

the historical significance of the Merced Assembly Center in California, which will be unveiled February 21st 2009. I thank my distinguished colleague and fellow San Joaquin Valley Representative, DENNIS CARDOZA, for his leadership and perseverance on this issue.

As we all know, on February 19, 1942, President Franklin D. Roosevelt signed the Executive Order 9066 authorizing the forced internment of 120,000 Japanese Americans, placing tremendous hardship on the innocent that in many cases resulted in the loss of their jobs, businesses, property, and dignity. The Merced Assembly Center was the reporting site for 4,669 Japanese Americans, before they were removed to more permanent war relocation centers.

A dear friend of mine and a beloved Member of this body, Congressman MIKE HONDA, arrived at the Merced Assembly Center with his family as a young boy. As Japanese Americans, they were forced to endure years of hardship at an internment camp in Colorado. Congressman HONDA fought against the odds, and despite prejudice and adversity, has risen to become a great leader in this nation.

What once was a place of loss, hatred and fear now will be transformed into a place for remembrance, healing and hope. The Memorial would not be possible without the dedication, diligence and passion of my college and friend, Congressman DENNIS CARDOZA, and I commend him for his efforts to this end. I would also like to recognize the efforts of the Merced Assembly Center Commemorative Committee. Two years ago, the Pinedale Assembly Center Memorial Project established a similar memorial in Fresno County which recognizes the historic tragedy that took place at that site. Its best said that, "Those who cannot learn from history are doomed to repeat it." This memorial will help us learn.

Mr. COHEN. I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Tennessee (Mr. COHEN) that the House suspend the rules and agree to the resolution, H. Res. 129.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the resolution was agreed to.

A motion to reconsider was laid on the table.

NATIONAL NANOTECHNOLOGY INITIATIVE AMENDMENTS ACT OF 2009

Mr. GORDON of Tennessee. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 554) to authorize activities for support of nanotechnology research and development, and for other purposes.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 554

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 "National Nanotechnology Initiative Amendments Act of 2009".

SEC. 2. NATIONAL NANOTECHNOLOGY PROGRAM AMENDMENTS.

The 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7501 et seq.) is amended—

(1) by striking section 2(c)(4) and inserting the following new paragraph:

"(4) develop, within 12 months after the date of enactment of the National Nanotechnology Initiative Amendments Act of 2009, and update every 3 years thereafter, a strategic plan to guide the activities described under subsection (b) that specifies near-term and long-term objectives for the Program, the anticipated time frame for achieving the near-term objectives, and the metrics to be used for assessing progress toward the objectives, and that describes—

"(A) how the Program will move results out of the laboratory and into applications for the benefit of society, including through cooperation and collaborations with nanotechnology research, development, and technology transition initiatives supported by the States;

"(B) how the Program will encourage and support interdisciplinary research and development in nanotechnology; and

"(C) proposed research in areas of national importance in accordance with the requirements of section 5 of the National Nanotechnology Initiative Amendments Act of 2009";

(2) in section 2—

(A) in subsection (d)—

(i) by redesignating paragraphs (1) through (5) as paragraphs (2) through (6), respectively; and

(ii) by inserting the following new paragraph before paragraph (2), as so redesignated by clause (i) of this subparagraph:

"(1) the Program budget, for the previous fiscal year, for each agency that participates in the Program, including a breakout of spending for the development and acquisition of research facilities and instrumentation, for each program component area, and for all activities pursuant to subsection (b)(10);"; and

(B) by inserting at the end the following new subsection:

"(e) STANDARDS SETTING.—The agencies participating in the Program shall support the activities of committees involved in the development of standards for nanotechnology and may reimburse the travel costs of scientists and engineers who participate in activities of such committees.";

(3) by striking section 3(b) and inserting the following new subsection:

"(b) FUNDING.—(1) The operation of the National Nanotechnology Coordination Office shall be supported by funds from each agency participating in the Program. The portion of such Office's total budget provided by each agency for each fiscal year shall be in the same proportion as the agency's share of the total budget for the Program for the previous fiscal year, as specified in the report required under section 2(d)(1).

"(2) The annual report under section 2(d) shall include—

"(A) a description of the funding required by the National Nanotechnology Coordination Office to perform the functions specified under subsection (a) for the next fiscal year by category of activity, including the funding required to carry out the requirements of section 2(b)(10)(D), subsection (d) of this section, and section 5;

"(B) a description of the funding required by such Office to perform the functions specified under subsection (a) for the current fiscal year by category of activity, including the funding required to carry out the requirements of subsection (d); and

"(C) the amount of funding provided for such Office for the current fiscal year by each agency participating in the Program.";

(4) by inserting at the end of section 3 the following new subsection:

"(d) PUBLIC INFORMATION.—(1) The National Nanotechnology Coordination Office shall develop and maintain a database accessible by the public of projects funded under the Environmental, Health, and Safety, the Education and Societal Dimensions, and the Nanomanufacturing program component areas, or any successor program component areas, including a description of each project, its source of funding by agency, and its funding history. For the Environmental, Health, and Safety program component area, or any successor program component area, projects shall be grouped by major objective as defined by the research plan required under section 3(b) of the National Nanotechnology Initiative Amendments Act of 2009. For the Education and Societal Dimensions program component area, or any successor program component area, the projects shall be grouped in subcategories of—

"(A) education in formal settings;

"(B) education in informal settings;

"(C) public outreach; and

"(D) ethical, legal, and other societal issues.

"(2) The National Nanotechnology Coordination Office shall develop, maintain, and publicize information on nanotechnology facilities supported under the Program, and may include information on nanotechnology facilities supported by the States, that are accessible for use by individuals from academic institutions and from industry. The information shall include at a minimum the terms and conditions for the use of each facility, a description of the capabilities of the instruments and equipment available for use at the facility, and a description of the technical support available to assist users of the facility.";

(5) in section 4(a)—

(A) by striking "or designate";

(B) by inserting "as a distinct entity" after "Advisory Panel"; and

(C) by inserting at the end "The Advisory Panel shall form a subpanel with membership having specific qualifications tailored to enable it to carry out the requirements of subsection (c)(7).";

(6) in section 4(b)—

(A) by striking "or designated" and "or designating"; and

(B) by adding at the end the following: "At least one member of the Advisory Panel shall be an individual employed by and representing a minority-serving institution.";

(7) by amending section 5 to read as follows:

"SEC. 5. TRIENNIAL EXTERNAL REVIEW OF THE NATIONAL NANOTECHNOLOGY PROGRAM.

"(a) IN GENERAL.—The Director of the National Nanotechnology Coordination Office shall enter into an arrangement with the National Research Council of the National Academy of Sciences to conduct a triennial review of the Program. The Director shall ensure that the arrangement with the National Research Council is concluded in order to allow sufficient time for the reporting requirements of subsection (b) to be satisfied. Each triennial review shall include an evaluation of the—

"(1) research priorities and technical content of the Program, including whether the allocation of funding among program component areas, as designated according to section 2(c)(2), is appropriate;

"(2) effectiveness of the Program's management and coordination across agencies and disciplines, including an assessment of the effectiveness of the National Nanotechnology Coordination Office;

"(3) Program's scientific and technological accomplishments and its success in transferring technology to the private sector; and

“(4) adequacy of the Program’s activities addressing ethical, legal, environmental, and other appropriate societal concerns, including human health concerns.

“(b) EVALUATION TO BE TRANSMITTED TO CONGRESS.—The National Research Council shall document the results of each triennial review carried out in accordance with subsection (a) in a report that includes any recommendations for ways to improve the Program’s management and coordination processes and for changes to the Program’s objectives, funding priorities, and technical content. Each report shall be submitted to the Director of the National Nanotechnology Coordination Office, who shall transmit it to the Advisory Panel, the Committee on Commerce, Science, and Transportation of the Senate, and the Committee on Science and Technology of the House of Representatives not later than September 30 of every third year, with the first report due September 30, 2010.

