U.S. DEPARTMENT OF ENERGY

Report on the Status of Projects Supported by a Loan under the Advanced Technology Vehicles Manufacturing Program

Report to Congress
November 2023

United States Department of Energy
Washington, DC 20585

Message from the Secretary

This report, *Report on the Status of Projects Supported by a Loan under the Advanced Technology Vehicles Manufacturing Program*, is provided pursuant to section 40401(b)(3)(E) of the Infrastructure Investment and Jobs Act (P.L. 117-58).

Please note that because certain requested information may constitute trade secrets or confidential business information under the Trade Secrets Act, 18 U.S.C. § 1905, an appendix to this report has been prepared. This appendix is being provided to Congress only and is not for public distribution; neither the Department of Energy (DOE) nor the companies are waiving of any privileges which may exist for such information.

Pursuant to statutory requirements, this report is being provided to the following members of Congress:

- **The Honorable Joe Manchin**
  Chairman, Senate Committee on Energy and Natural Resources

- **The Honorable John Barrasso**
  Ranking Member, Senate Committee on Energy and Natural Resources

- **The Honorable Frank Lucas**
  Chairman, House Committee on Science, Space, and Technology

- **The Honorable Zoe Lofgren**
  Ranking Member, House Committee on Science, Space, and Technology

- **The Honorable Cathy McMorris Rodgers**
  Chair, House Committee on Energy and Commerce

- **The Honorable Frank Pallone, Jr.**
  Ranking Member, House Committee on Energy and Commerce

If you have any questions or need additional information, please contact me or Ms. Becca Ward, Deputy Assistant Secretary for Senate Affairs, or Ms. Janie Thompson, Deputy Assistant Secretary for House Affairs, Office of Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,

Jennifer M. Granholm

Executive Summary

The Infrastructure Investment and Jobs Act (IIJA) (P.L. 117-58) was signed into law on November 15, 2021. This piece of bipartisan legislation included a series of reforms to the Loan Programs Office (LPO) Advanced Technology Vehicles Manufacturing Loan Program (ATVM), including mandatory reporting requirements on the status of projects supported by a loan under ATVM, as well as certain data regarding applications for the program. This report includes the latest information as of the end of fiscal year (FY) 2023, unless otherwise noted.

Please note that because certain requested information may constitute trade secrets or confidential business information under the Trade Secrets Act, 18 U.S.C. § 1905, an appendix to this report has been prepared. This appendix is being provided to Congress only and is not for public distribution; neither DOE nor the companies are waiving of any privileges which may exist for such information.

Section 136 of the Energy Independence and Security Act of 2007 (P.L. 110-140), as amended, authorized the ATVM program, consisting of direct loans to support the manufacturing of advanced technology vehicles and qualifying components in the United States. LPO administers the ATVM program pursuant to its regulations set forth at 10 CFR part 611, as required by the authorizing statute. Throughout its history, the ATVM program has issued seven total loans, and more than $10 billion has been obligated to borrowers. Since the passage of IIJA, the ATVM program has added 2 loans to its portfolio: Ultium Cells and Syrah Technologies. LPO maintains a public list of its active project portfolio on its website, including information about the borrower, loan program, technology sector, repayment status, and other information.

In addition, the ATVM program has recently offered 6 conditional commitments totaling over $13.4 billion to potential borrowers that have not yet reached financial close, including to Rhyolite Ridge, Redwood Materials, Li-Cycle, CelLink, KORE Power, and BlueOval SK. LPO also has a robust active applicant pipeline across its programs: as of September 30, 2023, there were 177 applications requesting $157.1 billion in loan authority, including over $19 billion in ATVM applications.

To fulfill the reporting requirements in Sec. 40401(b)(3)(E) of the IIJA, this report is broken into five sections: Project Data (Active Loan Portfolio), Data on Direct and Indirect Jobs, Projection of Future Guarantees, Evaluation of Ongoing Compliance, and Pipeline Data.

