



Loan Programs Office

DOE Loan Programs Office

Overview and Status

SVTEC Briefing

Wayne Killen

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Jigar Shah, Department of Energy
LPO Director

“There are many areas that are mature from a technology standpoint, but not from an access to capital standpoint...that’s a nexus where there’s a clear mandate for the office to participate”

Cleantechnica, March 8, 2021

We are a Policy Driven Bank -- Financing American Energy Infrastructure/Clean Tech

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

was established for borrowers seeking access to \$40B in low interest rate debt financing for high impact or first-time energy infrastructure projects.



Access to Debt Capital

that private lenders cannot or will not provide



Flexible Financing

customized for the specific borrower needs



A Committed Partner

LPO expertise to borrowers through project loan lifetime



Advanced Technology Vehicles Manufacturing (up to \$17.7B avail.)

The ATVM Direct Loan Program offers low-cost manufacturing debt to the entire automotive value chain to improve U.S. fleet fuel efficiency; loans can include land, facility construction/refurbishment, equipment and engineering

Light Duty Vehicles Manufacturing



Key Criteria

- Less than 10,000 lbs GVW (LDT)
- Fully enclosed body, 2 + passengers
- **Efficient light duty:** 25%+ more efficient than comparable 2005MY baseline equivalent + Tier 2 bin 5
- **Ultra-Efficient:** 75+ mpg equivalent

Components & Materials (not exhaustive)

Batteries

- Cell Manufacturing
- Module Manufacturing
- Pack Assembly
- Critical Materials/minerals

Electronics

- Microprocessors
- Power Electronics
- Battery Systems



Advanced Powertrain Technologies

- Hybrid / EV Powertrain Integration
- Electric Motor Manufacturing
- Energy Recovery Braking and Suspension



Advanced Materials

- Advanced High Strength Steels
- Aluminum, Magnesium, Other Alloys
- Plastics, Composites...

Fueling Infrastructure

- EV Charging equipment
- Related components (DC transformers, revenue-grade metering, etc.)
- VGI/bi-directionality enabling components



Title XVII: Renewable Energy & Efficient Energy*



Up to \$4.5 Billion in Loans and Guarantees Available
for deployment projects

LPO helps bring nascent/first-to-market renewable & efficient energy projects to commercial scale through its Title XVII Innovative Energy Loan Program

Financing

LPO provides access to debt capital for energy projects using **innovative technology** when commercial lenders cannot or will not provide financing.

Eligibility

LPO can consider renewable & efficient energy projects that:

- Use innovative technology (*not deployed more than 3 times in 5 years in U.S.*)
- Reduce, avoid, or sequester greenhouse gas emissions
- Are U.S. located & provide reasonable prospect of repayment

Technologies

Technology areas of interest include, but are not limited to:

- Advanced Grid Integration & Storage
- Alternative Fuel Vehicle Infrastructure
- Distributed Energy Projects, VPP
- Enhancement of Existing Facilities
- Offshore Wind & Related Infrastructure
- Waste-To-Energy

* TXVII also includes Advanced Fossil Fuels and Advanced Nuclear budgets

Priority Technologies (not exhaustive)

ATVM	Title XVII Renewable Energy & Efficient Energy	
Vehicle Manufacturing	Biofuel (plants, plant waste)	Maritime/Aviation Electrification
Battery Supply Chain	Efficient Energy	Offshore/Onshore Wind
EV Infrastructure Manufacturing	EV/H2 Infrastructure Deployment	Solar, Innovative
Components	Geothermal, Enhanced	Storage, Non-Battery (hydrogen, compressed air, pumped storage, flywheel)
Lightweighting Materials	Hydrogen, Green	Transmission/Smart Transmission
Critical Minerals	Hydropower (non-powered dams, pumped storage)	VPP (Virtual Power Plant)
	Hydrokinetic	Waste Conversion

A diverse portfolio of innovative technologies have resulted from \$35B in loans to 30 projects, as well as 37k jobs created and 60M tons of avoided GHG

