A Decade of Performance

ANNUAL PORTFOLIO STATUS REPORT

FISCAL YEAR 2019

Fiscal Year 2019 marked a decade of performance

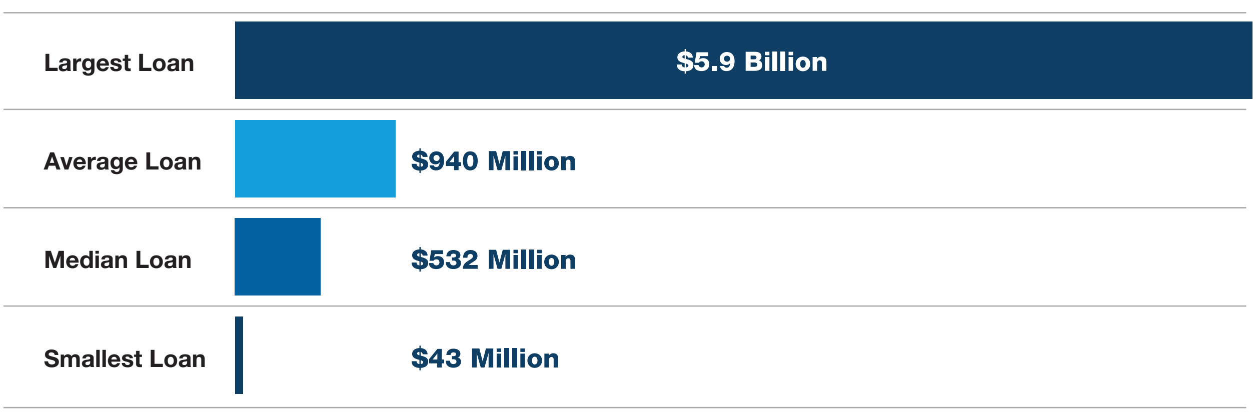
for the Department of Energy's Loan Programs Office (LPO) in successfully fulfilling its mission to finance and manage a successful portfolio of all-of-the-above energy and advanced automotive manufacturing projects across the United States. At the close of FY 2019, LPO's commitment to efficiently and effectively manage a $28 billion portfolio continues to advance America's energy infrastructure while protecting U.S. taxpayers.

Portfolio Funding Status ($ Millions)

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Total Obligated	$24,109	$23,989	$23,451	$27,854	$29,322	$29,322	$28,522	$28,379	$32,081
Disbursements	$8,696	$15,412	$18,688	$21,706	$24,342	$25,467	$25,742	$25,742	$27,707
Repayments/ Discounts	$13	$284	$1,553	$3,486	$5,141	$6,399	$7,978	$9,017	$9,957
Write-offs/ Loss on Sale	$0	$0	$54	$198	$198	$272	$806	$806	$806
Exposure*	$8,697	$15,197	$17,317	$18,321	$19,297	$19,092	$17,288	$16,310	$17,420

* Exposure includes outstanding interest

Portfolio Loan Statistics



WHO WE ARE

The Department of Energy's Loan Programs Office (LPO) provides debt financing for large-scale, all-of-the-above energy infrastructure and advanced automotive manufacturing projects in the United States.

Leveraging decades of financial, technical, legal, and environmental experience, LPO has closed more than $35 billion in loans and loan guarantees that help bridge gaps in the commercial debt market. These financing gaps arise when commercial lenders are unwilling to issue any or adequate debt, when a project deploys technology that has yet to demonstrate a history of commercial operations, or entities like tribes have yet to demonstrate a history of commercially deploying energy projects.

