111TH CONGRESS
1st Session
HOUSE OF REPRESENTATIVES
REPORT
111–207

AUTHORIZING THE DESIGNATION OF NATIONAL ENVIRONMENTAL RESEARCH PARKS BY THE SECRETARY OF ENERGY, AND FOR OTHER PURPOSES

JULY 14, 2009.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

---

Mr. GORDON of Tennessee, from the Committee on Science and Technology, submitted the following

R E P O R T

[To accompany H.R. 2729]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science and Technology, to whom was referred the bill (H.R. 2729) to authorize the designation of National Environmental Research Parks by the Secretary of Energy, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

CONTENTS

79–006

I. AMENDMENT

The amendment is as follows:
Strike all after the enacting clause and insert the following:

SECTION 1. FINDINGS.

Congress finds the following:

(1) The National Environmental Research Parks are unique outdoor laboratories that provide opportunities for environmental studies on protected lands around Department of Energy facilities.

(2) In 1972, the Atomic Energy Commission established its first official environmental research park at the Savannah River site in South Carolina.

(3) In 1976, the Department of Energy defined the mission for the research parks in accordance with the recommendations of the multiagency review team for environmental research activities at the Savannah River site.

(4) The mission of the research parks is to—

(A) conduct research and education activities to assess and document environmental effects associated with energy and weapons use;

(B) explore methods for eliminating or minimizing adverse effects of energy development and nuclear materials on the environment;

(C) train people in ecological and environmental sciences; and

(D) educate the public.

(5) The seven National Environmental Research Parks are located within six major ecological regions of the United States, covering more than half of the Nation.

(6) The parks are especially valuable research sites because within their borders they provide secure settings for scientists to conduct long-term research on a broad range of subjects including—

(A) plant succession;

(B) biomass production;

(C) population ecology;

(D) radioecology;

(E) ecological restoration; and

(F) thermal effects on freshwater ecosystems.

(7) The parks maintain several long-term data sets that are available nowhere else in the United States or in the world on amphibian populations, bird populations, and soil moisture and plant water stress. These data sets are uniquely valuable for the detection of long-term shifts in climate.

(8) The maintenance of these parks by the Department of Energy is consistent with statutory obligations to promote sound environmental stewardship of Federal lands and to safeguard sites containing cultural and archeological resources.

(9) Public education and outreach activities carried out on these sites provide unique learning opportunities, promote a stronger connection between these Federal facilities and the surrounding communities, and enhance public confidence that the Department of Energy is fulfilling its environmental stewardship responsibilities.

SEC. 2. NATIONAL ENVIRONMENTAL RESEARCH PARKS.

(a) DESIGNATION.—The Secretary of Energy shall designate the seven National Environmental Research Parks located on Department of Energy sites as permanent protected outdoor research reserves for the purposes of conducting long-term environmental research on the impacts of human activities on the natural environment. The seven National Environmental Research Parks shall include—

(1) the Savannah River National Environmental Research Park;

(2) the Idaho National Environmental Research Park;

(3) the Los Alamos National Environmental Research Park;

(4) the Fermi Lab National Environmental Research Park;

(5) the Hanford National Environmental Research Park;

(6) the Oak Ridge National Environmental Research Park; and

(7) the Nevada National Environmental Research Park.

(b) PURPOSES.—Each site shall support—

(1) environmental research and monitoring activities to characterize and monitor present and future site conditions, and serve as control areas for comparison with environmental impacts of Department of Energy land management, energy technology development, remediation, and other site activities outside

the National Environmental Research Park areas. Areas of research and monitoring on the sites may include—

(A) ecology of the site and the region;
(B) population biology and ecology;
(C) radioecology;
(D) effects of climate variability and change on ecosystems;
(E) ecosystem science;
(F) pollution fate and transport research;
(G) surface and groundwater modeling; and
(H) environmental impacts of development and use of energy generation technologies, including renewable energy technologies; and

(2) public education and outreach activities consistent with subsection (d).

(c) COOPERATIVE AGREEMENT.—To ensure the independence of the research, monitoring, public education, and outreach activities conducted on each site, the Secretary shall enter into a cooperative agreement with a university, community college, or consortium of institutions of higher education with expertise in ecology and environmental science of the region in which the National Environmental Research Park is located.

(d) ENVIRONMENTAL EDUCATION AND OUTREACH.—Each site shall support an outreach program to inform the public of the diverse ecological activities conducted at the park and to educate students at various levels in environmental science. Program activities may include—

(1) on-site and in-classroom education programs for elementary and secondary students;
(2) presentations to school, civic, and professional groups;
(3) exhibits at local and regional events;
(4) development of educational projects and materials for students at all levels;
(5) undergraduate and community college internships and graduate research opportunities; and
(6) regularly scheduled public tours.

(e) COORDINATION.—The Secretary of Energy shall designate a National Environmental Research Park Coordinator within the Department of Energy Office of Science. The Coordinator shall—

(1) coordinate research activities among the National Environmental Research Parks as appropriate;
(2) ensure that information on best practices for research, education, and outreach activities is shared among the sites; and
(3) serve as liaison to other Federal agencies to facilitate collaborative work at the Parks.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy, acting through the Director of the Office of Science, for carrying out this section $35,000,000, including $5,000,000 for each National Environmental Research Park, for each of the fiscal years 2010 through 2014.

SEC. 3. SAVINGS.

Nothing in this Act shall be construed to limit the activities that the Federal Government may carry out or authorize on a site on which a National Environmental Research Park is located.

SEC. 4. SUMMER INSTITUTES PROGRAM.

The National Environmental Research Parks may be utilized to provide educational opportunities through the Summer Institutes program authorized in section 3185 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381n).

II. PURPOSE

The purpose of H.R. 2729 is to authorize the seven existing National Environmental Research Parks as permanent research reserves and provide guidance for research, education, and outreach activities to be conducted on or in collaboration with the Parks.

III. BACKGROUND AND NEED FOR THE LEGISLATION

The National Environmental Research Parks (NERPs) are unique outdoor laboratories that provide opportunities for environmental studies on protected lands around Department of Energy

(DOE) facilities. They offer secure settings for long-term research on a broad range of subjects, including biomass production, environmental remediation, plant succession, population ecology, ecological restoration, climate change and thermal effects on freshwater ecosystems. The Parks also provide rich environments for training researchers and introducing the public to ecological sciences.

In the 1940s the government established laboratories in isolated regions surrounded by large buffer zones of undeveloped land to ensure the security and safety of the nation's work on nuclear weapons. Interest in the use of radionuclides in ecological research evolved after World War II. DOE's predecessor, the Atomic Energy Commission (AEC), began to recognize the need to track both radioactive fallout from the testing of nuclear weapons and inadvertent radioactive releases from nuclear weapons production facilities into the environment. Out of the radionuclide research grew new techniques for quantifying the movement both of natural materials such as nutrients and fluids and of introduced pollutants through the ecosystem.

In 1970, the Office of Science and Technology Policy provided President Nixon with ten recommendations on the stewardship and use of federal lands. One of these was to utilize federal lands to conduct research on ecosystems and wildlife biology and preservation. In 1972, AEC established the first research park at the Savannah River Site in South Carolina. The plan for a research park emerged during a formal review of the environmental research activities at Savannah River. The review team consisted of scientists, representatives from other Federal agencies, and members of the newly formed President's Council on Environmental Quality. Four years later DOE released a charter and directives for current and future research parks based upon the recommendations of this team.

The seven National Environmental Research Parks are located within six major ecological regions of the United States, covering more than half of the nation. The mission of the Parks is to: conduct research and education activities to assess and document environmental effects associated with energy and weapons use; explore methods for eliminating or minimizing adverse effects of energy development and nuclear materials on the environment; train people in ecological and environmental sciences; and educate the public. A number of long-term data sets have been gathered and maintained by researchers working at the Parks. These long-term data sets are available nowhere else in the U.S. or in the world and include information on amphibian populations, bird populations, prairie succession and restoration, and soil moisture and plant water stress. These data are uniquely valuable for the detection of medium and long-term variability and changes in ecology and climate. They also provide valuable baseline information for assessing short and long-term effects of energy development activities, pollution exposures, pollution remediation, and other land-use changes.

Over the years since their establishment, there have been thousands of scientific papers published on the environmental studies done at the NERPs. The research at these sites has been conducted by DOE scientists, scientists from other federal agencies, universities and private foundations.

The maintenance of the Parks by DOE meets the Department's statutory obligations to promote sound environmental stewardship of federal lands and to safeguard sites containing cultural and archeological resources. However, the Parks themselves have never been formally authorized and currently have no designated source of funding within the federal government. Research and outreach activities have been coordinated on an ad hoc basis to date. H.R. 2729 addresses each of these issues.

IV. Hearing Summary

The Energy and Environment Subcommittee held a hearing in the 111th Congress on June 9, 2009 to receive testimony on H.R. 2729, as well as other environmental research programs supported by the Department of Energy. Witnesses included:

Dr. Paul Hanson, Ecosystem Science Group Leader, Oak Ridge National Laboratory

Dr. David Bader, former Director of the Program for Climate Model Diagnosis and Intercomparison

Dr. Nathan McDowell, Atmospheric, Climate, and Environmental Dynamics Group, Los Alamos National Laboratory

Dr. Whit Gibbons, Professor Emeritus of Ecology, University of Georgia and Head of the Environmental Outreach and Education program, Savannah River Ecology Laboratory

The hearing examined how the Parks have been used to study long-term trends in the development of ecosystems, develop methods to monitor and remediate contaminants, and conduct environmental education and outreach programs. It also explored the need for dedicated support of the Parks and ways to improve coordination of research and education activities among them.

Dr. Hanson discussed the importance of the NERPs for studies of the carbon cycle in local ecosystems. These include manipulations in temperatures, precipitation, nutrient content, and carbon dioxide (CO_2) levels to examine the role of ecosystems in mediating emissions of greenhouse gases and how climate change may impact the exchange of carbon between the atmosphere and the earth. Dr. Hanson also testified on the value of the Oak Ridge NERP noting that last year the National Ecological Observation Network (NEON) of the National Science Foundation identified it as a core wild land site for their planned long-term measurements of environmental change.

Dr. Bader explained the importance of field measurements and experiments for improving the accuracy of computational climate models. He noted that data collected from these sites provide validation of the impacts that the models predict, and they provide insights into ways the models need to be modified to better reflect observations of field conditions.

