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6450-01-P

DEPARTMENT OF ENERGY

Request for Information Regarding the Advanced Technology Vehicles Manufacturing Loan Program

RIN 1901-AB55

AGENCY: Loan Programs Office, Department of Energy.

ACTION: Request for information ("RFI").

SUMMARY: The Loan Programs Office ("LPO") of the U.S. Department of Energy ("DOE") is seeking public input on this RFI to inform LPO's implementation of the Inflation Reduction Act of 2022 provisions relating to the Advanced Technology Vehicles Manufacturing Loan Program (the "ATVM Program").

DATES: Written comments are requested by [***INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER***]. If you anticipate difficulty in submitting comments within that period, contact the person listed in **FOR FURTHER INFORMATION CONTACT** as soon as possible.

ADDRESSES: Interested persons are encouraged to submit comments, identified by "ATVM Program RFI," by any of the following methods:

Email: *lpofederalregistercomments@hq.doe.gov*. Include "ATVM Program RFI" in the subject line of the message. Email attachments can be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format, prepared in accordance with the detailed instructions in section III of this document.

Postal Mail: Loan Programs Office, Attn: LPO Legal Department, U.S. Department of Energy, 1000 Independence Avenue SW, Washington, DC 20585–0121. Please submit one signed original paper copy. Due to potential delays in DOE's receipt and processing of mail sent

through the U.S. Postal Service, we encourage respondents to submit comments electronically to ensure timely receipt.

FOR FURTHER INFORMATION CONTACT: Steven Westhoff, Attorney-Adviser, Loan Programs Office, email: *steven.westhoff@hq.doe.gov*, or phone: (240) 220-4994.

SUPPLEMENTARY INFORMATION:

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I. Introduction

A. Background: Decarbonization of the Transportation Sector and Strengthening Domestic Supply Chains

On August 16, 2022, President Joseph R. Biden signed the landmark Inflation Reduction

Act of 2022 ("IRA") [1] into law, which in part supports the broad goals of deploying clean energy, strengthening domestic manufacturing, and investing in workers and communities. The IRA reflects advanced technology vehicle manufacturing's role in advancing transportation decarbonization and the supply chain goals of the Nation and U.S. manufacturers. Specifically, section 50142 of the IRA appropriates $3 billion, available through September 30, 2028, for the costs of providing direct loans under section 136(d) of the Energy Independence and Security Act of 2007,[2] the underlying authority for DOE's ATVM Program.[3]

The ATVM Program can provide financing to help deploy eligible advanced technology vehicles or the manufacturing of qualifying components for eligible vehicles in the United States. These projects can be along the advanced technology vehicle value chain, including processing of critical materials for advanced technology vehicles; manufacturing of battery cell components, battery cells, battery modules, and battery packs for electric vehicles ("EVs"); recycling of battery components or critical materials; manufacturing of various nonroad advanced technology vehicles or their components; or manufacturing of EV charging infrastructure components, among other areas. The ATVM Program supports applicants' efforts to reequip, modernize, or expand existing facilities for these purposes, and/or support engineering integration performed related to the manufacturing of eligible vehicles or components in the United States.

Onshoring and reshoring parts of advanced technology vehicle supply chain is an important part of helping the United States increase its energy independence and bolster its competitiveness in a global supply chain. Advanced technology vehicles are often dependent on a consistent and predictable supply chain. Today, the United States relies heavily on importing advanced technology vehicle supply chain components from abroad, exposing the nation to

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[1] Public Law 117-169 (2022).
[2] 42 U.S.C. 17013(d).
[3] The Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009 provided loan authority of $25 billion and appropriated $7.51 billion for credit subsidy cost. Public Law 110-329, sec. 129(a) (2008). The IRA removed the $25 billion cap on the total amount of ATVM Program loans established under section 136(d)(1) of the Energy Independence and Security Act of 2007. Public Law 117-169, sec. 50142(c) (2022).

supply chain vulnerabilities that threaten to disrupt the availability and cost of these technologies, as well as the workforce that manufactures them.

LPO projects are often first movers in these sectors in the United States, helping American manufacturers scale up domestic manufacturing capacity, develop technical know-how, and create good-paying American jobs in new sectors. By providing flexible access to capital for borrowers in clean energy sectors where traditional commercial debt is unavailable, LPO can help support American entrepreneurs' efforts in these areas. This is critical as DOE seeks to deploy advanced technology vehicle production at scale while protecting the research, technology, and economic security interests of the American people. Investment in American manufacturing also helps the United States lead the world in clean energy industries and positions U.S. firms to export these clean technologies to our global partners. In addition, supporting the advanced technology vehicle supply chain and deploying these vehicles helps meet our climate and emissions reduction objectives as a Nation.