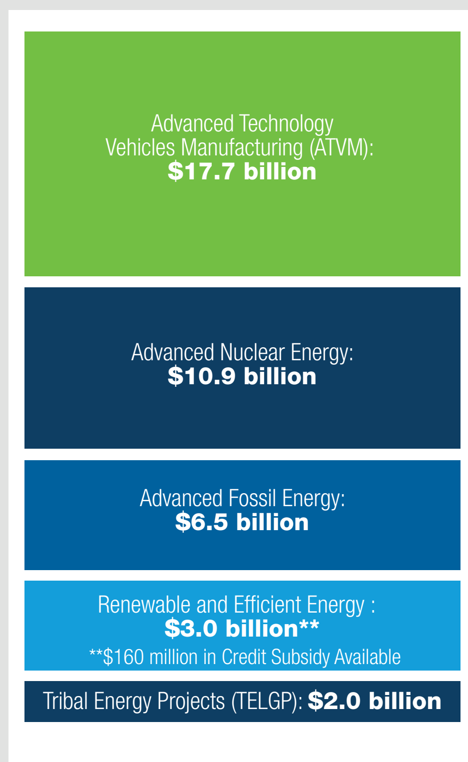
Once LPO closes a loan or loan guarantee, projects are monitored and evaluated throughout project development, construction, commissioning, and operation until the loan has been repaid in full, protecting taxpayer interests. With a proven track record that includes transforming existing energy infrastructure, reviving nuclear construction, accelerating growth of utility-scale solar and wind, and expanding domestic manufacturing of electric vehicles, LPO has helped catalyze new energy technology and create jobs.

Where We're Headed

LPO will continue driving innovation in energy technologies by leveraging its $44 billion in available loan authority:

- **$17.7 billion for manufacturing** fuel-efficient, light-duty or ultra-efficient vehicles and qualifying components under the Advanced Technology Vehicles Manufacturing program.
- **Up to $24 billion for the Title 17** Innovative Energy Loan Guarantee Program to support advanced fossil, advanced nuclear, and renewable energy & efficient energy projects.
- **Up to $2 billion for tribally-owned** energy projects through the Tribal Energy Loan Guarantee Program.
- **At the end of FY 2019,** $2 billion in Title 17 loan authority had been conditionally committed to one project under the Advanced Fossil solicitation.

Available Loan & Loan Guarantee Authority*



*As of the end of Fiscal Year 2019

PROVIDING VALUE TO BORROWERS

LPO can provide access to debt capital for first-of-a-kind projects and other high-impact energy-related ventures in a way that private lenders often can't or won't.

With approximately $44 billion to lend towards large-scale infrastructure projects and automotive manufacturing, LPO's success is in modeling for the private sector how innovative energy infrastructure projects can be financed so that they can later be taken over and replicated by commercial lenders.

LPO offers flexible, custom financing options that help to meet the specific needs of individual borrowers. The most common form of lending in the LPO portfolio is project finance, but some projects use a corporate lending structure. The portfolio also contains several different types of borrowers, including private entities, investor-owned utilities, and public power utilities.

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LPO's involvement in projects provides the confidence other lenders and interested parties need to get involved. In learning how LPO structures these deals, financiers are empowered to model this financing for future projects without LPO support. While LPO typically has sufficient loan authority to provide all of the debt a project may need, it can also co-lend and provide "accordion capacity," filling in a range of financing gaps. It is this type of flexibility that can provide unique value to borrowers.

The starting point of a committed partnership is with LPO's Origination Division, which brings together an internal team of energy experts, experienced across the financial, technical, legal, risk, and environmental fields. They partner with project sponsors through pre-application consultations, the application process, due diligence, and underwriting. After loan closing, LPO's Portfolio Management Division maintains the partnership through construction, project operation and maintenance, and eventual final loan repayment. This approach is essential to achieving project milestones and overall project success, while protecting taxpayer interests.

LPO's success is in modeling for the private sector how innovative energy infrastructure projects can be financed.

By engaging early and often with applicants, the LPO team maximizes transparency and manages risk with a combination of proactive monitoring, discussions of emergent issues, and action to maximize project success, which can include approving distributions or equity ownership sales.

FY 2019 BY THE NUMBERS

Since issuing its first loan in 2009, LPO's portfolio has evolved to be comprised of mainly mature, operating projects that are amortizing on schedule.