“(c) FUNDING.—Of the amounts provided in accordance with section 3(b)(1), the following amounts shall be available to carry out this section:

“(1) \$500,000 for fiscal year 2010.

“(2) \$500,000 for fiscal year 2011.

“(3) \$500,000 for fiscal year 2012.”; and

(8) in section 10—

(A) by amending paragraph (2) to read as follows:

“(2) NANOTECHNOLOGY.—The term ‘nanotechnology’ means the science and technology that will enable one to understand, measure, manipulate, and manufacture at the nanoscale, aimed at creating materials, devices, and systems with fundamentally new properties or functions.”; and

(B) by adding at the end the following new paragraph:

“(7) NANOSCALE.—The term ‘nanoscale’ means one or more dimensions of between approximately 1 and 100 nanometers.”.

SEC. 3. SOCIETAL DIMENSIONS OF NANOTECHNOLOGY.

(a) COORDINATOR FOR SOCIETAL DIMENSIONS OF NANOTECHNOLOGY.—The Director of the Office of Science and Technology Policy shall designate an associate director of the Office of Science and Technology Policy as the Coordinator for Societal Dimensions of Nanotechnology. The Coordinator shall be responsible for oversight of the coordination, planning, and budget prioritization of activities required by section 2(b)(10) of the 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7501(b)(10)). The Coordinator shall, with the assistance of appropriate senior officials of the agencies funding activities within the Environmental, Health, and Safety and the Education and Societal Dimensions program component areas of the Program, or any successor program component areas, ensure that the requirements of such section 2(b)(10) are satisfied. The responsibilities of the Coordinator shall include—

(1) ensuring that a research plan for the environmental, health, and safety research activities required under subsection (b) is developed, updated, and implemented and that the plan is responsive to the recommendations of the subpanel of the Advisory Panel established under section 4(a) of the 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7503(a)), as amended by this Act;

(2) encouraging and monitoring the efforts of the agencies participating in the Program to allocate the level of resources and management attention necessary to ensure that the ethical, legal, environmental, and other appropriate societal concerns related to nanotechnology, including human health concerns, are addressed under the Program, including the implementation of the research plan described in subsection (b); and

(3) encouraging the agencies required to develop the research plan under subsection (b) to identify, assess, and implement suitable mechanisms for the establishment of public-private partnerships for support of environmental, health, and safety research.

(b) RESEARCH PLAN.—

(1) IN GENERAL.—The Coordinator for Societal Dimensions of Nanotechnology shall convene and chair a panel comprised of representatives from the agencies funding research activities under the Environmental, Health, and Safety program component area of the Program, or any successor program component area, and from such other agencies as the Coordinator considers necessary to develop, periodically update, and coordinate the implementation of a research plan for this program component area. In developing and updating the plan, the panel convened by the Coordinator shall solicit and be responsive to recommendations and advice from—

(A) the subpanel of the Advisory Panel established under section 4(a) of the 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7503(a)), as amended by this Act; and

(B) the agencies responsible for environmental, health, and safety regulations associated with the production, use, and disposal of nanoscale materials and products.

(2) DEVELOPMENT OF STANDARDS.—The plan required under paragraph (1) shall include a description of how the Program will help to ensure the development of—

(A) standards related to nomenclature associated with engineered nanoscale materials;

(B) engineered nanoscale standard reference materials for environmental, health, and safety testing; and

(C) standards related to methods and procedures for detecting, measuring, monitoring, sampling, and testing engineered nanoscale materials for environmental, health, and safety impacts.

(3) COMPONENTS OF PLAN.—The plan required under paragraph (1) shall, with respect to activities described in paragraphs (1) and (2)—

(A) specify near-term research objectives and long-term research objectives;

(B) specify milestones associated with each near-term objective and the estimated time and resources required to reach each milestone;

(C) with respect to subparagraphs (A) and (B), describe the role of each agency carrying out or sponsoring research in order to meet the objectives specified under subparagraph (A) and to achieve the milestones specified under subparagraph (B);

(D) specify the funding allocated to each major objective of the plan and the source of funding by agency for the current fiscal year; and

(E) estimate the funding required for each major objective of the plan and the source of funding by agency for the following 3 fiscal years.

(4) TRANSMITTAL TO CONGRESS.—The plan required under paragraph (1) shall be submitted not later than 60 days after the date of enactment of this Act to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science and Technology of the House of Representatives.

(5) UPDATING AND APPENDING TO REPORT.—The plan required under paragraph (1) shall be updated annually and appended to the report required under section 2(d) of the 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7501(d)).

(c) NANOTECHNOLOGY PARTNERSHIPS.—

(1) ESTABLISHMENT.—As part of the program authorized by section 9 of the National

Science Foundation Authorization Act of 2002, the Director of the National Science Foundation shall provide 1 or more grants to establish partnerships as defined by subsection (a)(2) of that section, except that each such partnership shall include 1 or more businesses engaged in the production of nanoscale materials, products, or devices. Partnerships established in accordance with this subsection shall be designated as “Nanotechnology Education Partnerships”.

(2) PURPOSE.—Nanotechnology Education Partnerships shall be designed to recruit and help prepare secondary school students to pursue postsecondary level courses of instruction in nanotechnology. At a minimum, grants shall be used to support—

(A) professional development activities to enable secondary school teachers to use curricular materials incorporating nanotechnology and to inform teachers about career possibilities for students in nanotechnology;

(B) enrichment programs for students, including access to nanotechnology facilities and equipment at partner institutions, to increase their understanding of nanoscale science and technology and to inform them about career possibilities in nanotechnology as scientists, engineers, and technicians; and

(C) identification of appropriate nanotechnology educational materials and incorporation of nanotechnology into the curriculum for secondary school students at one or more organizations participating in a Partnership.

(3) SELECTION.—Grants under this subsection shall be awarded in accordance with subsection (b) of such section 9, except that paragraph (3)(B) of that subsection shall not apply.

(d) UNDERGRADUATE EDUCATION PROGRAMS.—

(1) ACTIVITIES SUPPORTED.—As part of the activities included under the Education and Societal Dimensions program component area, or any successor program component area, the Program shall support efforts to introduce nanoscale science, engineering, and technology into undergraduate science and engineering education through a variety of interdisciplinary approaches. Activities supported may include—

(A) development of courses of instruction or modules to existing courses;

(B) faculty professional development; and

(C) acquisition of equipment and instrumentation suitable for undergraduate education and research in nanotechnology.

(2) COURSE, CURRICULUM, AND LABORATORY IMPROVEMENT AUTHORIZATION.—There are authorized to be appropriated to the Director of the National Science Foundation to carry out activities described in paragraph (1) through the Course, Curriculum, and Laboratory Improvement program from amounts authorized under section 7002(c)(2)(B) of the America COMPETES Act, \$5,000,000 for fiscal year 2010.

(3) ADVANCED TECHNOLOGY EDUCATION AUTHORIZATION.—There are authorized to be appropriated to the Director of the National Science Foundation to carry out activities described in paragraph (1) through the Advanced Technology Education program from amounts authorized under section 7002(c)(2)(B) of the America COMPETES Act, \$5,000,000 for fiscal year 2010.

(e) INTERAGENCY WORKING GROUP.—The National Science and Technology Council shall establish under the Nanoscale Science, Engineering, and Technology Subcommittee an Education Working Group to coordinate, prioritize, and plan the educational activities supported under the Program.

(f) SOCIETAL DIMENSIONS IN NANOTECHNOLOGY EDUCATION ACTIVITIES.—Activities supported under the Education and Societal Dimensions program component area, or any

successor program component area, that involve informal, precollege, or undergraduate nanotechnology education shall include education regarding the environmental, health and safety, and other societal aspects of nanotechnology.

