



Advanced Technology Vehicles Manufacturing Direct Loan Program

Financing U.S. Auto Manufacturing
Across the Value Chain



Agenda

Intro to LPO

- Value of LPO Financing
- LPO Portfolio
- LPO Programs

ATVM Overview

- Program Benefits
- Project & Technology Eligibility
- Flexible Financing
- Loan Transaction Process

Financing American Energy Infrastructure

The Department of Energy's Loan Programs Office (LPO)

was established for borrowers seeking access to debt financing for energy infrastructure projects.

With over \$40 billion in available debt capital, LPO programs finance high-impact projects and first-time commercializations, partnering with borrowers to customize deal structures.



Access to Debt Capital

that private lenders cannot or will not provide.



Flexible Financing

customized for the specific needs of individual borrowers.



A Committed Partner

offering expertise to borrowers for the lifetime of the project.

Over \$35 Billion in Energy Deals Financed

More than 30 projects of broadly distributed technologies across the United States.

Renewables Innovation

Financed large-scale, innovative wind, geothermal, and transmission projects across the West.

Utility-Scale Solar

Financed 11 utility-scale solar projects across the Southwest, catalyzing the industry in the U.S.



Advanced Auto Manufacturing

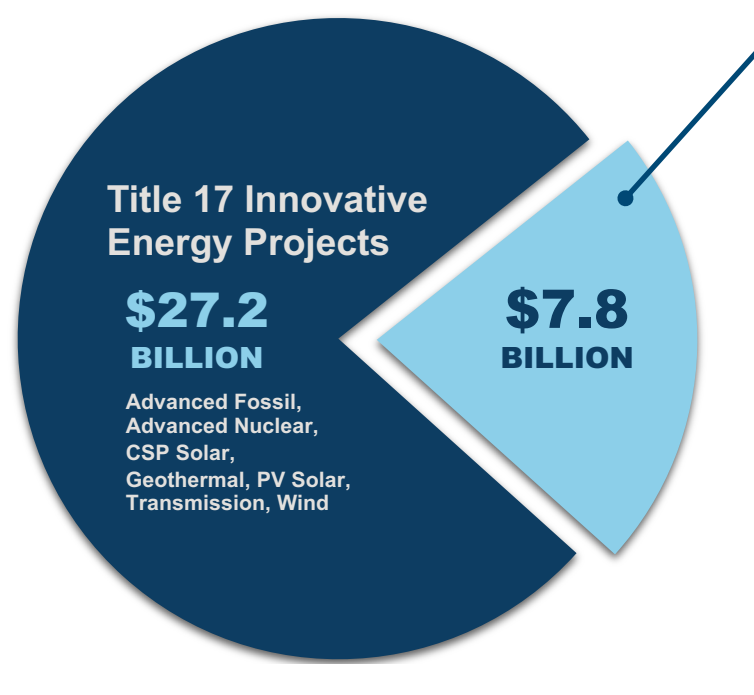
Financed the upgrade of advanced auto manufacturing facilities across the Midwest, creating tens of thousands of jobs.

Advanced Nuclear Energy

Financed the construction of the first new nuclear reactor in the U.S. in 30 years.

A Diverse Portfolio of Innovative Technologies

LPO-financed projects have catalyzed new energy technologies and supported thousands of jobs.



Advanced Technology Vehicles Manufacturing

Ford

- **\$5.9 billion** loan issued in 2009.
- Modernized 13 facilities in 6 states to manufacture fuel-efficient vehicles and components, including the EcoBoost™ engine.

Nissan

- **\$1.45 billion** loan issued in 2010; fully repaid in 2017.
- Financed the construction of Nissan's new all-electric Leaf vehicle assembly line, a battery facility, and electric motor manufacturing facility in Tennessee.

Tesla

- **\$465 million** loan issued in 2010; fully repaid in 2013.
- Financed the engineering and design of the all-electric Model S, battery manufacturing, and the renovation and modernization of a shuttered auto plant in California.