FY 2019 marked a return to asset growth and funding as the LPO portfolio exposure balance increased by 7% to $17.4 billion due to resumption of disbursements and the closing of five additional loan guarantees for the Vogtle project.

Portfolio Project Data

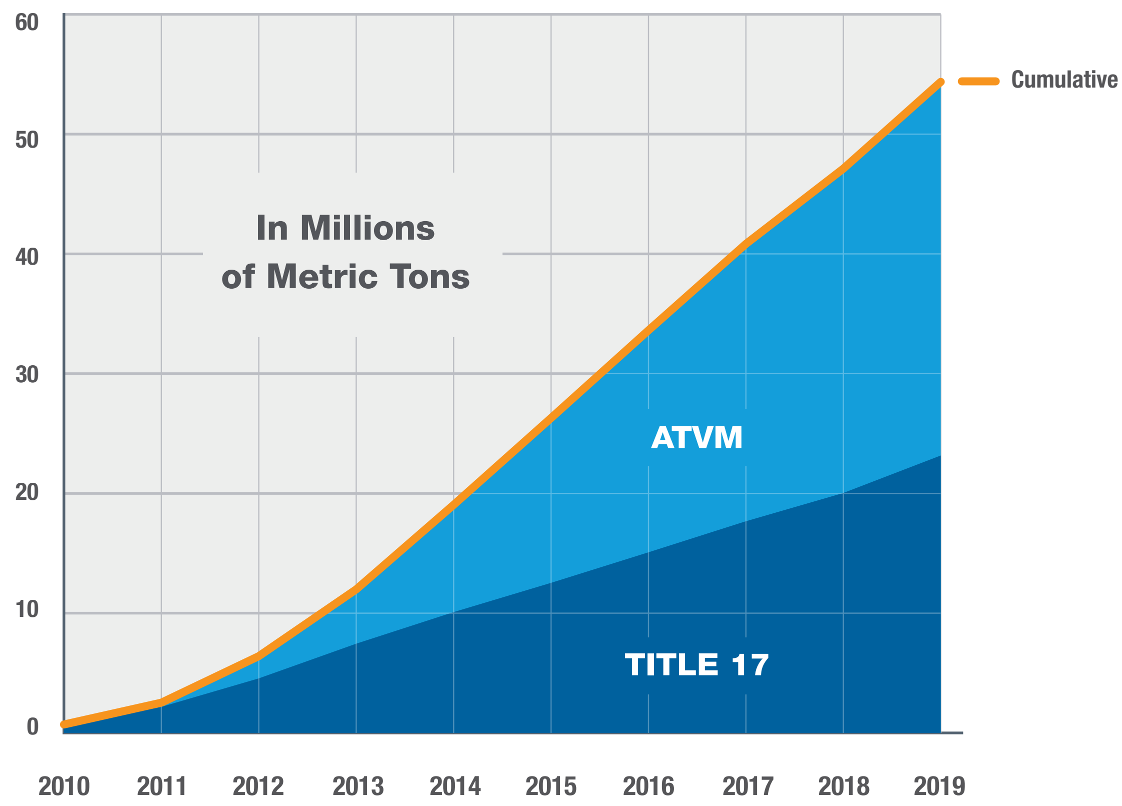
Fiscal Year Ended	9/30/2018		9/30/2019	
	Title 17	ATVM	Title 17	ATVM
Total # of Active Projects	19	1	19	1
# Projects in Construction	1	0	1	0
# Projects in Operation	18	1	18	1
# Projects Unfunded	0	0	0	0
Generation Capacity (MW)	3,953	—	3,953	—
Electricity Generated (GWh, Cum.)	54,597	—	64,295	—
CO2 Avoided (Mtonnes, Cum.)	26.7	20.4	31.2	23.2
Production Capacity (Million vehicles/yr)	—	2.3	—	2.3
Vehicles Produced (Million, Cum.)	—	16.6	—	18.6

While several projects faced challenges in FY 2019 that resulted in lower power generation than during the record-setting FY 2018, the majority of energy generation projects exceeded expectations. Over the last 12 months, LPO's energy projects produced more than 9.7 million megawatt-hours of electricity, enough to power roughly 950,000 homes, while avoiding the roughly 4.5 million tons in greenhouse gases associated with comparable conventional energy sources.

