There was no objection.

Mr. BRADY of Pennsylvania. Mr. Speaker, I yield myself such time as I may consume.

I am pleased to present the United States Capitol Police Administrative Technical Corrections Act of 2008. As its title suggests, H.R. 5972 is not intended to make substantive policy changes for the Capitol Police. It corrects drafting errors, modernizes outdated terms, and repeals redundant and inconsistent provisions already on the books.

My favorite correction is a long overdue repeal of the 1868 law requiring Capitol Police officers to buy their uniforms. Congress decided years ago to provide their uniforms, but has never repealed the 1868 law. Chief Phillip Morse requested most of these corrections, the committee found others, and we included several excellent suggestions offered by the gentleman from Michigan (Mr. EHLERS). Again, it was a pleasure to work with him and his staff, as always.

The bill has the support of Chief Morse and our House Sergeant-at-Arms, Wilson Livingood, and I urge an ''aye'' vote.

I reserve the balance of my time.

Mr. EHLERS. Mr. Speaker, I rise today in support of H.R. 5972. While I would have preferred that we would have addressed these items in regular order, I am pleased that the proposed technical corrections in this bill will create a stronger operational framework for the Capitol Police. As often happens when language is tied to an appropriations bill in a hasty fashion, several requirements in the original legislation governing Capitol Police operations proved problematic under greater scrutiny and further use. This bill will bring clarity to the administration of the U.S. Capitol Police and will eliminate those provisions which are in conflict with one another or are antiquated and therefore unnecessary.

I would also point out that this illustrates the importance of the appropriations subcommittees to work together with the authorizing committees, because virtually all the problems that have arisen in the past in this area resulted from a lack of cooperation between the authorizing and appropriating committees.

The changes specified in this bill will also establish a transparent and decisive governance framework and create a clear reporting structure within the U.S. Capitol Police. The clarified language provides the Chief of the Capitol Police with explicit authority to perform all hiring and termination actions, which will assist the U.S. Capitol Police's legal staff in executing its duties regarding personnel matters.

This bill also clarifies that the Capitol Police must notify this committee, as well as the Senate Rules and Administration Committee, of substantive administrative and operational actions, such as notices of personnel actions or deployment of personnel outside of the Capitol Police's jurisdiction. This language further strengthens this committee's function as an oversight body and allows us to address any such issues as they occur.

I thank Chairman BRADY for his work on this bill, which will, upon its passage, create a stronger law enforcement organization, and a safer, more secure Capitol complex.

I reserve the balance of my time.

Mr. BRADY of Pennsylvania. I have no further speakers.

Mr. EHLERS. I have no further speakers. I will make some concluding comments.

First of all, Mr. Speaker, I want to thank my chairman, Mr. BRADY. He and I have worked very, very well together on a number of issues, and I believe that, if there were a competition, we would probably hold the prize among the committees of the House as to the best functioning committees who really try to get business done without a lot of partisanship. I commend my colleague for his great attitude on this.

One other comment I will make in regard to the Capitol Police. The one area we did not examine, which I think needs examination at some point, and I hope our committee will take it up at some point, the duties of the Capitol Police Board are not as clearly outlined as they might be. The composition, I believe, is lacking. We have a GAO report of a few years ago which pointed out some severe shortcomings in the operations and decision-making processes of the Capitol Police Board, and I think we would be well-served in this institution to re-examine that issue.

We have done so much in the past decade to modernize the police force; make them provide more ready responses to the trauma that we face today in this time of terrorism. I think we would be well-advised to look at the governing structure once again too, which to my knowledge, has not been examined for a long time.

With that, I will yield back the balance of my time.

Mr. BRADY of Pennsylvania. Again, I thank the gentleman from Michigan. He is right: it is a pleasure to work together. I look forward to working together with you in your interest on the Capitol Police Board. With that, I urge an ''aye'' vote.

I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Pennsylvania (Mr. BRADY) that the House suspend the rules and pass the bill, H.R. 5972, as amended.

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

A motion to reconsider was laid on the table.

NATIONAL NANOTECHNOLOGY INITIATIVE AMENDMENTS ACT OF 2008

Mr. GORDON of Tennessee. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 5940) to authorize activities for support of nanotechnology research and development, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 5940

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 2008''.

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 2008, 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 2008;'';

(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 2008. 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, 2009.

''(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 2009.