Dr. McDowell described research conducted on the Los Alamos NERP and the need for more consistent and robust support of the NERPs overall. As an example he explained how long-term observations of the piñon pine species on the Los Alamos Park led to a thorough understanding of tree mortality under extreme drought conditions. Dr. McDowell also stressed the importance of integrating environmental research tools both among and beyond the Parks.

Dr. Gibbons discussed the various ways that the NERPs can be used for environmental education and outreach noting that the Savannah River Ecology Laboratory (SREL) reaches as many as 50,000 members of the general public each year through talks, tours, exhibits, workshops, and other activities. He also explained how these Parks are particularly unique. For example, SREL has been recognized by a Guinness World Record Certificate for the longest running amphibian field research program in the world. In addition Dr. Gibbons described the importance of the NERPs for research in environmental restoration and remediation, and he echoed Dr. McDowell's call for better coordination on research, education, and outreach activities among the NERPs.

V. Committee Actions

The Subcommittee on Energy and Environment met to consider H.R. 2729 on June 16, 2009.

Rep. Luján offered an amendment-in-the-nature-of-a-substitute that made clarifying and technical changes, instructed the Secretary of Energy to designate a National Environmental Research Park Coordinator, designated the Office of Science as the lead agency of support for the NERPs within the Department of Energy, and ensured that community colleges were eligible to apply for funding to support and participate in NERP activities. The amendment was agreed to by voice vote.

Ms. Giffords offered an amendment to add environmental impacts of development and use of energy generation technologies to the list of potential research activities on the NERPs. The amendment was agreed to by voice vote.

Mr. Baird moved that the Subcommittee favorably report H.R. 2729, as amended, to the Full Committee. The motion was agreed to by voice vote.

The full Committee on Science and Technology met to consider H.R. 2729 on Wednesday, June 24, 2009.

Mr. Hall of Texas offered an amendment to clarify that nothing in the Act shall be construed to limit the activities that the Federal Government may carry out or authorize on a site on which a National Environmental Research Park is located. The amendment was agreed to by voice vote.

Ms. Johnson of Texas offered an amendment to clarify that the National Environmental Research Parks may be utilized to provide educational opportunities through the Summer Institutes program authorized in Section 3815 of the Department of Energy Science Education Enhancement Act. The amendment was agreed to by voice vote.

Mr. Gordon moved that the Committee favorably report the bill, H.R. 2729, as amended, to the House. The motion was agreed to by a voice vote.

VI. Summary of Major Provisions of the Bill

H.R. 2729, as amended, authorizes the Secretary of Energy to designate the seven National Environmental Research Parks (NERPs) as permanent protected outdoor research reserves for the purposes of conducting long-term environmental research on the impacts of human activities on the natural environment.

The bill states that each site is to support environmental research and monitoring activities to study present and future site conditions, and serve as a control area to evaluate the environmental impacts of land management, energy technology development, remediation, and other activities carried out by the Department of Energy outside the NERPs. The areas of research and monitoring to be carried out include the ecology of the site and the region, population biology and ecology, radioecology, effects of climate variability and change on ecosystems, pollution fate and transport research, surface and groundwater modeling, and environmental impacts of development and use of energy generation technologies.

H.R. 2729 requires the Secretary of Energy to enter into a cooperative agreement with a university, community college, or consortium of institutions of higher education with expertise in the ecology and environmental science of the region in which the NERP is located.

The bill requires each NERP to support an outreach program to inform the public of the diverse ecological activities conducted at the NERP and to educate the public and students in environmental science. Program activities may include: on-site and in-classroom education programs for elementary and secondary students; presentations to school, civic, and professional groups; exhibits at local and regional events; development of educational projects and materials for students at all levels; undergraduate internship and graduate research opportunities; and regularly scheduled public tours.

It instructs the Secretary of Energy to designate a National Environmental Research Park Coordinator. This Coordinator will coordinate research activities among the NERPs, ensure that information on best practices is shared among the sites, and serve as liaison to other Federal agencies to facilitate interagency cooperative research.

H.R. 2729 authorizes $35 million per year within the DOE Office of Science to support the NERPs. This includes $5 million for each NERP for each of the fiscal years 2010 through 2014.

H.R. 2729 has a savings clause to clarify that this legislation does not restrict the Department of Energy from pursuing other authorized activities on these sites.

Section 4 clarifies that the National Environmental Research Parks may be used to provide educational opportunities through the Summer Institutes Program authorized in the Department of Energy Science Education Enhancement Act.

VII. SECTION-BY-SECTION ANALYSIS

SECTION 1. FINDINGS

Explains the origins and purposes of NERPs.

SECTION 2. NATIONAL ENVIRONMENTAL RESEARCH PARKS

Section 2 instructs the Secretary to designate the seven existing NERPs as permanent outdoor research reserves, and identifies research activities that may be conducted at the NERPs.

The section also instructs the Secretary to enter into a cooperative agreement with a university or consortia in the region to engage broader regional expertise in ecology and environmental re-

search, education, and outreach activities. It identifies education and outreach activities that may be supported by the NERPs.

Section 2 directs the Secretary to designate a NERP Coordinator within the DOE Office of Science to coordinate research activities among the NERPs, ensure that information on best practices is shared among the sites, and serve as the liaison to other Federal agencies.

The section authorizes $5 million per year for each Park for a total of $35 million per year from FY 2010 through FY 2014.

SECTION 3. SAVINGS

Section 3 clarifies that nothing in the Act shall be construed to limit the activities that the Federal Government may carry out or authorize on a site on which a NERP is located.

SECTION 4. SUMMER INSTITUTES PROGRAM

Section 4 clarifies that the National Environmental Research Parks may be utilized to provide educational opportunities through the Summer Institutes program authorized in Section 3815 of the Department of Energy Science Education Enhancement Act.

VIII. COMMITTEE VIEWS

The Committee believes that the seven National Environmental Research Parks (NERPs) are a unique resource not only for the nation, but also the world. The Parks have been in existence for several decades and have hosted a wide variety of research, education, and demonstration projects. However, there has been no core funding for these Parks for many years and as a result these unique and important resources have been underutilized. The Committee believes the Parks require and deserve consistent funding and support for their research and education activities by the Department of Energy (DOE).

The sites encompassed by the seven Parks represent six of the major ecoregions within the United States. These sites were established and have been maintained because of the need to restrict access to DOE activities occurring on these sites, provide adequate buffer areas around these activities to maintain the security of the site, and to protect the public from inadvertent exposure to nuclear materials. In many cases, these sites now represent some of the largest areas of endemic ecosystems remaining in their respective regions.

The Committee believes these unique areas can provide important information to support better understanding of wildlife population biology, long-term fate and transport of pollutants, ecosystem succession, environmental effects of energy development, and ecosystem effects of climate variability and change.

The Committee believes on-going monitoring of site contaminants and research and demonstration of ecosystem-based remediation techniques can provide useful information with applications beyond DOE sites. The Committee also believes these sites provide valuable information on carbon sequestration. By absorbing and storing carbon from the atmosphere, ecosystems can offset the effects of emissions from fossil fuels. However, ecosystems will also be affected by changing climatic conditions and by changes in atmos-

pheric chemistry associated with increased greenhouse gas concentrations. Large areas of representative ecosystems such as those contained within the Parks provide a unique opportunity to gather information about carbon cycling in representative ecosystems in a way that will enable us to monitor fluxes of greenhouse gases from natural systems, gain a better understanding of carbon cycling in these systems, conduct experiments to better understand the factors that enhance carbon sequestration, facilitate more accurate modeling of ecosystem responses to changes in climate and greenhouse gas concentrations in the atmosphere, and improve estimation of greenhouse gas emissions from natural areas.

The NERPs are protected only from unauthorized activities by the general public or commercial interests for the reasons indicated earlier. The Committee recognizes that each NERP consists of a large area of land alongside DOE facilities with complementary or other missions important to the Department. The Committee does not intend the designation of the NERPs to interfere with these activities. Section 3 of H.R. 2729 clarifies that the designation of the NERPs does not impede DOE from carrying out these other priorities on land designated as part of a NERP.

The Committee believes that a cooperative agreement with a university or academic consortia in the region of each NERP will be helpful to ensuring long-term engagement with the broader regional expertise in environmental sciences. H.R. 2729 does not specify the nature of these agreements. The Committee recognizes the specific nature of the agreements is likely to differ for each NERP reflecting specific needs, interests, and potential partners in each region. The Committee does not intend these agreements to transfer management responsibilities to non-governmental entities. Overall management responsibilities for each Park are retained by DOE.

H.R. 2729 provides core funding for each NERP as well as a Coordinator within the DOE Office of Science. The Committee expects both to be part of the Office of Science's Biological and Environmental Research Program. The Committee believes that the position of Coordinator should be separate from the Associate Director for Biological and Environmental Research.

The Committee intends the Coordinator to facilitate communication, information exchange, and development of collaborative research projects among the NERPs as appropriate. For example, monitoring of carbon cycle and greenhouse gases across the six ecoregions represented by the NERPs would provide opportunities for comparison of ecosystem behaviors and responses across a variety of ecosystems and climatic zones. The Committee believes each NERP will also continue to foster individual, unique research projects as they have since their establishment. The Coordinator will, however, facilitate opportunities to utilize the NERPs as a network of research sites that will enable scientists to conduct large-scale, comparative ecosystem studies.

The Committee also intends the Coordinator to facilitate the exchange of information on public education and outreach programs and other student training programs that are undertaken by the NERPs. The NERPs located at Fermi Lab and at the Savannah River Laboratory have very active and successful education and public outreach programs. The Committee believes these programs

are of value to the public and to the DOE facilities because they provide opportunities for interaction and communication between the DOE facility and the local community.

The Committee also intends the Coordinator to serve as liaison to facilitate the use of NERPs by researchers from other agencies, universities, and other non-governmental research organizations. The unique nature of the NERPs offers research opportunities for other federal agencies including collaborative work by agencies through interagency research programs such as the U.S. Global Change Research Program. The Coordinator should assist DOE researchers at NERPs in their efforts to collaborate with other DOE scientists and scientists from other agencies, as appropriate.

Over the years, the NERPs have provided field opportunities for graduate student training and research. In addition to the public education programs, some of the NERPs have offered short courses for middle school and high school students and for undergraduates. The Committee notes that the NERPs can be used for other DOE education programs authorized in prior legislation including summer programs and summer institutes.