In addition to power generation, LPO's transmission project performed successfully throughout the year, supplying 600 MW of capacity to transport electricity across 235 miles of terrain. LPO's ATVM portfolio supported the manufacturing of over 2 million fuel-efficient vehicles and their components, avoiding carbon emissions equivalent to half a million traditional gasoline-fueled vehicles.

LPO Portfolio Climate Impact

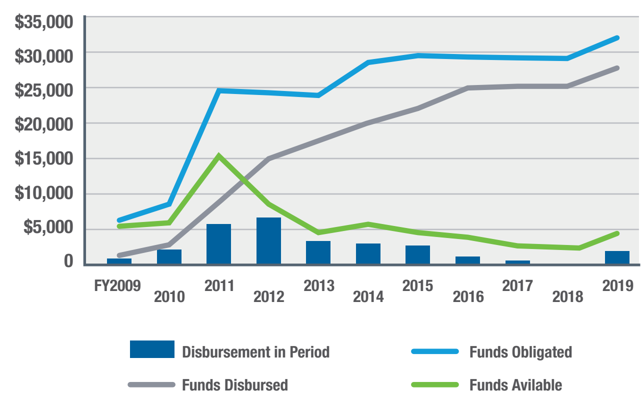
Cumulative CO_2 Emissions Avoided



CLOSE OF FY 2019 OUTLOOK

Despite a decrease in year-over-year total generation, there is reason for optimism that the few underperforming projects are making improvements after adopting LPO-supported corrective action plans.

LPO Disbursement History ($MM)



One such project is the Ivanpah concentrating solar power facility, which has demonstrated steady improvement over the past several years with more efficient and lower-cost operations guided by an LPO-supported corrective action plan.

Additionally, no LPO borrower has missed a scheduled payment since FY 2016, and LPO has not written off a loan in-whole or in-part since FY 2017. Combining prepayments with scheduled payments, LPO borrowers continue to retire their debt more quickly than projected in the original amortization schedules, ensuring that taxpayer funds are returned as quickly as possible.

As FY 2019 drew to a close, the portfolio remained strongly positioned for the future. Over the next five years, LPO's annual average repayment is expected to be about $1 billion, while 57% of LPO's outstanding portfolio balance is owed by investment grade borrowers.

In early FY 2019, LPO made its first disbursements since December 2016 and expects additional disbursements for the Vogtle project in FY 2020.

FY 2019 PORTFOLIO IMPACTS OF NOTE

The past two fiscal years saw relatively few rating actions, as the majority of borrowers had entered a mature stage of operation and the portfolio's credit quality had largely stabilized. However, FY 2019 saw more fluctuations due primarily to outside factors.