(g) REMOTE ACCESS TO NANOTECHNOLOGY FACILITIES.—(1) Agencies supporting nanotechnology research facilities as part of the Program shall require the entities that operate such facilities to allow access via the Internet, and support the costs associated with the provision of such access, by secondary school students and teachers, to instruments and equipment within such facilities for educational purposes. The agencies may waive this requirement for cases when particular facilities would be inappropriate for educational purposes or the costs for providing such access would be prohibitive.

(2) The agencies identified in paragraph (1) shall require the entities that operate such nanotechnology research facilities to establish and publish procedures, guidelines, and conditions for the submission and approval of applications for the use of the facilities for the purpose identified in paragraph (1) and shall authorize personnel who operate the facilities to provide necessary technical support to students and teachers.

SEC. 4. TECHNOLOGY TRANSFER.

(a) PROTOTYPING.—

(1) ACCESS TO FACILITIES.—In accordance with section 2(b)(7) of 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7501(b)(7)), the agencies supporting nanotechnology research facilities as part of the Program shall provide access to such facilities to companies for the purpose of assisting the companies in the development of prototypes of nanoscale products, devices, or processes (or products, devices, or processes enabled by nanotechnology) for determining proof of concept. The agencies shall publicize the availability of these facilities and encourage their use by companies as provided for in this section.

(2) PROCEDURES.—The agencies identified in paragraph (1)—

(A) shall establish and publish procedures, guidelines, and conditions for the submission and approval of applications for use of nanotechnology facilities;

(B) shall publish descriptions of the capabilities of facilities available for use under this subsection, including the availability of technical support; and

(C) may waive recovery, require full recovery, or require partial recovery of the costs associated with use of the facilities for projects under this subsection.

(3) SELECTION AND CRITERIA.—In cases when less than full cost recovery is required pursuant to paragraph (2)(C), projects provided access to nanotechnology facilities in accordance with this subsection shall be selected through a competitive, merit-based process, and the criteria for the selection of such projects shall include at a minimum—

(A) the readiness of the project for technology demonstration;

(B) evidence of a commitment by the applicant for further development of the project to full commercialization if the proof of concept is established by the prototype; and

(C) evidence of the potential for further funding from private sector sources following the successful demonstration of proof of concept.

The agencies may give special consideration in selecting projects to applications that are relevant to important national needs or requirements.

(b) USE OF EXISTING TECHNOLOGY TRANSFER PROGRAMS.—

(1) PARTICIPATING AGENCIES.—Each agency participating in the Program shall—

(A) encourage the submission of applications for support of nanotechnology related projects to the Small Business Innovation Research Program and the Small Business Technology Transfer Program administered by such agencies; and

(B) through the National Nanotechnology Coordination Office and within 6 months after the date of enactment of this Act, submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science and Technology of the House of Representatives—

(i) the plan described in section 2(c)(7) of the 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7501(c)(7)); and

(ii) a report specifying, if the agency administers a Small Business Innovation Research Program and a Small Business Technology Transfer Program—

(I) the number of proposals received for nanotechnology related projects during the current fiscal year and the previous 2 fiscal years;

(II) the number of such proposals funded in each year;

(III) the total number of nanotechnology related projects funded and the amount of funding provided for fiscal year 2004 through fiscal year 2008; and

(IV) a description of the projects identified in accordance with subclause (III) which received private sector funding beyond the period of phase II support.

(2) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—The Director of the National Institute of Standards and Technology in carrying out the requirements of section 28 of the National Institute of Standards and Technology Act (15 U.S.C. 278n) shall—

(A) in regard to subsection (d) of that section, encourage the submission of proposals for support of nanotechnology related projects; and

(B) in regard to subsection (g) of that section, include a description of how the requirement of subparagraph (A) of this paragraph is being met, the number of proposals for nanotechnology related projects received, the number of such proposals funded, the total number of such projects funded since the beginning of the Technology Innovation Program, and the outcomes of such funded projects in terms of the metrics developed in accordance with such subsection (g).

(3) TIP ADVISORY BOARD.—The TIP Advisory Board established under section 28(k) of the National Institute of Standards and Technology Act (15 U.S.C. 278n(k)), in carrying out its responsibilities under subsection (k)(3), shall provide the Director of the National Institute of Standards and Technology with—

(A) advice on how to accomplish the requirement of paragraph (2)(A) of this subsection; and

(B) an assessment of the adequacy of the allocation of resources for nanotechnology related projects supported under the Technology Innovation Program.

(c) INDUSTRY LIAISON GROUPS.—An objective of the Program shall be to establish industry liaison groups for all industry sectors that would benefit from applications of nanotechnology. The Nanomanufacturing, Industry Liaison, and Innovation Working Group of the National Science and Technology Council shall actively pursue establishing such liaison groups.

(d) COORDINATION WITH STATE INITIATIVES.—Section 2(b)(5) of the 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7501(b)(5)) is amended to read as follows:

“(5) ensuring United States global leadership in the development and application of nanotechnology, including through coordina-

tion and leveraging Federal investments with nanotechnology research, development, and technology transition initiatives supported by the States;”.

SEC. 5. RESEARCH IN AREAS OF NATIONAL IMPORTANCE.

(a) IN GENERAL.—The Program shall include support for nanotechnology research and development activities directed toward application areas that have the potential for significant contributions to national economic competitiveness and for other significant societal benefits. The activities supported shall be designed to advance the development of research discoveries by demonstrating technical solutions to important problems in such areas as nano-electronics, energy efficiency, health care, and water remediation and purification. The Advisory Panel shall make recommendations to the Program for candidate research and development areas for support under this section.

(b) CHARACTERISTICS.—

(1) IN GENERAL.—Research and development activities under this section shall—

(A) include projects selected on the basis of applications for support through a competitive, merit-based process;

(B) involve collaborations among researchers in academic institutions and industry, and may involve nonprofit research institutions and Federal laboratories, as appropriate;

(C) when possible, leverage Federal investments through collaboration with related State initiatives; and

(D) include a plan for fostering the transfer of research discoveries and the results of technology demonstration activities to industry for commercial development.

(2) PROCEDURES.—Determination of the requirements for applications under this subsection, review and selection of applications for support, and subsequent funding of projects shall be carried out by a collaboration of no fewer than 2 agencies participating in the Program. In selecting applications for support, the agencies shall give special consideration to projects that include cost sharing from non-Federal sources.

(3) INTERDISCIPLINARY RESEARCH CENTERS.—Research and development activities under this section may be supported through interdisciplinary nanotechnology research centers, as authorized by section 2(b)(4) of the 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7501(b)(4)), that are organized to investigate basic research questions and carry out technology demonstration activities in areas such as those identified in subsection (a).

(c) REPORT.—Reports required under section 2(d) of the 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7501(d)) shall include a description of research and development areas supported in accordance with this section, including the same budget information as is required for program component areas under paragraphs (1) and (2) of such section 2(d).

SEC. 6. NANOMANUFACTURING RESEARCH.

(a) RESEARCH AREAS.—The Nanomanufacturing program component area, or any successor program component area, shall include research on—

(1) development of instrumentation and tools required for the rapid characterization of nanoscale materials and for monitoring of nanoscale manufacturing processes; and

(2) approaches and techniques for scaling the synthesis of new nanoscale materials to achieve industrial-level production rates.

(b) GREEN NANOTECHNOLOGY.—Interdisciplinary research centers supported under the Program in accordance with section 2(b)(4) of the 21st Century Nanotechnology Research and Development Act (15

U.S.C. 7501(b)(4)) that are focused on nanomanufacturing research and centers established under the authority of section 5(b)(3) of this Act shall include as part of the activities of such centers—

(1) research on methods and approaches to develop environmentally benign nanoscale products and nanoscale manufacturing processes, taking into consideration relevant findings and results of research supported under the Environmental, Health, and Safety program component area, or any successor program component area;

(2) fostering the transfer of the results of such research to industry; and

(3) providing for the education of scientists and engineers through interdisciplinary studies in the principles and techniques for the design and development of environmentally benign nanoscale products and processes.