''(2) $500,000 for fiscal year 2010.

''(3) $500,000 for fiscal year 2011.''; 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—

(A) from amounts authorized under section 7002(b)(2)(B) of the America COMPETES Act, $5,000,000 for fiscal year 2009; and

(B) 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—

(A) from amounts authorized under section 7002(b)(2)(B) of the America COMPETES Act, $5,000,000 for fiscal year 2009; and

(B) 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 2003 through fiscal year 2007; 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 Nanomanufactoring, 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 coordination 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 NANOMANUFACTORING 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 Nanomanufactoring 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 Nanomanufactoring 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 Nanomanufactoring 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 Nanomanufactoring 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 gentlewoman from Illinois (Mrs. BIGGERT) 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 materials on H.R. 5940, 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. 5940 is a bipartisan bill which myself and Ranking Member HALL jointly introduced, along with 23 additional Democratic and Republican members of the Science and Technology Committee. The committee believes this legislation will strengthen our Nation's competitiveness in the rapidly advancing field of nanotechnology.

I want to particularly thank my colleague, the gentleman from Texas, for working with me to craft this legislation. I also want to thank Dr. BAIRD, the Chair, and Dr. EHLERS, the ranking member, respectively, of the Research and Science Education Subcommittee, who were both instrumental in development of this bill.

Finally, I want to thank all 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. Certainly, I want to thank Jim Wilson, working with the minority and majority staff, in putting together this excellent piece of legislation.

The term ''revolutionary technology'' has become a cliche, 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 specific design requirements. Nanotechnology-based applications are arising that were not even imagined a decade ago.

The range of potential applications of nanotechnology is broad and will have enormous consequences for electronics, energy transformation, storage materials, and medicine and health, to name just a few. Indeed, the scope of this technology is so broad as to leave virtually no product untouched.

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

The 2003 statute put in place formal interagency planning, budgeting, and coordinating mechanisms for the NNI. It now receives funding from 13 agencies and has a budget of $1.5 billion for fiscal year 2008. The NNI statute also provides for formal reviews of the content and management of programs by the National Academy of Sciences and by a designated advisory committee of nongovernmental experts. Their assessment of the NNI has been generally positive.

The NNI supports productive cooperative research efforts across a spectrum of disciplines and is establishing a network of national facilities for further support of nanotechnology research and development. H.R. 5940 is based on findings and recommendations from several hearings during the current Congress that examined various aspects of the NNI. It also reflects recommendations from the formal reviews of the NNI by the National Academy of Sciences and the NNI advisory panel. Finally, it incorporates many suggestions from various communities of interest that reviewed early versions of the bill.

H.R. 5940 does not substantially alter the NNI, but makes adjustments to some of the priorities of the programs and strengthens one of the core components, environmental and safety research.

Nanotechnology is advancing rapidly, and at least 600 products have entered commerce that contain nanoscale materials, including aerosols and cosmetics. It is important for the successful development of nanotechnology that potential downsides of nanotechnology be addressed from the beginning in a straight forward and open way.

We know too well that negative public perceptions about the safety of technology can have serious consequences for its acceptance and use. At present, the level of scientific understanding is sufficient to pin down what types of engineered nanomaterials may be dangerous, although early studies show some are potentially harmful.

One example is the recent finding that certain types of carbon nanotubes may mimic the effect of asbestos in causing cancer. More research is needed to determine what characteristics of nanoscale materials are most significant with regard to determining their effects on living organisms or on the environment.

Although the NNI from its beginning has included research to increase understanding of environmental and safety aspects of nanotechnology, it has not yet put in place a well-designed, adequately funded and an effectively executed research program in this area. The environmental and safety component of NNI must be improved by quickly developing a research plan and implementation strategy that specifies near-term and long-term goals, sets milestones and timeframes for meeting near-term goals, clarifies agencies' roles in implementing the plan, and allocates sufficient resources to accomplish those goals.

This is the first essential step for the development of nanotechnology to ensure that sound science guides the formation of regulatory rules and requirements. It will reduce the current uncertainty that inhibits commercial development of nanotechnology and will provide a sound basis for future rulemaking.

H.R. 5940 addresses risk reduction research by requiring that the NNI agencies develop a plan for the environmental and safety research component of the program, as well as a roadmap to implementing it. This plan must include explicit near-term and long-term goals, specify the funding required to reach these goals, and identify the role of each participating agency.

