

hidden. That is damaging to America's families.

That is quite a list of things that are wrong with this bill. This bill has been presented as remedies for small banks, but, as my colleagues just noticed from these items, what we see are the ripping aside of consumer protections and a whole lot that is being demanded by the big banks that want less capital and higher leverage.

Let's do a bill for smaller banks. Let's understand that more flexibility is appropriate in rural areas. Let's observe that more flexibility in the types of mortgages might be appropriate in small banks in small communities where those loans are portfolioed. Democrats came forward with a whole list of these things to help small banks, but what do we have from our Republican leadership? A bill designed for Wall Street. A bill designed for Wall Street, for the wealthy and the well-connected. It is not designed to help ordinary Americans.

Ordinary Americans are plagued by the challenges of discrimination, and this makes it worse; or redlining, and this makes it worse; or predatory practices, and this makes it worse. They are also plagued by high-interest payday loans. What does this bill do to take on the 500-percent interest rates that every society across the globe has recognized are incredibly destructive, sucking people into a vortex of debt and destroying families? This body right here said that they are so destructive, we cannot allow these high-interest loans to be given to our servicemembers because they destroy our service families. Shouldn't we stand up for all of our families in America? If something is so predatory and so destructive to our service families that we say it is illegal, shouldn't we make those same loans illegal for everybody?

Do you see anything in this bill related to "we the people"? Very little. The "we the people" bill the Democrats put forward was rejected, and what we have is this Wall Street bill for lower capital, more leverage, more predatory practices. That is just not right.

I hold a lot of townhalls. I hold 36 townhalls a year, 32 of them in very red counties. Not one person in over 300 townhalls has come up to me and said: Get rid of the regulations on Wall Street because we want them to be able to do more low-capital, high-leverage bets and put our economy at risk. Nobody in America advocates building another bubble on high-risk leverage.

So what are we doing with this bill? What we are doing is making a mistake. We should defeat this assault on the effort to have a financial system in America that is designed to serve the mission of the United States, the "we the people" mission of the United States of America.

Mr. President, I yield the floor.

The PRESIDING OFFICER. The Senator from Rhode Island.

NUCLEAR ENERGY INNOVATION CAPABILITIES ACT OF 2017

Mr. WHITEHOUSE. Mr. President, I am here for the happy task of moving a piece of bipartisan legislation that has been cleared on both sides of the aisle. I am particularly pleased to be doing it in front of the Presiding Officer because the Presiding Officer and I and Senator HEITKAMP and others worked so hard on the Carbon Capture Utilization and Storage Act, which provides a means of encouraging carbon capture technologies to develop. This is a related bill that I joined with Senator CRAPO on to advance. Senator CRAPO has been our lead on this bill. The bill will encourage innovation in the nuclear industry. So it is a great pleasure for me to be here, and I am very honored that my distinguished colleague Senator CRAPO has joined me on the floor.

Mr. President, I ask unanimous consent that the Senate proceed to the immediate consideration of Calendar No. 153, S. 97.

The PRESIDING OFFICER. The clerk will report the bill by title.

The senior assistant legislative clerk read as follows:

A bill (S. 97) to enable civilian research and development of advanced nuclear energy technologies by private and public institutions, to expand theoretical and practical knowledge of nuclear physics, chemistry, and materials science, and for other purposes.

There being no objection, the Senate proceeded to consider the bill.

The PRESIDING OFFICER. The Senator from Idaho.

Mr. CRAPO. Mr. President, I ask unanimous consent that the Crapo amendment at the desk be agreed to.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment (No. 2104) was agreed to, as follows:

(Purpose: To modify provisions relating to the advanced nuclear energy licensing cost-share grant program)

On page 20, line 3, insert "in accordance with section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352)" before the period at the end.

On page 20, strike lines 15 through 17.

Mr. CRAPO. Mr. President, I ask unanimous consent that the bill, as amended, be considered read a third time.

The PRESIDING OFFICER. Without objection, it is so ordered.

The bill was ordered to be engrossed for a third reading and was read the third time.

Mr. CRAPO. Mr. President, I know of no further debate on the bill.

The PRESIDING OFFICER. Is there any further debate on the bill?

Hearing none, the bill having been read the third time, the question is, Shall the bill pass?

The bill (S. 97), as amended, was passed, as follows:

S. 97

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 Innovation Capabilities Act of 2017".

SEC. 2. NUCLEAR ENERGY INNOVATION CAPABILITIES.

(a) NUCLEAR ENERGY.—Section 951 of the Energy Policy Act of 2005 (42 U.S.C. 16271) is amended to read as follows:

"SEC. 951. NUCLEAR ENERGY.

