



Alternative Fuels & Chemicals Coalition

Advocating for Public Policies to Promote the Development & Production of Alternative Fuels, Renewable Chemicals, Biobased Products, and Sustainable Aviation Fuels

FCC'S FY2021 Appropriation Requests for Industry-Critical Programs

"Industry Critical" programs are those programs whose authorizations or appropriations have expired or not been renewed, or have been proposed for severe cuts or elimination in the President's Budget

AFCC Contacts:

CJ Evans, Executive Director, Tel. 202-922-0144, email: cj@AltFuelChem.org

Rina Singh, PhD., Executive Vice President, Tel. 202-922-0144, email: rina@AltFuelChem.org

Appropriations Subcommittee:

Energy and Water Development (E&W)

E&W Priority:

#1 and #2 of 8

Federal Agency:

Department of Energy

Agency Account:

Energy Programs

Program Title:

Title 17 Innovative Technology Loan Program Office - #1 - Administrative Expenses

Title 17 Innovative Technology Loan Program Office - #2 – Loan Authority

Program Description:

See Background Information / Other Comments below

Amount Requested by AFCC:

#1 - Administrative Expenses: \$32,000,000

#2 – Loan Authority: NO CHANGE. Maintain full loan authority.

Amount of Federal Funding Included in the President's Budget Request for the Coming Fiscal Year:

#1 - Administrative Expenses: \$0

#2 – Loan Authority: \$0

Amount of Federal Funding Appropriated for the Program During Previous Fiscal Years:

#1 - Administrative Expenses:

FY 2017: \$37,000,000



FY 2018: \$33,000,000

FY 2019: \$33,000,000

FY 2020: \$32,000,000

#2 – Loan Authority:

FY2017 – FY2020: No change

Justification / Rationale for Its Funding Request:

See Background Information / Other Comments below

Proposed Bill Language:

AFCC RECOMMENDS that the appropriations language for the Title 17 Innovative Loan Guarantee Program which has appeared in prior year appropriations bills be amended to **(a)** stipulate that DOE set a target for the number of awards that shall be made for the Title 17 Innovative Technology Loan Guarantee Program each year and to report to the House and Senate committees with oversight of the program the agency's progress in meeting its annual targets, and **(b)** suspend for one year the cost to applicants for submitting both phase 1 and phase 2 applications test whether the suspension of these fees encourages greater participation in the program.

AFCC's PROPOSED AMENDMENT reads as follows:

TITLE 17 INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM

[Add the following]: For Department of Energy administrative expenses necessary in carrying out the Title 17 Innovative Technology Loan Guarantee Program, as authorized, \$32,000,000 is appropriated, to remain available until September 30, 2022: *Provided*, That to ensure the Federal investment in the Program provides the greatest benefit possible to the American people, the Department of Energy shall adopt a target of increasing the annual number of awards for which conditional commitments are issued, with said targets increasing each year: *Provided further*, That each annual target and the Program's success in meeting each annual target shall be reported on an annual basis by the Secretary to the House and Senate Committees with oversight of the Program: *Provided further*, That to enable more companies with innovative technologies to participate in the Program and to remove the cost barrier that prevents many small businesses from participating in the Program, the Department of Energy shall suspend for one year the charges to borrowers for application fees pursuant to section 1702(h) of the Energy Policy Act of 2005 to test whether the suspension of these application fees leads to greater participation by companies and small businesses in the Program : *Provided further*, That the Department of Energy shall encourage borrowers with small and medium-size projects using innovative technologies to participate in the Program, *Provided further*, That the Secretary may continue to charge and collect fees from borrowers to cover the costs of due diligence and underwriting that are