The bill also assigns responsibility to a senior official at the Office of Science and Technology Policy at the White House to oversee this planning and implementation process and to ensure the agencies allocate the resources necessary to carry it out.

Finally, the bill requires accountability by establishing a publicly accessible database containing information on the content and funding for each environmental health and safety research project supported by the NNI.

Another key component of H.R. 5940 I want to highlight involves provisions to help capture the economic benefits of nanotechnology.

□ 1230

Too often, the U.S. has led in the basic research on the frontiers of science and technology, but has failed to capitalize on commercial development flowing from these new discoveries.

The NNI has so far invested approximately $7 billion over 7 years in basic research that is providing new tools for manipulation of matter at the nanoscale and is increasing our understanding of the behavior of engineered nanoscale materials and devices. Increased consideration should be given to ways to foster the transfer of new discoveries to commercial products and processes. To that end, H.R. 5940 includes provisions to encourage use of nanotechnology research facilities by companies for prototyping and proof of concept studies and it specifies steps for increasing the number of nanotechnology-related projects supported under the Small Business Innovation Research initiative and by the Technology Innovation Program, established under the COMPETES Act.

To increase the relevancy and value of NNI, the bill also authorizes large-scale, focused, multi-agency research and development initiatives in areas of national need. This approach will advance the development of promising research discoveries for demonstrating technical solutions in targeted areas, which will contribute to economic competitiveness and other social benefits. For example, such efforts could be organized around the development and replacement of silicone-based transistors, developing new nanotechnology-based devices for harvesting solar energy, and nanoscale sensors for detecting cancer.

Finally, I want to highlight some provisions of the bill that address another key issue, future STEM workforce needs. The Nation needs a full pipeline of talented engineers, scientists and technicians and a scientifically literate public able to exploit and understand this new science.

One provision of H.R. 5940 builds on the National Science Foundation's Math and Science Partnership Program to use nanotechnology education activities as a vehicle to raise the interest of secondary students in possible STEM careers. A key component of these new partnerships is involvement by the nanotechnology companies in offering hands-on learning opportunities at their facilities for students and teachers.

Another educational provision supports the development of undergraduate courses of study in nanotechnology fields. This will help prepare future technicians, scientists and engineers who will be needed to meet the demands of industry as nanotechnology commercialization continues to expand.

Mr. Speaker, nanotechnology will soon touch the lives of all Americans. It is already in our cell phones, cosmetics, paints and clothing. It will soon help to protect the lives of our police officers and military servicemen, and is showing promise in the treatment of cancer and promoting wound healing. There is no doubt that the potential of this technology is great. The bill before us today goes a long way toward ensuring that nanotechnology is developed in a safe and environmentally benign way, and that the Nation reaps the benefits of our research investment.

H.R. 5940 has the support of many business and professional associations, including the Semiconductor Industry Association, the NanoBusiness Alliance, the American Chemical Society, the American Physical Society, SEMI North America, the National Chemistry Council, the American Electronics Association, the Association of Science-Technology Centers, IEEE-USA, Materials Research Society, Semiconductor Research Corporation,

the National Science Teachers Association, American Psychological Association, the American Institute for Medical and Biological Engineering, Texas Instruments, IBM and Applied Materials, among just a few.

These organizations, like my colleagues on the Science and Technology Committee, recognize that H.R. 5940 will enhance America's efforts in nanotechnology research and development and will help bring its many benefits to the public.

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

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

The SPEAKER pro tempore. Without objection, the gentleman from Texas (Mr. HALL) will control the time.

There was no objection.

Mr. HALL of Texas. Mr. Speaker, I rise in support of H.R. 5940, the National Nanotechnology Initiative Amendments Act of 2008, and I yield myself such time as I may consume.

Mr. Speaker, I control time for what we call the opposition for the legislation here today, but I guess that is just a mere technicality, because I am pleased to join Chairman GORDON as well as an overwhelming majority of our committee members on both sides of the aisle as an original cosponsor of H.R. 5940, the National Nanotechnology Initiative Amendments Act of 2008.

The initiative was first named in the 2001 budget request and made a priority by President Bush. We codified it in 2003, and I was pleased to cosponsor that measure as well then. Now we have taken an already good statute and improved it just a bit, and streamlined some administrative issues to ensure that areas such as nanomanufacturing, education and environmental health and safety are adequately recognized.