(C) REVIEW OF NANOMANUFACTURING RESEARCH AND RESEARCH FACILITIES.—

(1) PUBLIC MEETING.—Not later than 12 months after the date of enactment of this Act, the National Nanotechnology Coordination Office shall sponsor a public meeting, including representation from a wide range of industries engaged in nanoscale manufacturing, to—

(A) obtain the views of participants at the meeting on—

(i) the relevance and value of the research being carried out under the Nanomanufacturing program component area of the Program, or any successor program component area; and

(ii) whether the capabilities of nanotechnology research facilities supported under the Program are adequate—

(I) to meet current and near-term requirements for the fabrication and characterization of nanoscale devices and systems; and

(II) to provide access to and use of instrumentation and equipment at the facilities, by means of networking technology, to individuals who are at locations remote from the facilities; and

(B) receive any recommendations on ways to strengthen the research portfolio supported under the Nanomanufacturing program component area, or any successor program component area, and on improving the capabilities of nanotechnology research facilities supported under the Program.

Companies participating in industry liaison groups shall be invited to participate in the meeting. The Coordination Office shall prepare a report documenting the findings and recommendations resulting from the meeting.

(2) ADVISORY PANEL REVIEW.—The Advisory Panel shall review the Nanomanufacturing program component area of the Program, or any successor program component area, and the capabilities of nanotechnology research facilities supported under the Program to assess—

(A) whether the funding for the Nanomanufacturing program component area, or any successor program component area, is adequate and receiving appropriate priority within the overall resources available for the Program;

(B) the relevance of the research being supported to the identified needs and requirements of industry;

(C) whether the capabilities of nanotechnology research facilities supported under the Program are adequate—

(i) to meet current and near-term requirements for the fabrication and characterization of nanoscale devices and systems; and

(ii) to provide access to and use of instrumentation and equipment at the facilities, by means of networking technology, to individuals who are at locations remote from the facilities; and

(D) the level of funding that would be needed to support—

(i) the acquisition of instrumentation, equipment, and networking technology sufficient to provide the capabilities at nanotechnology research facilities described in subparagraph (C); and

(ii) the operation and maintenance of such facilities.

In carrying out its assessment, the Advisory Panel shall take into consideration the findings and recommendations from the report required under paragraph (1).

(3) REPORT.—Not later than 18 months after the date of enactment of this Act, the Advisory Panel shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science and Technology of the House of Representatives a report on its assessment required under paragraph (2), along with any recommendations and a copy of the report prepared in accordance with paragraph (1).

SEC. 7. DEFINITIONS.

In this Act, terms that are defined in section 10 of the 21st Century Nanotechnology Research and Development Act (15 U.S.C. 7509) have the meaning given those terms in that section.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Tennessee (Mr. GORDON) and the gentleman from Texas (Mr. HALL) each will control 20 minutes.

The Chair recognizes the gentleman from Tennessee.

GENERAL LEAVE

Mr. GORDON of Tennessee. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days to revise and extend their remarks and to include extraneous material on H.R. 554, the bill now under consideration.

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

There was no objection.

Mr. GORDON of Tennessee. Mr. Speaker, I yield myself such time as I may consume.

H.R. 554 is a bipartisan bill which I and Ranking Member HALL jointly introduced along with 20 additional Democratic and Republican cosponsors. H.R. 554 is the same legislation that the House passed by an overwhelming majority of 407-6 votes in the last Congress. I urge my colleagues to again support this legislation as it will strengthen our Nation's competitiveness in the rapidly advancing field of nanotechnology.

I want to begin by thanking my colleague Mr. HALL for working with me to craft this legislation. I also want to thank Dr. BAIRD and Dr. EHLERS, who have both been instrumental in the development of this bill. As well, I want to thank a former staff director, Jim Wilson, who recently retired but who played a major role in putting this bill together.

Finally, I want to thank all of the members of the Science and Technology Committee on both sides of the aisle for their contributions to this bill and for helping to move it expeditiously and unanimously through the committee last year, and I want to

thank them for their support of the legislation again this year.

I would like to spend just a few moments reminding my colleagues as to why nanotechnology is important to the Nation and why we bring this bill before the House for approval today.

The term "revolutionary technology" has become a cliché, but nanotechnology truly is revolutionary. We stand at the threshold of an age in which materials and devices can be fashioned atom by atom to satisfy very specific design requirements. Nanotechnology-based applications that were not even imagined a decade ago are being developed today in our universities and in companies across the country. The range of potential applications for nanotechnology is broad, and it will have enormous consequence in electronics, materials, energy transformation, and storage, as well as in medicine and health. Indeed, the scope of this technology is so broad as to leave virtually no product untouched.

The Science and Technology Committee recognized that promise of nanotechnology early on, holding our first hearing a decade ago to review the Federal activities in the field. In 2003, the committee was subsequently instrumental in the development and in the enactment of the 21st Century Nanotechnology Research and Development Act, which authorized the multi-agency National Nanotechnology Initiative, or the NNI, as it is called.

The NNI supports productive, cooperative research efforts across a spectrum of disciplines, and it is establishing a network of national facilities for the support of nanoscale research and development. The NNI now receives funding from 13 agencies, and it had a budget of \$1.5 billion in fiscal year 2008, which represents a doubling of the budget over 5 years.

The cooperation and planning process among the participating agencies has been largely effective. Therefore, H.R. 554 does not substantially alter the NNI, but makes adjustments to some of the priorities of the program, and it strengthens one of its core components—environmental and safety research.

Nanotechnology is advancing rapidly. Currently, at least 800 products contain nanoscale materials. The successful development of nanotechnology-related products can only occur if the potential downsides of the technology are addressed from the beginning and in a straightforward and open way.

We know too well that negative public perceptions about the safety of a technology can have serious consequences for its acceptance and use. This has been the case with nuclear power and with genetically modified foods. From the beginning, the NNI has included research to understand the environmental and safety aspects of nanotechnology, and last year, the NNI formally developed a strategy for nanotechnology-related environmental and safety research. However, a National

Academies assessment found the strategy inadequate “to gain public acceptance and realize the promise of nanotechnology.”

H.R. 554 addresses this concern by requiring that the NNI agencies develop a plan for the environmental and safety research component of the program, which includes explicit near-term and long-term goals, which specifies the funding required to reach those goals, which identifies the role of each participating agency, and which includes a roadmap for implementation.

The bill also assigns responsibility to a senior official at the Office of Science and Technology Policy to oversee this planning and implementation process and to ensure the agencies allocate the resources necessary to carry it out. A well-designed, adequately funded and effectively executed research program in this area is the essential first step to ensuring that sound science guides the formulation of regulatory rules and requirements. It will reduce the current uncertainty that inhibits the commercial development of nanotechnology, and it will provide a sound basis for future rulemaking.

Another key component of H.R. 554 that I want to highlight involves provisions in the bill aimed at capturing the economic benefits of nanotechnology. In 2007, \$60 billion nano-enabled products were sold, and it is predicted that the number will rise to \$2.6 trillion by 2014. Too often, the U.S. has been the leader in basic research, pushing the frontiers of science and technology, but has failed to commercialize those discoveries. To that end, H.R. 554 strengthens public-private partnerships by encouraging the creation of industry liaison groups to foster nanotechnology transfer and to help guide the NNI research agenda. The bill also promotes the use of nanotechnology research facilities to assist companies in the development of prototypes.

Additionally, to increase the relevance and value of NNI, the bill authorizes large-scale, focused, multi-agency research and development initiatives in areas of national need. For example, such efforts could be organized around developing a replacement for the silicon-based transistor or by developing new nanotechnology-based devices for harvesting solar energy.

Lastly, the legislation addresses future STEM workforce needs by supporting the development of undergraduate courses in nanotechnology fields and by creating education partnerships between nanotechnology companies and secondary schools.