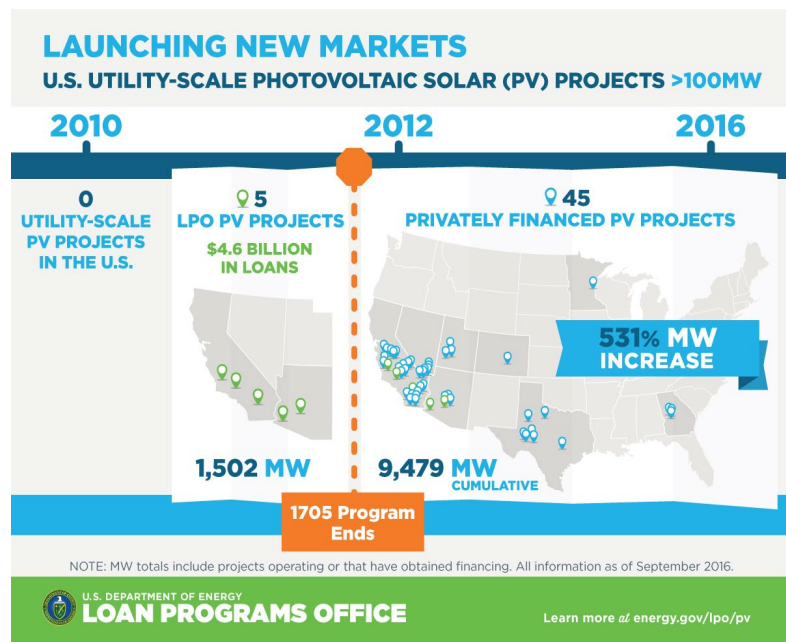


expended by the Program in reviewing part 2 loan guarantee applications: *Provided further*, That **[Continue with existing language]**: such sums as are derived from amounts received from borrowers pursuant to section 1702(b) of the Energy Policy Act of 2005 under this heading in prior Acts, shall be collected in accordance with section 502(7) of the Congressional Budget Act of 1974: **[Strike the following 18 lines on page 139 of H.R. 1865, the Consolidated Appropriations Act of FY2020 (P.L. 116-94)]**: **[Continue with existing language]**: *Provided further*, That the Department of Energy shall not subordinate any loan obligation to other financing in violation of section 1702 of the Energy Policy Act of 2005 or subordinate any Guaranteed Obligation to any loan or other debt obligations in violation of section 609.10 of title 10, Code of Federal Regulations.

Background Information / Other Comments:

The Title 17 Program creates jobs and stimulates private sector investment.

- The attempts over the past three fiscal years to eliminate this program and the unwillingness of OMB to approve projects that have completed the loan guarantee process has led to concern among potential applicants that any time and cost they put into pursuing the program is at risk. As a result, potential applicants have been shying away from the program. Those that have done so have found it extremely difficult to find alternative forms of funding for their first-of-a-kind, disruptive technologies and projects and, in some cases, have had to abandon their projects due to the inability to secure unguaranteed funding from private sector lenders.
- When the Title 17 program first came under threat in 2017, there were several large infrastructure projects moving through the loan guarantee process with the potential of creating tens of thousands of jobs. Several of these projects were only a few steps away from being ready to build and could have started construction in 2019 and 2020. The administrative and budgetary attempts that were made to eliminate the program, however, combined with the obstacles that OMB placed on approving projects caused all of these projects to stall, with several not moving forward due to their inability to secure alternative private sector financing.





- As can be seen by what happened to these projects, it is clear that new, disruptive projects cannot be financed in any other way. Eliminating the Title 17 program will stop these and similar projects from going forward.
- The Title 17 program has shown through the projects it already has supported that each federal dollar invested in a loan guarantee stimulates more than \$10 in private capital investment and leads to scores of additional follow-on projects supported entirely by private sector financing. Every project in the Title 17 pipeline that is built will generate tax revenues for local communities, states and the federal government, as well as state and federal income taxes from the salaries paid to workers.

LPO Portfolio Performance Summary as of March 2019

Loan and Loan Guarantees Issued	\$35.69 billion
Conditional Commitments	\$2.00 billion
Amount Disbursed	\$27.45 billion
Principal Repaid	\$9.52 billion
Interest Paid*	\$2.58 billion
Actual and Estimated Losses	\$0.81 billion
Losses as % of Total Disbursement	2.93%

* Calculated without respect to Treasury's borrowing cost.

That's not all: **DOE's Title 17 Loan Guarantee Program and its sister, the Advanced Technology Vehicle Manufacturing (ATVM) direct**

loan program, have generated an average of \$250 million per year in interest payments, returning almost \$2.6 billion in collections to the U.S. Treasury since their first loan closing in 2009.