It is mind-boggling to realize that the piece of paper that I am reading from is 100,000 nanometers thick. 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 electronics, biomedical, pharmaceutical, cosmetic, energy, catalytic, and materials applications is amazing and the kind of research and technology that makes the United States the leader in this innovation. It is important that we continue to make this area of research a national priority.

Certainly, just as an example, look at how nanotechnology has been used to create clean, secure and affordable energy. With gas prices averaging $4 a gallon, when was the last time we heard ''affordable energy''?

Nanotechnology research is currently taking place to improve the performance or increase the efficiency of renewable energy systems, such as solar energy conversion, wind energy, biomass power for utility applications, hydrogen production and storage for transportation, including the development of fuel cell technology, and geothermal energy. Nanofilms for windows are being developed for home use to promote energy efficiency. Nanotechnology is being used to improve batteries and create solid state lighting and low powered displays. The list and potential at this time are absolutely endless.

So I encourage my colleagues to support this measure. This has been a bipartisan effort from the beginning, and while we have made some changes to the program, I believe that, by and large, we continue to give the NNI and all the Federal agencies involved with this the flexibility that they absolutely need to do their work without being overly prescriptive.

I reserve the balance of my time.

Mr. GORDON of Tennessee. Mr. Speaker, first let me concur with the remarks of my ranking member, Mr. HALL. This has been a good, bipartisan, collaborative effort, and I thank him and his staff for all their work.

I yield 4 minutes to the vice chairman of the Science and Technology Committee, the gentleman from Illinois (Mr. LIPINSKI).

Mr. LIPINSKI. Mr. Speaker, today I rise in support of H.R. 5940, legislation reauthorizing the National Nanotechnology Initiative known as the NNI. I want to congratulate Chairman GORDON and Ranking Member HALL for their hard work in crafting this legislation. I also want to acknowledge all 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.

Nanotechnology, or the science and technology of building devices from single atoms and molecules, soon will impact nearly 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 global manufacturing output. I 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, from medical applications, to green nanoenergy, to nanoelectronics, which will be critical as we reach the limits of current materials.

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 have helped the U.S. maintain a strong presence in the development and expansion of nanotechnology, which has been vital to economic development and essential to the creation of innovative jobs, leading to a stronger and more competitive America. The committee stated in the bill's report language the need to expand the current centers that we have as necessary to meet future research needs.

I am proud that my home State of Illinois is one of the leaders in nanotechnology research. Illinois boasts two national labs. It is home to numerous cutting-edge businesses and some of the Nation's preeminent research universities, such as my alma mater, Northwestern University, and the University of Illinois, which are conducting groundbreaking work in this field.

To keep the U.S. ahead of other nations, who are now making substantial investments in nanotech, this reauthorization makes three significant adjustments, as mentioned by the chairman.

First, it strengthens the planning and implementation of research on the environmental, health and safety aspects of nanotech. Not only is public safety paramount in its own right, but public confidence in these new technologies is also necessary for the success of nanotech industries.

Second, this bill requires the NNI to place increased emphasis on technology transfer; that is, moving basic research results out of the lab and into commercial products, materials and devices. From my own experiences in Illinois with our national labs and research universities, I understand that technology transfer is not simple, but it is critical to ensuring that R&D investments serve the public.

Third, H.R. 5940 creates a new nanotechnology education program to attract secondary school students to science and technology studies to help prepare the nanotech workforce of the future. As a former teacher, I understand the importance of education in promoting not only the success of individual Americans, but also promoting the success of American innovation such as nanotechnology.

Mr. Speaker, as nanotechnology moves from a multibillion to a multitrillion-dollar industry, there is great promise in store, but it is critical that we do all we can to ensure that America leads the way in nanotech innovation. H.R. 5940 will keep the U.S. in a position to drive the development of nanotechnology and go a long way towards ensuring that America reaps the benefits of our research investment.

I urge my colleagues to support passage of H.R. 5940.

Mr. HALL of Texas. Mr. Speaker, I yield 5 minutes to the gentlewoman from Illinois (Mrs. BIGGERT), the previous Energy Subcommittee Chair.

Mrs. BIGGERT. I thank the ranking member, the gentleman from Texas, for yielding me the time.