Report on the Status of Projects Supported by a Loan under the Advanced Technology Vehicles Manufacturing Program

Table of Contents

I. Legislative Language 1
II. Project Data (Active Loan Portfolio) (paragraphs (1), (2)) 2
III. Data on Direct and Indirect Jobs (paragraph (3)) 3
IV. Projection of Future Guarantees (paragraph (4)) 4
V. Evaluation of Ongoing Compliance (paragraph (5)) 5
VI. Outreach and Pipeline Data (paragraph (6)) 8

I. Legislative Language

This report responds to legislative language set forth in Sec. 40401(b)(3)(E) of the Infrastructure Investment and Jobs Act (P.L. 117-58), page 608, wherein it amended Section 136 of the Energy Independence and Security Act of 2007 (P.L. 110-140), including by adding the following:

> “(m) REPORT.—Not later than 2 years after the date of enactment of this subsection [November 15, 2021], and every 3 years thereafter, the Secretary shall submit to Congress a report on the status of projects supported by a loan under this section, including—
>
> “(1) a list of projects receiving a loan under this section, including the loan amount and construction status of each project;
> “(2) the status of the loan repayment for each project, including future repayment projections;
> “(3) data regarding the number of direct and indirect jobs retained, restored, or created by financed projects;
> “(4) the number of new projects projected to receive a loan under this section in the next 2 years, including the projected aggregate loan amount over the next 2 years;
> “(5) evaluation of ongoing compliance with the assurances and commitments, and of the predictions, made by applicants pursuant to paragraphs (2) and (3) of subsection (d);
> “(6) the total number of applications received by the Department each year; and
> “(7) any other metrics the Secretary determines appropriate.”

II. Project Data (Active Loan Portfolio)
(paragraphs (1), (2))

As of the end of FY 2023, the Loan Programs Office ATVM loan portfolio included two projects with two loans representing $2.6 billion in total principal obligated.[1] Please note that because information requested in paragraphs (1) and (2) may contain items constituting trade secrets or confidential business information under the Trade Secrets Act, 18 U.S.C. § 1905, an appendix (labeled **Confidential Appendix A**) to this report has been prepared. This appendix is being provided to Congress only and is not for public distribution; neither DOE nor the companies are waiving of any privileges which may exist for such information.

[1] In addition, the ATVM program has recently offered 6 conditional commitments totaling over $13.4 billion to potential borrowers that have not yet reached financial close, including to Rhyolite Ridge, Redwood Materials, Li-Cycle, CelLink, KORE Power, and BlueOval SK.

III. Data on Direct and Indirect Jobs (paragraph (3))

Paragraph (3) requires DOE to report "data regarding the number of direct and indirect jobs retained, restored, or created by financed projects." While a project is active, the project periodically reports direct jobs created to LPO. Direct jobs created are measured through two components:

1. *Peak Construction Jobs* – the highest number of actual construction jobs reported during the construction phase of a project, which is reported monthly by active projects, and
2. *Permanent Jobs* – The actual number of full-time permanent jobs supported by the project once in operation, which is reported as frequently as monthly by projects, but usually reported by projects only if there are changes in staffing.

Data for active projects in LPO's portfolio is actively monitored and collected; however, for projects that have left the program, a process is in place to collect the data based on publicly reported information.

LPO is exploring how to collect data from projects as we see increasing interest in projects that would create new opportunities for workers in energy industries. In addition, LPO projects currently do not report indirect jobs created, but LPO estimated indirect jobs created using employment multipliers from an Input-Output (I-O) model that measures the ripple economic effects of one direct job created. Indirect jobs estimation makes use of the methodology and employment multipliers in the "Updated Employment Multipliers for the U.S. Economy," as published by the non-profit Economic Policy Institute (2019),[2] modified to concentrate on backward (supplier) industry interconnectivity.