Mr. Speaker, nanotechnology will soon touch the lives of all Americans. It is already in our cell phones, cosmetics, paints, and refrigerators. It will soon help to protect the lives of our police officers and military servicemen, and it is showing promise in the treatment of cancer and in promoting wound healing. There is no doubt that the potential for this technology is vast.

The bill before us today has the support of many business, professional and higher education associations that recognize that H.R. 554 will enhance America’s efforts in nanotechnology research and development, ensuring that nanotechnology is developed in a safe and environmentally benign way and ensuring that the Nation reaps the benefits of our research investment.

Mr. Speaker, I commend this bipartisan legislation to my colleagues, and urge their support for its passage by the House.

I reserve the balance of my time.

Mr. HALL of Texas. Mr. Speaker, I rise today, of course, in support of H.R. 554, the National Nanotechnology Initiative Amendments of 2009.

This initiative was first named in the 2001 budget request, and it was made a priority by the previous administration. Last year, we created a necessary and responsible reauthorization bill for this important program. The House took an already good statute and improved it just a bit to streamline some administrative issues and to ensure that areas such as nanomanufacturing, education and environmental health and safety are adequately recognized. Unfortunately, the Senate did not act on it prior to adjournment, so we will try it again with the same bill this year.

Just what is “nanotechnology,” and why is it important?

Well, according to the NNI Web site, “Encompassing nanoscale science, engineering and technology, nanotechnology involves imaging, measuring, modeling, and manipulating matter . . . at dimensions between 1 and 100 nanometers.”

Now, a nanometer is one-billionth of a meter. To put it into perspective, this piece of paper that I am reading from is 100,000-nanometers thick. It is 100,000 nanometers. The fact that our scientists and engineers can create and manipulate matter on that small of a scale to be used in electronic, biomedical, pharmaceutical, cosmetic, energy, catalytic, and materials applications is mind boggling. It is the kind of research and technology that makes the United States the leader in innovation.

It is important that we continue to make this area of research a national priority. There are numerous examples of nanotechnology being used today. Not only is it being used to create clean, secure energy, but its uses range from stain-free clothing to glare-resistant eyewear to car bumpers to improved tennis balls. Nanotechnology is also being utilized to cut down on drug counterfeiting and to improve computer capacity. The list is long, and the potential for nanotechnology at this time is endless.

Once again, I am pleased to join Chairman GORDON. He is a good chairman to work with. As well, the overwhelming majority of our committee members are good folks on both sides of the aisle. We do work together, and

I am honored to be an original cosponsor of the NNI Amendments Act of 2009. This has been a bipartisan effort from the beginning. While we have made some changes to the program, I believe that, by and large, we have continued to give the NNI and all of the Federal agencies involved with it the flexibility needed to do their work without being overly prescriptive.

I support this measure, and I encourage my colleagues to do the same. Likewise, I hope my friends in the Senate will do a better job this year and will soon follow suit.

I reserve the balance of my time.

□ 1245

Mr. GORDON of Tennessee. Mr. Speaker, I thank my friend and ranking member, Mr. HALL.

I yield now 5 minutes to the gentleman from Illinois (Mr. LIPINSKI).

Mr. LIPINSKI. I thank the gentleman from Tennessee for yielding.

Mr. Speaker, today I rise in support of H.R. 554, reauthorizing the National Nanotechnology Initiative, the NNI.

I want to commend Chairman GORDON and Ranking Member HALL for their hard work in crafting this important bill and thank all of the Members on both sides of the aisle and the Science and Technology Committee for their hard work last year on quickly doing a great job getting this done, getting it to the floor where we passed it. Now, hopefully this year, as we move quickly—we’re off to a quick start thanks to Chairman GORDON. We can finally get this reauthorization done this year.

I really firmly believe that nanotech represents one of the most important—if not the most important—technological keys to improving our Nation’s future economic growth and improving our way of life.

Now, a lot of people don’t know what nanotech is. I want to really thank Ranking Member HALL for his great and impressive tutorial he gave on what nanotech is. It may be one of the most important things that people could learn from listening to the floor today.

Nanotech is the next industrial revolution. It is so critical that we take the necessary steps in this reauthorization so that our country remains on the cutting edge of this revolution.

Nanotech has the potential to deliver many revolutionary advances, from energy efficient, low-emission “green” manufacturing systems, to inexpensive portable water purification systems that provide universal access to safe water.

Nanotechnology has the potential to impact every sector of our economy. In just 6 years, the global market for nanoscale materials and products is expected to reach \$2.6 trillion and to be incorporated into 15 percent of the global manufacturing output.

The NNI has been effective in supporting productive, cooperative research efforts across a wide spectrum

of disciplines. The Initiative has established a network of state-of-the-art national facilities that are conducting groundbreaking work in nanoscale research and development. These centers of excellence have helped the U.S. lead the world in development and expansion of nanotechnology, leadership that has been vital to economic development and essential to the creation of innovative jobs leading to a stronger and more competitive America.

My home State of Illinois is one of the leaders in nanotech research. Many universities and businesses have become deeply invested through programs like the NNI. For example, my alma mater, Northwestern University, houses the Institute for Nanotechnology, which supports research and facilitates collaboration in solving major problems such as finding more precise ways to deliver chemotherapy, along with other medical applications of nanotech.

The Institute includes the Center for Nanofabrication and Molecular Self-Assembly, a multimillion-dollar research facility and one of the first federally funded centers of its kind. It helps foster partnerships to encourage researchers and entrepreneurs to become involved in this cutting-edge field, creating jobs and potential for entirely new industries.

Now, the reauthorization of the NNI includes three significant adjustments. First, it strengthens the planning and implementation of research on environmental health and safety aspects of nanotech ensuring that possible unintended impacts of nanotech products will not defeat the enormous promise of this technology. We need to make sure that people are confident in nanotech, and we need to make sure we can be confident in the safety of nanotech. That's one of the critical things that this reauthorization does with the NNI.

Second, it requires the NNI to place increased emphasis on technology transfer, which entails moving basic research results out of the lab and into commercial products. From my own experience in Illinois with our national labs and research universities, I know that technology transfer is not simple, but it is an important part of ensuring that R&D investments serve the public. Remember, we, the American people, are making these investments. We need to do everything we can that we have technology transfers, that everything that is found, everything developed, is something that we can bring to market.

And finally, this reauthorization creates new education programs to attract secondary school students to science and technology studies and to help prepare the nanotechnology workforce of tomorrow. As a former educator and as chairman of the Research and Science Education Subcommittee, I understand the vital role of education in promoting the success of individual Americans, and more broadly, the economic competitiveness of our Nation.

The SPEAKER pro tempore. The time of the gentleman has expired.

Mr. GORDON of Tennessee. I yield the gentleman 30 additional seconds.

Mr. LIPINSKI. The field of nanotechnology holds great promise for our future, and it's critical that we do all that we can to help ensure that America leads the way in nanotech innovation. H.R. 554 will place the U.S. in a key position to drive technology breakthroughs and go even further to ensuring our long-term competitiveness in the global economic marketplace.

Mr. Speaker, I encourage my colleagues to support the passage of H.R. 554, move this authorization forward and get this done this year so we can keep America moving forward on the cutting edge of this new revolution.

Mr. HALL of Texas. Mr. Speaker, I yield 5 minutes to the gentleman from Missouri (Mr. BLUNT).

Mr. BLUNT. Mr. Speaker, I thank the gentleman for yielding. And let me say to start with that I am in complete agreement, as approximately 407 of our Members-plus will be with the gentleman from Texas, the gentleman from Tennessee, and the gentleman from Illinois. I appreciate the work Mr. GORDON and Mr. HALL have done to get this bill to the floor.

In fact, Missouri State University, right next to my home in Springfield, has a leading project going on in nanotechnology. I think it is important. I was one of those 407 people that voted for this bill last year. I expect a vote for this bill today.

