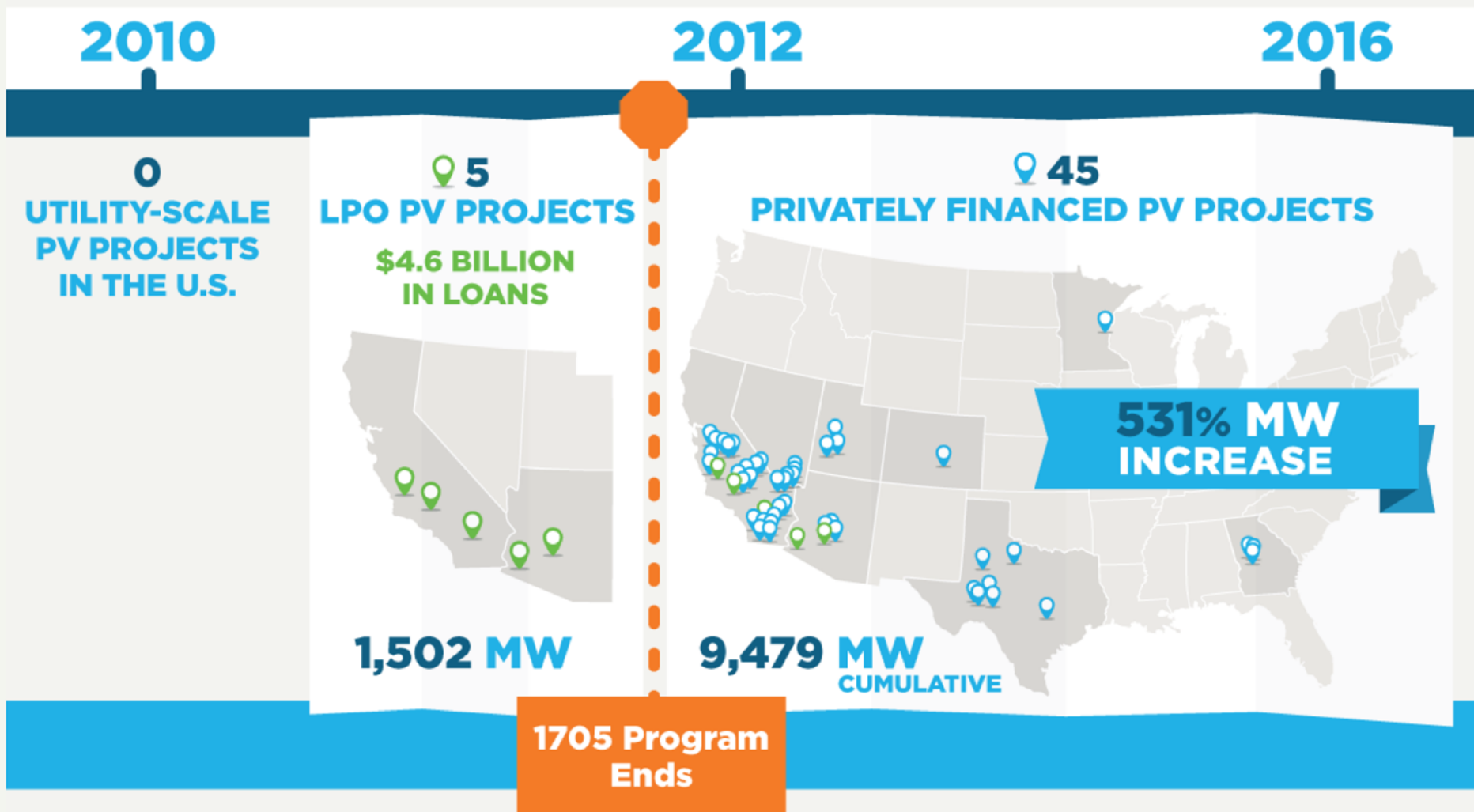
# BRIDGING THE FINANCING GAP

PROVIDING CRUCIAL FINANCING FOR DEPLOYMENT  
OF FIRST-OF-ITS-KIND ENERGY TECHNOLOGIES



# LAUNCHING NEW MARKETS

## U.S. UTILITY-SCALE PHOTOVOLTAIC SOLAR (PV) PROJECTS >100MW

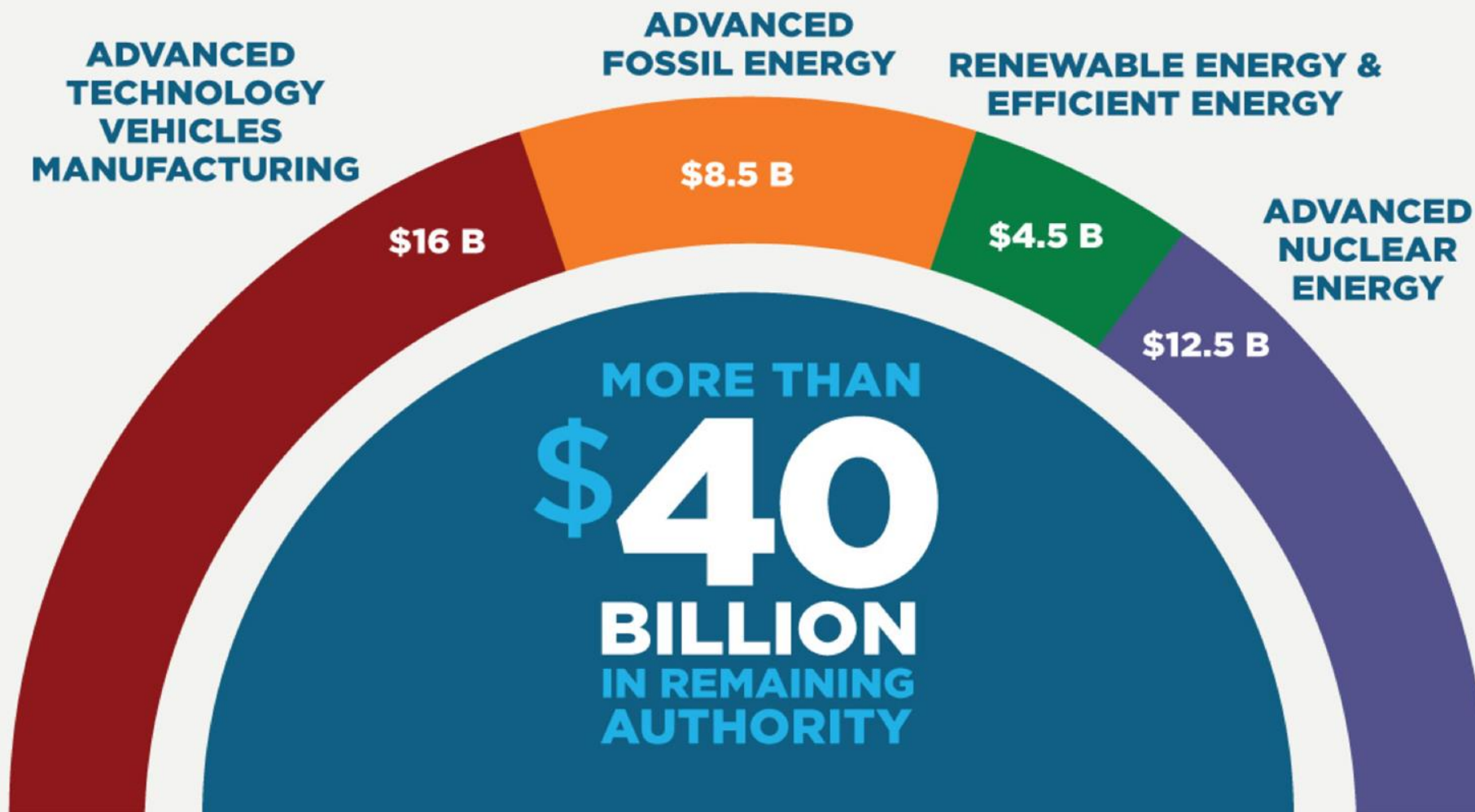


NOTE: MW totals include projects operating or that have obtained financing. All information as of September 2016.



# AMERICAN ENERGY INNOVATION CONTINUES

## REMAINING LOAN AUTHORITY



AS OF OCTOBER 2015

# RENEWABLE ENERGY & EFFICIENCY

## TECHNOLOGY AREAS OF INTEREST

### Advanced Grid Integration & Storage

- ⚡ Renewable energy generation, including distributed generation, incorporating storage
- ⚡ Smart grid systems incorporating demand response

### Drop-in Biofuels

- ⚡ New bio-refineries or bio-crude refining processes
- ⚡ Modifications to existing ethanol facilities to produce drop-in molecules

### Waste-to-Energy

- ⚡ Methane from landfills or ranches via biodigesters
- ⚡ Utilizing municipal solid waste, crop waste, or forestry waste

### Enhancement of Existing Facilities

- ⚡ Powering non-powered dams or upgrading existing hydro facilities
- ⚡ Retrofitting existing renewable facilities with innovative technology (e.g. wind turbine retrofits)

### Efficiency Improvements

- ⚡ Improve or reduce energy usage in residential, institutional, and commercial facilities, buildings, and/or processes
- ⚡ Recover, store, or dispatch waste energy or underutilized renewable energy sources

QUALIFYING PROJECTS ARE NOT LIMITED TO THESE TECHNOLOGIES.