- Title 17 losses represent only 2.81% of its portfolio, a loss rate any commercial bank would happily claim.
- The bulk of the administrative costs necessary to operate the Title 17 program – up to \$37 million per year – are paid by the companies that submit applications. Only \$17 million per year was allocated from the general fund for FY2016 and FY2017 for the Title 17 program in the DOE budget. Another \$5 million per year was allocated in FY2016 and FY2017 to operate the ATVM program.
- WHILE ACTUAL & PROJECTED REVENUES HAVE NO IMPACT OR RELEVANCE IN THE U.S. CONGRESS WHEN IT COMES TO SCORING SPENDING BILLS, THE REVENUES GENERATED FOR THE U.S. TREASURY BY THE TITLE 17 & ATVM PROGRAMS OCCUR NEVERTHELESS.
- In fact, interest payments to the U.S. Treasury from Title 17 and ATVM loan obligations generate **6.75 times more in revenue** than the total administrative costs required to operate the programs, and **12 times more in revenue when the fees paid by companies that submit applications are taken into account** (\$250M/\$20M = 12.5).
- The \$250 million in annual interest payments that currently are being paid to the Treasury will continue for as long as the current Title 17 and ATVM loans are outstanding. However, **the longer these two programs are extended, the more projects will be approved, and**



the more revenues to the Treasury will increase.

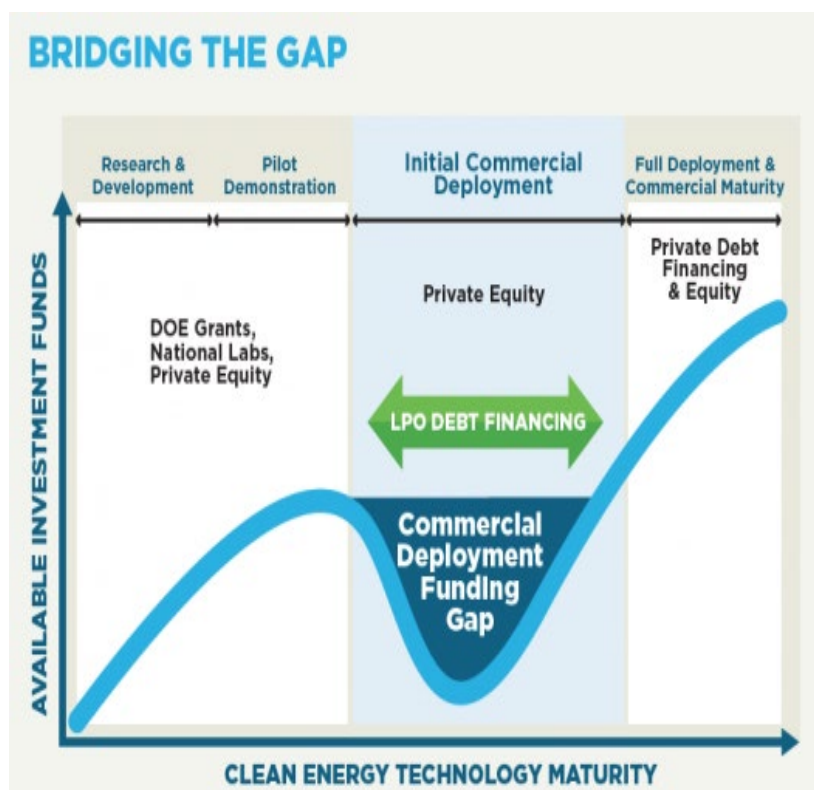
PRIORITY PROJECTS CURRENTLY IN THE TITLE 17 PIPELINE, IN WHICH PRIVATE COMPANIES HAVE INVESTED YEARS OF WORK AND MILLIONS OF DOLLARS, SHOULD BE ALLOWED TO MOVE FORWARD.

To keep these projects moving and keep the Title 17 program alive for 2021 will require an appropriation of \$32 million in administrative costs plus another \$5 million for the ATVM program.

This is an investment that will repay itself many times over in the revenues these projects will generate for the U.S. Treasury and in the privately- funded, follow-on projects they will stimulate.