H.R. 2729 provides an authorization of $5 million per year for each Park. The Committee intends this core funding to support research, education, operations, and public outreach activities as well as the Coordinator and activities that may be undertaken by the Coordinator's office. The Committee does not intend this funding to be the sole source of funds for monitoring, research, and demonstration projects undertaken at the Parks. The Committee anticipates that, as in the past, additional funds from other DOE programs, other federal agencies, and outside entities will also be utilized to support activities conducted at the Parks. The Committee encourages the Coordinator to seek out opportunities for collaboration with other entities to make effective use of the Parks. Research projects should be selected through a peer-reviewed, merit-based process.

IX. Cost Estimate

A cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted to the Committee on Science and Technology prior to the filing of this report and is included in Section X of this report pursuant to House Rule XIII, clause 3(c)(3).

H.R. 2729 does not contain new budget authority, credit authority, or changes in revenues or tax expenditures. H.R. 2729 does authorize additional discretionary spending, as described in the Congressional Budget Office report on the bill, which is contained in Section X of this report.

X. Congressional Budget Office Cost Estimate

H.R. 2729—A bill to authorize the designation of National Environmental Research Parks by the Secretary of Energy, and for other purposes

Summary: H.R. 2729 would authorize the appropriation of $35 million a year over the 2010–2014 period to support seven National Environmental Research Parks across the United States. Assuming

appropriation of the authorized amounts, CBO estimates that implementing H.R. 2729 would cost the federal government $143 million over the 2010–2014 period and $32 million after 2014. Enacting the bill would not affect direct spending or revenues.

H.R. 2729 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no cost on state, local, or tribal governments.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 2729 is shown in the following table. The costs of this legislation fall within budget function 250 (science, space, and technology).

	By fiscal year, in millions of dollars—					
	2010	2011	2012	2013	2014	2010–2014
Changes in spending subject to appropriation						
Authorization Level	35	35	35	35	35	175
Estimated Outlays	14	26	33	35	35	143

Basis of estimate: For this estimate, CBO assumes that the bill will be enacted near the end of 2009 and that the authorized amounts will be appropriated each year. Estimated outlays are based on historical spending patterns for similar programs.

H.R. 2729 would designate seven National Environmental Research Parks as permanently protected research reserves. The bill also would authorize the appropriation of $35 million annually ($5 million per park) over the 2010–2014 period to support research, education, and outreach activities at the parks.

Intergovernmental and private-sector impact: H.R. 2729 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments.

Estimate prepared by: Federal Costs: Jeff LaFave; Impact on State, Local, and Tribal Governments: Ryan Miller; Impact on the Private Sector: Amy Petz.

Estimate approved by: Theresa Gullo, Deputy Assistant Director for Budget Analysis.

XI. Compliance With Public Law 104–4

H.R. 2729 contains no unfunded mandates.

XII. Committee Oversight Findings and Recommendations

The oversight findings and recommendations of the Committee on Science and Technology are reflected in the body of this report.

XIII. Statement on General Performance Goals and Objectives

Pursuant to clause (3)(c) of House Rule XIII, the goal of H.R. 2729 is to authorize the seven existing National Environmental Research Parks as permanent research reserves and provide guidance for research, education, and outreach activities to be conducted on or in collaboration with the Parks.

XIV. Constitutional Authority Statement

Article I, section 8 of the Constitution of the United States grants Congress the authority to enact H.R. 2729.

XV. Federal Advisory Committee Statement

H.R. 2729 does not establish nor authorize the establishment of any advisory committee.

XVI. Congressional Accountability Act

The Committee finds that H.R. 2729 does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

XVII. Earmark Identification

H.R. 2729 does not contain any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9(d), 9(e), or 9(f) of rule XXI.

XVIII. Statement on Preemption of State, Local, or Tribal Law

This bill is not intended to preempt any state, local, or tribal law.

XIX. Committee Recommendations

On June 24, 2009, the Committee on Science and Technology by voice vote favorably reported the bill, H.R. 2729, as amended, to the House with the recommendation that the bill, as amended, do pass.

XX. PROCEEDINGS OF THE MARKUP BY THE SUBCOMMITTEE ON ENERGY AND ENVIRONMENT ON H.R. 2729, TO AUTHORIZE THE DESIGNATION OF NATIONAL RESEARCH PARKS BY THE SECRETARY OF ENERGY, AND FOR OTHER PURPOSES

TUESDAY, JUNE 16, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY AND ENVIRONMENT,
COMMITTEE ON SCIENCE,
Washington, DC.

The Subcommittee met, pursuant to call, at 10:00 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Brian Baird [Chair of the Subcommittee] presiding.

Chair BAIRD. Good morning to everyone. Our committee will now come to order.

Pursuant to notice, the Subcommittee on Energy and Environment meets to consider the following measures: H.R. 2693, the *Federal Oil Pollution Research Program Act;* H.R. 2729, *To authorize the designation of National Environment Research Parks by the Secretary of Energy and for other purposes;* and H.R. 1622, *To provide for a program of research, development and demonstration on natural gas vehicles.* We will now proceed with the markup.

This morning the Energy and Environment Subcommittee meets to consider, as mentioned, three pieces of legislation: the *Federal Oil Pollution Research Program Act,* which is H.R. 2693; also H.R. 2729, the bill to authorize the Department of Energy's National Environment Research Parks; and H.R. 1622, a bill to provide for a program of research and development of vehicles that operate using natural gas as a fuel.

First, the Subcommittee will consider H.R. 2693 authorized by Ms. Woolsey from California, which amends the federal interagency research and development program created in the *Oil Pollution Act of 1990.* This bill would improve the Federal Government's research and development efforts to prevent, detect or mitigate oil discharges. Through this reauthorization, federal agencies will be better equipped to respond to oil discharges wherever they occur.

We will also mark up H.R. 2729, the bill introduced by Mr. Luján from New Mexico to authorize the Department of Energy's seven National Environmental Research Parks. These parks are truly a national treasure, providing large tracts of land that represent nearly all of the major eco-regions in the United States and are a

valuable resource for examining the transport of DOE-related contaminants, the long-term impacts of climate change and the various ways carbon is captured and released within the ecosystem. I am pleased to be a co-sponsor of both H.R. 2693 and H.R. 2729, and I encourage colleagues on both sides of the aisle to join in supporting those important bills.

Finally, the Subcommittee will consider H.R. 1622, a bill introduced by Mr. Sullivan of Oklahoma and co-sponsored by Full Committee Ranking Member Mr. Hall. This bill reauthorizes the Department of Energy's research, development and demonstration program in natural gas-powered vehicles and related infrastructure. To transform our nation's energy sector, we must explore a diverse range of fuels and vehicle technologies. While only a piece in a very complex puzzle, natural gas can potentially provide us with an option that is both cleaner than petroleum and more domestically available. I look forward to the discussion on the bill and moving it towards a Full Committee markup.

I thank the Members for their participation this morning and look forward to a productive markup.

I now recognize Mr. Inglis to present opening remarks.

[The prepared statement of Chair Baird follows:]

PREPARED STATEMENT OF CHAIR BRIAN BAIRD

This morning the Energy and Environment Subcommittee meets to consider three pieces of legislation: H.R. 2693, the *Federal Oil Pollution Research Program Act;* H.R. 2729, *A bill to authorize the Department of Energy's National Environmental Research Parks;* and H.R. 1622, *A bill to provide for a program of research and development of vehicles that operate using natural gas as a fuel.*

First, the Subcommittee will consider H.R. 2693, authored by Ms. Woolsey, which amends the federal interagency research and development program created in the *Oil Pollution Act of 1990.* This bill would improve the Federal Government's research and development efforts to prevent, detect, or mitigate oil discharges. Through this reauthorization, federal agencies will be better equipped to respond to oil discharges wherever they occur.

We will also be marking up H.R. 2729, a bill introduced by Mr. Luján to authorize the Department of Energy's seven National Environmental Research Parks. These parks are truly a national treasure, providing large tracts of land that represent nearly all of the major eco-regions in the United States. They are a valuable resource for examining the transport of DOE-related contaminants, long-term impacts of climate change, and the various ways carbon is captured and released within ecosystems.

I am pleased to be a co-sponsor of both H.R. 2693 and H.R. 2729, and I encourage my colleagues on both sides of the aisle to join me in supporting these important bills.

Finally, the Subcommittee will consider H.R. 1622, a bill introduced by Mr. Sullivan of Oklahoma and co-sponsored by the Full Committee Ranking Member, Mr. Hall. This bill reauthorizes the Department of Energy's research, development, and demonstration program in natural gas powered vehicles and related infrastructure.

To transform our nation's energy sector we must explore a diverse range of fuels and vehicle technologies. While only a piece in very complex puzzle, natural gas can potentially provide us with an option that is both cleaner than petroleum and domestically available. I look forward to the discussion on the bill and moving it towards a Full Committee markup.

I thank the Members for their participation this morning, and I look forward to a productive markup.

Mr. INGLIS. Good morning, and thank you, Mr. Chair, for this hearing today. We will address several pieces of legislation that highlight the diversity of federal research initiatives into pressing environmental and energy-related problems. It is an opportunity to

reflect on our broad jurisdiction and to ensure that federal research dollars are focused and well spent.

The first bill before us, the *Federal Oil Spill Research Program Act,* will revitalize the federal research efforts focused on the prevention, detection and mitigation of oil spills. While this is critical research and I commend Ms. Woolsey's dedication to this important issue, I am not confident that H.R. 2693 is necessary to improve the interagency commitment to oil spill research. The testimony we heard on this topic two weeks ago indicated that the interagency process seems to be working. The witnesses indicated that the most significant problems were related to limited funding and poor communication with the states. Further, this bill makes NOAA the Chair of the interagency research committee though other federal agencies seem better geared toward leading this particular research effort.

The second bill is H.R. 2729, a bill to permanently authorize the National Environmental Research Parks. I appreciate Mr. Luján's leadership in this area. These facilities are a unique environmental research asset. The Environmental Research Park at the Savannah River site, for example, has provided South Carolina and Georgia students with the opportunity to engage in research in our local ecologies. Especially as we develop new energy alternatives, our Environmental Research Parks will help us understand how our energy choices impact our distinct ecosystems.

I would also like to speak in support of H.R. 1622 and commend Mr. Sullivan for his leadership in promoting the development of natural gas vehicles. As long as we rely on oil to power our transportation sector, the U.S. will be dependent on hostile foreign nations and will continue to fund both sides of the War on Terror. H.R. 1622 will utilize American ingenuity to increase competition and fuel choices in the transportation sector and spur innovation economy and increasing our national security.