# DISTRIBUTED ENERGY PROJECTS

## SUPPLEMENTAL GUIDANCE FOR:



### **Advanced Fossil Energy Projects** SOLICITATION



### **Renewable Energy & Efficient Energy Projects** SOLICITATION

- Comprised of installations of facilities utilizing a single technology, or a defined suite of technologies, at multiple sites, deployed pursuant to a master business plan.
- Must satisfy criteria of Title XVII, LPO regulations, and applicable solicitation.
- Access to financing under a single arrangement for multiple installations.
- Structures other than illustrations in supplements may exist or be developed.
- Solicitations do not involve a re-lending program.



# REEE SOLICITATION

## ELECTRIC VEHICLE (EV) CHARGING SUPPLEMENT



EV charging infrastructure may be eligible as a Distributed Energy Project under the REEE Solicitation



Projects may include EV charging facilities, including associated hardware and software



Projects must satisfy all Title XVII program eligibility requirements

*For more information, visit:* [www.energy.gov/lpo/ev](http://www.energy.gov/lpo/ev)

# 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

# APPLICATION PROCESS

## TITLE XVII LOAN GUARANTEE PROGRAM

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

**Apply *at***  
**energy.gov/lpo/apply**



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## **LOAN PROGRAMS OFFICE**

**Advanced Fossil Energy:**

LPO.FossilSolicitation.Questions@hq.doe.gov

**Renewable Energy & Efficient Energy:**

LPO.REEESolicitation.Questions@hq.doe.gov

**Advanced Nuclear Energy:**

LPO.NuclearSolicitation.Questions@hq.doe.gov

**Advanced Technology Vehicle Manufacturing:**

atvmloan@hq.doe.gov

For more information,  
and to apply online,  
please visit:

**PHONE** 202-586-8336 | **FAX** 202-586-7366 | **EMAIL** lgprogram@hq.doe.gov

**energy.gov/lpo**