The Title 17 and ATVM programs overcome project-stopping obstacles in obtaining loans for the first commercial deployments of innovative American energy projects:

- Financing innovative, disruptive technologies is not something the private sector can do or do better. The Title 17 program was established because the private sector will not finance projects that have a high risk of failure due to the use of something that is brand new, unproven, and never done before at commercial scale.
- Every project advanced through research and development (R&D) by DOE will be meaningless unless they can be commercialized and deployed so that the nation can benefit from these technologies.



Without a path to commercialization, no innovation advanced through R&D will be able to become reality.



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Appropriations Subcommittee:

Energy and Water Development (E&W)

E&W Priority:

#3 of 8

Federal Agency:

Department of Energy

Agency Account:

Energy Programs

Program Title:

Advanced Research Projects Agency – Energy (ARPA-E)

Program Description:

In 2005, leaders from both parties in Congress asked the Department of Energy to "identify the most urgent challenges the U.S. faces in maintaining leadership in key areas of science and technology," as well as specific steps policymakers could take to help the U.S. compete, prosper, and stay secure in the 21st Century. This led to the creation of ARPA-E. **Since 2009, ARPA-E has provided approximately \$2 billion in R&D funding for more than 800 potentially transformational energy technology projects.**

ARPA-E analyzes and catalogues some of the Agency's most successful projects through its "impact sheets," which explore a sampling of individual projects and their achievements and can viewed on ARPA-E's website at <https://arpa-e.energy.gov/?q=site-page/arpa-e-impact>.

Amount Requested by AFCC:

\$425,000,000

Amount of Federal Funding Included in the President's Budget Request for the Coming Fiscal Year:

\$0



Amount of Federal Funding Appropriated for the Program During Previous Fiscal Years:

FY 2017: \$305,245,000

FY 2018: \$353,214,000

FY 2019: \$366,000,000

FY 2020: \$425,000,000

Justification / Rationale for Its Funding Request:

See Background Information / Other Comments below

Proposed Bill Language:

Use bill language from pg. 139 of the FY2020 Consolidated Appropriations Act, H.R. 1865 (P.L. 116-94)

Background Information / Other Comments:

Here's How EVERYONE in the U.S. Benefits

- The programmatic funding levels for which AFCC is advocating make it possible for federal agencies to issue funding opportunities to carry out agency missions.
- Funding opportunities are available for each of the nine Technology Readiness Levels (TRLs), which move ideas from concept to commercial realization. **These funding opportunities stimulate ingenuity, support innovation, prove out and validate new ideas, lead to the introduction of new products and new technologies, create jobs, improve the quality of life, solve problems, and drive American competitiveness and global leadership.**
- **These funding programs form a progressive ladder that moves new ideas successively forward**, with each step building one upon the other, leading from an early concept (TRL-1), up through research and development, to testing and validation, then to prototyping and piloting, **and finally to first commercialization (TRL-9), followed by further expansion and deployment**, *which is where local communities and everyone in the U.S. benefit.*
- **Each TRL step is critical; reduce the funding for one and the others cannot occur.**
- **ARPA-E provides the critical funding that is necessary to move through the very first, formative stages of TRLs 1-5 in the development of new technologies, processes, and products.**
- A list of the federal funding programs that are available for each TRL level can be viewed and downloaded on AFCC's website at: <https://www.altfuelchem.org/federal-funding-opportunities>.

5 Key Points Re: AFCC's FY2021 Appropriation Requests

- 1. The focus of AFCC's appropriations requests is to ensure the continuation – and where possible, the expansion – of the federal funding opportunities that advance research and**



development, support testing and validation, and lead to the commercial deployment of new technologies, services, and products.