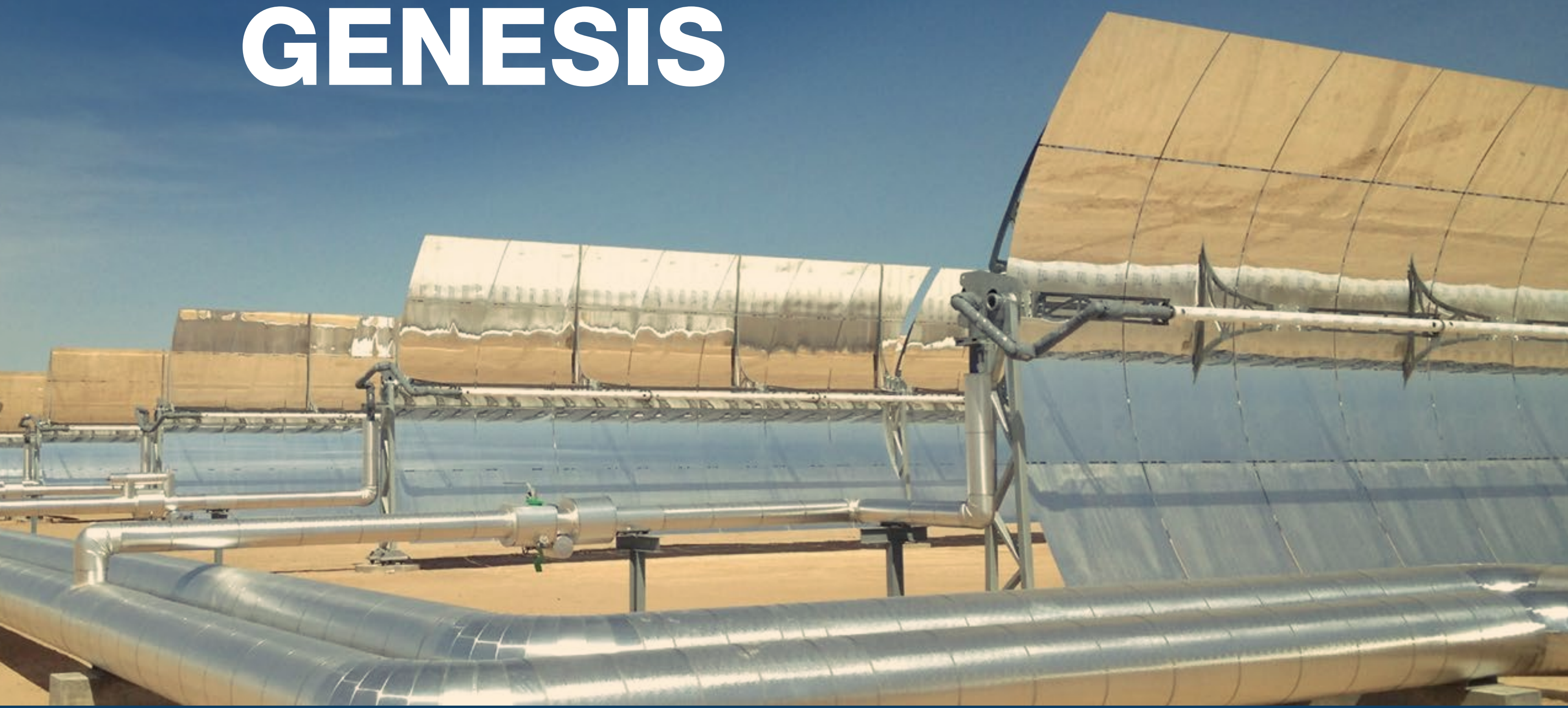
The major factors impacting LPO's portfolio in FY 2019 were counterparty issues in the California energy market, as the portfolio is heavily concentrated in offtake agreements to the two largest utilities in the state, Pacific Gas & Electric (PG&E) and Southern California Edison (SCE).

During the past twelve months, the California utilities saw severely heightened risk of financial damages due to catastrophic wildfire events in their territory, which drove PG&E from an investment grade-rated company as of November 2018 to filing for bankruptcy protection two months later, and also jeopardized SCE's investment-grade rating for much of 2019.

Nearing the close of FY 2019, PG&E filed its Chapter 11 Plan of Reorganization in bankruptcy court. In that Plan, PG&E noted assumption of all PPAs and future participation in the state's recently established wildfire fund—a positive development for LPO. PG&E's next steps are to obtain bankruptcy court approval for its Chapter 11 Reorganization Plan, and to receive approval from the CPUC by June 30, 2020 in order to remain eligible to participate in the state wildfire fund. Although the latest developments suggest a feasible path to exiting bankruptcy, LPO is regularly monitoring this situation and remains actively engaged with the affected borrowers to ensure the long-term successful operation of the projects and to protect taxpayer interests.

PROJECT SPOTLIGHT

GENESIS



Solar has increased its share of total U.S. electrical generation from just 0.1% in 2010 to more than 2.5% today.

