

Energy & Infrastructure Program Energy Project

The Executive Branch and National Energy Policy: Time for Renewal

Strategic Energy Policy Initiative | November 2012





Energy & Infrastructure Program

Energy Project

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Foreword

The Bipartisan Policy Center (BPC) launched the Strategic Energy Policy Initiative, led by an 18-member Board, in 2011 because the nation, while clearly blessed with diverse and abundant domestic energy resources, still confronts an array of energy challenges that will demand high-level attention in the years ahead. Increases in domestic shale gas and oil production, growth in renewable energy, and steady efficiency improvements in all sectors of the economy have put the country on an energy and economic path that few predicted possible. Building upon these achievements while addressing ever-present energy security threats and environmental challenges during a time of unsustainable national debt will create difficult but necessary policy choices—choices that are unlikely to be resolved without national leadership and reaching across party lines. Leadership starts with a reinvigorated approach to developing national energy policy—an approach that can help overcome the problems that have hampered past efforts and put the country on a more inclusive, balanced, resilient, and enduring path.

The recommendations the Strategic Energy Policy Initiative is releasing today—the full report will be released in January—focus on improving energy policy development, implementation, and accountability in the executive branch of the U.S. government. The full report is aimed at jump-starting the process of rebuilding a bipartisan consensus for the next generation of federal and state energy policy, at clarifying the important energy questions and trade-offs the United States confronts over the next several decades, and at proposing a set of policy recommendations for resolving many of these trade-offs.

This report argues why the United States needs an energy policy, reviews the history of national energy policy making within the executive branch of the U.S. government, discusses key elements of a successful energy policy, outlines a new approach to organizing policy development and implementation within the executive branch, and concludes with two specific recommendations for improving governance at the federal level with respect to energy issues: 1) establish a high-level *National Energy Strategy Council*, chaired by the secretary of energy, to develop and oversee all aspects of U.S. energy policy; and 2) the Department of Energy should undertake an interagency *Quadrennial Energy Review* (QER) aimed at implementing the National Energy Strategy.

I. Introduction: The United States Needs a Resilient National Energy Policy

Energy drives the U.S. economy and the American way of life. Affordable and reliable energy remains a core national priority, because it is undeniably essential for assuring the nation's continued prosperity, competitiveness, and ability to sustain a high standard of living for all its citizens.

U.S. energy is produced and marketed in a complex environment in which there are globally traded and priced commodities (petroleum), regionally traded and priced commodities (natural gas), and more local and regional commodities (electricity, petroleum products)— and each fall under varying regulatory and policy regimes. In America's market-based economy, the private sector owns and controls most aspects of energy production, delivery, and consumption and responds to a vast array of powerful signals and forces that influence investment decisions and shape energy options.¹ History proves that markets are generally most efficient and effective at organizing and managing energy systems. But with regard to particular challenges, markets alone are not always well-equipped to provide solutions–in particular, where externalities are not effectively priced in energy markets. This is especially true in the areas of energy security, reliability, environmental protection and research and development.

Recognizing these limitations, the U.S. government has intervened in domestic energy markets to promote broader national interests. Often such interventions have been prompted by real or perceived crises or environmental concerns, such as major supply disruptions, sustained periods of high or extremely volatile energy prices, an oil spill, a nuclear accident, a major grid failure, air-quality concerns, or another event that raises the visibility of energy issues. In fact, some combination of energy-related concerns—whether it be energy security, fuel diversity, conservation, power-sector reliability, price stability, infrastructure development, underinvestment in energy technology, air and water quality, or climate change—has prompted every American president starting with Richard Nixon to formulate a national-level energy plan or strategy. These plans and strategies have varied considerably in their emphasis, form, durability, degree of implementation, as well as in the deliberative processes used to develop them. Nonetheless, certain themes and objectives have recurred across successive administrations and plans—chief among them: the need to achieve energy security and address environmental concerns while also enabling economic growth and putting the United States on a more stable, long-term energy path.

Of course, not all energy policy at the federal level has emanated from the White House or from the numerous federal agencies with energy-related responsibilities (see box below, *Executive Branch Agencies with a Role in Federal Energy Policy*). On the contrary, Congress—often with bipartisan support—has enacted a number of significant pieces of energy legislation over the last four decades (see box on page 15, *Major Energy-Related Legislation*).

Executive Branch Agencies with a Role in Federal Energy Policy

A *partial* list of the executive-branch agencies or departments that have responsibility over some facet of energy-relevant policies or programs includes the following:²

- Department of Agriculture: R&D, demonstration, fuels-related agricultural policy.
- Department of Energy: energy policy, R&D, demonstration, loan guarantee and grant programs, efficiency standards for equipment and appliances, Power Marketing Administrations.
- Department of Commerce: trade and competiveness policy, oceans and marine policy.
- Department of Defense: technology R&D, demonstration, clean energy initiatives, international relations, security of energy transportation routes.
- Department of the Interior: management and conservation of most federal land and natural resources, including oil and natural gas development.
- Department of the Treasury: tax policy, international currency and banking.
- Department of Transportation: vehicle fuel economy standards and transportation infrastructure.
- Department of State: international relations and diplomacy, treaties, trade and foreign policy, development aid.
- Environmental Protection Agency: regulation of air, water, waste, and chemicals.
- Office of Management and Budget: helps president prepare the budget; measures the effectiveness of agency programs, policies, and procedures to see if they comply with White House policies.