- 2. These funding opportunities have the potential to benefit every state and Congressional District and their constituents.** For example, the majority of AFCC's 45 member companies use waste products to make their products (thus turning liabilities into assets); hence, they can locate new facilities in local communities almost anywhere. Moreover, they distribute and sell products throughout the U.S., which **touch the lives of every American, support tens of thousands of indirect and induced jobs, and have a positive economic impact in every Congressional district.**
- 3. These funding opportunities play a critical role in the market economy.** They stimulate innovation. They lead to the development of new technologies, services, and products.
- 4. Most importantly, they prime the pump for private sector investment.** They do this by providing the necessary **validation and reduction of risk** to give private sector investors and lenders the **confidence** that is needed to put their money into financing new technologies, services and products and **deploying them widely throughout the marketplace.**
- 5. Without this validation and reduction of risk, very few, if any, private sector investors will take a chance on something that is new, innovative, or disruptive.** Thus, the benefits that could accrue to the market economy and American public may never be realized and could be lost forever ... **or leave a void for another country, such as China, to replace the U.S. as a global leader.**



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Appropriations Subcommittee:

Energy and Water Development (E&W)

E&W Priority:

#4 of 8

Federal Agency:

Department of Energy

Agency Account:

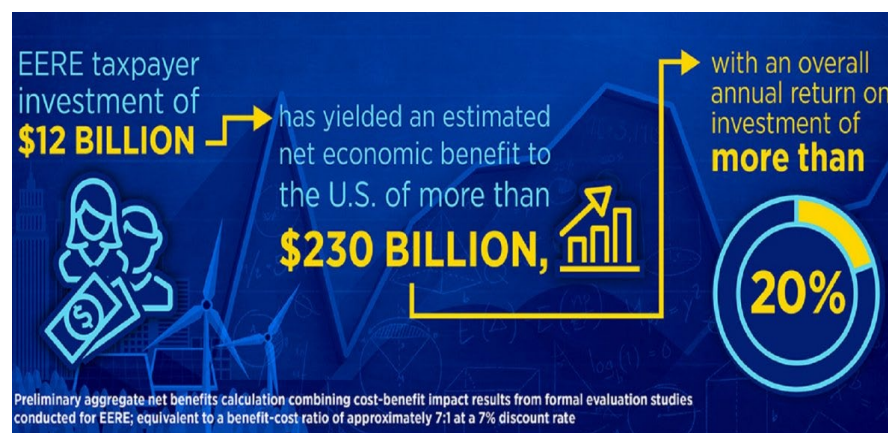
Energy Programs

Program Title:

Office of Energy Efficiency and Renewable Energy (EERE)

Program Description:

The mission of the Office of Energy Efficiency and Renewable Energy (EERE) is to create and sustain American leadership in the transition to a global clean energy economy. Its vision is a strong and prosperous America powered by clean, affordable, and secure energy.



EERE aims to achieve the following strategic goals:

1. Accelerate the development and adoption of sustainable transportation technologies.
2. Increase the generation of electric power from renewable sources.



3. Improve the energy efficiency of our homes, buildings, and industries.
4. Stimulate the growth of a thriving domestic clean energy manufacturing industry.
5. Enable the integration of clean energy into a reliable, resilient, efficient electricity grid.
6. Improve federal implementation of clean energy solutions.
7. Enable a high-performing, results-driven culture through effective management approaches and processes.

Amount Requested by AFCC:

\$2,848,000,000

Amount of Federal Funding Included in the President's Budget Request for the Coming Fiscal Year:

\$720,000,000

Amount of Federal Funding Appropriated for the Program During Previous Fiscal Years:

FY 2017: \$2,090,000,000

FY 2018: \$2,322,000,000

FY 2019: \$2,379,000,000

FY 2020: \$2,848,000,000

Justification / Rationale for Its Funding Request:

Here's How EVERYONE in the U.S. Benefits

- The programmatic funding levels for which AFCC is advocating make it possible for federal agencies to issue funding opportunities to carry out agency missions.
- Funding opportunities are available for each of the nine Technology Readiness Levels (TRLs), which move ideas from concept to commercial realization. **These funding opportunities stimulate ingenuity, support innovation, prove out and validate new ideas, lead to the introduction of new products and new technologies, create jobs, improve the quality of life, solve problems, and drive American competitiveness and global leadership.**
- **These funding programs form a progressive ladder that moves new ideas successively forward**, with each step building one upon the other, leading from an early concept (TRL-1), up through research and development, to testing and validation, then to prototyping and piloting, **and finally to first commercialization (TRL-9), followed by further expansion and deployment**, *which is where local communities and everyone in the U.S. benefit.*
- **Each TRL step is critical; reduce the funding for one and the others cannot occur.**
- **EERE picks up where ARPA-E (which funds TRLs 1-5) leaves off**, providing funding for TRLs 6-8, as well as providing funding for key priorities in Technology Readiness Levels 3-5 that are necessary to advance new and improved technologies, processes, and product manufacturing



techniques up through TRLs 8 and 9 where they can be commercialized and introduced into the market place.