Mr. Speaker, as an original cosponsor of H.R. 5940, I rise to express my continued support for the bill that we are considering here today.

Most Americans learn in grade school and high school that atoms are building blocks of nature. In the years since I was in school, incredible machines

have allowed us to even see every one of these atoms. But now, thanks to the National Nanotechnology Initiative, or NNI, we have developed and continue to develop the tools, equipment and expertise to manipulate those atoms and build new materials and new machines, one molecule at a time.

First established in 2001 and later authorized in statute in 2003, the NNI has by all accounts succeeded at coordinating nanotechnology research and development across many Federal agencies to the benefit of our national competitiveness. According to a recent review of the program by the President's Council of Advisers on Science and Technology, PCAST, the United States has been and remains the recognized leader in nanotechnology R&D. But the Council rightly pointed out that the European Union and China are gaining ground on us. That is why I am pleased that we are building on the success of NNI by passing H.R. 5940 today.

Thanks to the NNI, the U.S. has an extensive network of nanoscale science research centers. Five of those centers are operated and maintained by the Department of Energy's Office of Science. One of those DOE centers, the Center for Nanoscale Materials, is located in my district at Argonne National Laboratory.

In its first year of operation, Argonne's Center for Nanoscale Materials hosted over 100 scientists and engineers engaged in nanotech research from across the country and around the world, giving them access to the most powerful x-ray device in the Western Hemisphere at the Advanced Photon Source at Argonne.

□ 1245

As Americans face ever rising gasoline and energy prices, we are fortunate that Congress and the President had the foresight to invest in the DOE's nanoscience centers. Because of our Federal investment in years past, scientists and engineers are already hard at work manipulating atoms to create new, lighter, stronger materials for wind turbines, improved lubricants for gear boxes, and better wiring for generators, all of which will improve the efficiency of wind power. DOE scientists are also using nanotechnology to make more durable and efficient solar cells, catalysts for the direct conversion of light energy to hydrogen, new materials for lighter, more powerful, longer lasting batteries that will improve energy storage and bring the plug-in hybrid car to market more quickly. Thanks to nanotechnology, progress is being made on advanced energy technologies that will reduce our reliance on foreign oil and gas.

But to continue making progress, Congress must provide adequate funding for these critical facilities and research efforts. Unfortunately, because the fiscal year 2008 omnibus bill essentially flat funded the basic energy science program, the DOE had no choice but to reduce the run time of scientific user facilities like the advanced photon source by 20 percent. Without a doubt, this will impact the work at the Center for Nanoscale Materials which relies on the APS.

I remain hopeful that the fiscal year 2008 supplemental working its way through Congress now will include additional funding for these important facilities and research efforts of the DOE. With that in mind, Mr. Speaker, I urge my colleagues to support the National Nanotechnology Initiative Amendments Act.

Mr. GORDON of Tennessee. Mr. Speaker, I yield 5 minutes to the chairman of the Subcommittee on Technology Innovation, Mr. WU, from Oregon State.

The SPEAKER pro tempore. The Chair will advise the gentleman from Tennessee that he has only 5 minutes remaining.

Mr. GORDON of Tennessee. Then I yield 4 minutes to the gentleman from Oregon.

Mr. WU. I thank the gentleman and the chairman for his leadership on this issue and for the bipartisan manner in which this bill has come to the floor, and rise in strong support of the National Nanotechnology Initiative Amendments Act of 2008. It is very, very fitting that we are continuing efforts to support nanotechnology research and development given the economic and societal benefits that we are just beginning to realize.

Federally funded research and development has long served an important purpose in our economy, spurring the creation of new services, new products, and, most importantly, new jobs. The new products and technologies that are often the byproducts of basic research enhance our daily lives in many, many ways. It is estimated that the fruits of nanotechnology research will have a multi-trillion dollar impact on our economy within the next several years.

The bill before us today provides the seed corn for an industry that will be a crucial part of our future economic success and competitiveness. My home State of Oregon is a leader in nanotechnology. The Oregon Nanoscience and Microtechnologies Institute, ONAMI, is a public-private partnership that supports academic research and technology transfer of nanoscience. Research supported by ONAMI has already yielded companies that are developing a low-cost method of removing heavy metals to purify water, new manufacturing technologies, and a system to allow patients with kidney disease to undergo dialysis at home. Continued support of nanotechnology research allow these and other breakthrough technologies to come to market.