Other federal entities with energy roles include: Federal Energy Regulatory Commission, Commodities Future Trading Corporation, Nuclear Regulatory Commission, Securities and Exchange Commission, and Housing and Urban Development. At times, these congressional efforts have been closely tied to executive branch initiatives; in other cases, they have evolved largely independently of the president's plans. In almost every instance, major energy legislation emerges from Congress with the imprint of the many committees that exercise jurisdiction over one or another aspect of energy policy (see box on page 9, *Congressional Committees with Energy Jurisdiction*).

Congressional Committees with Energy Jurisdiction

HOUSE	SENATE
Agriculture	Agriculture, Nutrition, and Forestry
Appropriations	Appropriations
Armed Services	Armed Services
Budget	Banking, Housing and Urban Affairs
Energy and Commerce	Budget
Financial Services	Commerce, Science and Transportation
Foreign Affairs	Energy and Natural Resources
Homeland Security	Environment and Public Works
Judiciary	Finance
Natural Resources	Foreign Relations
Oversight and Government Reform	Health, Education, Labor and Pensions
Science, Space and Technology	Homeland Security and Government Affairs
Small Business	Indian Affairs (Special Committee)
Transportation and Infrastructure	Judiciary
Veterans' Affairs	Small Business and Entrepreneurship
Ways and Means	Veterans' Affairs

Energy markets are also shaped at the local, state, and regional level as state governments, tribal nations, and local jurisdictions—and their corresponding economic interests—seek to respond to their own energy needs and priorities. These jurisdictions also play a role in administering federal policies and mandates. In fact, under the nation's federalist system of government, states retain the larger share of legal authority for many of the energy policies that most directly impact consumers and businesses.³ The electric power sector, for example, is primarily regulated at the state and local level, through state public-utility commissions or local municipal boards.

The track record of national-level energy policy in the United States has been mixed. On the one hand, the U.S. economy and the environment have benefited enormously from sustained gains in energy efficiency and productivity—gains that were driven at least in part by a host of state and federal programs, such as standards for appliances and equipment, building codes, labeling programs, tax incentives, and vehicle fuel economy standards. Government and research and development (R&D) investments have also been instrumental in developing and deploying new energy technologies—from nuclear technology in the 1960s and 1970s to wind and solar energy more recently. Combined with advances in energy production and development capability, these multi-decade-long policies have helped to bring the United States to a point where it is not only producing more energy domestically, but also using energy more productively than at any prior point in the nation's history.

On the other hand, energy policy in the United States has also drawn frequent criticism for lacking long-term vision, being captured by special interests, being poorly implemented and coordinated, and at times, being internally inconsistent. Important strategic objectives have not been achieved, from substantially increasing fuel diversity in the transportation sector to fully capturing all cost-effective opportunities for energy efficiency, and from developing cost-effective next-generation technologies to securing long-term environmental sustainability. Of the array of policies, programs, subsidies, incentives, mandates, and regulations that now confront energy producers and consumers, many are outdated, some are clearly not working as intended, while others still are duplicative-or worse, counterproductive—and should be repealed or reformed. The more important point, however, is that the nation, notwithstanding the great diversity and abundance of energy resources it possesses, still faces significant energy challenges that have large implications for its future prosperity and security. These challenges include navigating a new set of geopolitical tensions driven by growing global competition for energy resources; addressing climate change, water scarcity, water and air quality; and mobilizing the resources for energy R&D at a time of unprecedented fiscal pressure on states and the federal government alike.

Against this backdrop of mixed results and new challenges, the case for a retooled and revitalized national energy policy is more compelling than ever. Such a policy must integrate the need for diverse and ample energy supplies with the need for economic growth, reasonable prices, environmental improvement, technological competitiveness, and long-

term energy security. To be successful and to ensure that it remains relevant beyond the four-year election cycle, national energy policy must pair a clear, well-defined vision with an implementation strategy that is consistent and yet flexible enough to respond to everchanging and often unpredictable economic, political, and technological circumstances. Achieving these goals requires leadership to balance the competing interests of multiple constituencies and interest groups along with a more disciplined structure and process and a greater bipartisan willingness to coalesce around a common and long-term agenda.

The remaining sections of this report review the history of national energy policy making within the executive branch of the U.S. government, discuss key elements of a successful new energy policy, outline a new approach to organizing policy development and implementation within the executive branch, and conclude with three specific recommendations for improving governance at the federal level with respect to energy issues.