Advanced Nuclear Energy

\$12 Billion

First AP1000 reactor in the U.S. (Vogtle)

Advanced Fossil Energy

\$2 Billion

CO₂ capture and sequestration conditional commitment. (Lake Charles Methanol)

Wind Energy

\$1.7 Billion

Four onshore farms, including one of the world's largest. (Shepherds Flat)

Transmission

\$343 Million

Advanced transmission lines for improved grid reliability. (One Nevada Line)

Advanced Vehicles Manufacturing

\$7.8 Billion

Accelerated domestic electric vehicles manufacturing. (Nissan, Ford, Tesla)

Concentrating Solar Power

\$5.8 Billion

Five CSP plants utilizing diverse technologies.

Geothermal Energy

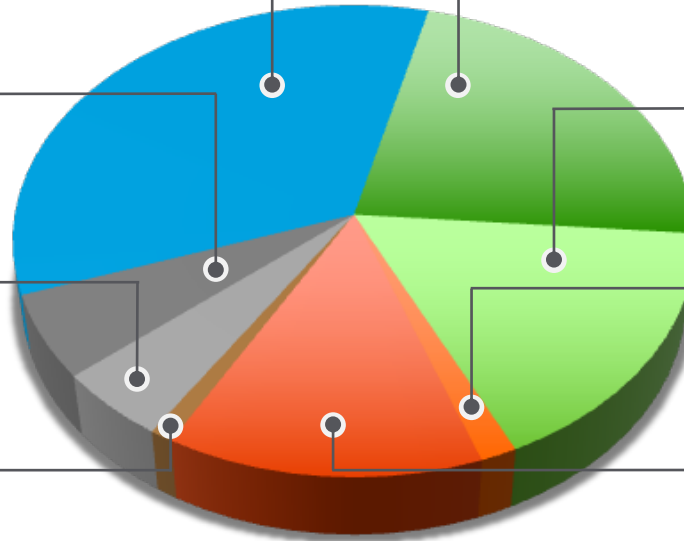
\$546 Million

State-of-the-art thermal extraction, revitalizing the sector.