Thank you again, Mr. Chair. I look forward to developing legislation that truly improves our diverse federal research efforts.

[The prepared statement of Mr. Inglis follows:]

PREPARED STATEMENT OF REPRESENTATIVE BOB INGLIS

Good morning and thank you for holding this hearing, Mr. Chairman.

Today we will address several pieces of legislation that highlight the diversity of federal research initiatives into pressing environmental and energy related problems. It's an opportunity to reflect on our broad jurisdiction and to ensure that federal research dollars are focused and well spent.

The first bill before us, the *Federal Oil Spill Research Program Act* will revitalize the federal research effort focused on the prevention, detection, and mitigation of oil spills. While this is critical research and I commend Ms. Woolsey's dedication to this important issue, I am not confident that H.R. 2693 is necessary to improve the interagency commitment to oil spill research. The testimony we heard on this topic two weeks ago indicated that the interagency process seems to be working. The witnesses indicated that the most significant problems were related to limited funding and poor communication with the states. Further, this bill makes NOAA the Chair of the interagency research committee, though other federal agencies are better geared toward leading this particular research effort.

The second bill is H.R. 2729, a bill to permanently authorize National Environmental Research Parks. I appreciate Mr. Luján's leadership in this area. These facilities are a unique environmental research asset. The environmental research park at the Savannah River Site has provided South Carolina's research universities and students with the unique opportunity to engage in research on our local ecology. Especially as we develop new energy alternatives, our National Environmental Re-

search Parks will help us understand how our energy choices impact our distinct ecosystems.

I'd also like to speak in support of H.R. 1622 and commend Mr. Sullivan for his leadership in promoting the development of natural gas vehicles. So long as we rely on oil to power our transportation sector, the U.S. will be dependent on hostile foreign nations and we will continue to fund both sides of the war on terror. H.R. 1622 will utilize American ingenuity to increase competition and fuel choice in the transportation sector, spurring our innovation economy and increasing our national security.

Thank you again, Mr. Chairman, and I look forward to developing legislation that truly improves our diverse federal research efforts.

Chair BAIRD. Thank you, Mr. Inglis. Members may place any statements for the record at this point.

We will now consider H.R. 2729, *To authorize the designation of the National Environmental Research Parks by the Secretary of Energy and for other purposes.* Mr. Luján has an extended remark and I will recognize Mr. Inglis for first comments on this legislation.

Mr. INGLIS. Well, Mr. Chair, as I said earlier, I think this is a very helpful bill. It permanently authorizes the National Environmental Research Parks, and I appreciate Mr. Luján's leadership in this area, and it really is a wonderful resource that we have in these parks and to permanently authorize them certainly makes sense, so I am happy to be supportive of the bill.

Chair BAIRD. Thanks, Mr. Inglis. I ask unanimous consent that the bill is considered as read and open to amendment at any point and that the Members proceed with the amendments in the order of the roster. Without objection, so ordered.

The first amendment on the roster is an amendment in the nature of a substitute offered by the gentleman from New Mexico, Mr. Luján. Mr. Luján, are you ready to proceed with your amendment?

Mr. LUJÁN. Yes, Mr. Chair, I have an amendment at the desk.

Chair BAIRD. The Clerk will report the amendment.

The CLERK. Amendment in the nature of a substitute to H.R. 2729 offered by Mr. Luján of New Mexico, amendment number 019.

Chair BAIRD. I ask unanimous consent to dispense with the reading. Without objection, so ordered. I recognize the gentleman for five minutes to explain the amendment.

Mr. LUJÁN. Thank you, Mr. Chair and Ranking Member Inglis and Members of the Subcommittee for offering their valuable insight and suggestions at the hearings we held on this bill last week. The seven National Environmental Research Parks that H.R. 2729 formally authorizes provide unique research environments necessary to understanding the impacts of humans and industrial development on the environment.

The parks are largely comprised of preserved land in their natural state on several Department of Energy sites across the country. Many of them have existed for decades. The parks enable studies of the transport of DOE-relevant containments, long-term variations in climate—I apologize, Mr. Chair. It is relevant contaminants, long-term variations in climate and the evaluation of crops that may be used as feedstocks for bioenergy. With this authorization, these parks will be able to properly support and expand their important research activities.

H.R. 2729 also includes public outreach and education components that will support science and technology in the classroom and increase public awareness of environmental science overall.

The amendment in the nature of a substitute makes minor technical and clarifying corrections and also improves H.R. 2729 in several ways. It instructs the Secretary of Energy to designate a National Environmental Research Park coordinator to help coordinate their complementary research activities and ensure information on best practices is shared among the parks. The amendment clarifies that the Office of Science will be the lead agency for supporting the parks within the Department. The amendment also ensures that community colleges are included in the environmental education and outreach section.

I am grateful to my Republican colleagues for their suggestions which I incorporated into this amendment as well. I look forward to continuing to work with my colleagues on the Committee as H.R. 2729 goes forward. I ask my colleagues to support the Manager's Amendment, and I yield back my time.

Chair BAIRD. Is there further discussion on this amendment?

Mr. INGLIS. Mr. Chair, I would like to strike the last word.

Chair BAIRD. The gentleman from South Carolina is recognized.

Mr. INGLIS. Mr. Chair, several questions either for Mr. Luján or for counsel. We have heard from some of the folks at the NERP sites that there is some concern that the language would prohibit current plans for parts of those sites to be developed and used for other research, and that there may be—for example, there is one that is said to be doing physics experiments and there is some question about whether they could do that in those areas. I certainly don't think that would be the intent of the bill to prevent NERPs from doing planned development or other types of research on lands that are officially designated as a NERP. I assume that is not the intent, and I wonder if there is something that needs to be made clear if NERP sites are asking us that question. Maybe that is question for counsel.

COUNSEL. That is definitely not the intent of the language, and I don't believe that there is any language within the bill that would prevent them from doing that.

Mr. LUJÁN. Mr. Chair, if the gentleman would yield?

Mr. INGLIS. Sure.

Mr. LUJÁN. One of the changes in the manager's amendment on page 5, line 22 does change one of the concerns that was brought up in the Subcommittee discussion from "shall include" to "may include" which should clear up any concerns that you may have had. The intent of this is to continue to explore any research that is taking place, to be able to encourage science as opposed to discourage it.

Mr. INGLIS. There is some question about whether the protected site language is not connected to that language. Is that right? So that basically there is some question as to whether the entirety of the parks should be open for research. Surely I would hope the intent is to say, for example, at Savannah River Ecology Lab that that whole 300-square-mile area is available to be used for various kinds of experiments rather than put off limits. That is a lot of

land that could do a lot of valuable research. We don't want to constrain that research, right?

COUNSEL. That is the intent, yes.

Mr. INGLIS. Apparently the question arises in section 2A, I guess it is on page 3 of the bill, line 15, 16. This is where the concern——

Chair BAIRD. I am going to ask counsel to read that section, if you would read. Just read it out loud.

Mr. LUJÁN. Mr. Chair, if the gentleman would yield?

Mr. INGLIS. Yes.

Mr. LUJÁN. The idea of the protected language, Mr. Chair, is that there are areas of the park that are contaminated and they should be protected from the public as opposed to protected from the kind of science and research that should take place, and so if that is something that needs to be clarified, Mr. Chair, I am sure that we could work on that, but that is the intent of this, to protect it from those that may come in contact with contaminated areas.

Mr. INGLIS. Reclaiming my time. That is certainly important at a place like Savannah River National Lab and the Savannah River site. We certainly want to keep people out of some places that really would be very dangerous to be. But I am glad to hear that the intent, and I want to make sure we are getting this on the record, the intent is to make it freely available for scientific purposes, because while we have got this incredible asset that we were talking about at that hearing, let us make sure to use it for scientific research and not cordoned off areas that could be used for great research.

So, Mr. Chair, I hope that between now and Full Committee, we can see if there are any improvements that need to be made to that language and I hope that we can work together cooperatively to get that done.

Chair BAIRD. I thank the gentleman for his diligence in raising this, and I would certainly make my personal commitment and I am certain counsel will commit to that as well. I think you raised a very, very good point. We don't want to inadvertently create ambiguity so that we block research where it must occur, and I applaud the gentleman and his staff for raising this issue and I hope counsel will commit to work with that as well. Does the gentleman wish to continue?

Mr. INGLIS. I yield back, Mr. Chair. Thank you.

Chair BAIRD. Again, I thank the gentleman and I think he has raised outstanding points. Mr. Luján, let us work together to see what we can do to absolutely clarify that and work that out before it moves to final passage.

Are there others—there is a second amendment on the roster, a second-degree amendment by Ms. Giffords. Are you ready to proceed with your amendment?

Ms. GIFFORDS. Yes, Mr. Chair, I have an amendment at the desk.

Chair BAIRD. The Clerk will report the amendment.

The CLERK. Amendment to the amendment in the nature of a substitute to H.R. 2729 offered by Ms. Giffords of Arizona, amendment number 052.

Chair BAIRD. I ask unanimous consent to dispense with the reading. Without objection, so ordered. I recognize the gentlelady for five minutes to explain her amendment.

Ms. GIFFORDS. Thank you, Mr. Chair. This amendment is pretty simple and builds off the stated purposes of the National Energy Research Parks, the NERPs.

According to the official language and official charter, the National Environmental Research Parks are actually field laboratories set aside for ecological research, and let me emphasize, for the study of the environmental impacts of energy developments and for informing the public of the environmental and land-use options open to them. In other words, studying the environmental impacts on energy technologies was one of the primary purposes stated and envisioned in the NERPs. So you can understand why I was a little dismayed last week during our hearing of H.R. 2729 when I asked one of the witnesses whether or not they were aware of any research being conducted on the environmental impacts of renewable energy technologies, and essentially they indicated, all the panelists, that they weren't aware of any.

As most of my colleagues know, I am a big supporter of renewables but particularly solar energy. One of the major attractions of renewable energy technologies is obviously their relatively low environmental impact compared to traditional energy sources. However, no energy technology, even solar energy, is without any environmental impacts. So this language is pretty simple. It includes the language, "environmental impacts of development and use of energy generation technologies including renewable energy technologies," section 2B of the bill, and I think it will provide the explicit encouragement for those researchers studying these impacts to look at renewables. I think this is non-controversial and I think it is consistent with the long-established purposes of the NERPs, and I urge my colleagues to support it.