II. A Brief History of National Energy Policy Making in the U.S. Executive Branch

Over the last 50 years, there have been multiple efforts to develop a national energy policy within the executive branch of the U.S. government–some more successful than others. As one would expect, each of these efforts reflected the priorities of the presiding administration; the interests of leading members of Congress, states, tribal nations, and special interests; and economic and other prevailing conditions, both domestic and international.

Prior to the creation of the Department of Energy (DOE) in 1977, American presidents typically appointed individuals to oversee energy policy from the White House. This responsibility shifted to the secretary of energy once DOE was established; although White House officials and certain Cabinet members retained the ability to provide significant input, because their agencies often had statutory responsibilities that touched on one or another aspect of energy supply or demand.

In the early 1970s, in response to the 1973 OPEC oil embargo, President Richard Nixon launched "Project Independence." This project aimed to reduce U.S. imports of foreign oil.⁴ Nixon tapped John Love, director of his administration's Office of Energy Policy, to lead the Energy Emergency Action Group, which was charged with developing an energy action plan and recommendations to deal with the crisis. In December 1973, Nixon replaced the Energy Policy Office with the Federal Energy Office, which in May 1974 became the Federal Energy Administration.⁵ Love was followed by a succession of "energy czars" who served through the Nixon and Ford administrations.

President Gerald Ford likewise made energy a high priority in his administration and pushed for a long-term plan to reduce oil imports, to diminish America's vulnerability to petroleumsupply disruptions, and to develop domestic fuel technologies and resources. Ford's plan, developed under the leadership of the Federal Energy Administration, was unveiled in his first State of the Union address in 1975. Specific elements included creating fuel taxes, eliminating price controls, increasing the number of nuclear and coal power plants, opening the outer-continental shelf to oil and gas exploration, supporting new oil refineries, mandating a strategic oil reserve, and promoting the development of synthetic fuels. Congress did not act on most elements of Ford's energy agenda, but it did pass the Energy Policy and Conservation Act of 1975, which created, among other provisions, the Strategic Petroleum Reserve and Corporate Average Fuel Economy standards).

President Jimmy Carter entered office in the late 1970s declaring that the energy crisis of the early part of the decade constituted the "moral equivalent of war." He appointed James Schlesinger to develop the nation's first National Energy Plan (NEP) as required under Section 801 of the DOE Organization Act of 1977 (which called on DOE to develop a National Energy Plan every two years).⁶ Schlesinger created the Energy Policy Planning Office and completed the NEP within Carter's 90-day deadline.

Carter's NEP identified seven quantitative goals primarily aimed at reducing energy demand growth, gasoline consumption, and oil imports while increasing domestic energy production and efficiency. The NEP called for multiple tax incentives, federal subsidies, and regulations mandating conservation; and it formed the basis for five major pieces of energy legislation that were eventually signed into law in late 1978.⁷ Responsibility for implementing this legislation fell to the newly created Department of Energy-which had absorbed two older agencies, the Federal Energy Administration and the Energy Research and Development Administration-and to the secretary of energy, a position that had been elevated to Cabinet-level status as part of the DOE's formation. Carter's second energy plan, NEP II, was submitted in 1979 and included numerous provisions for energy conservation, oil and natural gas production, increased coal use, and nuclear and renewable energy development. Debate around NEP II coincided with the Three Mile Island nuclear accident, the Iranian hostage crisis, and a second oil crisis, which together had the effect of delaying congressional action until the mid-1980s, when some provisions of NEP II-such as the windfall profits tax and the creation of the Synthetic Fuels Corporation (abolished by President Ronald Reagan in 1985)-were eventually passed into law.

Under Reagan in the 1980s, there was a marked shift toward greater emphasis on freemarket approaches, in energy as in other policy realms. Reagan's first NEP hastened the end of petroleum price controls (which had been on a path to phase-out since 1975) and explicitly rejected the idea that national energy policy should rely on "a rigid set of production and conservation goals dictated by Government."⁸ These themes carried into Reagan's second NEP, which focused on decontrolling natural gas prices and easing the process of nuclear plant licensing. Reagan's third NEP, submitted in 1985, focused on energy conservation, coal, and nuclear power; his administration did not submit a fourth NEP but opted instead to issue an energy security report in 1987.⁹

In 1989, President George H.W. Bush directed his secretary of energy, Admiral James Watkins, to develop a comprehensive national energy strategy in close consultation with other Cabinet members, Congress, and the states.¹⁰ The resulting National Energy Strategy reflected intense White House involvement; it took two years to complete and led to the only major piece of energy legislation enacted in the 1990s, the Energy Policy Act of 1992.¹¹ The latter bill was comprehensive in scope: It included provisions to increase and diversify U.S. energy supplies; promote energy efficiency; expand the production and use of renewable energy resources; increase reliance on alternative transportation fuels; reduce

U.S. emissions of greenhouse gases; improve air, land, and water quality; create jobs and promote economic growth; and maintain U.S. preeminence in fundamental science and engineering research while also accelerating the commercialization of new energy technologies developed through federally funded research.