I want to cite a couple specific key provisions, including provisions relating to green nanotechnologies and those that encourage the commercialization of nanotechnology research.

Several institutions in the State of Oregon have been leaders in green nanotechnology research. These funds will help these universities and others explore ways to create environmentally friendly or at least benign nanotechnology products. And this is very, very crucial to acceptance of nanotech.

In addition, there are provisions in this bill that encourage other Federal programs to support commercialization of nanotechnology research to help turn research insights into tangible useful results. Congress has already passed legislation to support programs that advance our innovation agenda, and it is fitting that nanotechnology would be funded by these programs. The relevant programs include the Technology Innovation Program, or TIP, which provides grants to companies and universities conducting high-risk, high reward research, and the Small Business Innovative Research and Small Business Technology Transfer programs, which provide funds to small high-tech firms conducting innovative research that is relevant to Federal agencies' missions and that may have significant commercialization potential.

Again, I want to commend Chairman GORDON and the ranking member for drafting a strong bipartisan bill, and urge my colleagues to support this legislation.

Mr. HALL of Texas. Mr. Speaker, I yield the gentleman from Georgia (Mr. GINGREY) 5 minutes.

Mr. GINGREY. Mr. Speaker, I rise in strong support of H.R. 5940, the National Nanotechnology Initiative Amendments Act of 2008.

Nanotechnology represents the future of science and information technology. These scientific methods have already been responsible for a number of products that are used every day in our country, like car parts, cosmetics, and first aid dressings.

The future of nanotechnology holds a world of possibilities for a number of fields including health care, which, Mr. Speaker, is incredibly important to me as a physician member of this House.

The National Nanotechnology Initiative is a multi-agency Federal program aimed at accelerating the discovery, the development, and deployment of nanometer scale science, engineering, and technology. Since its implementation in 2003, NNI represents the Federal Government's commitment to harnessing and developing the world's most cutting edge technology to help keep our country competitive in a technologically based global economy. H.R. 5940 is a bill that builds on the successful aspects of the NNI by making some improvements and modifications while keeping much of the initiative intact. This legislation acknowledges and addresses the need for enhanced research and education in the field of nanotechnology, and it is in line with President Bush's American Competitiveness Initiative.

Mr. Speaker, I am very pleased that this legislation moved through the

Science and Technology Committee in a bipartisan manner so typical of our members. Unfortunately, that bipartisan spirit does not apply to the most important issue facing the American people today, and that is the price they are paying at the pump for gasoline.

Mr. Speaker, here we are 16 months after the vaunted promise of a commonsense plan to reduce energy prices by Speaker PELOSI, yet gas prices are now surpassing $4 a gallon with no end in sight. At this point, I am not holding my breath for this commonsense plan Speaker PELOSI promised over 2 years ago. I only know the result of the plan, an increase of $1.60 per gallon for regular gasoline. However, Mr. Speaker, I do hope that Democrats will begin working with Republicans much like they did on this bill, H.R. 5940, on our common sense plan for energy.

The Republican proposal, H.R. 3089, the No More Excuses Energy Act sponsored by my good friend Mr. THORNBERRY of Texas, will allow us to explore domestic sources of energy and will reduce the amount that we all pay at the pump. It is time for the Democrats to get serious about reducing gas prices. I call on them to join the efforts of House Republicans. Let's enact real solutions that will provide relief for our taxpayers.

Mr. Speaker, in conclusion, I am very supportive of H.R. 5940 and the possibility that nanotechnology has for the future of science. I urge all my colleagues to support its passage.

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

Mr. HALL of Texas. Mr. Speaker, how much time do I have remaining?

The SPEAKER pro tempore. The gentleman from Texas has 9½ minutes remaining.

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

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

Mr. SHIMKUS. Mr. Speaker, I come in support of this legislation, and have come to learn that this nanotechnology has great opportunities to help us in the whole energy debate. I think nanotechnology can help in the solar powered cells. I understand that nanotechnology might be able to help taking light energy and turning it into hydrogen, which is important. It can be very important in addressing the long-lasting battery issue debate which will move us to plug-in hybrids sometime in the future, which we all realize is an important aspect of what we need to do to get to energy independence. And, green nanoenergy, which is important in this whole climate debate.