President Biden set an ambitious goal that at least 50 percent of all new passenger cars and light trucks and at least 30 percent of all medium and heavy-duty vehicles sold in 2030 be zero-emission vehicles, including battery electric, plug-in hybrid electric, or fuel cell EVs.[4] The transportation sector is the largest source of greenhouse gas ("GHG") emissions in the United States, accounting for 27 percent of all emissions in 2020. Transportation also is a major source of smog-forming nitrogen oxides and particulate matter, which can trigger asthma attacks and other health problems for the most vulnerable among us.[5] Advanced technology vehicles and qualifying components stand to help reduce GHG emissions and other mobile source air pollutants that may have a disproportionate impact on the air quality in overburdened and

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[4] E.O. 14037, "Strengthening American Leadership in Clean Cars and Trucks," 86 FR 43583 (August 10, 2021); "FACT SHEET: Biden-Harris Administration Proposes New Standards to Protect Public Health that Will Save Consumers Money, and Increase Energy Security," April 12, 2023. Available at *www.whitehouse.gov/briefing-room/statements-releases/2023/04/12/fact-sheet-biden-harris-administration-proposes-new-standards-to-protect-public-health-that-will-save-consumers-money-and-increase-energy-security/*.

[5] *Building a Clean Energy Economy: A Guidebook to the Inflation Reduction Act's Investments in Clean Energy and Climate Action*, Version 2, January 2023. Available at *www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf*.

underserved communities.

Onshoring and reshoring parts of advanced technology vehicle supply chain in the United States is critical to growing America's manufacturing base, reaching the Biden-Harris Administration's climate and multi-pollutant emissions reduction objectives, and protecting taxpayer resources and our national security.

B. ATVM Program

Section 136 of the Energy Independence and Security Act of 2007, as amended (42 U.S.C. 17013) (the "ATVM statute") authorizes the Secretary of Energy (the "Secretary") to issue grants and direct loans to applicants for the costs of reequipping, expanding, or establishing manufacturing facilities in the United States to produce qualified advanced technology vehicles, or qualifying components. The ATVM statute also authorizes the Secretary to issue grants and direct loans for the costs of engineering integration performed in the United States of qualifying advanced technology vehicles and qualifying components. The ATVM Program represents the Secretary's implementation of the direct loan authority under the ATVM statute and is administered by LPO. The purpose of the ATVM Program is to originate, underwrite, and service loans to eligible vehicle manufacturers and component manufacturers to finance the cost of: (i) reequipping, expanding or establishing manufacturing facilities in the United States to produce advanced technology vehicles and qualifying components; and (ii) engineering integration performed in the United States of advanced technology vehicles and qualifying components. These manufacturing facilities support vehicles that demonstrate improved performance and/or emissions standards compared to the existing vehicle fleet, in furtherance of the Administration's transportation decarbonization and EV goals.

C. Infrastructure Investment and Jobs Act & Inflation Reduction Act

Section 40401(b) of the Infrastructure Investment and Jobs Act[6] (the "IIJA") amended the definitions provision of the ATVM statute to add the following categories of vehicles within the

[6] Public Law 117-58 (2021).

ATVM statute's definition of "advanced technology vehicle": a medium duty vehicle or a heavy duty vehicle that exceeds 125 percent of the greenhouse gas emissions and fuel efficiency standards established by the final rule of the Environmental Protection Agency entitled "Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles-Phase 2" (81 FR 73478 (October 25, 2016)); a train or locomotive; a maritime vessel; an aircraft; and hyperloop technology.[7]

Section 50142 of the IRA appropriates $3 billion for the ATVM Program, including to support direct loans for projects in the categories of advanced technology vehicles added to the program by the IIJA. However, section 50142 also provides that, with respect to trains or locomotives, maritime vessels; aircraft; and hyperloop technology, such funds may be used for that purpose "**only if** such advanced technology vehicles emit, under any possible operational mode or condition, low or zero exhaust emissions of greenhouse gases" (*emphasis added*).[8, 9] This standard was made part of the ATVM Program regulations at 10 CFR part 611.[10]

LPO is currently establishing additional criteria pursuant to which it will evaluate loan applications under the expanded categories of advanced technology vehicles, including satisfaction of the GHG emission requirements of the IRA. LPO expects that these requirements will evolve over time as each applicable advanced technology vehicle sector matures.