The energy policies of President Bill Clinton's administration made use of the framework established under the Energy Policy Act of 1992 and included a significant focus on addressing global climate change. Clinton's 1998 National Energy Strategy was the last energy plan to be submitted to Congress pursuant to the DOE Organization Act of 1977.¹² Like previous energy plans, Clinton's plan emphasized the critical role of energy in the U.S. economy and the need to balance affordability, adequate supply, and the environment. Clinton proposed to gradually reallocate R&D funding and other policy initiatives away from coal and nuclear and toward programs focused on promoting energy efficiency, renewable energy, and alternative transportation fuels. However, the administration's ability to follow through on these proposals was hampered by federal budgetary constraints and congressional opposition.

The focus of national energy policy shifted again under the administration of President George W. Bush, whose National Energy Policy Development Group, led by Vice President Dick Cheney, produced a new plan within five months after taking office.¹³ This plan, like its predecessors, reflected the energy concerns of the time: Bush had entered office amid blackouts in California as well as significant oil and natural gas shortages in many parts of the country. Citing a domestic energy crisis defined by a "fundamental imbalance between supply and demand," the Bush II NEP included more than 100 recommendations aimed at increasing energy supply; promoting conservation, efficiency, renewables and alternative energy technologies; promoting the development of unconventional fuels; expanding critical energy infrastructure; and strengthening national energy security safeguards and international relationships (in part, to secure foreign supplies of oil). Many of the NEP's legislative proposals were included in the Securing America's Future Energy Act of 2001 (H.R. 4), an omnibus energy bill approved by the House on August 1, 2001. The attacks of September 11, 2001, further underscored the link between energy and security policy that were a prominent theme in the Bush administration's NEP.

The most important early energy initiatives of President Barack Obama's first term were contained in the American Recovery and Reinvestment Act of 2009, which provided more than \$90 billion in tax credits and direct spending for programs to promote clean energy and transportation improvements.¹⁴ In 2009, Obama established a new White House Office of Energy and Climate Change Policy to oversee the development and implementation of national climate change policy. However, climate legislation failed to pass the Senate. In March 2011, Obama released a national energy plan titled *Blueprint for a Secure Energy Future;*¹⁵ this was followed by an energy progress report released by six federal agencies in March 2012.¹⁶ However, the Obama administration has not proposed specific legislative action on a new national energy plan.

Major Energy-Related Legislation

While national energy policy is often developed at the White House level, it has also been a primary, perennial congressional focus over the past four decades. Major pieces of energy-related legislation include:

National Appliance Energy Conservation Act of 1975, PL 100-12 (created programs to develop efficiency standards for household appliances; amended by National Appliance Energy Conservation Act of 1987, Energy Policy Act of 1992, Energy Policy Act of 2005).

Energy Policy and Conservation Act of 1975, PL 94-163 (created incentives to increase oil production; established the Strategic Petroleum Reserve and Corporate Average Fuel Economy standards for vehicle fuel efficiency).

Department of Energy Organization Act of 1977, PL 95-91 (created the Department of Energy).

National Energy Act of 1978, PL 95-617 (created energy-efficiency programs, tax incentives and disincentives, energy conservation programs, alternative fuel programs, and regulatory and market-based incentives; includes: Energy Tax Act, National Energy Conservation Policy Act, Power Plant and Industrial Fuel Use Act, Natural Gas Policy Act, Public Utility Regulatory Policies Act).

Energy Security Act of 1980, PL 96-294 (created program to create synthetic fuels; solar, wind, geothermal, and ocean energy; biomass and alcohol fuels; energy conservation programs; consisted of six major Acts: U.S. Synthetic Fuels Corporation Act, Biomass Energy and Alcohol Fuels Act, Renewable Energy Resources Act, Solar Energy and Energy Conservation Act, Solar Energy and Energy Act, Ocean Thermal Energy Conversion Act).

Energy Policy Act of 1992, PL 102-486 (included actions to increase clean and renewable energy use; programs to improve overall energy efficiency and energy conservation in buildings).

Energy Policy Act of 2005, PL 109-58 (instituted mandatory reliability standards; Renewable Fuels Standard; tax reductions for domestic energy production and energy efficiency; new credit for holders of clean renewable energy bonds; improved national energy-efficiency standards).

Energy Independence and Security Act of 2007, PL 110-140 (included actions to increase production of clean renewable fuels; increase efficiency of products, buildings, and vehicles; promote research and deploy greenhouse gas capture-and-storage options; improve the energy performance of the federal government).

American Recovery and Reinvestment Act of 2009, PL 111-5 (included renewable- and

electricity-transmission loan guarantees, weatherization; energy R&D, Section 1603 Treasury cash-grant program).