As a result, the estimated indirect jobs in **Table 1** represent estimated indirect jobs that could be created in economic sectors that provide the materials used as inputs to produce the industry's output to which LPO projects are likely to contribute: motor vehicle manufacturing and construction.

Table 1 is responsive to paragraph (3) of the legislative language, including the direct jobs of all ATVM projects (active, fully repaid, or exited the portfolio early), and the estimated indirect jobs associated with all ATVM projects. Note that many LPO projects are comprised of novel technologies that may not exactly fit into a standard industry group, and therefore the estimated indirect jobs reported below should be considered an approximation based on the standard industry group that is nearest in relevance.

Table 1: ATVM Portfolio Projects: Direct and Indirect Jobs

Description	Peak Construction Jobs	Permanent Jobs	Total
Direct Jobs	7,418	48,824	56,242
Est. Indirect Jobs	6,528	456,895	463,423
Total Jobs	**13,946**	**505,719**	**519,665**

Note: Direct jobs reported as of 09/30/2023.

[2] *See* https://files.epi.org/pdf/160282.pdf

IV. Projection of Future Guarantees (paragraph (4))

Table 2 is responsive to paragraph (4) of the legislative language requiring DOE to report on estimates for future ATVM loans, specifically, "number of new projects projected to receive a loan under this section in the next 2 years, including the projected aggregate loan amount over the next 2 years." Projections for FY 2024 are derived from the President's FY 2024 Budget Request. Projections for FY 2025 are best estimates as of September 2023 based on the current pipeline for projects that will move to financial close.

Table 2: Projected Number of New ATVM Projects and Estimated Aggregate Loan Amount

Fiscal Year	Number of Projects Projected	Aggregate Loan Amount Projected Est.
FY 2024	11	$15.9B
FY 2025	17	$15.2B

V. Evaluation of Ongoing Compliance (paragraph (5))

Paragraph (5) requires DOE to report data regarding the "evaluation of ongoing compliance with the assurances and commitments, and of the predictions, made by applicants pursuant to paragraphs (2) and (3) of subsection (d)."

Subsection (d)(2) relates to labor practices of potential borrowers, stating:

> "(2) Application.—An applicant for a loan under this subsection shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including a written assurance that—
>
> > "(A) all laborers and mechanics employed by contractors or subcontractors during construction, alteration, or repair that is financed, in whole or in part, by a loan under this section shall be paid wages at rates not less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor in accordance with sections 3141–3144, 3146, and 3147 of title 40; and
> >
> > "(B) the Secretary of Labor shall, with respect to the labor standards described in this paragraph, have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (5 U.S.C. App.) and section 3145 of title 40."

During the application process and before receiving an ATVM loan, all potential borrowers have complied and continue to comply with the requirement that they provide DOE with written assurance that all laborers and mechanics employed by contractors or subcontractors during construction, alteration, or repair that is financed, in whole or in part, by a loan under this section shall be paid wages at rates not less than those prevailing on similar construction in the locality. This is a standalone requirement for a project to receive a loan and is also considered as a part of the reasonable prospect of repayment consideration, described below, which LPO must make when determining a project's ability to repay.

Subsection (d)(3) relates to the reasonable prospect of repayment, stating:

> "(3) Selection of eligible projects.—
>
> > "(A) In general. The Secretary shall select eligible projects to receive loans under this subsection if the Secretary determines that—
> >
> > > "(i) the loan recipient—
> > >
> > > > "(I) has a reasonable prospect of repaying the principal and interest on the loan;
> > > >
> > > > "(II) will provide sufficient information to the Secretary for the Secretary to ensure that the qualified investment is expended efficiently and effectively; and
> > > >
> > > > "(III) has met such other criteria as may be established and published by the Secretary; and
> > >
> > > "(ii) the amount of the loan (when combined with amounts available to the loan recipient from other sources) will be sufficient to carry out the project.
> >
> > "(B) Reasonable prospect of repayment. The Secretary shall base a determination of whether there is a reasonable prospect of repayment of the principal and interest on a loan under subparagraph (A)(i)(I) on a comprehensive evaluation of whether the loan recipient has a reasonable prospect of repaying the principal and interest, including, as applicable, an evaluation of—