I also hope that nanotechnology can address some of the other pressing scientific needs: The issue of maybe reprocessing nuclear spent fuel. Maybe taking the carbon dioxide and splitting the carbon from the oxygen and addressing the climate change so we can use fossil fuels in a process that is going to be helpful.

But we are still in the Buck Rogers era. We need to move in that direction. The question is, what are we going to do now? The question is, at this time, in this debate, what are we really going to do to immediately affect the high cost of energy on our constituents? I have been on this floor quite a bit, as we all know, debating this. I have heard my colleagues on the other side, and I am softening my rhetoric out of respect for my friends and I have actually changed some of my charts to address issues raised in the debate.

So what is the primary problem that we have today? The problem we have is the escalation of crude oil prices in this country, from $23 when this administration came into the office, to $58 when the new majority came into the House, to $123 today.

Now I am not trying to be partisan, I am just trying to be factual. That is what has happened to the barrel of crude oil prices and what has happened to the cost of gasoline. Well, it has gone up similarly in this response. So the question is, how do we address this problem if we believe in economics 101 and supply and demand?

One way we could do it is opening the Outer Continental Shelf to oil and gas exploration. We have legislatively put off-limits through the appropriation process a prohibition, in some areas not to even do research to see if there is any natural gas or oil there, but we have said ''no'' to all these areas in red, that we are telling our public we do not want to look for oil and gas on the Outer Continental Shelf deep sea floor exploration 50 miles off the coast. We are saying ''no.''

Our debate is pretty simple. At a time of high costs of a barrel of crude oil, $123.85 a barrel, how can we not? How can we not go and look for our own resources? What we want, what we are asking for is American-made energy, American-made energy to decrease our reliance on imported crude oil in places that are not stable, in the Middle East, in Venezuela, that are holding us captive. We know there are resources there.

Let me talk about another great opportunity that we have. In Illinois, the Illinois coal basin is basically the whole geography of the State of Illinois, and of course the chairman knows a lot and is very supportive of coal use in America. It also is Western Kentucky and the southwestern part of Indiana. We have as much coal in energy output as Saudi Arabia has oil just in the Illinois coal basin. So the question is, why aren't we using it to decrease our reliance on imported crude oil? Why aren't we using coal in turning it into liquid fuel? Look at the benefits we have of coal fields: American made energy. A coal field in America, American jobs mining that coal, American jobs to build the coal to liquid refinery.

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

Mr. HALL of Texas. I yield the gentleman 3 additional minutes.

Mr. SHIMKUS. I thank the gentleman.

American jobs to build the pipeline. American jobs to operate our aviation industry. In fact, this plane here is a fighter plane, because the United States Air Force is the number one purchaser of aviation fuel in the world.

□ 1300

For every dollar increase in a barrel of crude oil, you know what it costs our Air Force? $60 million. That's $60 million that doesn't go to training. That's $60 million that doesn't go to equipping. That's $60 million that doesn't help in meeting the budgetary demands.

Let me just finish on this point. Let's assume we access these and we have oil and gas. Or let's assume we're in ANWR and we're getting the oil and gas and we're getting the royalties. At today's prices, do you know how much money would come to the Federal Treasury at today's prices from ANWR? $192 billion. Do you think that would help the nanotechnology budget? I think it would help extremely. Move us from a decrease in our reliance on imported crude oil, American-made energy, new science and technology, green power; and that's kind of what this debate is all about.

Mr. WU. Will the gentleman yield?

Mr. SHIMKUS. I would be happy to yield to my friend from Oregon.

Mr. WU. Just as my friend from Illinois has modified his presentation in light of current reality, I will not, unless necessary, reprise the reason for the difference between a $60 barrel of oil and a $120 barrel of oil, which is the war in Iraq, rank speculation by people who can't take delivery of the oil, and low, cheap currency doctrine by this administration that has imported inflation and increased oil prices.

Mr. SHIMKUS. Reclaiming my time. But all those issues that you addressed, if we had American-made energy, if we weren't relying on imported crude oil, you know, why does the cheap dollar affect our price? Because we're buying crude oil overseas. If we were producing our own crude oil in our country, the dollar wouldn't matter.

The speculators, you know the speculators. What are they betting? I love this debate. They are betting that we're going to do nothing.

You want to go after the speculators? Bring on more supply. They're betting that this barrel is going to go up, not go down.

Mr. WU. If the gentleman would yield.

Mr. SHIMKUS. I would be happy to.