And as Mr. COHEN earlier said, as a Member of the minority, I want to talk about what we're not doing on the floor today. I want to talk about the fact that somewhere, while we're out here debating a bill where we'll spend \$1 billion a year that's already passed the House last year, 407-6, somewhere in this building—and that's significant because I don't know where it is and I don't think the Republican conferees, all two of them, know either—somewhere in this building, meetings are going on to decide how we spend \$800 billion.

For \$800 billion, if I could use the analogy that Mr. HALL used, if the thickness of this paper is 100,000 nanometers, the thickness of this paper is 100,000 nanometers, if you stacked these pieces of paper one on top of each other, 27½ feet high, you'd be at 800 billion nanometers.

So if pieces of paper represented \$100,000, you'd have to be 27½ feet high to be to \$800 billion. This is a huge amount of money. And later, if greater experts than me at nanotechnology figure out that it's only 26 feet, it's still a lot of money. It's \$800 billion.

Last year when we worked together on a stimulus package—not the case this year—we said, the Speaker said, I said, others said, a stimulus package has to be timely, it has to be targeted, it has to be temporary. And I'd advance the idea that this is none of those. It's certainly not timely. Alice Rivlin said

the other day—this is the former budget director for President Clinton—no more than one out of ten of these dollars can be spent this year. There are some other estimates that, well, maybe it's as high as two out of ten.

So my question is, why are we spending the other 80 or 90 percent as if it was a stimulus package as opposed to just something somebody in this building wants to do and in fact is going to do for a long time which comes to targeted.

I'd also suggest that more than anything else, this bill is a collection of what the new majority has wanted to do for a decade. I believe I could go through the debates of the House over the last 10 years and find virtually every single thing in this bill having been proposed some time during the last 10 years and we didn't do it because sometimes because the majority thought it was a bad idea, often because the majority at that time, the other side, my side, thought we just simply couldn't afford it.

And temporary? The last dollar to be spent in that bill wherever it's being developed is spent in 2019. Not timely, not temporary, not targeted. And if you're measuring it in money, lots of nanometers of money. In fact, the bill that we think we saw earlier the size of, the total cost per page of that bill was over \$7 million. The total cost per word, rather, was \$7 million. The total cost per page was \$1.2 billion.

One thing the Congress will do in all likelihood this week is set a record that won't be challenged for a long time in how fast we can spend how much money. We're going to make nanotechnology look like it's an old science compared to the new technology of spending money.

So while we're debating this bill that absolutely will pass, that there is virtually unanimous agreement on, some group of people in the majority of the House and Senate is deciding what that big bill is going to look like. And believe me, most of us will have no idea what's in it the day we vote for it. It will be impossible to know, and only over the next 6 months when the American people find out what's in that bill, will Members of Congress begin to wish that they had not voted for the bill today and taken the time this kind of spending deserves.

Mr. GORDON of Tennessee. Mr. Speaker, I yield myself 3 minutes.

I want to just make my friend from Missouri feel better and let him know that at 3 o'clock today there is a bicameral, bipartisan conference that will be held. And so I just wanted to give him that comfort.

And now I want to yield the balance of my time to the gentlelady from Pennsylvania (Mrs. DAHLKEMPER), a very active and important member of the Science and Technology Committee.

Mrs. DAHLKEMPER. Mr. Speaker, I rise today in support of H.R. 554, the National Nanotechnology Initiative Amendments Act.

This legislation strengthens and provides transparency to Federal research and development efforts in understanding both the risks and promise associated with nanotechnology. While wanting to learn and apply advancements in nanotechnology to some of our Nation's most pressing challenges, we must also ensure that we are aware of any safety risks associated with the technology.

In the field of health care, one of the most promising developments in cancer treatments involve the placement of carbon nanotubes in cancerous tumors, subjecting them to radiowaves, which heat the cancer cells to the point of destruction yet spare the surrounding healthy cells. This unique treatment was conceived by my constituent John Kanzius and is now in active development.

I am pleased that this bill strengthens the public-private partnerships as this will help us leverage private sector investments underway in our communities for projects such as this.

H.R. 554 reaffirms our Nation's commitment to harnessing the promise of nanotechnology research for advancements in health care and beyond, while also strengthening our commitment to safety in all Federal research and development.

I am particularly proud to support this bill and urge my colleagues' support.

Mr. HALL of Texas. Mr. Speaker, I yield 2 minutes to Colonel PITTS, the gentleman from Pennsylvania.

Mr. PITTS. Thank you, Mr. Chairman. Thank you for yielding.

Mr. Speaker, I rise in support of H.R. 554 and the importance of nanotechnology. It's a very important part of our economy. It's an important part of health care. Our stimulus bill has a lot of things to do with our economy that this could be a part of. And so I'm glad we're taking time to recognize the importance of this.

An hour ago, we stood here honoring one of our colleagues, JOHN DINGELL, and his service as chairman of the Energy and Commerce Committee. And I just want to say he served with dignity. He was always fair to the minority. It was a pleasure to serve with him as chairman.

And the Energy and Commerce Committee is one of the three committees that has jurisdiction over this stimulus, this massive stimulus bill that's coming up later this week.

The gentleman from Tennessee mentioned there is a bipartisan conference today at 3 o'clock on this bill. The problem is there are only two Republicans. Not one Republican from Energy and Commerce, which has jurisdiction over a lot of this bill, is on this conference committee.

□ 1300

We spent 12 hours a week ago in marking up this bill, and then our amendments were promptly stripped out of the bill.

Debate has been limited. Literally in this case, we're not even given a seat at the table, with a Republican Member of this important committee of jurisdiction being included in the conference committee and negotiating the final bill.

We're barreling full steam ahead, railroading through Congress a trillion dollar massive spending bill that is masquerading as an economic stimulus bill, and I think on a day when we honor good men like JOHN DINGELL and his service, the kind of governance he has provided for so many years in this institution and with this committee that has jurisdiction, that it would be appropriate that we govern differently.

And I thank the gentleman.

Mr. GORDON of Tennessee. I reserve the balance of my time.

Mr. HALL of Texas. I yield the gentleman from North Carolina (Ms. FOXX) 2 minutes.

Ms. FOXX. I thank the ranking member.

I am sure from hearing the speakers on the other side that this nanotechnology bill is worthwhile and that what we have gotten from nanotechnology in the past are very good results. But what we have to be looking at right now, because the major issue before us and before the people in this country is what's going to happen in this so-called stimulus bill.

I got a call a little while ago from a lady who wanted to know if what she had heard on the radio was true, that part of this bill is going to fund chips to go inside United States citizens so the government can track them. We frankly don't know what is going to be in this bill.

But what we do know is the Republicans have an alternative to this bill. And contrary to what the leadership on the Democratic side has been saying, it's not that Republicans don't want to do anything. We want to do things. We understand Americans are hurting. We understand that. But we want to do what's right, not waste American people's money on what fits.

You know, Rahm Emanuel said never waste a crisis, so go in and put in all this pork that we want to get passed that we can't get passed in other bills, put it in this and get it done. But that's not what Republicans want to do. We want to make sure the money is being spent well.

Here we have in this bill some things we know: \$1,500 tax credit to anyone who purchases neighborhood electric vehicles. Those are also known as golf carts. So we are going to subsidize people to buy golf carts. We have a \$750 million earmark for the National Computer Center. You know, the President says no earmarks. That's not true. There are plenty of earmarks in this bill. We have \$275 million for flood prevention. How long have we known that we needed to prevent floods in certain areas of this country? Why are we using this bill for \$100 million for lead paint hazard reduction?

This is the wrong bill for this country at this time.

Mr. HALL of Texas. I yield the gentleman from Illinois (Mr. SHIMKUS) 2 minutes.

(Mr. SHIMKUS asked and was given permission to revise and extend his remarks.)

Mr. SHIMKUS. Mr. Speaker, I thank the ranking member. It's good to be with my friend Mr. GORDON, who's the chairman.