\$40 Billion in Available Debt Capital

LPO offers project financing across energy sectors through three distinct loan programs.

ATVM Direct Loans



Advanced Technology
Vehicle Manufacturing
\$17.7 Billion Available



TITLE 17 Innovative Energy Loan Guarantees



Advanced Fossil Energy
\$8.5 Billion Available



Advanced Nuclear Energy
\$10.9 Billion Available



Renewable Energy & Efficient Energy
Up to \$4.5 Billion Available



TELGP Partial Loan Guarantees



Tribal Energy Projects
Up to \$2 Billion Available





Advanced Technology Vehicles Manufacturing



\$17.7 Billion in Direct Loans Available

The ATVM Direct Loan Program offers low-cost debt capital to the entire automotive value chain to improve the fuel economy of the U.S. fleet.



LOW INTEREST RATES

Priced at U.S. Treasury bond rate.



LONG TENOR

Up to 25 years or useful life of the assets financed.



FULL VALUE CHAIN ELIGIBILITY

OEMs, components, and materials.



CUSTOMIZED FINANCING

Flexible deal structures.

ATVM Eligibility Criteria

LPO can consider advanced automotive manufacturing projects that:

1. Meet specified fuel economy requirements.
2. Use funds to build new facilities or reequip/modernize/expand existing facilities and/or related engineering integration for eligible vehicles.
3. Are located in the U.S.
4. Provide reasonable prospect of repayment.

ATVM financing is available for the entire automotive value chain:

OEMs • Components
Suppliers • Materials



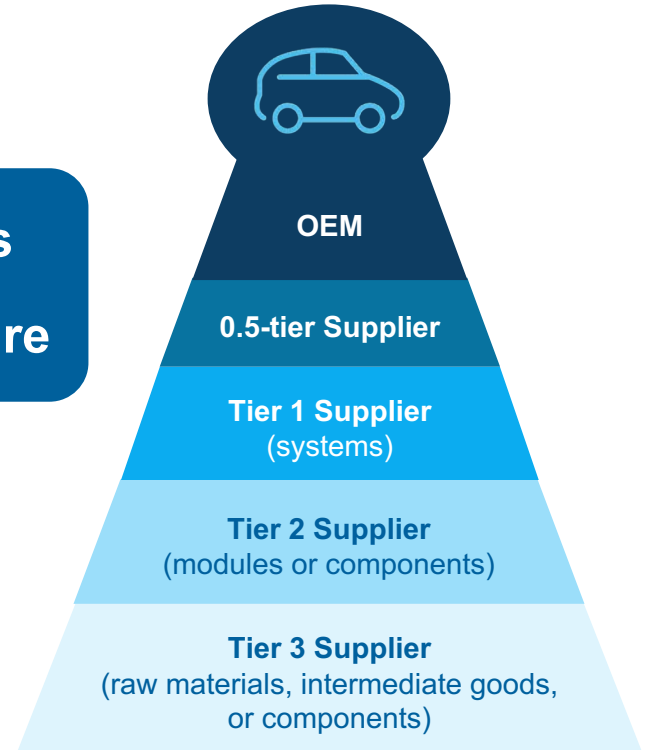
ATVM Project Technologies

ATVM financing is available for all levels of the automotive value chain including:

✓ Materials ✓ Components ✓ Suppliers
✓ OEMs ✓ Alternative Fueling Infrastructure

With particular interest in:

- Efficient Light-Duty or Ultra-Efficient Vehicles Manufacturing
- Qualified Component Manufacturing
- Engineering Integration



ATVM Eligible Vehicles

LPO can provide ATVM loans for Efficient Light-Duty & Ultra-Efficient vehicles manufacturing.

Efficient Light-Duty Vehicles are defined as passenger automobiles or light-duty trucks that are 25% more fuel efficient than model year 2005 baseline.