"(a) MISSION.—

"(1) IN GENERAL.—The Secretary shall carry out programs of civilian nuclear research, development, demonstration, and commercial application, including activities under this subtitle.

"(2) CONSIDERATIONS.—The programs carried out under paragraph (1) shall take into consideration the following objectives:

"(A) Providing research infrastructure to promote scientific progress and enable users from academia, the National Laboratories, and the private sector to make scientific discoveries relevant for nuclear, chemical, and materials science engineering.

"(B) Maintaining nuclear energy research and development programs at the National Laboratories and institutions of higher education, including infrastructure at the National Laboratories and institutions of higher education.

"(C) Providing the technical means to reduce the likelihood of nuclear proliferation.

"(D) Increasing confidence margins for public safety of nuclear energy systems.

"(E) Reducing the environmental impact of activities relating to nuclear energy.

"(F) Supporting technology transfer from the National Laboratories to the private sector.

"(G) Enabling the private sector to partner with the National Laboratories to demonstrate novel reactor concepts for the purpose of resolving technical uncertainty associated with the objectives described in subparagraphs (A) through (F).

"(b) DEFINITIONS.—In this subtitle:

"(1) ADVANCED NUCLEAR REACTOR.—The term 'advanced nuclear reactor' means—

"(A) a nuclear fission reactor with significant improvements over the most recent generation of nuclear fission reactors, which may include—

"(i) inherent safety features;

"(ii) lower waste yields;

"(iii) greater fuel utilization;

"(iv) superior reliability;

"(v) resistance to proliferation;

"(vi) increased thermal efficiency; and

"(vii) the ability to integrate into electric and nonelectric applications; or

"(B) a nuclear fusion reactor.

"(2) COMMISSION.—The term 'Commission' means the Nuclear Regulatory Commission.

"(3) FAST NEUTRON.—The term 'fast neutron' means a neutron with kinetic energy above 100 kiloelectron volts.

"(4) NATIONAL LABORATORY.—

"(A) IN GENERAL.—Except as provided in subparagraph (B), the term 'National Laboratory' has the meaning given the term in section 2.

"(B) LIMITATION.—With respect to the Lawrence Livermore National Laboratory, the Los Alamos National Laboratory, and the Sandia National Laboratories, the term 'National Laboratory' means only the civilian activities of the laboratory.

"(5) NEUTRON FLUX.—The term 'neutron flux' means the intensity of neutron radiation measured as a rate of flow of neutrons applied over an area.

"(6) NEUTRON SOURCE.—The term 'neutron source' means a research machine that provides neutron irradiation services for—

"(A) research on materials sciences and nuclear physics; and

“(B) testing of advanced materials, nuclear fuels, and other related components for reactor systems.”.

(b) NUCLEAR ENERGY RESEARCH PROGRAMS.—

(1) IN GENERAL.—Section 952 of the Energy Policy Act of 2005 (42 U.S.C. 16272) is amended—

(A) by striking subsection (c); and
(B) by redesignating subsections (d) and (e) as subsections (c) and (d), respectively.

(2) CONFORMING AMENDMENT.—Section 641(b)(1) of the Energy Policy Act of 2005 (42 U.S.C. 16021(b)(1)) is amended by striking “section 942(d)” and inserting “section 952(c)”.

(c) ADVANCED FUEL CYCLE INITIATIVE.—Section 953(a) of the Energy Policy Act of 2005 (42 U.S.C. 16273(a)) is amended by striking “, acting through the Director of the Office of Nuclear Energy, Science and Technology.”.

(d) UNIVERSITY NUCLEAR SCIENCE AND ENGINEERING SUPPORT.—Section 954(d)(4) of the Energy Policy Act of 2005 (42 U.S.C. 16274(d)(4)) is amended by striking “as part of a taking into consideration effort that emphasizes” and inserting “that emphasize”.

(e) DEPARTMENT OF ENERGY CIVILIAN NUCLEAR INFRASTRUCTURE AND FACILITIES.—Section 955 of the Energy Policy Act of 2005 (42 U.S.C. 16275) is amended—

(1) by striking subsections (c) and (d); and
(2) by adding at the end the following:

“(c) VERSATILE NEUTRON SOURCE.—

“(1) MISSION NEED.—

“(A) IN GENERAL.—Not later than December 31, 2017, the Secretary shall determine the mission need for a versatile reactor-based fast neutron source, which shall operate as a national user facility.

“(B) CONSULTATIONS REQUIRED.—In carrying out subparagraph (A), the Secretary shall consult with the private sector, institutions of higher education, the National Laboratories, and relevant Federal agencies to ensure that the user facility described in subparagraph (A) will meet the research needs of the largest practicable majority of prospective users.