In addition, numerous other laws affect energy production, consumption, transmission, distribution, and trade as well as address energy and the environment. For example:

Clean Air Act of 1970 and amendments in 1977 and 1990, PL 88-206

Clean Water Act (CWA) of 1972, PL 92-500

Various Farm Bills¹⁷

Various Transportation Bills¹⁸

III. Elements of a Successful Energy Policy for the United States

In 1989, President George H.W. Bush outlined the task of developing a cohesive national energy policy in terms that remain just as relevant today:

We cannot and will not wait for the next energy crisis to force us to respond. ... Our task—our bipartisan task—is to build the national consensus necessary to support this strategy and to make this strategy a living and dynamic document, responsive to new knowledge and new ideas and to global, environmental, and international changes. ... A keystone of this strategy is going to be the continuation of the successful policy of market reliance. ... We must balance our increasing need for energy at reasonable prices, our commitment to a safer and healthier environment, our determination to maintain an economy that is second to none, and our goal to reduce dependence by ourselves and our friends and allies on potentially unreliable energy supplier.¹⁹

These sentiments recognize the essential role the federal government plays in achieving national energy goals. The federal government unquestionably has a significant role to play in terms of overseeing energy development, especially managing development on federal lands and offshore, regulating nuclear power, supporting energy R&D, and ensuring compliance with energy-related environmental regulation. On the other hand, as noted in the introduction, the private sector owns and controls most facets of energy production, consumption, and delivery in the United States (with noted exceptions). And while the private sector responds to energy policy (whether regional, state, or federal), the private sector must also respond to a wide range of factors that are outside of government control, including those that influence energy demand, production, trade, and technology.

Where previous national energy policies have fallen short is in setting goals that are often inconsistent, unrealistic, politically motivated, and overly focused on short-term crises. Moreover, subsequent implementation efforts often lack active coordination across agencies and branches of government. Neither the policies nor the implementation have established systematic methods for tracking progress and for making course adjustments over the multiple years that policies and programs need to be in place if they are to be effective and achieve their goals.

To address these shortcomings and to assure greater success in the future, members of the Strategic Energy Policy Initiative believe that a new U.S. energy policy must include the following elements.

- 1. A high-level, long-term strategic vision for the country that integrates multiple energy goals—such as security, affordability, reliability, and environmental responsibility—and reflects the multiple interests that necessarily shape energy policy: the private sector, states, and non-governmental organizations (NGOs).
- 2. An objective assessment of the current domestic (and international) energy landscape and projections for future energy supply and demand trends under a variety of reasonable and different scenarios.
- 3. A set of well-defined, measureable objectives and a process to regularly evaluate progress toward the strategic goals and objectives.
- 4. A recognition that, in most cases, markets are the most efficient and effective means of managing the energy system and that government interventions should be limited to addressing specific objectives—like reliability, security, environmental quality—or specific market failures.
- 5. An assessment of federal agencies' energy-related roles and responsibilities with a view toward streamlining and removing unnecessary duplication in programs and processes.
- 6. Fiscally responsible policy recommendations designed to achieve outcomes in a manner that is cost-effective, minimizes the potential for economic harm and distortions, and still maximizes net benefits to society as a whole.
- 7. Provisions to ensure fair and equitable treatment of inevitable energy trade-offs across different segments of society, as well as across generations.
- 8. Flexibility to adapt to changes in global and domestic economic conditions, changes in information and technology, changes in market structure, environmental trends, and evolving consumer tastes and preferences.
- 9. Implementable and politically realistic actions. A plan that can't be accepted by industry, win broad support from the public, and be embraced by Congress will do little to advance meaningful action in addressing the nation's energy challenges.

IV. Recommendations for Developing and Implementing a New National Energy Policy

Unfortunately, the executive branch of the federal government is currently not wellequipped to develop and effectively implement a national energy policy that meets the criteria outlined above. As mentioned previously, one part of the problem is that energyrelated responsibilities in the executive branch have proliferated and spread over the last 50 years to at least 20 distinct federal agencies and departments. As a result, no single entity is in a position to implement, coordinate, and assess all of the federal government's energyrelated activities and initiatives. Of course, DOE has a large role and is at the center of many of the government's energy-related science and R&D programs. And yet, the majority of DOE's budget is devoted to programs that maintain the nation's stockpile of nuclear materials and manage the cleanup of Cold War weapons-production facilities.²⁰ Meanwhile, the sheer multiplicity and fragmentation of other federal agencies and congressional committees involved to a greater or lesser extent in energy-related policies or programs inevitably increases the potential for failure in coordination, incompatible agendas, duplication, and inconsistency across the federal complex.

A closely related problem, from the standpoint of developing an effective national energy policy, is that responsibilities and expertise are similarly dispersed across the Executive Office of the President (EOP) itself. In past administrations, a variety of offices within the EOP have typically played a role, usually in close consultation with key Cabinet officials, in formulating energy policy (see box on page 20: Executive Office of the President: Entities with a Role in National Energy Policy). For example, under President George H.W. Bush, both the Council on Environmental Quality (CEQ) and the Council of Economic Advisors played a large role; President Clinton relied on the National Economic Council (NEC) to help formulate energy policy. In some cases, presidents have established additional offices or councils to focus on specific issues. Clinton, for example, created the White House Office of Environmental Policy and later the White House Climate Change Task Force; more recently, President Obama established the White House Office of Energy and Climate Change Policy to coordinate his administration's policy on these issues (the office works closely with DOE, EPA, and CEQ, among others). In many cases, presidents have sought to improve coordination within the EOP by appointing a particular individual to serve as a liaison between one or more offices (such as between CEQ and NEC). But clearly, the number of

offices without an overall coordinator has contributed to the sometimes ad hoc nature of past efforts to guide national energy policy from within the White House.

