

(6) to consider the comparative environmental and public health impacts of the energy to be produced or saved by the specific activities;

(7) to consider the obstacles inherent in private industry's development of new energy technologies and steps necessary for establishing or maintaining technological leadership in the area of energy and energy efficiency resource technologies; and

(8) to consider the contribution of a given activity to fundamental scientific knowledge.

(Pub. L. 102-486, title XX, §2001, Oct. 24, 1992, 106 Stat. 3057.)

PART A—OIL AND GAS SUPPLY ENHANCEMENT

**§ 13411. Enhanced oil recovery**

**(a) Program direction**

The Secretary shall conduct a 5-year program, in accordance with sections 13541 and 13542 of this title, on technologies to increase the recoverability of domestic oil resources to—

- (1) improve reservoir characterization;
- (2) improve analysis and field verification;
- (3) field test and demonstrate enhanced oil recovery processes, including advanced processes, in reservoirs the Secretary considers to be of high priority, ranked primarily on the basis of oil recovery potential and risk of abandonment;
- (4) transfer proven recovery technologies to producers and operators of wells, including stripper wells, that would otherwise be likely to be abandoned in the near term due to declining production;
- (5) improve enhanced oil recovery process technology for more economic and efficient oil production;
- (6) identify and develop new recovery technologies;
- (7) study reservoir properties and how they affect oil recovery from porous media;
- (8) improve techniques for meeting environmental requirements;
- (9) improve data bases of reservoir and environmental conditions; and
- (10) lower lifting costs on stripper wells by utilizing advanced renewable energy technologies such as small wind turbines and others.

**(b) Program goals**

**(1) Near-term priorities**

The near-term priorities of the program include preserving access to high potential reservoirs, identifying available technologies that can extend the lifetime of wells and of stripper well property, and developing environmental field operations for waste disposal and injection practices.

**(2) Mid-term priorities**

The mid-term priorities of the program include developing and testing identified but unproven technologies, and transferring those technologies for widespread use.

**(3) Long-term priorities**

The long-term priorities of the program include developing advanced techniques to recover oil not recoverable by other techniques.

**(c) Accelerated program plan**

Within 180 days after October 24, 1992, the Secretary shall prepare and submit to the Congress a plan for carrying out under this section the accelerated field testing of technologies to achieve the priorities stated in subsection (b). In preparing the plan, the Secretary shall consult with appropriate representatives of industry, institutions of higher education, Federal agencies, including national laboratories, and professional and technical societies, and with the Advisory Board established under section 13522 of this title.

**(d) Proposals**

Within 1 year after October 24, 1992, the Secretary shall solicit proposals for conducting activities under this section.

**(e) Consultation**

In carrying out the provisions of this section, the Secretary shall consult representatives of the oil and gas industry with respect to innovative research and development proposals to improve oil and gas recovery and shall consider relevant technical data from industry and other research and information centers and institutes.

**(f) Authorization of appropriations**

There are authorized to be appropriated to the Secretary for carrying out this section, including advanced extraction and process technology, \$57,250,000 for fiscal year 1993 and \$70,000,000 for fiscal year 1994.

(Pub. L. 102-486, title XX, §2011, Oct. 24, 1992, 106 Stat. 3057.)

**§ 13412. Oil shale**

**(a) Program direction**

The Secretary shall conduct a 5-year program, in accordance with sections 13541 and 13542 of this title, on oil shale extraction and conversion, including research and development on both eastern and western shales, as provided in this section.

**(b) Program goals**

The goals of the program established under this section include—

- (1) supporting the development of economically competitive and environmentally acceptable technologies to produce domestic supplies of liquid fuels from oil shale;
- (2) increasing knowledge of environmentally acceptable oil shale waste disposal technologies and practices;
- (3) increasing knowledge of the chemistry and kinetics of oil shale retorting;
- (4) increasing understanding of engineering issues concerning the design and scale-up of oil shale extraction and conversion technologies;
- (5) improving techniques for oil shale mining systems; and
- (6) providing for cooperation with universities and other private sector entities.

**(c) Eastern oil shale program**

(1) As part of the program authorized by this section, the Secretary shall carry out a program on oil shale that includes applied research, in

cooperation with universities and the private sector, on eastern oil shale that may have the potential to decrease United States dependence on energy imports.

(2) As part of the program authorized by this subsection, the Secretary shall consider the potential benefits of including in that program applied research carried out in cooperation with universities and other private sector entities that are, as of October 24, 1992, engaged in research on eastern oil shale retorting and associated processes.

(3) The program carried out under this subsection shall be cost-shared with universities and the private sector to the maximum extent possible.