“(2) ESTABLISHMENT.—As soon as practicable after determining the mission need under paragraph (1)(A), the Secretary shall submit to the appropriate committees of Congress a detailed plan for the establishment of the user facility.

“(3) FACILITY REQUIREMENTS.—

“(A) CAPABILITIES.—The Secretary shall ensure that the user facility will provide, at a minimum, the following capabilities:

“(i) Fast neutron spectrum irradiation capability.

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

“(B) CONSIDERATIONS.—In carrying out the plan submitted under paragraph (2), the Secretary shall consider the following:

“(i) Capabilities that support experimental high-temperature testing.

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

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

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

“(v) Multiple loops for fuels and materials testing in different coolants.

“(vi) Additional pre-irradiation and post-irradiation examination capabilities.

“(vii) Lifetime operating costs and lifecycle costs.

“(4) DEADLINE FOR ESTABLISHMENT.—The Secretary shall, to the maximum extent practicable, complete construction of, and

approve the start of operations for, the user facility by not later than December 31, 2025.

“(5) REPORTING.—The Secretary shall include in the annual budget request of the Department an explanation for any delay in the progress of the Department in completing the user facility by the deadline described in paragraph (4).

“(6) COORDINATION.—The Secretary shall leverage the best practices for management, construction, and operation of national user facilities from the Office of Science.”.

(f) SECURITY OF NUCLEAR FACILITIES.—Section 956 of the Energy Policy Act of 2005 (42 U.S.C. 16276) is amended by striking “, acting through the Director of the Office of Nuclear Energy, Science and Technology.”.

(g) HIGH-PERFORMANCE COMPUTATION AND SUPPORTIVE RESEARCH.—Section 957 of the Energy Policy Act of 2005 (42 U.S.C. 16277) is amended to read as follows:

“**SEC. 957. HIGH-PERFORMANCE COMPUTATION AND SUPPORTIVE RESEARCH.**

“(a) MODELING AND SIMULATION.—The Secretary shall carry out a program to enhance the capabilities of the United States to develop new reactor technologies through high-performance computation modeling and simulation techniques.

“(b) COORDINATION.—In carrying out the program under subsection (a), the Secretary shall coordinate with relevant Federal agencies as described by the National Strategic Computing Initiative established by Executive Order 13702 (80 Fed. Reg. 46177 (July 29, 2015)), while taking into account the following objectives:

“(1) Using expertise from the private sector, institutions of higher education, and the National Laboratories to develop computational software and capabilities that prospective users may access to accelerate research and development of advanced nuclear reactor systems and reactor systems for space exploration.

“(2) Developing computational tools to simulate and predict nuclear phenomena that may be validated through physical experimentation.

“(3) Increasing the utility of the research infrastructure of the Department by coordinating with the Advanced Scientific Computing Research program within the Office of Science.

“(4) Leveraging experience from the Energy Innovation Hub for Modeling and Simulation.

“(5) Ensuring that new experimental and computational tools are accessible to relevant research communities, including private sector entities engaged in nuclear energy technology development.

“(c) SUPPORTIVE RESEARCH ACTIVITIES.—The Secretary shall consider support for additional research activities to maximize the utility of the research facilities of the Department, including physical processes—

“(1) to simulate degradation of materials and behavior of fuel forms; and

“(2) for validation of computational tools.”.

(h) ENABLING NUCLEAR ENERGY INNOVATION.—Subtitle E of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16271 et seq.) is amended by adding at the end the following: “**SEC. 958. ENABLING NUCLEAR ENERGY INNOVATION.**

“(a) NATIONAL REACTOR INNOVATION CENTER.—There is authorized a program to enable the testing and demonstration of reactor concepts to be proposed and funded, in whole or in part, by the private sector.

“(b) TECHNICAL EXPERTISE.—In carrying out the program under subsection (a), the Secretary shall leverage the technical expertise of relevant Federal agencies and the National Laboratories in order to minimize the

time required to enable construction and operation of privately funded experimental reactors at National Laboratories or other Department-owned sites.

“(c) OBJECTIVES.—The reactors described in subsection (b) shall operate to meet the following objectives:

“(1) Enabling physical validation of advanced nuclear reactor concepts.

“(2) Resolving technical uncertainty and increasing practical knowledge relevant to safety, resilience, security, and functionality of advanced nuclear reactor concepts.

“(3) General research and development to improve nascent technologies.