Chair BAIRD. The gentlelady has a well-established record of commitment to renewable energy. I applaud her for that and think this amendment is thoroughly consistent with that record.

Are there any other Members of the Committee who wish to comment on this amendment? Hearing none, the vote occurs on the amendment. All in favor will say aye. Those opposed, no. The ayes have it. The amendment is agreed to.

Are there any other amendments to the amendment in the nature of a substitute? If no, the vote occurs on the amendment in the nature of a substitute. All in favor, say aye. Those opposed, no. The ayes have it and the amendment is agreed to.

The vote now occurs on the bill, H.R. 2729, as amended. All those in favor will say aye. All those opposed, no. In the opinion of the Chair, the ayes have it.

Again, I thank colleagues for working together on this bill. Mr. Inglis, you raised some very good points and we will work on those before moving it to the Full Committee.

I now move that the Subcommittee favorably report H.R. 2729 as amended to the Full Committee. Furthermore, I move that staff be instructed to prepare the Subcommittee report and make necessary technical and conforming changes to the bill in accordance with the recommendations of the Subcommittee.

The question is on the motion to report the bill favorably. Those in favor of the motion will signify by saying aye. Opposed, no. The ayes have it, and the bill is favorably reported. Without objection,

the motion to reconsider is laid upon the table. Members will have two subsequent calendar days in which to submit supplemental Minority or additional views on the measure.

I want to thank Members for their attendance. This concludes our Subcommittee markup.

[Whereupon, at 10:58 a.m., the Subcommittee was adjourned.]

Appendix:

H.R. 2729, SECTION-BY-SECTION ANALYSIS, AMENDMENT ROSTER

I

111TH CONGRESS
1ST SESSION

H. R. 2729

To authorize the designation of National Environmental Research Parks by the Secretary of Energy, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 4, 2009

Mr. LUJÁN introduced the following bill; which was referred to the Committee on Science and Technology

---

A BILL

To authorize the designation of National Environmental Research Parks by the Secretary of Energy, and for other purposes.

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

SECTION 1. FINDINGS.

Congress finds the following:

(1) The National Environmental Research Parks are unique outdoor laboratories that provide opportunities for environmental studies on protected lands around Department of Energy facilities.

(2) In 1972, the Atomic Energy Commission established its first official environmental research park at the Savannah River site in South Carolina.

(3) In 1976, the Department of Energy defined the mission for the research parks in accordance with the recommendations of the multiagency review team for environmental research activities at the Savannah River site.

(4) The mission of the research parks is to—

(A) conduct research and education activities to assess and document environmental effects associated with energy and weapons use;

(B) explore methods for eliminating or minimizing adverse effects of energy development and nuclear materials on the environment;

(C) train people in ecological and environmental sciences; and

(D) educate the public.

(5) The seven National Environmental Research Parks are located within six major ecological regions of the United States, covering more than half of the Nation.

(6) The parks are especially valuable research sites because within their borders they provide se-

cure settings for scientists to conduct long-term research on a broad range of subjects including—

(A) plant succession;

(B) biomass production;

(C) population ecology;

(D) radioecology;

(E) ecological restoration; and

(F) thermal effects on freshwater ecosystems.

(7) The parks maintain several long-term data sets that are available nowhere else in the United States or in the world on amphibian populations, bird populations, and soil moisture and plant water stress. These data sets are uniquely valuable for the detection of long-term shifts in climate.

(8) The maintenance of these parks by the Department of Energy is consistent with statutory obligations to promote sound environmental stewardship of Federal lands and to safeguard sites containing cultural and archeological resources.

(9) Public education and outreach activities carried out on these sites provide unique learning opportunities, promote a stronger connection between these Federal facilities and the surrounding communities, and enhance public confidence that the De-

partment of Energy is fulfilling its environmental stewardship responsibilities.

SEC. 2. NATIONAL ENVIRONMENTAL RESEARCH PARKS.

(a) DESIGNATION.—The Secretary of Energy shall designate the seven National Environmental Research Parks located on Department of Energy sites, including—

(1) the Savannah River National Environmental Research Park;

(2) the Idaho National Environmental Research Park;

(3) the Los Alamos National Environmental Research Park;

(4) the Fermi Lab National Environmental Research Park;

(5) the Hanford National Environmental Research Park;

(6) the Oak Ridge National Environmental Research Park; and

(7) the Nevada National Environmental Research Park,

as permanent protected outdoor research reserves for the purposes of conducting long-term environmental research on the impacts of human activities on the natural environment.

(b) PURPOSES.—Each site shall support environmental research and monitoring activities as well as public outreach and education activities to characterize and monitor present and future site conditions, and serve as control areas for comparison with environmental impacts of Department of Energy land management, energy technology development, remediation, and other site activities outside the National Environmental Research Park areas. Areas of research and monitoring on the sites shall include—

(1) ecology of the site and the region;

(2) population biology and ecology;

(3) radioecology;

(4) ecosystem science;

(5) pollution fate and transport research;

(6) surface and groundwater modeling; and

(7) undergraduate and graduate student training.

(c) COOPERATIVE AGREEMENT.—To ensure the independence of the research, monitoring, public education, and outreach activities conducted on each site, the Secretary shall enter into a cooperative agreement with a university or consortium of universities with expertise in ecology and environmental science of the region in which the National Environmental Research Park is located.

(d) ENVIRONMENTAL EDUCATION AND OUTREACH.—Each site shall support an outreach program to inform the public of the diverse ecological activities conducted at the park and to educate students at various levels in environmental science. Program activities shall include—

(1) on-site and in-classroom education programs for elementary and secondary students;

(2) presentations to school, civic, and professional groups;

(3) exhibits at local and regional events;

(4) development of educational projects and materials for students at all levels;

(5) undergraduate internship and graduate research opportunities; and

(6) regularly scheduled public tours.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy for carrying out this section $35,000,000, including $5,000,000 for each National Environmental Research Park, for each of the fiscal years 2010 through 2014.

○

SECTION-BY-SECTION ANALYSIS OF
H.R. 2729, TO AUTHORIZE THE DESIGNATION OF
NATIONAL ENVIRONMENT RESEARCH PARKS BY THE
SECRETARY OF ENERGY AND FOR OTHER PURPOSES

Bill Summary

The bill authorizes the seven existing National Environmental Research Parks (NERPs) as permanent research reserves and provides guidance for research, education, and outreach activities to be conducted on or in collaboration with the Parks.

Section 1: Findings

Explains the origins and purpose of NERPs.

Section 2: National Environmental Research Parks

Instructs the Secretary to designate the seven existing NERPs as permanent outdoor research reserves.

Identifies important research activities to be supported by the NERPs.

Instructs the Secretary to enter into a cooperative agreement with a university or consortia in the region to engage broader regional expertise in ecology and environmental research, education, and outreach activities.

Identifies important education and outreach activities to be supported by the NERPs.

Authorizes $5 million a year per park for a total of $35 million per year from FY 2010 through FY 2014.

COMMITTEE ON SCIENCE AND TECHNOLOGY
ENERGY AND ENVIRONMENT
SUBCOMMITTEE MARKUP
JUNE 16, 2009

AMENDMENT ROSTER

H.R. 2729, to authorize the designation of National Environmental Research Parks by the Secretary of Energy

No.	Sponsor	Description	Results
1	Mr. Luján	Amendment in the Nature of a Substitute makes several technical and clarifying changes to the bill and adds a new subsection requiring the Secretary to designate a National Environmental Research Park Coordinator.	Agreed to by voice vote
2	Ms. Giffords	Amendment to the Amendment in the Nature of a Substitute adds "environmental impacts of development and use of energy generation technologies, including renewable energy technologies" as a new area of research and monitoring.	Agreed to by voice vote

AMENDMENT IN THE NATURE OF A SUBSTITUTE

TO H.R. 2729

OFFERED BY MR. LUJAN OF NEW MEXICO

Strike all after the enacting clause and insert the following:

SECTION 1. FINDINGS.

Congress finds the following:

(1) The National Environmental Research Parks are unique outdoor laboratories that provide opportunities for environmental studies on protected lands around Department of Energy facilities.

(2) In 1972, the Atomic Energy Commission established its first official environmental research park at the Savannah River site in South Carolina.

(3) In 1976, the Department of Energy defined the mission for the research parks in accordance with the recommendations of the multiagency review team for environmental research activities at the Savannah River site.

(4) The mission of the research parks is to—

(A) conduct research and education activities to assess and document environmental effects associated with energy and weapons use;

(B) explore methods for eliminating or minimizing adverse effects of energy development and nuclear materials on the environment;

(C) train people in ecological and environmental sciences; and

(D) educate the public.

(5) The seven National Environmental Research Parks are located within six major ecological regions of the United States, covering more than half of the Nation.

(6) The parks are especially valuable research sites because within their borders they provide secure settings for scientists to conduct long-term research on a broad range of subjects including—

(A) plant succession;

(B) biomass production;

(C) population ecology;

(D) radioecology;

(E) ecological restoration; and

(F) thermal effects on freshwater ecosystems.

(7) The parks maintain several long-term data sets that are available nowhere else in the United States or in the world on amphibian populations, bird populations, and soil moisture and plant water

stress. These data sets are uniquely valuable for the detection of long-term shifts in climate.

(8) The maintenance of these parks by the Department of Energy is consistent with statutory obligations to promote sound environmental stewardship of Federal lands and to safeguard sites containing cultural and archeological resources.

(9) Public education and outreach activities carried out on these sites provide unique learning opportunities, promote a stronger connection between these Federal facilities and the surrounding communities, and enhance public confidence that the Department of Energy is fulfilling its environmental stewardship responsibilities.

SEC. 2. NATIONAL ENVIRONMENTAL RESEARCH PARKS.

(a) DESIGNATION.—The Secretary of Energy shall designate the seven National Environmental Research Parks located on Department of Energy sites as permanent protected outdoor research reserves for the purposes of conducting long-term environmental research on the impacts of human activities on the natural environment. The seven National Environmental Research Parks shall include—

(1) the Savannah River National Environmental Research Park;

(2) the Idaho National Environmental Research Park;

(3) the Los Alamos National Environmental Research Park;

(4) the Fermi Lab National Environmental Research Park;

(5) the Hanford National Environmental Research Park;

(6) the Oak Ridge National Environmental Research Park; and

(7) the Nevada National Environmental Research Park.