Ultra-Efficient Vehicles are defined as those that have a minimum equivalent of 75 mpg and carry at least 2 enclosed passengers—no motorcycles.



ATVM Eligible Components

Qualifying projects may include—but are not limited to—the following components technologies:

Advanced Engine Technologies

- Variable Valvetrain Control
- Direct Injection
- Turbocharging
- Start/Stop

Batteries

- Cell Manufacturing
- Module Manufacturing
- Pack Assembly

Advanced Powertrain Technologies

- Increased Number of Gear Ratios
- Hybrid / EV Powertrain Integration

Electronics

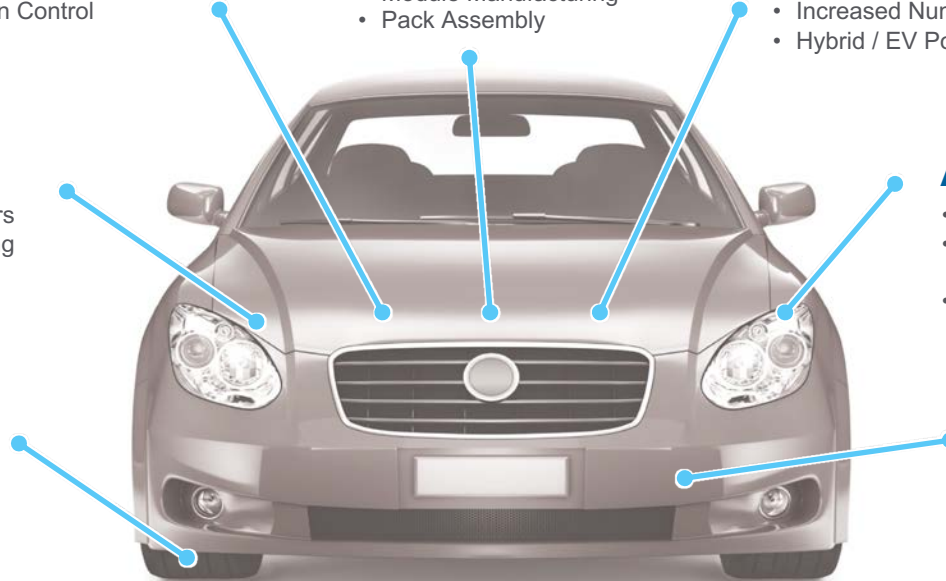
- Variable EV Controllers
- Electric Power Steering
- Power Electronics
- Battery Systems

Advanced Materials

- Advanced High Strength Steels
- Aluminum, Magnesium, or Other Alloys
- Plastics, Carbon Fiber, & Composite Materials

Fuel Efficient Tires

Improved Aerodynamics



EV or Alternative Fueling Infrastructure

Projects could be eligible through two LPO loan programs:

ATVM

Direct Loans
Eligibility:

Manufacturing
of Infrastructure



Title 17

Loan Guarantees
Eligibility:

Deployment
of Infrastructure

For both programs, eligibility includes associated hardware and software for EV and alternative vehicle fuels such as hydrogen, liquefied natural gas (LNG), compressed natural gas (CNG), and biofuels.