II. Request for Information

The purpose of this RFI is to solicit feedback from manufacturers, project and technology developers, investors, minority-owned businesses, academia, research laboratories, government agencies, State and local officials, labor unions, Tribes, community-based organizations, and

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[7] 42 U.S.C. 17013(a)(1)(B)-(F).
[8] Public Law 117-169, sec. 50142(a) (2022).
[9] Section 40401 of the IIJA also prohibited the Secretary from using amounts appropriated prior to the date of the enactment of the IIJA to provide direct loans under the ATVM statute for the costs of activities that were not eligible for those loans prior to that date. Public Law 117-58, sec. 40401(b)(3)(E) (2021), adding 42 U.S.C. 17013(l). However, this prohibition was later eliminated by the Consolidated Appropriations Act of 2023. Public Law 117-328, div. D, tit. III, sec. 308 (2022), repealing 42 U.S.C. 17013(l).
[10] Statutory Updates to the Advanced Technology Vehicles Manufacturing Program, 89 FR 33196 (April 29, 2024); anticipated to become effective July 15, 2024, unless adverse comment is received by May 29, 2024.

other interested parties on issues related to the implementation of the changes to the ATVM Program stemming from the IRA and IIJA. This is solely a request for information.

You may answer as few or as many of the questions below as you would like but please focus on the areas that are most pertinent to your expertise. When responding, please use the bolded category letters and sub-numbers as headings in your response to the greatest extent possible and refer to the questions (e.g., A.1., A.2., A.3., . . .) in the body of your responses. This helps save time both for the responder and the reviewers. Especially where noted, respondents should think in terms of potential categories of advanced technology vehicles that would fall within the purpose and scope of the expanded ATVM Program: **trains or locomotives, maritime vessels; aircraft; and hyperloop technology**.

Please be as specific as possible in all responses, including what subset of an industry your answer is in reference to (e.g., Offshore Support Vessels or Commercial Harbor Craft in the maritime industry), if applicable.

A. Trains or Locomotives

1. "Advanced technology vehicles" in the context of the ATVM Program are defined as having increased performance requirements, for example, better fuel economy for on-road advanced technology vehicles. The IRA requires trains or locomotives to "emit, under any possible operational mode or condition, low or zero exhaust emissions of greenhouse gases" to be eligible for IRA funding.[11] Recognizing that different trains, locomotives, or qualifying components within the rail industry have different potential performance requirements and metrics, please indicate what sub-category of the industry your answer reflects.

    a. How could DOE consider the performance requirements for "business as usual" trains or locomotives? How could DOE consider the performance

[11] Footnote 8, *supra*.

requirements for low or zero GHG emission "advanced technology" trains or locomotives?

b. What metrics/testing protocols/standards do customers typically use to measure the performance requirements and performance targets of trains or locomotives? How do they validate or qualify performance?

c. Do existing bodies, such as regulators or industry monitors, measure these performance and emissions metrics? Please describe what bodies do so and how they measure.

2. Please comment on the near and long term expected capital investment in the train and locomotive industry, including components.

   a. What investments are planned for new and existing manufacturing facilities? What factors influence these investment decisions?

   b. What is the expected volume and distribution of new or modified vehicles in the train and locomotive industry? What factors influence procurement decisions in this sector?

3. Please comment on key barriers to implementing advanced technology vehicle manufacturing projects in the rail industry.

4. What supply chain issues do the advanced technology rail industry face? Are these expected to change over time and if so, how?

5. Please comment on any current or upcoming regulatory requirements or factors impacting the rail industry and LPO's ability to support train or locomotive manufacturing projects.

   a. Are there standard certification or readiness indicators applicable to the rail sector which indicate a rail product's commercial readiness?

B. Maritime Vessels

1. "Advanced technology vehicles" in the context of the ATVM Program are defined as having increased performance requirements, for example, better fuel economy for on-road advanced technology vehicles. The IRA requires maritime vessels to "emit, under any possible operational mode or condition, low or zero exhaust emissions of greenhouse gases" to be eligible for IRA funding.[12] Recognizing that different maritime vessels or qualifying components within the maritime industry have different potential performance requirements and metrics, please indicate what sub-category of the industry your answer reflects.
    a. How could DOE consider the performance requirements for "business as usual" maritime vessels? How could DOE consider the performance requirements for low or zero GHG emission "advanced technology" maritime vessels?
    b. What metrics do customers typically use to measure the performance requirements and performance targets of maritime vessels? How do they validate or qualify performance?
    c. Do existing bodies, such as regulators or industry monitors, measure these performance and emissions metrics? Please describe what bodies do so and how they measure.
2. Please comment on the near and long term expected capital investment in the maritime industry, including components.
    a. What investments are planned for new and existing manufacturing facilities? What factors influence these investment decisions?
    b. What is the expected volume and distribution of new or modified vehicles in the maritime industry. What factors influence procurement decisions in this sector?