“(d) SHARING TECHNICAL EXPERTISE.—In carrying out the program under subsection (a), the Secretary may enter into a memorandum of understanding with the Chairman of the Commission in order to share technical expertise and knowledge through—

“(1) enabling the testing and demonstration of advanced nuclear reactor concepts to be proposed and funded, in whole or in part, by the private sector;

“(2) operating a database to store and share data and knowledge relevant to nuclear science and engineering between Federal agencies and the private sector;

“(3) developing and testing electric and nonelectric integration and energy conversion systems relevant to advanced nuclear reactors;

“(4) leveraging expertise from the Commission with respect to safety analysis; and

“(5) enabling technical staff of the Commission to actively observe and learn about technologies developed under the program.

“(e) AGENCY COORDINATION.—The Chairman of the Commission and the Secretary shall enter into a memorandum of understanding regarding the following:

“(1) Ensuring that—

“(A) the Department has sufficient technical expertise to support the timely research, development, demonstration, and commercial application by the civilian nuclear industry of safe and innovative advanced nuclear reactor technology; and

“(B) the Commission has sufficient technical expertise to support the evaluation of applications for licenses, permits, and design certifications and other requests for regulatory approval for advanced nuclear reactors.

“(2) The use of computers and software codes to calculate the behavior and performance of advanced nuclear reactors based on mathematical models of the physical behavior of advanced nuclear reactors.

“(3) Ensuring that—

“(A) the Department maintains and develops the facilities necessary to enable the timely research, development, demonstration, and commercial application by the civilian nuclear industry of safe and innovative reactor technology; and

“(B) the Commission has access to the facilities described in subparagraph (A), as needed.

“(f) REPORTING REQUIREMENTS.—

“(1) IN GENERAL.—Not later than 180 days after the date of enactment of the Nuclear Energy Innovation Capabilities Act of 2017, the Secretary, in consultation with the National Laboratories, relevant Federal agencies, and other stakeholders, shall submit to the appropriate committees of Congress a report assessing the capabilities of the Department to authorize, host, and oversee privately funded experimental advanced nuclear reactors as described in subsection (b).

“(2) CONTENTS.—The report submitted under paragraph (1) shall address—

“(A) the safety review and oversight capabilities of the Department, including options to leverage expertise from the Commission and the National Laboratories;

“(B) options to regulate privately proposed and funded experimental reactors hosted by the Department;

“(C) potential sites capable of hosting privately funded experimental advanced nuclear reactors;

“(D) the efficacy of the available contractual mechanisms of the Department to partner with the private sector and Federal agencies, including cooperative research and development agreements, strategic partnership projects, and agreements for commercializing technology;

“(E) the liability of the Federal Government with respect to the disposal of low-level radioactive waste, spent nuclear fuel, or high-level radioactive waste (as those terms are defined in section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101));

“(F) the impact on the aggregate inventory in the United States of low-level radioactive waste, spent nuclear fuel, or high-level radioactive waste (as those terms are defined in section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101));

“(G) potential cost structures relating to physical security, decommissioning, liability, and other long-term project costs; and

“(H) other challenges or considerations identified by the Secretary.

“(3) UPDATES.—Once every 2 years, the Secretary shall update relevant provisions of the report submitted under paragraph (1) and submit to the appropriate committees of Congress the update.

“(g) SAVINGS CLAUSES.—

“(1) LICENSING REQUIREMENT.—Nothing in this section authorizes the Secretary or any person to construct or operate a nuclear reactor for the purpose of demonstrating the suitability for commercial application of the nuclear reactor unless licensed by the Commission in accordance with section 202 of the Energy Reorganization Act of 1974 (42 U.S.C. 5842).

“(2) FINANCIAL PROTECTION.—Any activity carried out under this section that involves the risk of public liability shall be subject to the financial protection or indemnification requirements of section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210) (commonly known as the ‘Price-Anderson Act’).”

(i) BUDGET PLAN.—Subtitle E of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16271 et seq.) (as amended by subsection (h)) is amended by adding at the end the following: “**SEC. 959. BUDGET PLAN.**

“(a) IN GENERAL.—Not later than 1 year after the date of enactment of the Nuclear Energy Innovation Capabilities Act of 2017, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives 2 alternative 10-year budget plans for civilian nuclear energy research and development by the Secretary, as described in subsections (b) through (d).

“(b) BUDGET PLAN ALTERNATIVE 1.—One of the budget plans submitted under subsection (a) shall assume constant annual funding for 10 years at the appropriated level for the civilian nuclear energy research and development of the Department for fiscal year 2016.

“(c) BUDGET PLAN ALTERNATIVE 2.—One of the budget plans submitted under subsection (a) shall be an unconstrained budget.