Photovoltaic Solar

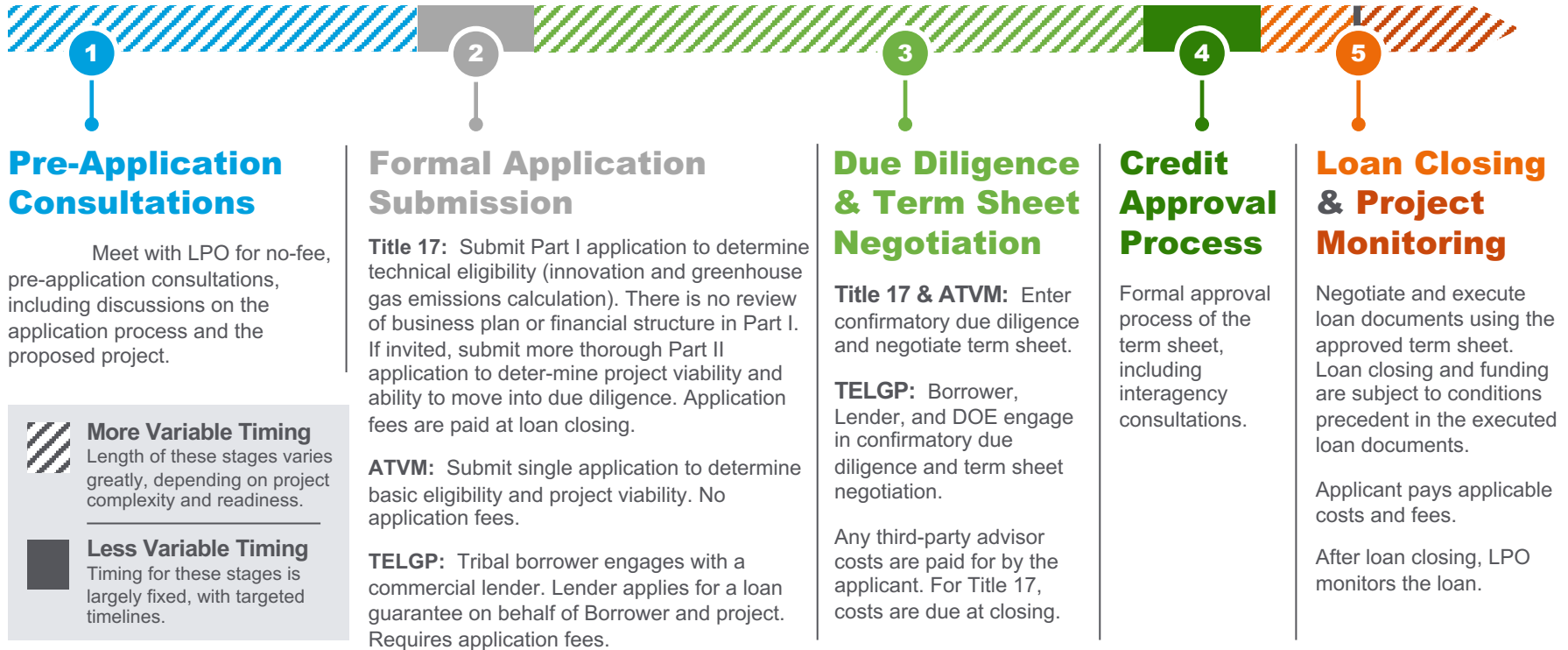
\$4.7 Billion

First five utility-scale PV solar projects larger than 100 MW in the U.S.



LPO Moves Ideas to Applications to Projects

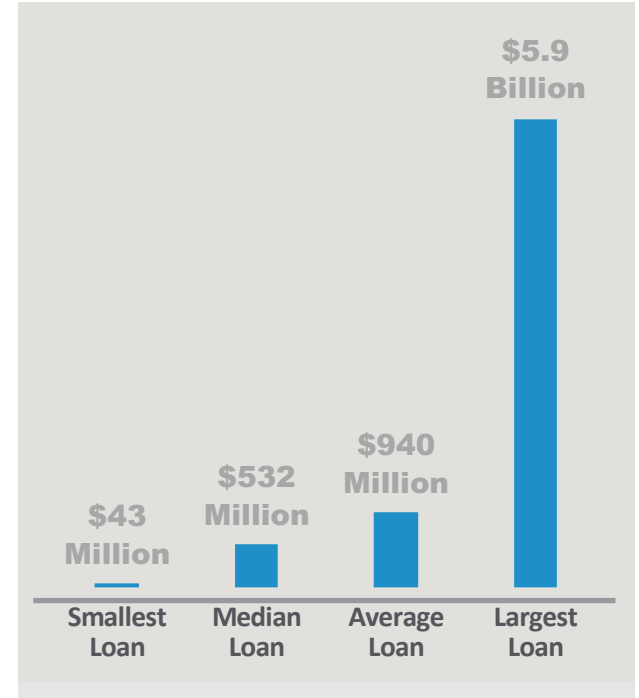
LPO engages early with applicants and remains a partner throughout the lifetime of the loan.



We Offer Flexible Financing Solutions

LPO can provide affordable, custom financing to meet the specific needs of individual borrowers.

- ✓ **Various Loan Types** | Depending on the program, LPO can offer direct loans from U.S. Treasury's Federal Finance Bank (FFB), 100% guarantee of FFB loans, and partial guarantees of commercial loans. Loan terms are specific to the proposed project and are subject to negotiation.
- ✓ **Affordable Debt & Long Tenor** | Senior secured debt priced competitively with commercial rates.
- ✓ **Flexible Deal Structures** | Structures may include project finance, structured corporate, corporate or warehousing lines.
- ✓ **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.



How You Can Help

- **Keep us in mind for your transportation electrification plans and coalition building**
- **Help us identify new applicants**

Thank you

Questions...