[12] Footnote 8, *supra*.

3. Please comment on key barriers to implementing advanced technology vehicle manufacturing projects in the maritime industry.
4. What supply chain issues do the advanced technology maritime industry face? Are these expected to change over time and if so, how?
5. Please comment on any regulatory requirements or factors impacting the maritime industry and LPO's ability to support maritime vessel manufacturing projects.
    a. Are there standard certification or readiness indicators applicable to the maritime sector which indicate a maritime product's commercial readiness?

C. Aircrafts

1. "Advanced technology vehicles" in the context of the ATVM Program are defined as having increased performance requirements, for example, better fuel economy for on-road advanced technology vehicles. The IRA requires aircraft to "emit, under any possible operational mode or condition, low or zero exhaust emissions of greenhouse gases" to be eligible for IRA funding.[13] Recognizing that different aircraft or qualifying components within the aircraft industry have different potential performance requirements and metrics, please indicate what sub-category of the industry your answer reflects.
    a. How could DOE consider the performance requirements for "business as usual" aircraft? How could DOE consider the performance requirements for low or zero GHG emission "advanced technology" aircraft?
    b. What metrics do customers typically use to measure the performance requirements and performance targets of aircraft? How do they validate or qualify performance?
    c. Do existing bodies, such as regulators or industry monitors, measure these

[13] Footnote 8, *supra*.

performance and emissions metrics? Please describe what bodies do so and how they measure.

2. Please comment on the near and long term expected capital investment in the aircraft industry, including components.
    a. What investments are planned for new and existing manufacturing facilities? What factors influence these investment decisions?
    b. What is the expected volume and distribution of new or modified vehicles in the aircraft industry. What factors influence procurement decisions in this sector?
3. Please comment on key barriers to implementing advanced technology vehicle manufacturing projects in the aircraft industry.
4. What supply chain issues do the advanced technology aircraft industry face? Are these expected to change over time and if so, how?
5. Please comment on any regulatory requirements or factors impacting the aircraft industry and LPO's ability to support aircraft manufacturing projects.
    a. Are there standard certification or readiness indicators applicable to the aircraft sector which indicate an aircraft product's commercial readiness?

D. Hyperloop Technology

1. Please comment on definitions DOE could consider for hyperloop technology.
2. "Advanced technology vehicles" in the context of the ATVM Program are defined as having increased performance requirements, for example, better fuel economy for on-road advanced technology vehicles. The IRA requires hyperloop vehicles to "emit, under any possible operational mode or condition, low or zero exhaust emissions of greenhouse gases" to be eligible for IRA funding.[14]

[14] Footnote 8, *supra*.

a. How could DOE consider a "business as usual" case for hyperloop vehicles? How could DOE consider the performance requirements for low or zero GHG emission "advanced technology" hyperloop vehicles?

b. What design factors or technology components contribute to the GHG emissions of hyperloop vehicles? What innovations could contribute to future reductions in GHG emissions from hyperloop vehicles?

3. Please comment on use cases that would represent significant emissions reductions or efficiency improvements through the use of advanced technology hyperloop vehicles.

4. Please comment on existing hyperloop technology and potential near- to mid-term commercial deployments of hyperloop technology.

E. Community Jobs & Justice

1. Please comment on how DOE can consider the broad goals of deploying clean energy, strengthening domestic manufacturing, investing in workers and communities, supporting the Justice40 Initiative[15] including mitigating environmental justice concerns, and engaging in meaningful tribal consultations when reviewing and evaluating applications for projects in the ATVM Program.

III. Submission of Comments

DOE invites all interested parties to submit in writing by [***INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER***], comments and information on matters addressed in this RFI.

Submitting comments via email or postal mail. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information on a cover letter. Include your first and last

[15] See *www.energy.gov/justice/justice40-initiative*.

names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English, and free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author. Attachments should be limited to no more than 10 megabytes (MB) in size.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. According to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: One copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. Submit these documents via email. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

Signing Authority

This document of the Department of Energy was signed on May 22, 2024, by Jigar Shah, Executive Director, Loan Programs Office, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal

Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, D.C., on May 23, 2024.

Treena V. Garrett,
Federal Register Liaison Officer,
U.S. Department of Energy.

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