Executive Office of the President: Entities with a Role in National Energy Policy

Council of Economic Advisors (CEA): Established by Congress in 1946, the CEA advises the president on the formulation of both domestic and international economic policy.

National Security Council (NSC): Created by Congress in 1947 and subsequently placed within the EOP, the NSC serves as the principal forum for discussing national security and foreign policy matters and for coordinating related policies among various government agencies.

Council on Environmental Quality (CEQ): Established in 1969 by the National Environmental Policy Act (NEPA) to assist the president by preparing an annual Environmental Quality Report, gathering data, and advising on policy. President Clinton supplanted the CEQ with a new office, the White House Office of Environmental Policy for two years, but later reinstated the CEQ.

Office of Science and Technology Policy (OSTP): Established in 1976 to advise the president and others within EOP on science and technology issues as they affect both domestic and international affairs.

National Economic Council (NEC): Created by executive order in 1993 under President Clinton to advise the president on U.S. and global economic policy, the NEC coordinates policy making across the U.S. government and ensures that policy decisions and programs are consistent with the president's economic goals.

Domestic Policy Council (DPC): Established in 1993 to advise the president, coordinate domestic policy making, and supervise the execution of domestic policy within federal agencies. The precursor to the DPC was created in 1970 by President Nixon; today's DPC and NEC were established by President Clinton during a subsequent reorganization.

White House Office of Energy and Climate Change Policy: Created by executive order in 2009 under President Obama to develop and coordinate energy and environmental policy.

To address the problems of focus, coordination, and execution that have hampered past efforts to develop and implement effective national energy policy, the Strategic Energy Policy Initiative recommends a new approach. The initiative's proposal combines a highlevel *National Energy Strategy* with a companion *Quadrennial Energy Review*, as described in more detail below. This process is intended to mirror the approach currently used to develop U.S. national security policy, wherein the executive branch prepares a high-level National Security Strategy (NSS) outlining major security concerns confronting the nation and plans for addressing them. The NSS document is purposefully short (the latest version was 128 pages), to the point, and general in content. The implementation details are provided separately in supporting documents, including notably the Quadrennial Defense Review (QDR), which is prepared by the Department of Defense.²¹

Similarly, the Strategic Energy Policy Initiative recommends that administrations rely on the expertise of existing federal agencies and on the leadership and coordination capacities that exist within the EOP. Given the complexities of the energy ecosystem; the diffuse roles and responsibilities for decision making that exist within the federal government, the Congress, and the broader economy; and the international dimensions of most important energy challenges, this effort will require high-level leadership (e.g., Senate-confirmed Cabinet members or heads of agencies), extensive technical expertise, effective cross-agency coordination, and broad consultation with states and energy stakeholders.

RECOMMENDATION: THE PRESIDENT AND ULTIMATELY CONGRESS SHOULD ESTABLISH A NATIONAL ENERGY STRATEGY COUNCIL (NESC) TO OVERSEE ALL ASPECTS OF U.S. ENERGY POLICY.

- The secretary of energy should chair the Council. The Council should include the secretaries of agriculture, commerce, defense, interior, transportation, treasury, and state, and the administrator of the Environmental Protection Agency, along with other independent agencies as determined by the chair. The Council should be drawn from existing EOP entities (e.g., NSC, CEQ, DPC, NEC) or personnel detailees from relevant federal agencies. At the same time, the NSC should create an Energy Security Directorate to ensure greater attention to the nexus between energy and national security.
- The Council should be responsible for leading cross-agency coordination for all major energy-related decisions—including those that address short-term energy crises— and for resolving interagency disputes.
- The National Energy Strategy Council should develop a National Energy Strategy in consultation with members of Congress and representatives from industry, NGOs, states, and tribal nations.
- The National Energy Strategy should be completed by the end of the second quarter (June 30) in the first year of a new administration and should be adjusted as needed if the administration is elected to a second term. The strategy should be a brief, high-level document outlining the administration's broad energy goals, budget priorities, and legislative agenda.
- The Council should be responsible for producing a publicly available annual report to the nation assessing progress toward meeting short-term and long-term goals and objectives laid out in the National Energy Strategy.