Mr. WU. Speculators do bet on that. Bubbles also occur in markets now. A witness to the Foreign Affairs Committee said we have 4 percent of the proven oil reserves. And yet the Republican response is, drill that 4 percent; it will solve our problems. We have 4 percent of the world's oil reserves. Drill

the reserve and that will solve our problems. The numbers are the numbers.

Mr. SHIMKUS. Let me reclaim my time, and just go over, since 1994 and talk about this debate.

In ANWR, which Clinton vetoed in 1995, we would have that oil today. House Republicans support ANWR 91 percent of the time on votes. House Democrats 86 oppose. Clear difference.

Mr. HALL of Texas. Mr. Speaker, how much time do I have, if any?

The SPEAKER pro tempore. The gentleman has 1½ minutes.

Mr. HALL of Texas. I reserve the balance of my time.

Mr. GORDON of Tennessee. Mr. Speaker, I yield 45 seconds to the gentleman from Oregon (Mr. DEFAZIO).

Mr. DEFAZIO. Drilling permits are up by two times in the last 5 years. But the price of gas is up by two times in the last 5 years. More permits do not bring lower prices. 10,000 more permits than wells since 2004. 92 million acres of onshore and offshore land currently under lease, but 67 million acres, over 70 percent, has not been developed by the oil and gas companies. They have a lot to work with. They're not doing it. 80 percent of the oil and gas still in the OCS is where there is no moratorium.

Now, I don't know why the gentleman, during the nanotechnology debate, nanotechnology which needs to be advanced by this country so we at least don't lose one more promising future technology, is bringing up this issue, unless he's talking about little tiny drill bits that would have less environmental impact.

Mr. HALL of Texas. Mr. Speaker, I yield to Mr. SHIMKUS, the gentleman from Illinois, 1 minute.

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

Mr. SHIMKUS. I want to thank the chairman for the time. With a minute left, I may not be able to yield to you, David. I would be happy to most times.

This is the problem. $23 to $58 to $123. You only address that by bringing on more supply. We have oil and gas in the Outer Continental Shelf, and we need to be there.

I've got margin oil wells. I've got oil all over the State of Illinois. Do you know why we don't drill on every acre? Because you're not going to find oil on every acre.

Why are leases not put out? Because there may not be oil there. In fact, on the Outer Continental Shelf on the Atlantic coast we won't even inventory it. Last Congress we said no to inventory what we might have on the Eastern Seaboard.

All I want to do is bring down crude oil prices. The only way you do it is bringing on more supply. It's clear from the votes over the past 12 years, Republicans want to bring on more supply. Democrats, the vast majority of them, do not. All we're asking is that we have some that want to do that.

Mr. GORDON of Tennessee. I reserve my time if the gentleman from Texas has any time left that he wants to conclude.

The SPEAKER pro tempore. The gentleman from Texas has half a minute.

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, once again I want to thank the majority and minority members of the Science and Technology Committee for working together on this collaborative good effort.

To my friend, my passionate friend from Illinois, let me say, just as he knows that you can't turn an oil tanker around on a dime, the fact of the matter is that we can't overturn the 4 or 8 years previous nearsighted policy on a dime either. But rather than point fingers and trying to be a partisan debate here, we can work together and make some changes.

This nanotechnology bill is one more effort in helping to provide American technology for domestic production of energies of all sorts, the energies of the future, the jobs that come with that.

Mr. HONDA. Madam Speaker, I rise today in support of H.R. 5940, 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. 3235.

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. 5940 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. 5940 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. 5940 and H.R. 3235 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. 5940 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, nonprofits, 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 produce a great report. The report is available on my website at http://honda.house.gov/issues/links/brtfn_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. 5940, and I urge my colleagues to support this important legislation to reauthorize the Nation's nanotechnology research and development program.

Mr. GORDON of Tennessee. Mr. Speaker, I yield back the balance of my time, and suggest we pass this very good bill.

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. 5940, as amended.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. GORDON of Tennessee. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX and the Chair's prior announcement, further proceedings on this motion will be postponed.

SENSE OF CONGRESS REGARDING SCIENCE EDUCATION

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Speaker, I move to suspend the rules and agree to the concurrent resolution (H. Con. Res. 366) expressing the sense of Congress that increasing American capabilities in science, mathematics, and technology education should be a national priority.