

their full potential and provide for world-leading Basic Energy Sciences programs here in the U.S.

Representative HULTGREN's bill also authorizes the Long-Baseline Neutrino Facility at Fermilab, a national accelerator lab. The LBNF will consist of the world's highest intensity neutrino beam and a suite of cryogenic near detectors to run the Deep Underground Neutrino Experiment. This experiment will measure the neutrino beam generated at LBNF on innovative, far detectors located 800 miles away at the Sanford Underground Research Facility in Lead, South Dakota.

Mr. Speaker, I thank Representative HULTGREN for his initiative in developing this legislation. His longstanding support of basic research and investments in these best-in-the-world science facilities is well known. H.R. 4377 is a commonsense bill that maintains American leadership in discovery science.

Mr. Speaker, I urge my colleagues to support this bipartisan legislation.

Mr. HULTGREN. Mr. Speaker, I yield 2 minutes to the gentleman from Texas (Mr. WEBER), the chairman of the Energy Subcommittee.

Mr. WEBER of Texas. Mr. Speaker, I thank Congressman HULTGREN for yielding me time.

Mr. Speaker, I rise today in support of H.R. 4377, the Accelerating American Leadership in Science Act of 2018.

This legislation authorizes very important upgrades to DOE photon and neutron sources at two national labs. In addition, it funds the construction of the Long-Baseline Neutrino Facility, the first international high-energy physics facility located in the United States of America.

Over 1,000 scientists from 30 countries are already collaborating on this project. Let me repeat that: over 1,000 scientists from 30 countries are already collaborating on this very important project.

Mr. Speaker, I again thank my colleague, Congressman HULTGREN, for introducing this important legislation and for his continued support of the national labs.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Speaker, I yield back the balance of my time.

Mr. HULTGREN. Mr. Speaker, I again want to reiterate my support for this important legislation to keep the United States at the forefront of discovery and fundamental research.

Mr. Speaker, I thank my colleagues for their support. I encourage passage of H.R. 4377, and I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Illinois (Mr. HULTGREN) that the House suspend the rules and pass the bill, H.R. 4377, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

The title of the bill was amended so as to read: "A bill to direct the Secretary of Energy to carry out certain upgrades to research equipment and construct research user facilities, and for other purposes."

A motion to reconsider was laid on the table.

NUCLEAR ENERGY RESEARCH INFRASTRUCTURE ACT OF 2018

Mr. WEBER of Texas. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 4378) to direct the Secretary of Energy to carry out the construction of a versatile reactor-based fast neutron source, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 4378

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Nuclear Energy Research Infrastructure Act of 2018".

SEC. 2. VERSATILE NEUTRON SOURCE.

(a) IN GENERAL.—The Secretary of Energy shall provide for a versatile reactor-based fast neutron source, which shall operate as a national user facility. The Secretary shall consult with the private sector, universities, National Laboratories, and relevant Federal agencies to ensure that the versatile neutron source is capable of meeting Federal research needs for neutron irradiation services.

(b) FACILITY CAPABILITIES.—

(1) CAPABILITIES.—The Secretary shall ensure that the facility described in subsection (a) will provide, at a minimum, the following capabilities:

(A) Fast neutron spectrum irradiation capability.

(B) Capacity for upgrades to accommodate new or expanded research needs.

(2) CONSIDERATIONS.—In carrying out paragraph (1), the Secretary shall consider the following:

(A) Capabilities that support experimental high-temperature testing.

(B) Providing a source of fast neutrons at a neutron flux higher than that at which existing research facilities operate, sufficient to enable research for an optimal base of prospective users.

(C) Maximizing irradiation flexibility and irradiation volume to accommodate as many concurrent users as possible.

(D) Capabilities for irradiation with neutrons of a lower energy spectrum.

(E) Multiple loops for fuels and materials testing of different coolants.

(F) Capabilities that support irradiating and processing targets for isotope production.

(G) Additional pre-irradiation and post-irradiation examination capabilities.

(H) Lifetime operating costs and lifecycle costs.

(c) START OF OPERATIONS.—The Secretary shall, to the maximum extent practicable, ensure that the start of full operations of the facility under this section occurs before December 31, 2025.