“(d) INCLUSIONS.—Each alternative budget plan submitted under subsection (a) shall include—

“(1) a prioritized list of the programs, projects, and activities of the Department to best support the development of advanced nuclear reactor technologies;

“(2) realistic budget requirements for the Department to implement sections 955(c), 957, and 958; and

“(3) the justification of the Department for continuing or terminating existing civilian nuclear energy research and development programs.”

(j) REPORT ON FUSION INNOVATION.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary of Energy shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report identifying engineering designs for innovative fusion energy systems that have the potential to demonstrate net energy production not later than 15 years after the start of construction.

(2) INCLUSIONS.—The report submitted under paragraph (1) shall identify budgetary requirements that would be necessary for the Department of Energy to carry out a fusion innovation initiative to accelerate research and development of the engineering designs identified in the report.

(k) CONFORMING AMENDMENTS.—The table of contents for the Energy Policy Act of 2005 is amended by striking the item relating to section 957 and inserting the following:

“957. High-performance computation and supportive research.

“958. Enabling nuclear energy innovation.

“959. Budget plan.”

SEC. 3. ADVANCED NUCLEAR ENERGY LICENSING COST-SHARE GRANT PROGRAM.

(a) DEFINITIONS.—In this section:

(1) COMMISSION.—The term “Commission” means the Nuclear Regulatory Commission.

(2) PROGRAM.—The term “program” means the Advanced Nuclear Energy Cost-Share Grant Program established under subsection (b).

(3) SECRETARY.—The term “Secretary” means the Secretary of Energy.

(b) ESTABLISHMENT.—The Secretary shall establish a grant program, to be known as the “Advanced Nuclear Energy Cost-Share Grant Program”, under which the Secretary shall make cost-share grants to applicants for the purpose of funding a portion of the Commission fees of the applicant for pre-application review activities and application review activities.

(c) REQUIREMENT.—The Secretary shall seek out technology diversity in making grants under the program.

(d) COST-SHARE AMOUNT.—The Secretary shall determine the cost-share amount for each grant under the program in accordance with section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352).

(e) USE OF FUNDS.—A recipient of a grant under the program may use the grant funds to cover Commission fees, including those fees associated with—

- (1) developing a licensing project plan;
- (2) obtaining a statement of licensing feasibility;
- (3) reviewing topical reports; and
- (4) other—
 - (A) pre-application review activities;
 - (B) application review activities; and
 - (C) interactions with the Commission.

Mr. CRAPO. Mr. President, I ask unanimous consent that the motion to reconsider be considered made and laid upon the table.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. CRAPO. Mr. President, I rise to speak today on the Nuclear Energy Innovation Capabilities Act, or NEICA. This measure is the result of a strong bipartisan partnership among many Senators, including Senator WHITEHOUSE, Senator RISCH, Senator BOOKER, Senator HATCH, Senator MURKOWSKI,

and Senator DURBIN, along with myself and a number of other Senators who have worked with us on this legislation.

I want to give special thanks to Senator WHITEHOUSE, who is here with us today. He has been my tireless partner in this effort. I thank Senator WHITEHOUSE for his hard work and the assistance of his staff. Sometimes, even on the easiest of legislation—and this is not in that category; this is a critical, strong piece that has taken a lot of attention—but sometimes it just takes a lot of work and effort and time. I appreciate Senator WHITEHOUSE’s efforts to stick with us, as he actually helped move this ball forward as we have tried to get this across the finish line.

I also want to express strong thanks to Senator RISCH, who also deserves strong recognition for his tireless work to get this bill advanced.

This is a Senate companion to a House measure of the very same name, introduced by Representatives WEBER, EDDIE BERNICE JOHNSON, and LAMAR SMITH. We have been working together to get this bill passed for some time, and I am eager to work with my House colleagues to make sure that NEICA is enacted as soon as possible.

We all recognize that innovation within the nuclear industry must continue and must build on American preeminence in nuclear research and development. Having grown up in Idaho Falls, ID, I am a strong supporter of nuclear energy and the Idaho National Lab, which is a world leader in R&D and a key partner in sustaining our Nation’s commercial nuclear power sector. The INL has been home to more than 50 one-of-a-kind nuclear test reactors. It has led innovation after innovation and breakthrough after breakthrough. The imagination, ingenuity, and hard work of the scientists at the Lab, along with the scientists at Argonne and Oak Ridge, ensure that the United States remains the leader in development and commercialization of nuclear power.

Today, many in the industry are focusing on what it takes to keep the current fleet of reactors alive and operational. Industry leaders are worried about the waste issues, the economics of operation, and navigating the requirements of the Nuclear Regulatory Commission. Understandably, many are not focused on the future of nuclear power and what lies beyond the current generation of reactors.