- A list of the federal funding programs that are available for each TRL level can be viewed and downloaded on AFCC's website at: <https://www.altfuelchem.org/federal-funding-opportunities>.

Proposed Bill Language:

Use the bill language from pg. 139 of the FY2020 Consolidated Appropriations Act, H.R. 1865 (P.L. 116-94)



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Appropriations Subcommittee:

Energy and Water Development (E&W)

E&W Priority:

#5 and #6 of 8

Federal Agency:

Department of Energy

Agency Account:

Energy Programs

Program Title:

Advanced Technology Vehicle Manufacturing (ATVM) Loan Program:

#5: Administrative Expenses

#6: Loan Authority

Program Description:

The ATVM program is authorized to award up to \$25 billion in loans; there is no deadline for completing such loan commitments. Congress funded the program in 2009, when it appropriated \$7.5 billion to cover the subsidy cost for the \$25 billion in loans, as well as \$10 million for program implementation.

In April 2014, DOE announced a number of changes to refocus the program to assist vehicle component manufacturers, as well as the vehicle assemblers that have received prior ATVM loans. These changes have yet to be implemented.

Amount Requested by AFCC:

ATVM Loan Program - #5: Administrative Expenses: \$5,000,000

ATVM Loan Program - #6: Loan Authority: NO CHANGE. Maintain full loan authority

Amount of Federal Funding Included in the President's Budget Request for the Coming Fiscal Year:



ATVM Loan Program - #5: Administrative Expenses: \$0

ATVM Loan Program - #6 : Loan Authority: \$0

Amount of Federal Funding Appropriated for the Program During Previous Fiscal Years:

ATVM Loan Program – Administrative Expenses:

FY 2017: \$5,000,000

FY 2018: \$5,000,000

FY 2019: \$5,000,000

FY 2020: \$5,000,000

ATVM Loan Program – Loan Authority:

FY 2017 – FY2020: No change

Justification / Rationale for Its Funding Request:

Since the start of the program, DOE has awarded \$8.4 billion in loans to five companies (Fisker, Ford, Nissan, Tesla, and the Vehicle Production Group). ATVM has \$16.6 billion in remaining loan authority. No new loans have been made since 2011. Two companies—Fisker and the Vehicle Production Group—were unable to make payments on their loans, and DOE auctioned the loans off in the fall of 2013. Tesla paid off all of its loan in 2013, nine years ahead of schedule.

DOE estimates that the projects created or saved 38,700 jobs at facilities in nine states. DOE estimates that **the projects annually displace 282 million gallons of gasoline (roughly 18,000 barrels per day, or about 0.2% of U.S. consumption) and avoid about 2.4 million tons of carbon dioxide emissions (about 0.04% of total U.S. emissions).**

Proposed Bill Language:

To stimulate greater use of the ATVM loan program and to encourage the development and manufacture of advanced vehicle, vehicle component, and vehicle adapter technologies, AFCC RECOMMENDS that the appropriations language for the ATVM Loan Program be amended as follows:

ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PROGRAM

For Department of Energy administrative expenses necessary in carrying out the Advanced Technology Vehicles Manufacturing Loan Program, \$5,000,000, to remain available until September 30, 2022: **[Add the following]:** Provided, That of such amount, \$1,000,000 shall be used to promote the Loan Program to domestic and foreign vehicle and vehicle component manufacturers with manufacturing facilities in the United States to stimulate advanced technology manufacturing.



