techniques that produce low ash, low sulfur, coal-based chemical feedstocks; and

(5) waste utilization, including recovery, processing, and marketing of products derived from sulfur, carbon dioxide, nitrogen, and ash from coal.

#### (b) Plan contents

The plan described in subsection (a) shall address and evaluate—  $\,$ 

- (1) the known and potential processes for using coal in the creation of products in the chemical, utility, fuel, and carbon-based materials industries:
- (2) the costs, benefits, and economic feasibility of using coal products in the chemical and materials industries, including value-added chemicals, carbon-based products, coke, and waste derived from coal:
- (3) the economics of coproduction of products from coal in conjunction with the production of electric power, thermal energy, and fuel;
- (4) the economics of the refining of coal and coal byproducts to produce nonfuel products;
- (5) the economics of coal utilization in comparison with other feedstocks that might be used for the same purposes;
- (6) the steps that can be taken by the public and private sectors to bring about commercialization of technologies developed under the program recommended; and
- (7) the past development, current status, and future potential of coal products and processes associated with nonfuel uses of coal.

(Pub. L. 102–486, title XIII, §1304, Oct. 24, 1992, 106 Stat. 2973.)

### § 13335. Coal refinery program

#### (a) Program

The Secretary shall conduct a program of research, development, demonstration, and commercial application for coal refining technologies.

### (b) Objectives

The program shall include technologies for refining high sulfur coals, low sulfur coals, sub-bituminous coals, and lignites to produce clean-burning transportation fuels, compliance boiler fuels, fuel additives, lubricants, chemical feed-stocks, and carbon-based manufactured products, either alone or in conjunction with the generation of electricity or process heat, or the manufacture of a variety of products from coal. The objectives of such program shall be to achieve—

- (1) the timely commercial application of technologies, including mild gasification, hydrocracking and other hydropyrolysis processes, and other energy production processes or systems to produce coal-derived fuels and coproducts, which achieve greater efficiency and economy in the conversion of coal to electrical energy and coproducts than currently available technology;
- (2) the production of energy, fuels, and products which, on a complete energy system basis, will result in environmental emissions no greater than those produced by existing comparable energy systems utilized for the same purpose;

- (3) the capability to produce a range of coalderived transportation fuels, including oxygenated hydrocarbons, boiler fuels, turbine fuels, and coproducts, which can reduce dependence on imported oil by displacing conventional petroleum in the transportation sector and other sectors of the economy;
- (4) reduction in the cost of producing such coal-derived fuels and coproducts;
- (5) the control of emissions from the combustion of coal-derived fuels; and
- (6) the availability for commercial use of such technologies by the year 2000.

(Pub. L. 102–486, title XIII, §1305, Oct. 24, 1992, 106 Stat. 2973.)

#### § 13336. Coalbed methane recovery

## (a) Study of barriers and environmental and safety aspects

The Secretary, in consultation with the Administrator of the Environmental Protection Agency and the Secretary of the Interior, shall conduct a study of—

- (1) technical, economic, financial, legal, regulatory, institutional, or other barriers to coalbed methane recovery, and of policy options for eliminating such barriers; and
- (2) the environmental and safety aspects of flaring coalbed methane liberated from coal mines.

Within two years after October 24, 1992, the Secretary shall submit a report to the Congress detailing the results of such study.

#### (b) Information dissemination

Beginning one year after October 24, 1992, the Secretary, in consultation with the Administrator of the Environmental Protection Agency and the Secretary of the Interior, shall disseminate to the public information on state-of-theart coalbed methane recovery techniques, including information on costs and benefits.

# (c) Demonstration and commercial application program

The Secretary, in consultation with the Administrator of the Environmental Protection Agency and the Secretary of the Interior, shall establish a coalbed methane recovery demonstration and commercial application program, which shall emphasize gas enrichment technology. Such program shall address—

- (1) gas enrichment technologies for enriching medium-quality methane recovered from coal mines to pipeline quality;
- (2) technologies to use mine ventilation air in nearby power generation facilities, including gas turbines, internal combustion engines, or other coal fired powerplants;
- (3) technologies for cofiring methane recovered from mines, including methane from ventilation systems and degasification systems, together with coal in conventional or clean coal technology boilers; and
- (4) other technologies for producing and using methane from coal mines that the Secretary considers appropriate.

(Pub. L. 102–486, title XIII, §1306, Oct. 24, 1992, 106 Stat. 2974.)