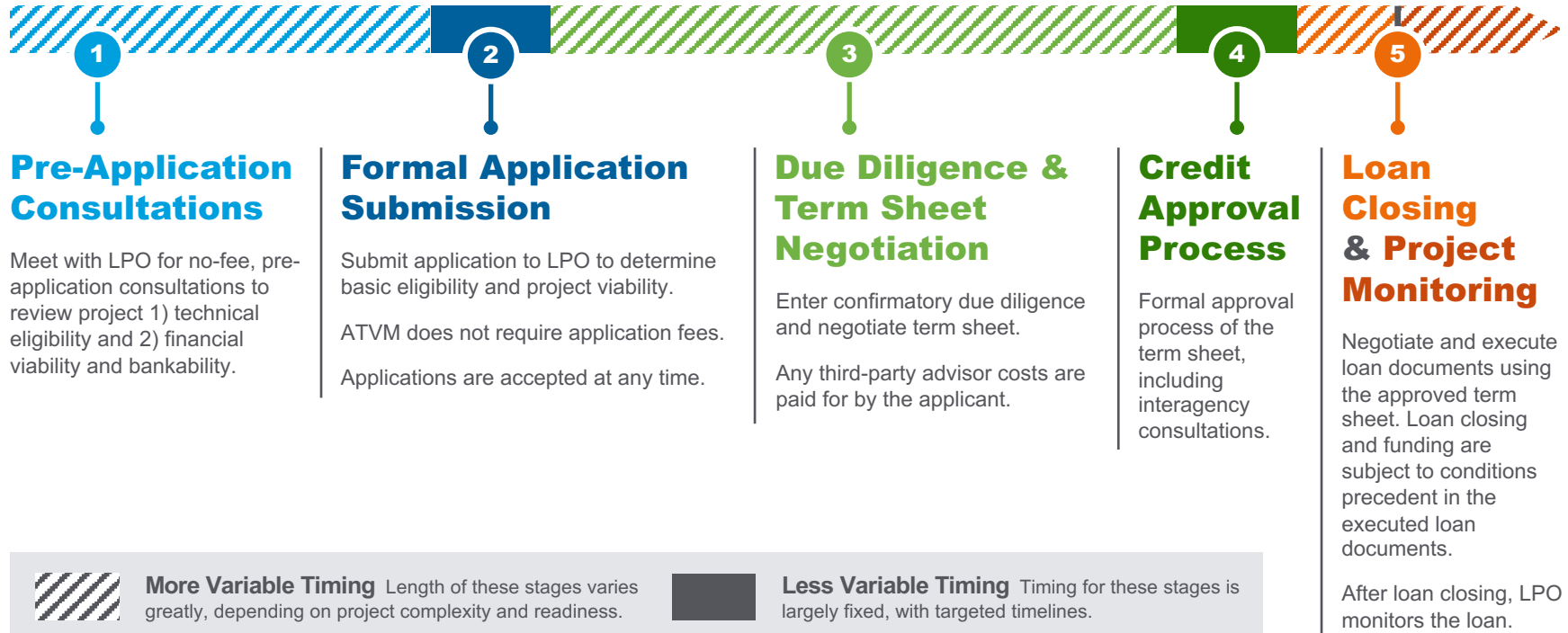
Offering Flexible Financing Solutions

LPO can provide low-cost, custom financing to meet the specific needs of individual borrowers.

- ✓ **Loan Type** | Senior secured, fixed rate debt; direct loan from U.S. Treasury's Federal Finance Bank (FFB).
- ✓ **Low-Cost Debt** | Priced at U.S. Treasury bond rate with zero credit spread.
- ✓ **Long Tenor** | Up to 25 years or useful life of the assets financed.
- ✓ **Flexible Deal Structures** | May include corporate, structured corporate, or project finance loans.
- ✓ **DOE Role** | Can serve as sole lender or as a co-lender.
- ✓ **Debt Amount Determination** | Based on credit profile, business plan, market risk, technology, cash flows, project risk allocation and other relevant factors.
- ✓ **Viability Standard** | Emphasis placed on certainty of cash flow to the project during initial financial viability review and during subsequent due diligence. Applicant must demonstrate financial viability without receipt of additional Federal funding associated with the proposed project.

ATVM Loan Transaction Process

LPO engages early with applicants and remains a partner throughout the lifetime of the loan.





LPO

Loan Programs Office

Let's Talk About Your Project

Contact LPO to see what financing options may be available for your project:



Call or write to schedule a no-fee, pre-application consultation: **202-586-8336** | **lpo@hq.doe.gov**



Learn more about LPO and all of its lending programs at: **energy.gov/LPO**