(b) PURPOSES.—Each site shall support—

(1) environmental research and monitoring activities to characterize and monitor present and future site conditions, and serve as control areas for comparison with environmental impacts of Department of Energy land management, energy technology development, remediation, and other site activities outside the National Environmental Research Park areas. Areas of research and monitoring on the sites may include—

(A) ecology of the site and the region;

(B) population biology and ecology;

(C) radioecology;

(D) effects of climate variability and change on ecosystems;

(E) ecosystem science;

(F) pollution fate and transport research; and

(G) surface and groundwater modeling; and

(2) public education and outreach activities consistent with subsection (d).

(c) COOPERATIVE AGREEMENT.—To ensure the independence of the research, monitoring, public education, and outreach activities conducted on each site, the Secretary shall enter into a cooperative agreement with a university, community college, or consortium of institutions of higher education with expertise in ecology and environmental science of the region in which the National Environmental Research Park is located.

(d) ENVIRONMENTAL EDUCATION AND OUTREACH.—Each site shall support an outreach program to inform the public of the diverse ecological activities conducted at the park and to educate students at various levels in environmental science. Program activities may include—

(1) on-site and in-classroom education programs for elementary and secondary students;

(2) presentations to school, civic, and professional groups;

(3) exhibits at local and regional events;

(4) development of educational projects and materials for students at all levels;

(5) undergraduate and community college internships and graduate research opportunities; and

(6) regularly scheduled public tours.

(e) COORDINATION.—The Secretary of Energy shall designate a National Environmental Research Park Coordinator within the Department of Energy Office of Science. The Coordinator shall—

(1) coordinate research activities among the National Environmental Research Parks as appropriate;

(2) ensure that information on best practices for research, education, and outreach activities is shared among the sites; and

(3) serve as liaison to other Federal agencies to facilitate collaborative work at the Parks.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy, acting through the Director of the Office of Science, for carrying out this section $35,000,000, including

$5,000,000 for each National Environmental Research Park, for each of the fiscal years 2010 through 2014.

AMENDMENT TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE OFFERED BY MS. GIFFORDS OF ARIZONA

In section 2(b)(1), add at the end the following new subparagraph:

(H) environmental impacts of development and use of energy generation technologies, including renewable energy technologies.

XXI: PROCEEDINGS OF THE FULL COMMITTEE MARKUP ON H.R. 2729, TO AUTHORIZE THE DESIGNATION OF NATIONAL ENVIRONMENTAL RESEARCH PARKS BY THE SECRETARY OF ENERGY AND FOR OTHER PURPOSES

WEDNESDAY, JUNE 24, 2009

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE,
Washington, DC.

The Committee met, pursuant to call, at 10:00 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Bart Gordon [Chair of the Committee] presiding.

Chair GORDON. The Committee will come to order.

Pursuant to notice, the Committee on Science and Technology meets to consider the following measures: H.R. 2965, the *Enhancing Small Business Research and Innovation Act of 2009;* H.R. 2729, *To authorize the designation of National Environment Research Parks by the Secretary of Energy and for other purposes;* and H.R. 1622, *To provide for the programs of research, development and demonstration on natural gas vehicles.*

Today the Committee is going to mark up three good bipartisan pieces of legislation. The first bill, H.R. 2965, the *Enhancing Small Business Research and Innovation Act,* is one of the most significant bills the Committee will likely address in this Congress. The Small Business Innovation Research Program (SBIR) is a more than $2.3 billion federal investment in small high-tech businesses that assist them in developing commercial products and assist agencies in their mission related to research agendas. It is the single largest federal program supporting the private sector research activities.

Since its beginning more than 25 years ago, we have learned about the significant contributions small high-tech startup companies can have to our economy and employment growth. AmGen, Apple, Microsoft, Genetech, Research-in-Motion all started as small high-tech entrepreneurial firms. In the current economic environment, we need to do everything possible to support small high-tech entrepreneurs in the United States, which is the goal of the SBIR program.

There is no stronger supporter of the SBIR program than Representative David Wu. H.R. 2965 is largely the result of hard work by Representative Wu. In the 110th and 111th Congress, he has

held three Subcommittee hearings on the program and he has worked closely with the Small Business Committee in crafting this legislation. H.R. 2965 is substantially the same bill which passed the House last year with only 43 no votes. H.R. 2965 was introduced with strong bipartisan support.

Unfortunately, the SBIR program is operating under rules more than 25 years old. H.R. 2965 makes major improvements to the SBIR program which reflects the current set of challenges confronting our small high-tech entrepreneurs. I strongly support this legislation and will work with my counterpart on the Small Business Committee to bring it to the Floor as quickly as possible. This program is set to expire on July 31, so time is of the essence.

Today we will also consider H.R. 2729, a bill introduced by Representative Luján that will formally authorize the seven National Environmental Research Parks supported by the Department of Energy (DOE). These parks are a truly unique national resource. They provide large tracks of undisturbed land that enable long-term research in environmental sciences, climate change and for the development and testing of methods to clean up past pollutions. The parks are located on DOE sites in states across the country. They have had bipartisan cooperation in making this a good bill, and I hope that you will all join me in supporting it.

Finally, the Committee will consider H.R. 1622, a bill introduced by Mr. Sullivan of Oklahoma and co-sponsored by my friend from Texas, Mr. Hall, as well as Mr. Luján and Mr. Lucas. This bill reauthorizes the Department of Energy's research, development and demonstration program in natural gas-powered vehicles and related infrastructure. The vehicle fleet of the future will include a diverse range of fuels and vehicle technologies, and since it is both cleaner than petroleum and domestically available, natural gas will likely play an important role in a more sustained transportation sector.

I hope we can continue to improve these bills in a bipartisan manner today, and I look forward to moving to the Floor for their final passage.

I now recognize Mr. Hall to present his opening remarks.

[The prepared statement of Chair Gordon follows:]

PREPARED STATEMENT OF CHAIR BART GORDON

Today the Committee is going to markup three good, bipartisan pieces of legislation. The first bill, H.R. 2965, the *Enhancing Small Business Research and Innovation Act,* is one of the most significant bills the Committee will likely address in this Congress.

The Small Business Innovation Research Program (SBIR) is a more than 2.3 billion dollar federal investment in small high-tech businesses that assists them in developing commercial products and assists agencies in their mission-related research agendas.

It is the single largest federal program supporting private-sector research activities.

Since its beginning more than 25 years ago, we have learned about the significant contributions small high-tech start-up companies can have to our economic and employment growth—AmGen, Apple, Microsoft, Genetech, and Research-in-Motion all started as small high-tech entrepreneurial firms. In the current economic environment we need to do everything possible to support small high-tech entrepreneurs in the United States, which is the goal of the SBIR program.

There is no stronger supporter of the SBIR program than Representative David Wu. H.R. 2965 is largely the result of hard work by Representative Wu. In the 110th and 111th Congresses he has held three Subcommittee hearings on the pro-

gram and has worked closely with the Small Business Committee in crafting this legislation. H.R. 2965 is substantially the same bill which passed the House last year with only 43 no votes. H.R. 2965 was introduced with strong bipartisan support.

Unfortunately, the SBIR program is operating under rules more than 25 years old. H.R. 2965 makes major improvements to the SBIR program which reflect the current set of challenges confronting our small high-tech entrepreneurs. I strongly support this legislation and will work with my counterpart on the Small Business Committee to bring it to the Floor as quickly as possible. This program is set to expire on July 31, so time is of the essence.

Today we will also consider H.R. 2729, a bill introduced by Mr. Luján that will formally authorize the seven National Environmental Research Parks supported by the Department of Energy. These parks are a truly unique national resource.

They provide large tracts of undisturbed land that enable long-term research in environmental sciences, climate change, and for the development and testing of methods to clean up past pollution.

The Parks are located on DOE sites in states across the country, including my home State of Tennessee. We've had bipartisan cooperation in making this a good bill, and I hope you will all join me in supporting it.

Finally, the Subcommittee will consider H.R. 1622, a bill introduced by Mr. Sullivan of Oklahoma and co-sponsored by my friend from Texas, Mr. Hall, as well as Mr. Luján and Mr. Lucas. This bill reauthorizes the Department of Energy's research, development, and demonstration program in natural gas powered vehicles and related infrastructure.

The vehicle fleet of the future will include a diverse range of fuels and vehicle technologies.

And since it is both cleaner than petroleum and domestically available, Natural gas will likely play an important role in a more sustainable transportation sector.

I hope we can continue to improve these bills in a bipartisan manner today, and I look forward to moving to the Floor for final passage.

I now recognize Mr. Hall to present his opening remarks.

Mr. HALL. Mr. Chair, I thank you, and as you say, today we are marking up three bills: H.R. 2965, and the other two bills authorizing the designation of National Research Parks by the Secretary of Energy and for H.R. 1622 that provides a program of research, development and demonstration on natural gas vehicles.

As you ably pointed out, H.R. 2965 extends and makes important changes to the Small Business Innovation Research Program and the Small Business Technology Transfer Program, which as their names indicate, fund innovation and technology development of America's small businesses. One of the basic purposes of my parroting what you are saying is that I speak for myself when I say I support this bill and note that both the Committee and the Full House passed a bill very similar to this version last year, as you ably pointed out, and I am pleased that we are again able to advance this bill in a bipartisan fashion, working closely with the Majority as well as our counterparts on the Small Business Committee. This has allowed us to build a strong legislative record on this program which will serve us well, as we aim to complete Floor action and conference negotiations before the program expires on July 31.

H.R. 2729 will authorize and make permanent the existing seven National Environmental Research Parks across the country. The National Environmental Research Parks are outdoor laboratories that provide opportunities for environmental studies on protected lands that act as buffers around the Department of Energy facilities. I commend Mr. Luján for his dedication on the Parks and for authorizing this legislation. I will be offering an amendment to the bill that came about as a result of consultation with the Parks and

with the Majority staff to clarify that the Parks and the sites they are located on shall continue to be run as they currently are.