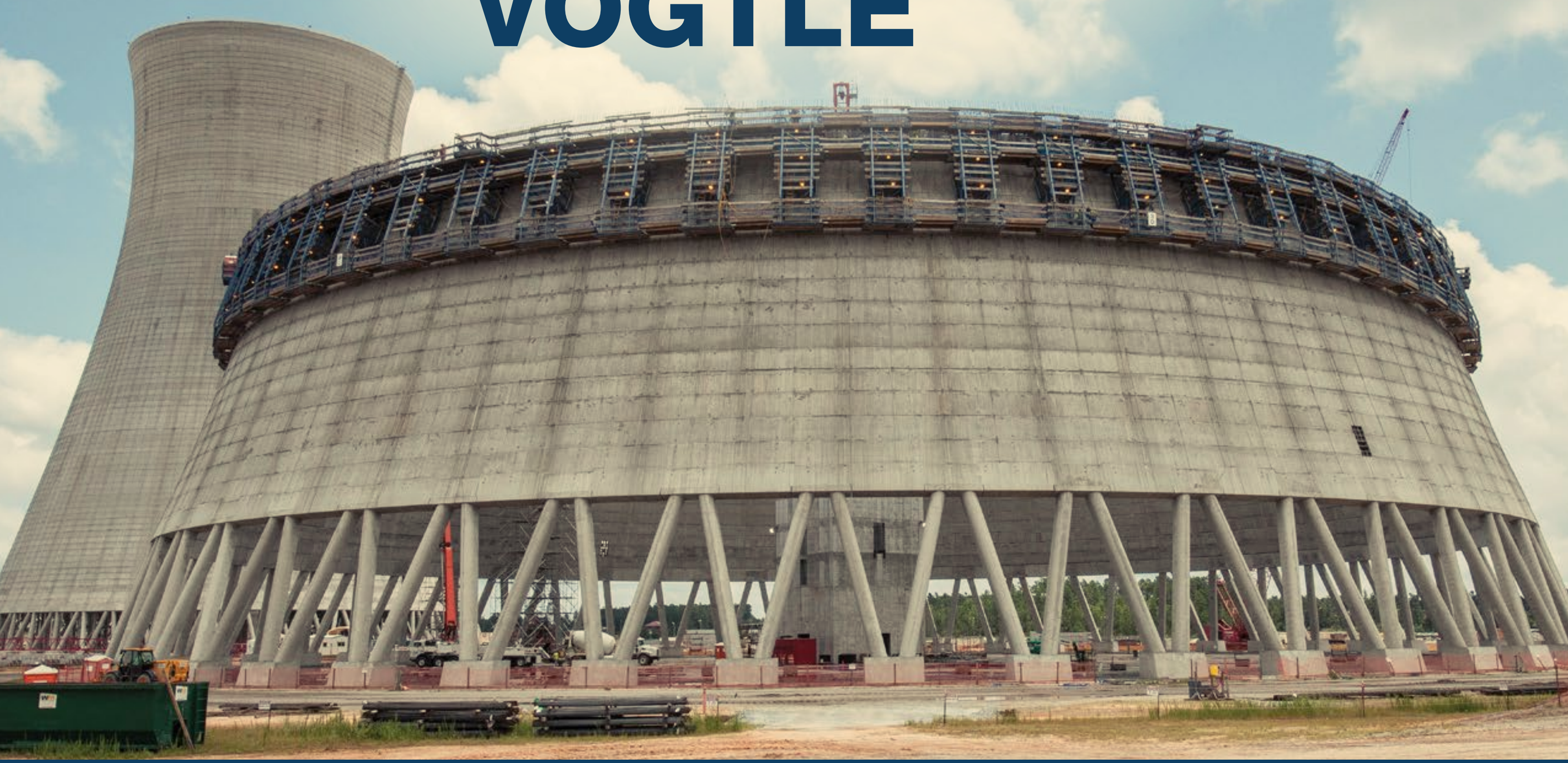
One of the largest CSP projects in the U.S., Genesis, entered the portfolio in August 2011 by way of an $852 million partial loan guarantee under the Financial Institution Partnership Program (FIPP).