(d) FUNDING.—There are authorized to be appropriated to the Secretary for the Office of Nuclear Energy to carry out to completion the construction of the facility under this section—

(1) \$35,000,000 for fiscal year 2018;

(2) \$100,000,000 for fiscal year 2019;

(3) \$200,000,000 for fiscal year 2020;

(4) \$260,000,000 for fiscal year 2021;

(5) \$340,000,000 for fiscal year 2022;

(6) \$350,000,000 for fiscal year 2023;

(7) \$350,000,000 for fiscal year 2024; and

(8) \$350,000,000 for fiscal year 2025.

SEC. 3. SPENDING LIMITATION.

No additional funds are authorized to be appropriated to carry out this Act and the amendments made by this Act, and this Act and such amendments shall be carried out using amounts otherwise available for such purpose.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Texas (Mr. WEBER) and the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON) each will control 20 minutes.

The Chair recognizes the gentleman from Texas.

GENERAL LEAVE

Mr. WEBER of Texas. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days within which to revise and extend their remarks and to include extraneous material on H.R. 4378, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Texas?

There was no objection.

Mr. WEBER of Texas. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise in support of H.R. 4378, the Nuclear Energy Research Infrastructure Act of 2018.

Over the past 3 years, the Science, Space, and Technology Committee has held hearings, met with stakeholders, and worked extensively with our colleagues in the Senate to draft the Nuclear Energy Innovation Capabilities Act, the precursor to today's bill.

This comprehensive, bipartisan authorization bill directed the Department of Energy—DOE—to invest in supercomputing capabilities, created a framework for DOE to partner with the private sector to host prototype development for advanced reactors, and laid out a clear timeline and parameters for the DOE to build that research reactor.

Mr. Speaker, this bill passed the House three times last Congress, and passed the House again in January as a part of H.R. 589, known as the DOE Research and Innovation Act.

The research reactor, or Versatile Neutron Source, authorized in that bill, Mr. Speaker, is crucial for the development of advanced reactor designs, materials, and nuclear fuels. This type of research requires access to fast neutrons, which are currently only available for civilian research in Russia.

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While modeling and simulation can accelerate R&D, nuclear energy research must be validated through a physical source, Mr. Speaker, like a reactor. The bill which we will consider today, H.R. 4378, the Nuclear Energy Research Infrastructure Act, authorizes specific funding from within the DOE Office of Nuclear Energy for the construction of that versatile neutron source.

Building this open-access user facility in the DOE national lab system will facilitate nuclear energy research in the United States. The access to fast neutrons that this reactor provides can support private sector development of the next generation materials and fuels needed for advanced nuclear reactor technology.

The versatile neutron source will also enable the Nuclear Regulatory Commission to verify data on new fuels, materials, and designs more efficiently, which will expedite regulatory approval for those advanced nuclear reactors. Without this user facility, Mr. Speaker, this research simply will not take place, and we cannot afford to lose the ability to develop an innovative nuclear technology right here at home.

This bill will also help maintain America's capability to influence security and proliferation standards around the world by maintaining cutting-edge nuclear science.

Mr. Speaker, as more developing nations look to nuclear energy to grow their economies, our role in protecting nuclear technology grows. By building this user facility, we will fortify the U.S. commitment to safely advancing nuclear energy. H.R. 4378 is a commonsense bill. It will maintain American leadership in nuclear power.

I want to thank Ranking Member JOHNSON and Chairman SMITH for cosponsoring this important legislation and for their leadership in advocating for nuclear energy research and development. I am very grateful for the opportunity to work with my fellow Texans to guide research that will keep America not only safe, but globally competitive.

Mr. Speaker, I encourage my colleagues to support this bill, and I reserve the balance of my time.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise in support of H.R. 4378, the Nuclear Energy Research Infrastructure Act, and I am pleased to cosponsor this bill. Mr. Speaker, this legislation marks another accomplishment in our committee's strong bipartisan effort to support the development of advanced nuclear energy technologies.

Today, nuclear power plays a vital role in providing our country with clean, reliable energy; but there are currently technical, economic, and policy challenges that prevent this resource from playing a larger role in enabling our clean energy future. This bill, the Nuclear Energy Research Infrastructure Act, would help address these challenges.

It expands on a provision included in another bill that I cosponsored with Mr. WEBER and the chairman, H.R. 431, the Nuclear Energy Innovation Capabilities Act, which passed the House early last year on a voice vote as part of yet another bill that I cosponsored with these two gentlemen, H.R. 589, the

Department of Energy Research and Innovation Act.