Congress must find a way to help industry deal with the very real challenges that the current fleet faces. Congress must address the waste issue, and we must evaluate the costs and benefits of regulations that the government has placed on this industry. Many of the burdens on the nuclear industry are government-created, and so they must be government-solved. I look forward to working with my colleagues on the Environment and Public Works Committee to provide sound solutions.

Congress can't ignore the challenges of the current fleet, but we must not allow these challenges to keep us from looking forward. The nuclear power industry in America is, for better or worse, increasingly paralyzed by government redtape.

Congress must lead in focusing government agencies toward preparing for the next generation of nuclear reactors. We should create an environment in which industry can grow and advance. If we don't, we will lose to foreign competitors as companies take their technologies and business overseas. This is happening already. Companies are increasingly going to places like China, Russia, South Korea, and India. These countries want to export nuclear technology and are investing heavily toward that goal. If we continue down our current path, these countries will take the lead in setting the rules on proliferation and safety in the advanced nuclear industry. I would prefer that America continue to lead in this area.

The Senate version of NEICA does four very important things to encourage innovation in advanced nuclear power.

No. 1, it directs the Department of Energy to carry out a modeling and simulation program that aids in the development of new reactor technologies.

This is an important first step in allowing the private sector to have access to the capabilities of our National Laboratories to test reactor designs and concepts.

No. 2, it requires the Department of Energy to report its plan to establish a user facility for a versatile reactor-based fast neutron source.

This is a critical step that will allow private companies the ability to test principles of nuclear science and prove the science behind their work.

No. 3, NEICA directs the Department of Energy to carry out a program to enable the testing and demonstration of reactor concepts proposed and funded by the private sector.

This site is to be called the National Nuclear Innovation Center, and it will function as a database to store and share knowledge on nuclear science between Federal agencies and the private sector. The Senate version of NEICA encourages the Department of Energy and the Nuclear Regulatory Commission to work together in this effort. We would like to see the Department of Energy lead the effort to establish and operate the National Nuclear Innovation Center while consulting with the NRC regarding safety issues. We would also like the NRC to have access to the work done by the center in order to provide its staff with the knowledge it will need to eventually license any new reactors coming out of the center. If these reactors are ever to get to the market, the NRC must be able to understand the ins and outs of the science and work behind their development. The NRC needs the data in order to make data-driven licensing requirements.

No. 4, finally, it requires the NRC to report on its ability to license advanced reactors within 4 years of receiving an application.

The NRC must explain any institutional or organizational barriers it faces in moving forward with the licensing of advanced reactors.

NEICA is an important step in maintaining U.S. leadership in nuclear energy. It will enable the private sector and our National Labs to work together to create cutting-edge achievements in nuclear science. NEICA encourages the smartest, most innovative and creative minds in nuclear science to partner together to move the industry forward. This is a very exciting piece of legislation, and I look forward to working with my congressional colleagues to help American nuclear energy thrive today and prepare for the future.

Thank you.

I yield the floor.

The PRESIDING OFFICER (Mr. COTTON). The Senator from Rhode Island.

Mr. WHITEHOUSE. Mr. President, it has been the Senator from Idaho whose leadership has driven this bill forward more than anything else, and I express my great appreciation to him for the opportunity to work with him to accomplish this success.

Like Senator CRAPO, I want to recognize our colleagues in this effort, Senators RISCH, BOOKER, DURBIN, and MURKOWSKI. I particularly thank Senator MURKOWSKI because she is the chair of the Senate Energy Committee, and she and Senator CANTWELL together cleared this bill, so we could bring it to the floor, and gave it the blessing of their committee.

I also thank Senator INHOFE from Oklahoma, who has been a strong supporter of our efforts at nuclear modernization, and I ask unanimous consent that a U.S. News & World Report editorial, which Senator CRAPO wrote with Senator INHOFE, Senator BOOKER, and me, be printed in the RECORD at the conclusion of my remarks.

I thank Senator ALEXANDER from Tennessee—the home of Oak Ridge, the other National Lab that focuses so much in this area—who has been a constant advocate and has been very interested in all things nuclear for a very long time.