H.R. 1622 reauthorizes the natural gas vehicle R&D program that was created in the 1992 *Energy Policy Act.* This bill was introduced by Representative John Sullivan of Oklahoma and I co-sponsored it as did Representative Lucas on this committee. On a well-to-wheels basis, natural gas vehicles produce 22 percent less greenhouse gases than comparable diesel vehicles and 29 percent less gasoline vehicles. In 2007, natural gas vehicles displaced 250 million gallons of petroleum in the United States. In the next 17 years, the industry's goal is to grow that to 10 billion gallons. Over 60 percent of the petroleum used in America is imported. Much of it is from countries that are unstable and do not have the best interests of the United States in mind. Meanwhile, almost 98 percent of the natural gas used in America is produced in North America, 85 percent in the U.S. and the rest in Canada. Just last Thursday the report by the Potential Gas Committee, the authority on gas supplies, shows that the United States holds far larger reserves than previously thought, 35 percent more than the previous report showed in 2006. Natural gas makes sense as a transition fuel, and this bill will help us get more natural gas vehicles on the road. I will be offering an amendment to H.R. 1622 that will simply clear up some wording in order to avoid potential jurisdictional issues.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF REPRESENTATIVE RALPH M. HALL

Thank you Mr. Chairman. Today we're marking up three bills, H.R. 2965, the *Enhancing Small Business Research and Innovation Act of 2009;* H.R. 2729, *To authorize the designation of National Environmental Research Parks by the Secretary of Energy, and for other purposes;* and H.R. 1622, *To provide for a program of research, development, and demonstration on natural gas vehicles.*

H.R. 2965 extends and makes important changes to the Small Business Innovation Research program (SBIR) and the Small Business Technology Transfer program (STTR), which, as their names indicate, fund innovation and technology development at America's small businesses. I support this bill, and note that both the Committee and the Full House passed a very similar version last year. I'm pleased that we're again able to advance this bill in a bipartisan fashion, working closely with the Majority as well as our counterparts on the Small Business Committee. This has allowed us to build a strong legislative record on this program, which will serve us well as we aim to complete Floor action and conference negotiations before the program expires on July 31st.

H.R. 2729 will authorize and make permanent the existing seven National Environmental Research Parks across the country. The National Environmental Research Parks are outdoor laboratories that provide opportunities for environmental studies on protected lands that act as buffers around Department of Energy (DOE) facilities. I commend Mr. Luján on his dedication to the Parks and for authoring this legislation. I will be offering an amendment to the bill that came about as a result of consultation with the Parks and with the Majority staff to clarify that the Parks and the sites they are located on shall continue to be run as they currently are.

H.R. 1622 reauthorizes the natural gas vehicle RD&D program that was created in the 1992 *Energy Policy Act.* This bill was introduced by Rep. John Sullivan of Oklahoma and is co-sponsored by myself and Rep. Lucas on this committee. On a well-to-wheels basis, natural gas vehicles produce 22 percent less greenhouse gases than comparable diesel vehicles and 29 percent less than gasoline vehicles. In 2007, natural gas vehicles displaced 250 million gallons of petroleum in the U.S. In the next 17 years, the industry's goal is to grow that to 10 billion gallons. Over 60 percent of the petroleum used in America is imported—much of it from countries that are unstable or do not have the best interests of the U.S. in mind. Meanwhile, almost 98 percent of the natural gas used in America is produced in North America—85 percent in the U.S. and the rest in Canada.

Just last Thursday, the report by the Potential Gas Committee, the authority on gas supplies, shows the United States holds far larger reserves than previously thought—35 percent more that the previous report showed in 2006. Natural gas makes sense as a transition fuel, and this bill will help us get more natural gas vehicles on the road. I will be offering an amendment to H.R. 1622 that will simply clear up some wording in order to avoid potential jurisdictional issues.

With that I yield back the balance of my time.

Chair GORDON. Members may place statements in the record at this point.

We will now consider H.R. 2729, *To authorize the designation of the National Environmental Research Parks by the Secretary of Energy and for other purposes.*

I recognize the gentleman from New Mexico, Mr. Luján, to describe his bill.

Mr. LUJÁN. Thank you, Mr. Chair and Members of the Committee. H.R. 2729 formally authorizes seven National Environmental Research Parks located at national laboratories within six major ecological regions of the United States. In my District, the Research Park at Los Alamos National Laboratory includes a landscape of canyons, mesas, mountains and the Rio Grande, providing a diverse range of ecosystems to study. The Research Park conducts ongoing environmental studies on everything from containment transport to woodland productivity to long-term climate change effects and human impact on the land. Over 125 publications related to the ecology and interaction between lab operations and the environment have been written about the Los Alamos area and the Pajarito Plateau it rests on. The Research Parks are one of our nation's most valuable environmental research assets and it is time for them to be recognized into law and explicitly provided the resources they need to continue their valuable work.

This legislation supports the Research Parks' research and monitoring programs. It authorizes core funding that will ensure that they can continue to work on the important work they already perform and provide opportunities to expand on new research and energy development initiatives as well. This bill also encourages environmental science education and public outreach activities and it establishes a research park coordinator that will assist the Parks in collaborating with each other.

I want to thank my Republican colleagues for their support, Ms. Biggert for her co-sponsorship and Ranking Member Hall for his amendment today. I want to thank Members of the Energy and Environment Subcommittee for their valuable insight and input over the past several weeks as we have worked on this bill. I would also like to thank Chair Gordon for his leadership and the Committee staff for their hard work. I am excited to work on this important bill as it moves forward toward passage in the House and I look forward to working with my colleagues on future legislation that seeks to improve environmental science, education and energy research and development programs at our national laboratories.

Thank you, Mr. Chair. I yield back.

[The prepared statement of Mr. Luján follows:]

PREPARED STATEMENT OF REPRESENTATIVE BEN R. LUJÁN

Thank you Mr. Chairman and Members of the Committee.

H.R. 2729 formally authorizes seven National Environmental Research Parks located at National Laboratories within six major ecological regions of the United

States. In my District, the Research Park at Los Alamos National Laboratory includes a landscape of canyons, mesas, mountains, and the Rio Grande, providing a diverse range of ecosystems to explore. The Research Park conducts ongoing environmental studies on everything from contaminant transport to woodland productivity to long-term climate change effects and human impact on the land. Over 125 publications related to the ecology and interaction between lab operations and the environment have been written about Los Alamos and the Pajarito Plateau it rests on.

The Research Parks are one of our nation's most valuable environmental research assets, and it is time for them to be recognized in law and explicitly provided the resources they need to continue their valuable work. This legislation supports the Research Parks' research and monitoring programs. It authorizes core funding that will ensure that they can continue the important work they already perform, and provide opportunities to expand on new research and energy development initiatives as well. This bill also encourages environmental science education and public outreach activities, and it establishes a Research Parks coordinator that will assist the Parks in collaborating with each other.

I want to thank my Republican colleagues for their support, Ms. Biggert for her co-sponsorship and Ranking Member Hall for his amendment today. I want to thank Members of the Energy and Environment Subcommittee for their valuable insight and input over the past several weeks as we have worked on this bill. I'd also like to thank the Chairman for his leadership and Committee staff for their assistance on this legislation.

I am excited to work on this important bill as it moves forward toward passage in the House, and I look forward to working on future legislation that seeks to improve environmental science, education, and energy research and development programs in our National Laboratories.

Chair GORDON. Thank you, Mr. Luján, for bringing this good bill before us.

I now recognize Mr. Hall to present any remarks on the bill.

Mr. HALL. Mr. Chair, I support the bill. I urge its passage. I have an amendment at the desk when the time comes.

Chair GORDON. Thank you, Mr. Hall. Does anyone else wish to be recognized? Then I ask unanimous consent that the bill is considered as read and open to amendment at any point and that the Members proceed with the amendments in the order of the roster. Without objection, so ordered.

The first amendment on the roster is an amendment offered by the gentleman from Texas, Mr. Hall. Are you ready to proceed with your amendment?

Mr. HALL. Mr. Chair, I am ready to proceed, and my amendment is——

Chair GORDON. The Clerk will report the amendment.

The CLERK. Amendment to H.R. 2729, amendment number 012, offered by Mr. Hall of Texas.

Chair GORDON. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

I recognize the gentleman for five minutes to explain his bill—or amendment.

Mr. HALL. Mr. Chair, my amendment is a simple savings clause that clarifies that it is not the intent of this bill to prohibit the sites on which the National Environmental Research Parks are located from carrying out the mission or missions of the site. This issue was brought to our attention from several of the park directors, and after consultation with them and with your Majority staff and legislative counsel, we were able to come up with the language in my amendment. The National Environmental Research Parks are happy with the way things are running now and this amend-

ment ensures that things can continue to run that way, and I yield back my time.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF REPRESENTATIVE RALPH M. HALL

Mr. Chairman, my amendment is a simple savings clause that clarifies it is not the intent of this bill to prohibit the sites on which the National Environmental Research Parks are located from carrying out the mission or missions of the site. The issue was brought to our attention from several of the Park directors, and after consultation with them and with your Majority staff and legislative counsel, we were able to come up with the language in my amendment. The National Environmental Research Parks are happy with the way things are running now and this amendment ensures that things can continue that way.

Chair GORDON. Thank you, Mr. Chair, for your, again, constructive improvement of this bill.

Is there further discussion on the amendment? If no, the vote occurs on the amendment. All in favor, say aye. Opposed, no. The ayes have it and the amendment is agreed to.

The second amendment on the roster is an amendment offered by the gentlelady from Texas, Ms. Johnson. Are you ready to proceed with your amendment?

Ms. JOHNSON. Thank you, Mr. Chair. I do have an amendment at the desk.

Chair GORDON. The Clerk will report the amendment.

The CLERK. Amendment to H.R. 2729, amendment number 069, offered by Ms. Eddie Bernice Johnson of Texas.

Chair GORDON. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

I recognize the gentlelady for five minutes to explain her amendment.

Ms. JOHNSON. Thank you, Mr. Chair. My amendment directs the Secretary to establish a summer institute program at the National Environmental Research Parks. The program is similar to a program at the Department of Energy's National Laboratories that was passed in the *America COMPETES Act.*

The program for K–12 teachers and also for students would include two-week summer learning institutes at the Environmental Research Parks. It would also allow participants to interact with environmental scientists and enhance their understanding of the subject. This committee has held hearings on the importance of informal hands-on learning settings that are outside the classroom. There is no question that experience-based learning is very important, especially for science education. Allowing students to come to the Environmental Research Parks to learn the scientific method will help build a highly educated workforce of ecological and environmental scientists. This enrichment experience can also help teachers bring science to life in their schools and their classrooms.