**(d) Western oil shale program**

As part of the program authorized by this section, the Secretary shall carry out a program on extracting oil from western oil shales that includes, if appropriate, establishment and utilization of at least one field testing center for the purpose of testing, evaluating, and developing improvements in oil shale technology at the field test level. In establishing such a center, the Secretary shall consider sites with existing oil shale mining and processing infrastructure and facilities. Sixty days prior to establishing any such field testing center, the Secretary shall submit a report to Congress on the center to be established.

**(e) Authorization of appropriations**

There are authorized to be appropriated to the Secretary for carrying out this section \$5,250,000 for fiscal year 1993 and \$6,000,000 for fiscal year 1994.

(Pub. L. 102-486, title XX, § 2012, Oct. 24, 1992, 106 Stat. 3058.)

**§ 13413. Natural gas supply**

**(a) Program direction**

The Secretary shall conduct a 5-year program, in accordance with sections 13541 and 13542 of this title, to increase the recoverable natural gas resource base including, but not limited to—

- (1) more intensive recovery of natural gas from discovered conventional resources;
- (2) the extraction of natural gas from tight gas sands and devonian shales or other unconventional sources;
- (3) surface gasification of coal; and
- (4) recovery of methane from biofuels including municipal solid waste.

**(b) Proposals**

Within 1 year after October 24, 1992, the Secretary shall solicit proposals for conducting activities under this section.

**(c) Cofiring of natural gas and coal**

**(1) Program**

The Secretary shall establish and carry out a 5-year program, in accordance with sections 13541 and 13542 of this title, on cofiring natural gas with coal in utility and large industrial boilers in order to determine optimal natural gas injection levels for both environmental and operational benefits.

**(2) Financial assistance**

The Secretary shall enter into agreements with, and provide financial assistance to, ap-

propriate parties for application of cofiring technologies to boilers to demonstrate this technology.

**(3) Report to Congress**

The Secretary shall, before December 31, 1995, submit to the Congress a report on the progress made in carrying out this subsection.

**(d) Authorization of appropriations**

There are authorized to be appropriated to the Secretary for carrying out this section and sections 13414 and 13415 of this title, \$29,745,000 for fiscal year 1993 and \$45,000,000 for fiscal year 1994.

(Pub. L. 102-486, title XX, § 2013, Oct. 24, 1992, 106 Stat. 3059.)

**Executive Documents**

EX. ORD. NO. 13605. SUPPORTING SAFE AND RESPONSIBLE DEVELOPMENT OF UNCONVENTIONAL DOMESTIC NATURAL GAS RESOURCES

Ex. Ord. No. 13605, Apr. 13, 2012, 77 F.R. 23107, provided:

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to coordinate the efforts of Federal agencies responsible for overseeing the safe and responsible development of unconventional domestic natural gas resources and associated infrastructure and to help reduce our dependence on oil, it is hereby ordered as follows:

SECTION 1. *Policy.* In 2011, natural gas provided 25 percent of the energy consumed in the United States. Its production creates jobs and provides economic benefits to the entire domestic production supply chain, as well as to chemical and other manufacturers, who benefit from lower feedstock and energy costs. By helping to power our transportation system, greater use of natural gas can also reduce our dependence on oil. And with appropriate safeguards, natural gas can provide a cleaner source of energy than other fossil fuels.

For these reasons, it is vital that we take full advantage of our natural gas resources, while giving American families and communities confidence that natural and cultural resources, air and water quality, and public health and safety will not be compromised.

While natural gas production is carried out by private firms, and States are the primary regulators of onshore oil and gas activities, the Federal Government has an important role to play by regulating oil and gas activities on public and Indian trust lands, encouraging greater use of natural gas in transportation, supporting research and development aimed at improving the safety of natural gas development and transportation activities, and setting sensible, cost-effective public health and environmental standards to implement Federal law and augment State safeguards.

Because efforts to promote safe, responsible, and efficient development of unconventional domestic natural gas resources are underway at a number of executive departments and agencies (agencies), close interagency coordination is important for effective implementation of these programs and activities. To formalize and promote ongoing interagency coordination, this order establishes a high-level, interagency working group that will facilitate coordinated Administration policy efforts to support safe and responsible unconventional domestic natural gas development.

SEC. 2. *Interagency Working Group to Support Safe and Responsible Development of Unconventional Domestic Natural Gas Resources.* There is established an Interagency Working Group to Support Safe and Responsible Development of Unconventional Domestic Natural Gas Resources (Working Group), to be chaired by the Director of the Domestic Policy Council, or a designated representative.