Chart: Timeline for National Energy Strategy and Quadrennial Energy Review



RECOMMENDATION: THE PRESIDENT AND ULTIMATELY CONGRESS SHOULD DIRECT THE DEPARTMENT OF ENERGY TO UNDERTAKE AN INTERAGENCY *QUADRENNIAL ENERGY REVIEW* (QER).^{22, 23, 24}

DOE should lead this process, in consultation with representatives from industry, NGOs, Congress, states, and Indian tribes. The QER should be completed by the end of the second quarter (June 30) in the second year of a new administration; it should subsequently be updated every four years. The QER should review energy objectives, existing policies and programs, and develop specific steps to implement the National Energy Strategy. Accordingly, the QER should include:

- A multiyear roadmap laying out an integrated view of short-, intermediate-, and long-term measureable energy objectives and metrics while implementing the National Energy Strategy.
- A review of existing federal energy policies and programs, including subsidy and incentive programs, with the aim of gauging their effectiveness in meeting defined energy goals and objectives and recommending options for improvements or reform.
- An assessment of the quality and frequency of federal energy and environmentaldata collection efforts and an assessment of options for improving data collection and accessibility to support better decision making and greater transparency in energy markets.

- A review of federal agencies' existing roles and responsibilities and a set of options for improving efficiency and coordination across federal programs, policies, and operations, including options for leveraging energy innovation through government purchasing power.
- A description of executive actions (including programmatic, regulatory, and fiscal actions) to meet National Energy Strategy goals, an assessment of the need for new legislation, including legislative proposals, and recommendations for federal energy budgets and appropriations.
- An assessment of federal R&D programs and of options for improving the management and effectiveness of these programs. In addition, the QER should identify specific energy R&D needs and provide a roadmap for future R&D investments.²⁵
- An assessment of the state of global competition for energy resources and technology, and a description of options for deepening international energy cooperation and enhancing U.S. technology leadership.

Endnotes

¹ Notable exceptions are the Tennessee Valley Authority and the Power Marketing Administrations–federal entities that together constitute about 7.7 percent of U.S. electric power sales (about 6.5 percent of nameplate capacity) and cooperative and government-owned utilities that perform some natural monopoly functions that are also performed by investor-owned utilities. Public lands are leased to the private companies who then produce significant amounts of coal, oil, natural gas, wind power, and geothermal energy. Public lands also provide sites for transmission facilities.

² In addition, federal agencies are subject to a range of executive orders that address federal energy use. For example, Executive Order 13514 requires agencies to submit 2020 greenhouse gas pollution-reduction targets and to increase energy efficiency, reduce fleet petroleum consumption, conserve water, reduce waste, support sustainable communities, and leverage federal purchasing power to promote environmentally responsible products and technologies. (See: http://www.whitehouse.gov/assets/documents/2009fedleader_eo_rel.pdf.)

³ Other areas where states have had primary responsibility for the implementation or enforcement of energyrelated policies and regulations include: air-quality requirements, alternative fuels policy and infrastructure development, building energy codes, technology demonstration and commercialization, technical support and education, and transportation infrastructure (See: http://apps1.eere.energy.gov/states/state_policy.cfm.)

⁴ Available at: http://www.presidency.ucsb.edu/ws/index.php?pid=4051.

⁵ For the three-year period between 1974 and 1977, the Federal Energy Administration implemented federal oil allocation and pricing regulations. An independent agency, the Federal Energy Administration was the successor of the Federal Energy Office, a short-term organization created to coordinate the government's response to the Arab oil embargo. By October 1977, when it became a part of the newly established Department of Energy, the Federal Energy Administration had also assumed the tasks of promoting energy conservation, collecting energy supply and demand information, managing the nation's strategic petroleum reserve, and promoting the development of new energy resources. Available at: http://energy.gov/sites/prod/files/FEA%20History.pdf.

⁶ Section 801 of the Department of Energy Organization Act of 1977 requires the president to submit a National Energy Policy Plan to Congress every two years. Under current law (42 USC 7321), this biennial submission must: (1) "consider and establish energy production, utilization, and conservation objectives, for periods of five and ten years, necessary to satisfy projected energy needs of the United States to meet the requirements of the general welfare of the people of the United States and the commercial and industrial life of the Nation, paying particular attention to the needs for full employment, price stability, energy security, economic growth, environmental protection, nuclear non-proliferation, special regional needs, and the efficient utilization of public and private resources"; (2) "identify the strategies that should be followed and the resources that should be committed to achieve such objectives, forecasting the level of private production and investment necessary in each of the significant energy supply sectors consistent with applicable Federal, State, and local environmental laws, standards, and requirements"; and (3) "recommend legislative and administrative actions necessary and desirable to achieve the objectives of such proposed Plan, including legislative recommendations with respect to taxes or tax incentives, Federal funding, regulatory actions, antitrust policy, foreign policy, and international trade." (See: http://www.law.cornell.edu/uscode/42/usc_sec_42_00007321---000-.html.)

⁷ The National Energy Conservation Policy Act, the Power Plant and Industrial Fuel Use Act, the Public Utilities Regulatory Policy Act, the Energy Tax Act, and the Natural Gas Policy Act.

⁸ Available at: http://www.presidency.ucsb.edu/ws/?pid=44096. In 1981, President Reagan proposed legislation that would have transferred most DOE functions to the Department of Commerce. However, Congress never took action on this proposal. (See:

http://news.google.com/newspapers?nid=2519&dat=19820525&id=t41iAAAAIBAJ&sjid=vXcNAAAAIBAJ&pg=1323, 3837166.)