"(i) the strength of the contractual terms of the eligible project (if commercially reasonably available);
"(ii) the forecast of noncontractual cash flows supported by market projections from reputable sources, as determined by the Secretary;
"(iii) cash sweeps and other structure enhancements;
"(iv) the projected financial strength of the loan recipient—
"(I) at the time of loan close; and
"(II) throughout the loan term after the project is completed;
"(v) the financial strength of the investors and strategic partners of the loan recipient, if applicable; and
"(vi) other financial metrics and analyses that are relied on by the private lending community and nationally recognized credit rating agencies, as determined appropriate by the Secretary."

For a project to receive an ATVM loan, the project must demonstrate a reasonable prospect of repayment as described in this requirement. This updated statutory definition is consistent with LPO's longstanding process for loan approval. As a part of this process, applicants must meet statutory requirements, including through internal LPO validation (by the Risk Management Division (RMD)), interagency review, DOE Credit Review Board (CRB) review and Secretary approval. In addition, LPO submits detailed information about the project to the Office of Management and Budget (OMB) and the U.S. Department of the Treasury (U.S. Treasury). OMB reviews the transaction to support RMD's estimation of the credit subsidy cost – which is based on a variety of factors, including the reasonable prospect of repayment – for all loan programs. The CRB, composed of senior DOE officials from outside of LPO, is routinely briefed on pending transactions, and the decision about whether to move forward with a given transaction is put to the CRB for a vote prior to conditional commitment. If a transaction receives CRB approval, including by demonstrating a reasonable prospect of repayment, it goes to the Secretary of Energy for approval, and a conditional commitment is then issued to the applicant.

Once a loan closes, the Portfolio Management Division (PMD) leads LPO's loan monitoring process through the end of a loan term, which can last up to 30 years. PMD serves as the principal liaison between the borrower and LPO post-close; manages approval of disbursements, consent, waivers, modifications, amendments, and other action requests (PMD coordinates review of post-issue requests with other members of the LPO deal team, external experts, and DOE's Risk and Portfolio Monitoring Committee as needed depending on the nature of the request and loan status); monitors project cash flows to ensure debt repayment; and reports portfolio performance to senior leadership on an ongoing basis. PMD also conducts proactive surveillance on the loan portfolio; routinely assesses the credit risk of its borrowers; and continues to update LPO's internal risk rating, which indicates the expected probability of default and loss. When borrowers present warning signs of distress, PMD acts by leading workout and remediation efforts to maximize recoveries. And, at least once per year, RMD reviews the work of PMD. Taken together, ongoing proactive portfolio management measures help projects succeed even when, because of LPO's unique mission, those projects may possess lower credit ratings or higher technology risk.

Each year, LPO, in conjunction with OMB, undergoes the credit subsidy re-estimation process in accordance with the Federal Credit Reform Act of 1990, where credit subsidy that was allocated based on initial assumptions for each loan's projected disbursements and payments is reviewed based on actual cash flows as well as any changes to the current risk assessment for a given project. Historically, the aggregate amount of the credit subsidy allocated based on initial assumptions at closing has been greater than the realized losses to date, indicating LPO's thorough vetting of transaction risks, loan underwriting skills, and ongoing portfolio management.

VI. Outreach and Pipeline Data (paragraph (6))

In addition, paragraph (6) of the legislative language requires DOE to report on "the total number of applications received by the Department each year" under ATVM. As of the end of FY 2023, there were 24 ATVM applications, with a total loan amount requested of $19.16 billion. **Figure 1** is responsive to paragraph (6) of the legislative language, demonstrating the number of active ATVM applications, shown by fiscal quarter across FY 2023:

Figure 1: ATVM Loan Application Pipeline as of the end of FY 2023