After starting commercial operations in April 2014, Genesis became one of the the strongest performers in the portfolio, beating its closing projections by 8% in FY 2019. However, due to PG&E's bankruptcy resulting in an event of default, the project had become unable to take distributions. The project built up such a strong cash flow performance that Genesis' owner, NextEra, announced its intention to prepay the remaining balance of its term loan in December 2019 and exit the portfolio.

Solar generation is the second-largest sector in the LPO portfolio at 38% of the total balance. However, within this sector, LPO has supported a wide variety of technologies that were considered innovative at the time of loan closing.

The solar sector comprises the photovoltaic (PV) and concentrated solar power (CSP) subsectors. Within the PV subsector, projects utilize high concentration PV (HCPV), thin-film PV, and horizontal-axis trackers. Within the CSP subsector, projects utilized parabolic trough technology—with and without thermal storage—and power tower technology—with and without storage. By financing the initial commercial deployments of a wide variety of solar technologies, LPO gave the private sector an opportunity to identify which technologies best met market demands.

PROJECT SPOTLIGHT
VOGTLE



In FY 2019, nuclear generation became the largest sector in LPO's portfolio, overtaking solar generation and now representing 42% of the total balance.

FY 2019 marked major milestones for advanced nuclear energy as LPO resumed disbursements under the original Vogtle loan guarantees and also closed five additional loan guarantees to support the ongoing construction.

These milestones were the result of LPO's commitment to partner with the Vogtle borrowers in support of the long-term success of the project and the U.S. nuclear industry. The project owners cited that LPO's conditional commitment for additional loan guarantees was an important factor in deciding to move forward to complete the project.

The closing of additional loan guarantees for Vogtle was also a significant internal milestone for the organization. LPO's Loan Origination, Portfolio Management, Technical and Project Management, and Legal Divisions worked in a highly coordinated manner to close on this complex transaction.

By comparison to the uncertainty surrounding the project in the previous two years, the status of Vogtle in FY 2019 remained relatively constant and the project continues to be built as scheduled at this time, and most of the major equipment has been delivered. More than 7,500 workers are on site on a daily basis for installation.

PROJECT SPOTLIGHT
USG OREGON

LPO geothermal projects produced 1.35 million MWh over the past twelve months, 110% of closing model projections during the period.

USG Oregon exceeded expectations by 44%, the best performance compared to plan of any project in the portfolio in FY 2019 by a significant margin. Not only was performance well above the plan, it also set a record for the project in its past five years of operation, defying the typical geothermal resource temperature decline over that time. Following DOE's consent to the merger and acquisition of the project's equity owner with OGP Holdings Corp. (an Ormat subsidiary), USG Oregon strengthened its project sponsor and operator going forward.

While the geothermal sector may only account for 2% of LPO's portfolio exposure, this sector demonstrated largely positive rating actions and retirement of exposure. USG Oregon is an example of LPO's commitment to providing value for its borrowers.

FY 2019
LPO HIGHLIGHTS

- **LPO issued 5 new loan guarantees** for the Vogtle project totaling $3.7 billion.
- **Disbursements resumed** to the Vogtle project following a 2-year hiatus.
- **LPO borrowers paid back** a combined $940 million, bringing cumulative repayment over the portfolio's ten-year history to nearly $10 billion.
- **On a weighted basis, current exposure** is primarily concentrated in strong, creditworthy assets, with over half of the outstanding balance owed by borrowers that are internally rated investment grade.
- **LPO energy projects generated** 9.7 million megawatt-hours of electricity, enough to power roughly 950,000 homes.

LPO Portfolio Performance Summary as of End of FY 2019

Loan & Loan Guarantees Issued	$35.69 billion
Conditional Commitments	$2.00 billion
Amount Disbursed	$27.71 billion
Principal Repaid	$9.96 billion
Interest Paid*	$2.77 billion
Losses as % of Total Disbursement	2.91 %

* Calculated without respect to Treasury's borrowing cost.

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