⁹ Vito Stagliano. *A Policy of Discontent: The Making of a National Energy Strategy.* Tulsa, Oklahoma: PennWell Corporation, 2001.

¹⁰ Stagliano. A Policy of Discontent.

¹¹ The Energy Policy Act of 1992 (EPAct92) was passed in October 1992. Unlike the supply-side oriented proposals focused on increasing supplies of conventional fossil fuels submitted to Congress in early 1991 by the G.H.W. Bush administration, and rejected by Congress in June 1991, EPAct92 paid much more attention to promoting energy conservation and renewable energy (including tax and direct subsidies for energy efficiency and renewable energy technologies, new energy efficiency standards for buildings and industrial equipment, expanding energy-efficiency labeling, and creating programs to improve energy efficiency in federal buildings). EPAct92 also made important changes in the Federal Power Act and the Public Utility Holding Company Act, which helped to make subsequent electricity-industry restructuring and competition initiatives feasible. Available at: http://en.wikipedia.org/wiki/Energy_Policy_Act_of_1992.

¹² Available at: http://www.prop1.org/thomas/peacefulenergy/cnesM.pdf.

¹³ Available at: http://www.ne.doe.gov/pdfFiles/nationalEnergyPolicy.pdf. President's George W. Bush's, National Energy Policy issued in May 2001 was not submitted to Congress as a National Energy Policy Plan.

¹⁴ Available at: http://www.whitehouse.gov/energy. For example, the American Recovery and Reinvestment Act directed \$11 billion to smart-grid investments, \$5 billion to low-income weatherization programs, \$4.5 billion to efficiency retrofits in federal buildings, \$6.3 billion to state and local energy programs, \$600 million to green energy jobs training, and \$2 billion to advanced battery technologies.

¹⁵ Available at: http://www.whitehouse.gov/sites/default/files/blueprint_secure_energy_future.pdf.

¹⁶ Available at: http://www.whitehouse.gov/the-press-office/2012/03/12/blueprint-secure-energy-future-one-year-progress-report.

¹⁷ For a complete list of U.S. Farm Bills, see: http://www.nationalaglawcenter.org/farmbills/#summary.

¹⁸ Available at: http://www.apta.com/resources/statistics/Documents/FactBook/APTA_2007_Fact_Book.pdf.

¹⁹ Available at: http://bushlibrary.tamu.edu/research/public_papers.php?id=745&year=1989&month=7.

²⁰ Available at: http://www.cfo.doe.gov/cf30/budgetmap/budgetmap.html.

²¹ The approach taken in this report builds on strategies suggested by others. A QER was first proposed in 2010 by the President's Council of Advisors on Science and Technology (PCAST). (See:

http://www.whitehouse.gov/sites/default/files/microsites/ostp/pcast-energy-tech-report.pdf.) PCAST called the QER a "multiyear roadmap" with short, intermediate, and long-term objectives to guide the formulation of federal energy policy, executive actions, and the determination of resource requirements. PCAST envisioned the QER as the basis for four-year authorization legislation that would guide annual appropriations: "A QER process would, in some sense, formulate an integrated energy policy for the twenty-first century. It will span mission and vision definition, strategy, and tactics. The QER and the process leading to it would provide an effective tool for administration-wide coherence on energy and for effective dialog with Congress on a coordinated legislative agenda. Presidential interest and engagement will be a necessary ingredient for success." Note: An independent task force—sponsored by the James A. Baker III Institute for Public Policy of Rice University and the Council on Foreign Relations—made similar recommendations for a high-level national energy strategy in a 2001 report titled "Strategic Energy Policy Challenges for the 21st Century." (See: http://www.cfr.org/energy-security/strategic-energy-policy-challenges-21st-century/p3942.)

²² In 2010, the American Energy Innovation Council (AEIC) called for a National Energy Plan and independent national energy strategy board. (See: http://americanenergyinnovation.org/the-business-plan-2010/.) In 2011, AEIC call supported the idea of a QER. (See: http://americanenergyinnovation.org/catalyzing-ingenuity-2011/.)

²³ Burke, Sharon and Christine Parthemore. "Remodeling the USG for Energy Security: Initial Findings from the Big Energy Map". Working Paper. Center for a New American Security.

http://www.policyarchive.org/handle/10207/bitstreams/15534.pdf.

²⁴ The Quadrennial Energy Review Act (S.1703), a bipartisan bill introduced in 2011, requires DOE to conduct a review every four years to help develop a coordinated, government-wide energy policy. (See: http://www.govtrack.us/congress/bills/112/s1703.)

²⁵ If warranted, DOE could undertake a Quadrennial Technology Review (QTR) as part of the QER process. The existing QTR was undertaken by DOE based on the PCAST recommendation that DOE *first issue its own QER* before the actual government-wide QER was undertaken. DOE acted on this recommendation and published its own assessment as the *Quadrennial Technology Review (QTR)* in December, 2011. (See: http://energy.gov/quadrennial-technology-review.)



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