As the Committee knows, studies have found that minority students begin to underachieve in math and science as early as the 5th grade. Providing teachers with the exceptional opportunity to study at these research parks will help them to motivate and inspire their students early on. In addition, the lab setting will provide a unique educational opportunity for minority students and girls who are under-represented in science technology, engineering and math careers. They may also otherwise never be exposed to

this type of research. They will have the opportunity to learn how and why we study ecological and environmental service sciences. No specific funds are designated for this program. My amendment simply authorizes the program at the discretion of the Secretary.

In summary, the amendment will set the stage for educational opportunities. It will facilitate partnerships between research parks, teachers and students. It will help to ensure that we have a new generation of competitive scientists who are trained here in the United States and who are prepared to excel in the ecological and environmental sciences.

Thank you for the consideration of this amendment. I urge its support and I yield back the balance of my time.

[The prepared statement of Ms. Johnson follows:]

PREPARED STATEMENT OF REPRESENTATIVE EDDIE BERNICE JOHNSON

Thank you Mr. Chairman and Ranking Member.

My amendment directs the Under Secretary to establish a Summer Institutes Program within the National Environmental Research Parks.

The program, for K–12 teachers and students, would include two-week summer learning institutes at the Environmental Research Parks.

This would allow teachers throughout the country to come to the Environmental Research Parks to interact with expert ecological and environmental scientists and develop innovative curriculum.

This enrichment experience can help teachers bring the excitement of science back to their schools and their classrooms.

The laboratory setting will provide a unique educational opportunity for minority students and girls who are under-represented in science, technology, engineering, and math careers and who might otherwise never be exposed to this type of research.

They will have the opportunity to learn how and why we study ecological and environmental sciences. They will see that a career in these fields is accessible and desirable.

The seed must be planted early—studies have found that minority students begin to under-achieve in math and science as early as fifth grade.

Providing teachers the exceptional opportunity to study at these research parks will help them to motivate and inspire their students early-on.

In addition, my amendment would allow for undergraduate students to come to the Environmental Research Parks.

Exposure to ecological and environmental scientists and their work may encourage them to further their studies in these fields.

This committee has held hearings on the importance of informal, hands-on learning settings that are outside the classroom.

There is no question that experience-based learning is very important, especially for science education.

Scientific inquiry comes alive and is best taught in a research environment.

Allowing teachers and students to come to the Environmental Research Parks to learn the scientific method will help invigorate tomorrow's generation of ecological and environmental scientists.

The summer institutes program, authorized by my, amendment, is similar to a program at the Department of Energy that was passed in the *America COMPETES Act*.

No specific funds are designated for this program.

My amendment simply authorizes the program, at the discretion of the Under Secretary.

When we provide educational opportunities for our young people, we ensure that we have a new generation of competitive scientists who are trained here in the U.S., who are prepared to excel in ecological and environmental science.

Thank you all for considering this amendment. I urge its support and yield back the balance of my time.

Chair GORDON. And thank you, Ms. Johnson, for this good amendment.

Is there further discussion on the amendment? If no, the vote occurs on the amendment. All in favor, say aye. Those opposed, no. The ayes have it. The amendment is agreed to.

Are there any other amendments? If no, then the vote is on the bill, H.R. 2729 as amended. All those in favor will say aye. All those opposed, say no. In the opinion of the Chair, the ayes have it.

I now recognize myself to offer a motion. I move that the Committee favorably report H.R. 2729 as amended to the House with the recommendation that the bill do pass. Furthermore, I move that the staff be instructed to prepare the legislative report and make necessary technical and conforming changes and that the Chair take all necessary steps to bring the bill before the House for consideration.

The question is on the motion to report the bill favorably. Those in favor of the motion will signify by saying aye. Opposed, no. The ayes have it. The bill is favorably reported.

Without objection, the motion to reconsider is laid upon the table. Members will have two subsequent calendar days in which to submit supplemental Minority or additional views on the measure.

Chair GORDON. Let me again in closing say that just because we didn't have a lot of rancor today does not mean that we did not have three very good bills. For some that came in a little after the opening statements, I want to remind you that our first bill was a $2.3 billion authorization for research in small business innovation. It is the largest such program in the Federal Government. When we are talking about creating new jobs for this country, it is going to go a long way, and so I thank you for helping. I want to thank the Members for their attendance. This concludes our Committee markup.

[Whereupon, at 11:40 a.m., the Committee was adjourned.]

Appendix:

H.R. 2729, AS AMENDED, AMENDMENT ROSTER

H.R. 2729, AS AMENDED BY THE SUBCOMMITTEE ON ENERGY AND ENVIRONMENT

On June 16, 2009

Strike all after the enacting clause and insert the following:

SECTION 1. FINDINGS.

Congress finds the following:

(1) The National Environmental Research Parks are unique outdoor laboratories that provide opportunities for environmental studies on protected lands around Department of Energy facilities.

(2) In 1972, the Atomic Energy Commission established its first official environmental research park at the Savannah River site in South Carolina.

(3) In 1976, the Department of Energy defined the mission for the research parks in accordance with the recommendations of the multiagency review team for environmental research activities at the Savannah River site.

(4) The mission of the research parks is to—

(A) conduct research and education activities to assess and document environmental effects associated with energy and weapons use;

(B) explore methods for eliminating or minimizing adverse effects of energy development and nuclear materials on the environment;

(C) train people in ecological and environmental sciences; and

(D) educate the public.

(5) The seven National Environmental Research Parks are located within six major ecological regions of the United States, covering more than half of the Nation.

(6) The parks are especially valuable research sites because within their borders they provide secure settings for scientists to conduct long-term research on a broad range of subjects including—

(A) plant succession;

(B) biomass production;

(C) population ecology;

(D) radioecology;

(E) ecological restoration; and

(F) thermal effects on freshwater ecosystems.

(7) The parks maintain several long-term data sets that are available nowhere else in the United States or in the world on amphibian populations, bird populations, and soil moisture and plant water

stress. These data sets are uniquely valuable for the detection of long-term shifts in climate.

(8) The maintenance of these parks by the Department of Energy is consistent with statutory obligations to promote sound environmental stewardship of Federal lands and to safeguard sites containing cultural and archeological resources.

(9) Public education and outreach activities carried out on these sites provide unique learning opportunities, promote a stronger connection between these Federal facilities and the surrounding communities, and enhance public confidence that the Department of Energy is fulfilling its environmental stewardship responsibilities.

SEC. 2. NATIONAL ENVIRONMENTAL RESEARCH PARKS.

(a) DESIGNATION.—The Secretary of Energy shall designate the seven National Environmental Research Parks located on Department of Energy sites as permanent protected outdoor research reserves for the purposes of conducting long-term environmental research on the impacts of human activities on the natural environment. The seven National Environmental Research Parks shall include—

(1) the Savannah River National Environmental Research Park;

(2) the Idaho National Environmental Research Park;

(3) the Los Alamos National Environmental Research Park;

(4) the Fermi Lab National Environmental Research Park;

(5) the Hanford National Environmental Research Park;

(6) the Oak Ridge National Environmental Research Park; and

(7) the Nevada National Environmental Research Park.

(b) PURPOSES.—Each site shall support—

(1) environmental research and monitoring activities to characterize and monitor present and future site conditions, and serve as control areas for comparison with environmental impacts of Department of Energy land management, energy technology development, remediation, and other site activities outside the National Environmental Research Park areas. Areas of research and monitoring on the sites may include—

(A) ecology of the site and the region;

(B) population biology and ecology;

(C) radioecology;

(D) effects of climate variability and change on ecosystems;

(E) ecosystem science;

(F) pollution fate and transport research;

(G) surface and groundwater modeling; and

(H) environmental impacts of development and use of energy generation technologies, including renewable energy technologies; and

(2) public education and outreach activities consistent with subsection (d).

(c) COOPERATIVE AGREEMENT.—To ensure the independence of the research, monitoring, public education, and outreach activities conducted on each site, the Secretary shall enter into a cooperative agreement with a university, community college, or consortium of institutions of higher education with expertise in ecology and environmental science of the region in which the National Environmental Research Park is located.

(d) ENVIRONMENTAL EDUCATION AND OUTREACH.—Each site shall support an outreach program to inform the public of the diverse ecological activities conducted at the park and to educate students at various levels in environmental science. Program activities may include—

(1) on-site and in-classroom education programs for elementary and secondary students;

(2) presentations to school, civic, and professional groups;

(3) exhibits at local and regional events;

(4) development of educational projects and materials for students at all levels;

(5) undergraduate and community college internships and graduate research opportunities; and

(6) regularly scheduled public tours.

(e) COORDINATION.—The Secretary of Energy shall designate a National Environmental Research Park Coordinator within the Department of Energy Office of Science. The Coordinator shall—

(1) coordinate research activities among the National Environmental Research Parks as appropriate;

(2) ensure that information on best practices for research, education, and outreach activities is shared among the sites; and

(3) serve as liaison to other Federal agencies to facilitate collaborative work at the Parks.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy, acting through the Director of the Office of Science,

for carrying out this section $35,000,000, including $5,000,000 for each National Environmental Research Park, for each of the fiscal years 2010 through 2014.

COMMITTEE ON SCIENCE AND TECHNOLOGY
FULL COMMITTEE MARKUP
JUNE 24, 2009

AMENDMENT ROSTER

H.R. 2729, to authorize the designation of National Environmental Research Parks by the Secretary of Energy

No.	Sponsor	Description	Results
1	Mr. Hall (012)	Adds a new section clarifying that nothing in the Act shall be construed to limit the activities that the Federal Government may carry out or authorize on a site on which a National Environmental Research Park is located.	Agreed to by voice vote
2	Ms. Johnson	Adds a new section providing that the National Environmental Research Parks may be utilized to provide educational opportunities through the Summer Institutes program authorized in section 3185 of the Department of Energy Science Education Enhancement Act.	Agreed to by voice vote

AMENDMENT TO H.R. 2729

OFFERED BY MR. HALL OF TEXAS

At the end of the bill, add the following:

SEC. 3. SAVINGS.

Nothing in this Act shall be construed to limit the activities that the Federal Government may carry out or authorize on a site on which a National Environmental Research Park is located.

☒

AMENDMENT TO H.R. 2729

OFFERED BY MS. EDDIE BERNICE JOHNSON OF TEXAS

At the end of the bill, add the following new section:

SEC. 3. SUMMER INSTITUTES PROGRAM.

The National Environmental Research Parks may be utilized to provide educational opportunities through the Summer Institutes program authorized in section 3185 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381n).

☒