Nanotechnology is a very important aspect. I know Newt Gingrich for years has talked about the benefits of nanotechnology.

Benefits, what this can do for current competitiveness and future competitiveness, I think a lot of people don't know because it's so small. That's why it's called nano. Water filtration, dental bonding agents, bumpers and catalytic converters on cars, protective and glare reducing coatings, burn and wound dressings. But other things, solar cells in roofing tiles and siding, tires that improve skid resistance, high performance footwear, automotive parts. I think it is very, very exciting.

I think this is something that if we were to move in a stimulus package that would be helpful would be putting money into nanotechnology. That's not what we're doing.

We are going to be putting more money into the repairing of three golf courses in the District of Columbia than we're going to be doing for putting money into nanotechnology. We're going to be putting more money into creating cafe table settings for lunch in the District of Columbia than we're going to be putting in nanotechnology. We are going to be putting more money into free spring lunch jazz concerts for people in the District of Columbia than we're going to be putting into nanotechnology.

The chairman of this committee also has the benefit of sitting on the great Energy and Commerce Committee. One of our issues of concern is the conference committee that I sat on on the energy bill in 2005, the much-maligned energy bill, was open. We had hearings. We had a markup.

The SPEAKER pro tempore. The time of the gentleman has again expired.

Mr. HALL of Texas. I yield the gentleman an additional 30 seconds.

Mr. SHIMKUS. We actually had C-SPAN covering it. We had amendments offered by both sides. We had votes. We had discussions on the conference committee.

On this stimulus bill, there is none. It's going to be cut in the back rooms by 10 Members. There's 435 of us who are elected to represent this government here. Ten Members are going to decide what is in the bill, and we're going to end up with cafe tables for people to have lunch in D.C. instead of research into nanotechnologies.

Mr. HALL of Texas. Mr. Speaker, I recognize the chairman of the House Republican Conference, the gentleman

from Indiana (Mr. PENCE) for 3 minutes.

(Mr. PENCE asked and was given permission to revise and extend his remarks.)

Mr. PENCE. House Republicans know we are in a serious recession. The American people are hurting, and despite the claims by some in the administration and some here on the House floor, House Republicans know that Congress must act and must act now to deal with this serious economic downturn affecting America's businesses and families.

Despite the accusations of some that Republicans want to do nothing, because somehow a choice between one party that wants to do something and another party that wants to do nothing, I was struck, Mr. Speaker, this morning when even the Washington Post called that allegation a straw man.

In fact, the choice before us here today is whether or not we will move the legislation that's now become a back-room deal that has the size and magnitude of the entire discretionary budget of the United States of America, whether we will move that bill without any input whatsoever from House Republicans.

But this is not an argument about who had their say. This is an argument about what would be the best solution to deal with these challenging economic times.

Republicans oppose this bill because this back-room deal is simply a long wish list of big government spending that won't work to put Americans back to work. It won't create jobs. The only thing it will stimulate is more government and more debt.

And it will probably do more harm than good, and it sounds from news reports at this point, Mr. Speaker, that the conferees on this committee have made this bad bill even worse. I'm hearing reports that modest tax relief in this bill has been reduced to pay for even more big government spending.

And the American people have a right to know what's in this bill. Yesterday, Republicans and Democrats came together and unanimously voted in this Chamber that when this bill was completed it would be posted on the Internet for a minimum of 48 hours for the American people to review it. The question today is, will the House majority keep their promise to the American people and post the legislation, that is about to be imminently revealed to this Nation, on the Internet to be carefully examined? The American people have a right to know what's in this bill.

And I believe with all my heart that the more they know, the more they will agree that Republicans have a better solution. Rather than more government, more debt and more spending, Republicans want to take half the amount of money that the majority wants to spend and use it for fast-acting tax relief for working families and small businesses.

Using the economic analysis of the Obama administration, the Republican plan would create twice the jobs at half the cost. We simply believe we have a better solution.

Mr. HALL of Texas. Mr. Speaker, I have no further requests for time, and I yield back the balance of my time.

Mr. GORDON of Tennessee. Mr. Speaker, let me just close by again giving my friend some comfort to know that at 3 o'clock today there's going to be a bicameral, bipartisan conference, conferees appointed by the Speaker for the Democrats and by Mr. BOEHNER for the Republicans. We all look forward to steady progress.

And I will finally close by again thanking Mr. HALL for his help as well in putting together this good, bipartisan bill.

Mr. HONDA. Mr. Speaker, I rise today in support of H.R. 554, the National Nanotechnology Initiative Amendments Act.

I commend Chairman BART GORDON and the other members of the Science and Technology Committee, on which I am proud to have once served, for the hard work and thoughtful consideration that went into this bill. I am pleased that this bill includes numerous provisions that I originally proposed in my own legislation, the Nanotechnology Advancement and New Opportunities (NANO) Act, H.R. 820.

Nanotechnology has the potential to create entirely new industries and radically transform the basis of competition in other fields, and I am proud of my work with former Science Committee Chairman Sherwood Boehlert on the Nanotechnology Research and Development Act of 2003 to foster research in this area.

But one of the things policymakers have heard from experts is that while the United States is a leader in nanotechnology research, our foreign competitors are focusing more resources and effort on the commercialization of those research results than we are.

Both H.R. 554 and my own bill would focus America's nanotechnology research and development programs on areas of national need such as energy, health care, and the environment, and have provisions to help assist in the commercialization of nanotechnology.

In recent months, there has been much discussion about potential health and safety risks associated with nanotechnology. Uncertainty is one of the major obstacles to the commercialization of nanotechnology—uncertainty about what the risks might be and uncertainty about how the federal government might regulate nanotechnology in the future. Both my bill and H.R. 554 require the development of a nanotechnology research plan that will ensure the development and responsible stewardship of nanotechnology.

Other important areas that are addressed by both H.R. 554 and H.R. 820 include: the development of curriculum tools to help improve nanotechnology education; the establishment of educational partnerships to help prepare students to pursue postsecondary education in nanotechnology; support for the development of environmentally beneficial nanotechnology; and the development of advanced tools for simulation and characterization to enable rapid prediction, characterization and monitoring for nanoscale manufacturing.

I am also pleased that H.R. 554 will require that the NNI Advisory Panel must be a stand-

alone advisory committee. This is a concept I originally proposed in 2002 in the Nanoscience and Nanotechnology Advisory Board Act (H.R. 5669 in the 107th Congress).

I would like to thank the members of the Blue Ribbon Task Force on Nanotechnology (BRTFN), a panel of California nanotechnology experts with backgrounds in established industry, startup companies, consulting groups, non-profits, academia, government, medical research, and venture capital that I convened with then-California State Controller Steve Westly during 2005, for the important recommendations included in its report, Thinking Big About Thinking Small, many of which are reflected in the bill we are considering today. I would also like to thank Scott Hubbard, who was the Director of the NASA Ames Research Center at that time and who served as working chair of the BRTFN, and all of the staff at Ames whose hard work made the task force run so well and helped produced a great report. The report is available on my Web site at http://honda.house.gov/issues/links/btrfn_report_final.pdf.

Again, I congratulate the Science and Technology Committee and Chairman GORDON for their work on this bill and thank them for incorporating so many of the provisions from my bill into H.R. 554, and I urge my colleagues to support this important legislation to reauthorize the nation's nanotechnology research and development program.

Mr. SMITH of Texas. Mr. Speaker, I strongly support H.R. 554—"The National Nanotechnology Initiative Amendments Act."

This legislation supports research and innovation in the field of nanotechnology and strengthens the National Nanotechnology Initiative (NNI) by adding provisions to encourage nanotechnology education, studies, and economic development.

Whether it's medical research, military systems, or energy advancements, nanotechnology plays a vital role in our lives today and will help drive innovation for tomorrow.

We see nanotechnology used in computers and other nano-electronics, as well as a wide variety of products from landmine detectors to water filtration systems to sunscreens.