The bill before us today would provide the Department of Energy with the direction and funding it needs to create a national user facility with critical capabilities to enable the development of a wide range of advanced nuclear energy concepts here in the United States.

I am hopeful that, if we provide our scientists and industry leaders with the right tools, they can fulfill the promise of clean nuclear energy that is significantly safer, less expensive, more efficient, and produces less waste than the current fleet of reactors.

Mr. Speaker, I also strongly support the inclusion of explicit funding levels as part of this authorization. Providing the Department and congressional appropriators with a funding profile for research activities and projects is a crucial responsibility in our role as the authorizing committee.

In particular, it helps ensure that the construction of cutting-edge research facilities like this one have the resources they need to be completed on time and on budget, thus, making sure that the U.S. taxpayers who are footing these bills are getting the most value of their hard-earned dollars.

Mr. Speaker, I encourage my colleagues to support this bipartisan bill, and I look forward to continuing to work with my colleagues on both sides of the aisle as we strive to strengthen America's research enterprise across the board.

Mr. Speaker, I reserve the balance of my time.

Mr. WEBER of Texas. Mr. Speaker, it is my distinct honor to yield 3 minutes to the gentleman from Texas (Mr. SMITH), the chairman of the full Science, Space, and Technology Committee.

Mr. SMITH of Texas. Mr. Speaker, first of all, let me thank the gentleman from Texas, the chairman of the Energy Subcommittee, Representative RANDY WEBER, for yielding me time on his bill, which is H.R. 4378, the Nuclear Energy Research Infrastructure Act.

H.R. 4378, cosponsored by full committee Ranking Member EDDIE BERNICE JOHNSON, Energy Subcommittee Vice Chairman STEVE KNIGHT, Representative DAN LIPINSKI, and Representative RANDY HULTGREN, authorizes funds within the DOE Nuclear Energy budget to construct their versatile neutron source, a DOE fast neutron user facility that will facilitate the development of the next generation of nuclear reactors by the private sector.

This legislation builds on and implements Chairman WEBER's Nuclear Energy Innovation Capabilities Act, which passed the House three times with bipartisan support in the last Congress.

Advanced nuclear reactor technology provides the best opportunity to make reliable, emission-free electricity available throughout the industrial

and developing world. This user facility will ensure that U.S. companies develop critical advanced reactor technology here in the United States.

Today, the only source of fast neutrons available for civilian research is in Russia, making it impossible for American entrepreneurs to conduct the testing and validation needed to deploy commercial advanced reactors.

America must also maintain our edge in nuclear science in order to influence global nonproliferation standards. The user facility authorized in this legislation will ensure the next generation of nuclear technology is safely developed here at home. This allows America to export nuclear technology which helps prevent civilian nuclear energy technology from being misused for weapons development overseas.

I want to thank this bill's cosponsors, Chairman WEBER and Ranking Member JOHNSON, for their long-standing support of nuclear energy innovation and commitment to ensure that we have the best nuclear research facilities.

Mr. Speaker, I urge my colleagues to support this legislation. It is a bipartisan piece of legislation.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Speaker, I rise in support of the bill, and I yield back the balance of my time.

Mr. WEBER of Texas. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, H.R. 4378 is vital to ensuring America's leadership in nuclear innovation. By harnessing the unique expertise of our Nation's national labs, the private sector can take the lead in developing groundbreaking advanced nuclear technology.

I especially want to thank my colleagues on the Science, Space, and Technology Committee who have cosponsored H.R. 4378, including Chairman LAMAR SMITH, Representative DAN LIPINSKI, Representative STEVE KNIGHT, and Representative RANDY HULTGREN. I also want to thank the dozens of researchers and stakeholders who have provided feedback as we developed this legislation.

Mr. Speaker, I urge adoption of this commonsense, bipartisan legislation, and I yield back the balance of my time.

The SPEAKER pro tempore (Mr. TIPTON). The question is on the motion offered by the gentleman from Texas (Mr. WEBER) that the House suspend the rules and pass the bill, H.R. 4378, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

DEPARTMENT OF ENERGY RESEARCH INFRASTRUCTURE ACT OF 2018

Mr. WEBER of Texas. Mr. Speaker, I move to suspend the rules and pass the