This bill, the Nuclear Energy Innovation Capabilities Act, has been so well summarized by Senator CRAPO that I will not go back and resummairize it, but I will emphasize that it is our intention that it provide an opening for nuclear innovation into next-generation, third-generation, even fourth-generation nuclear technologies, with the goal that we can compete effectively internationally to be the producers of clean and safe nuclear energy, with the hope—and at this point I think it is somewhere between a hope and a prospect—that this technology will develop to the point where we can begin to look at our existing nuclear waste stockpile and use these new technologies to turn

hazardous and dangerous nuclear waste, for which we have no present plan, into something that is valuable and can help create energy. We need to work on how to price that because, at present, there is no mechanism that provides any value to someone who might have a solution to that problem for lifting this cost off of our books. But that is something Senator CRAPO, Senator ALEXANDER, Senator INHOFE, Senator BOOKER, Senator MURKOWSKI, and I can continue to work on. That, I think, is a really valuable prospect in all of this, and it is one of the things that moves me to do this.

Let me close by thanking Senator CRAPO for also working with me on NEIMA, the Nuclear Energy Innovation and Modernization Act, which we are still working to get passed but which we hope will get passed. It parallels very nicely with this legislation because what that would do is get the Nuclear Regulatory Commission to update its permitting process to accommodate new technologies.

When I am asked what I mean by that, I use a very rough example, which is that the current light water reactor permitting process makes about as much sense as the test for these new technologies as taking a Tesla and having it pass the DMV carburetor requirements. It is a new technology; it requires a different testing regime. Our other bill would authorize and require the NRC to update and work with the innovation community to make sure that when these things are ready for permitting, permitting is, in fact, ready for them.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From U.S. News & World Report, July 11, 2016]

THE NEW NUCLEAR RENAISSANCE

(By Jim Inhofe, Sheldon Whitehouse, Mike Crapo and Cory Booker)

There has been a groundswell of activity and investment in recent years surrounding advanced nuclear reactors. A dynamic group of nuclear engineers and scientists are chasing the future—and racing against China and Russia—to develop innovative reactor designs. These technologies hold enormous promise to provide clean, safe, affordable, and reliable energy, not just for our country, but for the world. These innovators have a vision for the future, and they charge ahead backed by more than \$1 billion in private capital. The future of nuclear energy is bright.

Some would argue that we have been here before. In 2005, Congress passed incentives to encourage a “nuclear renaissance” amid high natural gas prices. The industry stood ready to build a large number of modern light-water reactors, improved versions of existing nuclear technology.

But reality fell short of expectations and the result was only five new nuclear plants, with a price tag of \$8 billion to \$10 billion each. Now, in an age of low-cost natural gas, it is becoming harder for the nearly 100 existing reactors to compete. The Energy Information Administration calculates that electricity generation from a new nuclear plant would cost about 25 percent more than electricity from a new gas-fired combined-

cycle power plant. This is causing some nuclear energy companies to scale back their operations. For instance, Chicago-based Exelon Corporation announced just a few weeks ago that it would shutter two of its nuclear plants in Illinois in the coming years, citing pressure from natural gas as a major factor.

So this begs the question: Will this new wave of innovative reactors live up to its promise? Investors think so, and so do we. For starters, these advanced reactors differ significantly from their predecessors. Rather than water, they use materials like molten salt or noble gasses as coolants. Most are considered “walk away safe,” since they are designed to use the laws of physics, rather than equipment, to prevent accidents. If a natural disaster strikes, for instance, these reactors would simply shut down, substantially reducing the threat of a meltdown. Many are designed to be small and modular, so they could be built in factories with construction costs that are a fraction of their big, custom-built forerunners. Small reactors could also be plugged into future micro-grid systems without requiring extensive transmission infrastructure. Some of these new reactor technologies could actually help to reduce the amount of nuclear waste we’ve accumulated through the years by using that waste as fuel. That could alleviate a major challenge facing the industry. And of course, all of this would be achieved without any air pollution.

Nuclear energy used to be just another partisan issue. Thankfully, that is changing. The four of us represent opposite ends of the political spectrum in the Senate, but we are all pulling in the same direction, backing various pieces of legislation to promote advanced nuclear innovation and development. One bill would open the doors of our national laboratories to entrepreneurs and their innovative new companies to develop public-private partnerships with the potential to bring new ideas to market. Another bill looks to build a sensible regulatory framework to allow diverse advanced reactor concepts to go from the drawing board to reality.

These bills have been moving through Congress and are garnering broad bipartisan support. The Nuclear Energy Innovation Capabilities Act recently passed the Senate as part of a bipartisan energy bill, on an 87-4 vote. The Nuclear Energy Innovation and Modernization Act was approved by the Senate Environment and Public Works Committee on a 17-3 vote.

Though we may come to this issue for different reasons, our end goal is the same. We want to promote new technologies that provide cleaner energy and get them built by and for Americans. We can’t take a back seat as China and Russia build test reactors and lure away American innovators. This new nuclear renaissance is primed for success. It has broad bipartisan support in Congress, serious private capital investment and the ability to help address environmental challenges—all while encouraging American innovation. The world is heading into a new age of nuclear energy, and the United States must lead the way.