The future of nanotechnology is limitless. Nanotechnology will pave the way for significant advances in many fields, including medical diagnostics, automotive performance, and solar energy.

In short, nanotechnology is the convergence of 21st century science and technologies. It is proof that small technology can have a huge impact in the world.

This legislation helps ensure that American companies have the resources they need to further develop nanotechnology, which will help American businesses remain on the cutting edge of technology and drive the American economy.

I want to thank Chairman GORDON and Ranking Member HALL for their work in bringing this bipartisan legislation to the Floor today.

I urge my colleagues to support H.R. 554.

Mr. GORDON of Tennessee. I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Tennessee (Mr. GORDON) that the House suspend the rules and pass the bill, H.R. 554.

The question was taken; and (two-thirds being in the affirmative) the

rules were suspended and the bill was passed.

A motion to reconsider was laid on the table.

WATER USE EFFICIENCY AND CONSERVATION RESEARCH ACT

Mr. GORDON of Tennessee. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 631) to increase research, development, education, and technology transfer activities related to water use efficiency and conservation technologies and practices at the Environmental Protection Agency.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 631

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 “Water Use Efficiency and Conservation Research Act”.

SEC. 2. FINDINGS.

Congress finds the following:

(1) Between 1950 and 2000, the United States population increased nearly 90 percent. In that same period, public demand for water increased 209 percent. Americans now use an average of 100 gallons of water per person each day. This increased demand has put additional stress on water supplies and distribution systems, threatening both human health and the environment.

(2) Thirty-six States are anticipating local, regional, or statewide water shortages by 2013. In addition, climate change related effects are expected to exacerbate already scarce water resources in many areas of the country.

(3) The Intergovernmental Panel on Climate Change’s 2007 assessment states that water stored in glaciers and snow cover is projected to decline, reducing water availability to one-sixth of the world’s population that relies upon meltwater from major mountain ranges. The Intergovernmental Panel on Climate Change also predicts droughts will become more severe and longer lasting in a number of regions.

(4) Water conservation should be a national goal and the Environmental Protection Agency should work with nongovernmental partners to achieve that goal. The Environmental Protection Agency should support the research, development, and dissemination of technologies and processes that will achieve greater water use efficiency.

(5) WaterSense is a voluntary public-private partnership program established by the Environmental Protection Agency to promote water efficiency by helping consumers identify water-efficient products and practices. The Environmental Protection Agency estimates that if all United States households installed water-efficient appliances, the country would save more than 3,000,000,000,000 gallons of water and more than \$17,000,000,000 per year.

(6) The WaterSense program has developed a network of partners, and therefore can disseminate the results of research on technologies and processes that achieve greater water use efficiency.

SEC. 3. RESEARCH PROGRAM.

(a) IN GENERAL.—The Assistant Administrator for Research and Development of the Environmental Protection Agency (in this Act referred to as the “Assistant Administrator”) shall establish a research and development program consistent with the plan developed under section 4 that promotes water use efficiency and conservation, including—

(1) technologies and processes that enable the collection, storage, treatment, and reuse of rainwater, stormwater, and greywater;

(2) water storage and distribution systems;

(3) behavioral, social, and economic barriers to achieving greater water use efficiency; and

(4) use of watershed planning directed toward water quality, conservation, and supply.

(b) CONSIDERATIONS.—In planning and implementing the program, the Assistant Administrator shall consider—

(1) research needs identified by water resource managers, State and local governments, and other interested parties; and

(2) technologies and processes likely to achieve the greatest increases in water use efficiency and conservation.

(c) MINORITY SERVING INSTITUTIONS.—In the execution of this program, the Assistant Administrator may award extramural grants to institutions of higher education and shall encourage participation by Minority Serving Institutions.

SEC. 4. STRATEGIC RESEARCH PLAN.

(a) IN GENERAL.—The Assistant Administrator shall coordinate the development of a strategic research plan (in this Act referred to as the “plan”) for the water use efficiency and conservation research and development program established in section 3 with all other Environmental Protection Agency research and development strategic plans.

(b) PLAN CONTENTS.—The plan shall—

(1) outline research goals and priorities for a water use efficiency and conservation research agenda, including—

(A) developing innovative water supply-enhancing processes and technologies; and

(B) improving existing processes and technologies, including wastewater treatment, desalination, and groundwater recharge and recovery schemes;

(2) identify current Federal research efforts on water that are directed toward meeting the goals of improving water use efficiency, water conservation, or expanding water supply and describe how such efforts are coordinated with the program established in section 3 in order to leverage resources and avoid duplication; and

(3) consider and utilize, as appropriate, recommendations in reports and studies conducted by Federal agencies, the National Research Council, the National Science and Technology Council, or other entities in the development of the plan.

(c) SCIENCE ADVISORY BOARD REVIEW.—The Assistant Administrator shall submit the plan to the Science Advisory Board of the Environmental Protection Agency for review.

(d) REVISION.—The plan shall be revised and amended as needed to reflect current scientific findings and national research priorities.

SEC. 5. TECHNOLOGY TRANSFER.

The Assistant Administrator, building on the results of the activities of the program established under section 3, shall—

(1) facilitate the adoption of technology and processes to promote water use efficiency and conservation; and

(2) collect and disseminate information, including the establishment of a publicly accessible clearinghouse, on technologies and processes to promote water use efficiency and conservation, including information on—

(A) incentives and impediments to development and commercialization;

(B) best practices; and

(C) anticipated increases in water use efficiency and conservation resulting from the implementation of specific technologies and processes.

SEC. 6. ADVANCED WATER EFFICIENCY DEVELOPMENT PROJECTS.

(a) IN GENERAL.—As part of the program under section 3, the Assistant Administrator shall carry out at least 4 projects under which the funding is provided for the incorporation into a building of the latest water use efficiency and conservation technologies and designs. Funding for each project shall be provided only to cover incremental costs of water-use efficiency and conservation technologies.

(b) CRITERIA.—Of the 4 projects described in subsection (a), at least 1 shall be for a residential building and at least 1 shall be for a commercial building.

(c) PUBLIC AVAILABILITY.—The designs of buildings with respect to which funding is provided under subsection (a) shall be made available to the public, and such buildings shall be accessible to the public for tours and educational purposes.

SEC. 7. REPORT.

Not later than 18 months after the date of enactment of this Act, and once every 2 years thereafter, the Assistant Administrator shall transmit to Congress a report which details the progress being made by the Environmental Protection Agency with regard to—

(1) water use efficiency and conservation research projects initiated by the Agency;

(2) development projects initiated by the Agency;

(3) outreach and communication activities conducted by the Agency concerning water use efficiency and conservation; and

(4) development and implementation of the plan.

SEC. 8. WATER MANAGEMENT STUDY AND REPORT.

(a) STUDY.—

(1) REQUIREMENT.—The Administrator of the Environmental Protection Agency shall enter into an arrangement with the National Academy of Sciences to complete a study of low impact and soft path strategies for management of water supply, wastewater, and stormwater.

(2) CONTENTS.—The study shall—

(A) examine and compare the state of research, technology development, and emerging practices in other developed and developing countries with those in the United States;

(B) identify and evaluate relevant system approaches for comprehensive water management, including the interrelationship of water systems with other major systems such as energy and transportation;

(C) identify priority research and development needs; and

(D) assess implementation needs and barriers.

(b) REPORT.—Not later than 2 years after the date of enactment of this Act, the Administrator of the Environmental Protection Agency shall transmit to the Committee on Science and Technology of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on the key findings of the study conducted under subsection (a). The report shall evaluate challenges and opportunities and serve as a practical reference for water managers, planners, developers, scientists, engineers, non-governmental organizations, Federal agencies, and regulators by recommending innovative and integrated solutions.

(c) DEFINITIONS.—For purposes of this section—

(1) the term “low impact” means a strategy that manages rainfall at the source using uniformly distributed decentralized micro-scale controls to mimic a site’s predevelopment hydrology by using design