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Appropriations Subcommittee:

Energy and Water Development (E&W)

E&W Priority:

#4 of 8

Federal Agency:

Department of Energy

Agency Account:

Energy Programs

Program Title:

Title 17 Tribal Energy Loan Program

Program Description:

The Tribal Energy Loan Guarantee Program (TELGP) is a partial loan guarantee program that can guarantee up to \$2 billion in loans to support economic opportunities to tribes through energy development projects and activities. DOE can guarantee up to 90 percent of the unpaid principal and interest due on any loan made to a federally recognized Indian tribe or Alaska Native Corporation for energy development. The tribal borrower is required to invest equity in the project. All project debt is provided by non-federal lenders.

Amount Requested by AFCC:

\$2,000,000

Amount of Federal Funding Included in the President's Budget Request for the Coming Fiscal Year:

\$0

Amount of Federal Funding Appropriated for the Program During Previous Fiscal Years:

FY 2017: \$9,000,000



FY 2018: \$1,000,000

FY 2019: \$1,000,000

FY 2020: \$2,000,000

Justification / Rationale for Its Funding Request:

This is one of the few programs available to Tribes to support economic opportunities and job growth through energy development projects and activities.

It is a critical bridge to economic sustainability and well-being for Tribes as traditional Tribal activities such as hunting and fishing become less lucrative and more difficult due to climate impacts, and as the operation of casinos have reached market saturation.

Proposed Bill Language:

Use the bill language from pg. 140 of the FY2020 Consolidated Appropriations Act, H.R. 1865 (P.L. 116-94)



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Appropriations Subcommittee:

Energy and Water Development (E&W)

E&W Priority:

#8 of 8

Federal Agency:

Department of Energy

Agency Account:

Energy Programs

Program Title:

Office of Science (OS)

Program Description:

As DOE's website states: "Science is about service – about a commitment to expanding human knowledge and driving discovery – [that] fosters innovation, technology development, and economic progress ... the Department of Energy's (DOE's) Office of Science ... [is] the nation's largest supporter of basic research in the physical sciences, the steward of 10 of the Nation's national laboratories, and the lead federal agency supporting fundamental research for energy production and security."

Amount Requested by AFCC:

\$7,000,000,000

Amount of Federal Funding Included in the President's Budget Request for the Coming Fiscal Year:

\$5,800,000,000

Amount of Federal Funding Appropriated for the Program During Previous Fiscal Years:



FY 2017: \$5,392,000,000

FY 2018: \$6,260,000,000

FY 2019: \$6,585,000,000

FY 2020: \$7,000,000,000

Justification / Rationale for Its Funding Request:

5 Key Points Re: AFCC's FY2021 Appropriation Requests

- 1. The focus of AFCC's appropriations requests is to ensure the continuation – and where possible, the expansion – of the federal funding opportunities that advance research and development, support testing and validation, and lead to the commercial deployment of new technologies, services, and products.**
- 2. The research activities of DOE's Office of Science benefit every state and Congressional District.** For example, all of AFCC's 45 member companies rely on basic and applied science to foster innovation, technology development, and economic progress. This has allowed them to develop techniques to use waste products to make alternative fuels, renewable chemicals, biobased products, and sustainable aviation fuels (thus turning liabilities into assets). Because of this, AFCC's member companies are able to locate new facilities in local communities almost anywhere. Moreover, due to the scientific breakthroughs that they have harnessed they currently distribute and sell products throughout the U.S., which touch the lives of every American, support tens of thousands of indirect and induced jobs, and have a positive economic impact in every Congressional district.
- 3. These research activities play a critical role in the market economy.** They stimulate innovation. They lead to the development of new technologies, services, and products.
- 4. Most importantly, they prime the pump for innovation and private sector investment.** They do this by providing the necessary **validation and reduction of risk** to give private sector investors and lenders the **confidence** that is needed to put their money into financing new technologies, services and products and **deploying them widely throughout the marketplace.**
- 5. Without this validation and reduction of risk, very few, if any, private sector investors will take a chance on something that is new, innovative, or disruptive.** Thus, the benefits that could accrue to the market economy and American public may never be realized and could be lost forever ... or leave a void for another country, such as China, to replace the U.S. as a global leader.

Proposed Bill Language:

Use the bill language from pg. 139 of the FY2020 Consolidated Appropriations Act, H.R. 1865 (P.L. 116-94)