Mr. WHITEHOUSE. Mr. President, with great appreciation to Senator CRAPO, the distinguished Senator from Idaho who has been my leader and partner in all this, I yield the floor.

I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The senior assistant legislative clerk proceeded to call the roll.

Mr. CRAPO. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

ECONOMIC GROWTH, REGULATORY RELIEF, AND CONSUMER PROTECTION ACT—MOTION TO PROCEED—Continued

Mr. CRAPO. Mr. President, I have been very encouraged by the reaction of my colleagues and their support for the Economic Growth, Regulatory Relief, and Consumer Protection Act over the last few days.

We have heard many stories about how the regulatory burden on our financial institutions has had a direct impact on Main Street. Yesterday, Senator MORAN talked about the ranchers who couldn’t get a loan because they lacked collateral in an emergency. Senators HEITKAMP and PERDUE explained the benefits of relationship banking and the advantage of lending based on a personal knowledge of the customer. Senator CORKER talked about Dodd-Frank’s unintended consequences for small financial institutions. Senator TESTER discussed bank consolidation and the real impact it has had on communities in Montana. Senator DONNELLY went through the various important consumer protection items included in this bill. Senator KENNEDY also talked about some of the important consumer protection provisions and about the lack of access to credit for small businesses in Louisiana. Senator WARNER spent a good amount of time defending this robust bipartisan bill against its critics and some of the false information being shared about the bill.

Today, we have heard even more Senators come to the floor with similar stories and expressions of similar sentiments about the need to help free up our small community banks and credit unions around this country from the overpowering burdens they are facing right now in the regulatory world.

Many of my colleagues who are not on the Banking Committee have asked if they could have the time and opportunity to speak about the bill, as well, and we will see them coming to the floor, as we have started to see today, to discuss these kinds of issues. Senators MCCONNELL, CORNYN, PORTMAN, LANKFORD, and others have been very supportive of these efforts to enact pro-growth, pro-jobs legislation.

We also heard from the bill’s critics yesterday. But the resounding message from Congress was that our constituents have asked for regulatory relief and consumer protection and economic growth, and we stand ready to deliver it.

We and our neighbors have noticed that many of our community financial institutions have closed their doors over the last decade. In fact, we have seen almost no new community financial institutions chartered or new branches being opened over the last few years.

These financial institutions, of all sizes and forms, provide critical serv-

ices in our communities. They help businesses manage operations, help entrepreneurs get funding to start their businesses, help families buy a home, help all of us save for our kids’ educations, and help us deal with financial emergencies.

Community financial institutions are the pillars of towns and communities across America, particularly in rural States like my own, Idaho. They have certain advantages compared with their larger counterparts, operating with an understanding and history of their customers and, therefore, a willingness to be flexible.

Unfortunately, increased regulatory burdens and one-size-fits-all regulations have limited their ability to help customers. The operating landscape of these institutions has changed dramatically over the last few years, and community banks and credit unions across the country have struggled to keep up with the ever-increasing regulatory compliance and examiner demands coming out of Washington.

I regularly hear from small banks and credit unions in Idaho about how one-size-fits-all regulatory approaches are impacting their businesses and product offerings and hindering their ability to serve their communities.

For example, Koreen Dursteler from the Bank of Commerce in Idaho Falls, a small bank with just over \$1 billion in assets, has written about the avalanche of regulation over the past 8 to 10 years. Due to excessive regulations related to qualified mortgage loans and the cost of hiring extra compliance staff to help keep up with additional regulation, her bank has had to stop offering consumer mortgages and real estate loans. That is a big deal. This is not an isolated incident. I hear stories like that all the time.

Another example: Val Brooks works at Simplot Employees Credit Union, which serves Canyon County, ID. She noted that Simplot has long been proud to serve this area, where some folks come from lower income households and may be underserved. Simplot worked to obtain the necessary education, compliance certification, and licensing standards to better serve its customers and the community. However, after the CFPB increased already burdensome mortgage regulations, such as the qualified mortgage and HMDA, Simplot credit union had to make the very difficult business decision to stop offering mortgage loans altogether. It was just too cost prohibitive and resource-draining.

When these small financial institutions are not able to offer certain products within the communities they serve, it is a direct hit to the citizens of Idaho and to all of our States.

To be absolutely clear, it is not that folks are against all regulation, but rather, to the people outside of Washington, it seems as if regulatory changes are made without much thought as to how they will truly affect customers and financial providers.