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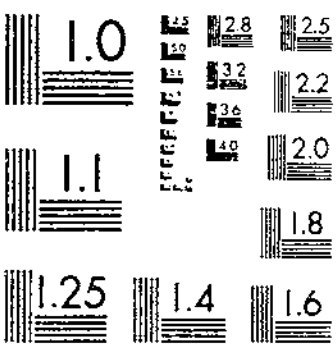

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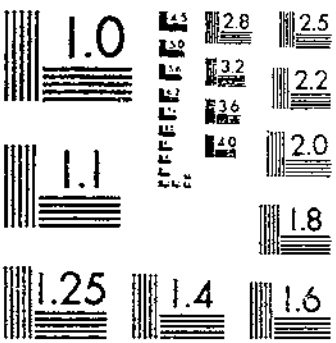

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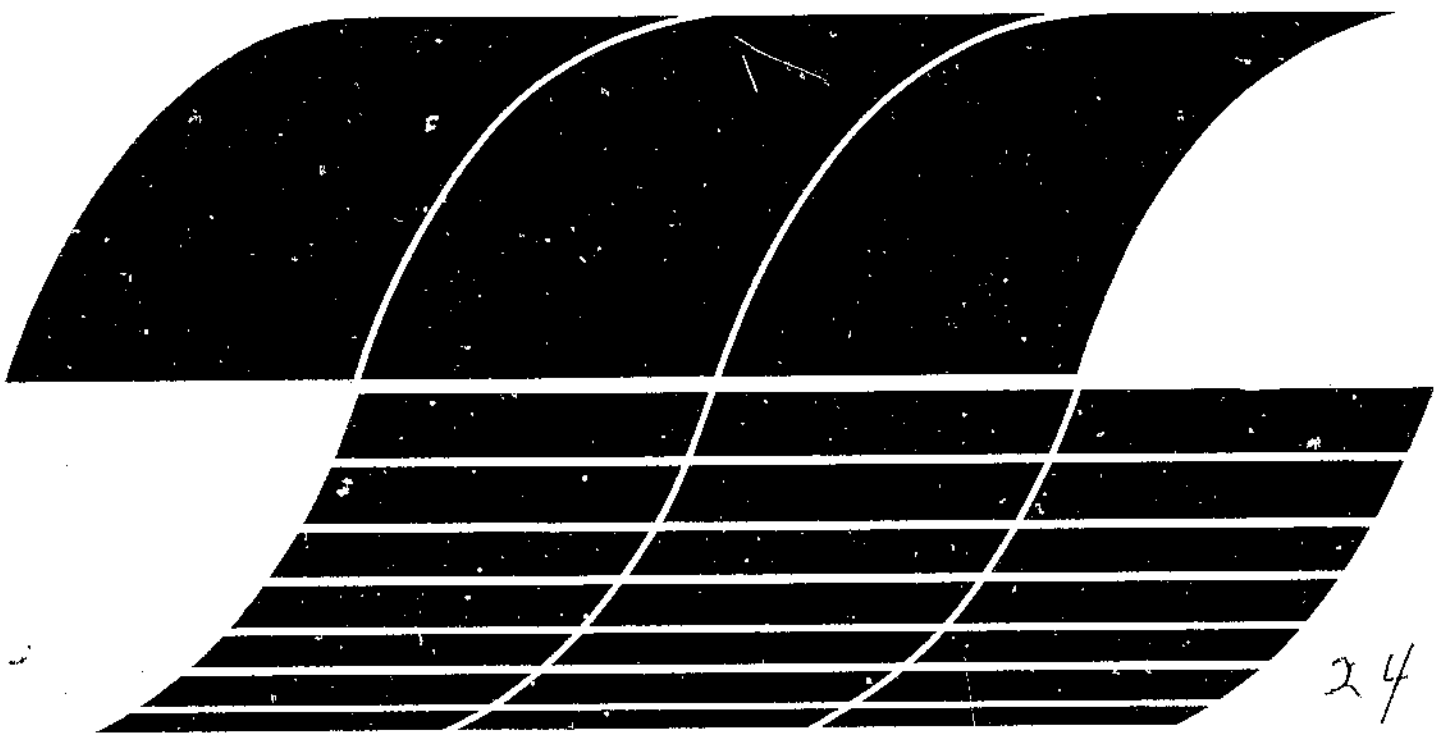
Research and Development

Western Energy:

The Interregional Coal Analysis Model

Interagency Energy/Environment R&D Program Report



WESTERN ENERGY: THE INTERREGIONAL COAL ANALYSIS MODEL, By John W. Green. Natural Resource Economics Division; Economics, Statistics, and Cooperatives Service; U.S. Department of Agriculture, Technical Bulletin No. 1627.

ABSTRACT

Electric utilities have already concluded contracts to obtain a major portion of their long-term coal needs. Based on these contracts, coal production from Montana, North Dakota, Wyoming, Colorado, Utah, Arizona, and New Mexico is projected to increase from 65 million tons in 1975 to 286 million tons by 1985. Coal production in northeastern Wyoming is projected to rise from 3.5 million tons in 1975 to 106 million tons in 1985, by far the largest increase for any area of those seven States. Other large increases will occur in Rosebud County, Montana, and the Four Corners area of New Mexico--all strip-mined coal. By 1985, strip mining will be disturbing about 6,000 acres annually. Deep-mined coal from central Utah is projected to increase from 3 million tons in 1975 to 16 million in 1985. With a 3-year construction delay of certain key electric power plants, Western coal output would rise to only 230 million tons by 1985.

Keywords: Coal, Strip mining, Western States, Energy, Projections, Model

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Washington, D.C. 20250 August 1980

FOREWORD

The research activities and results described in this report are part of a project entitled "Integrated Assessment: Economic and Social Consequences of Coal and Oil Shale Development." This project is supported jointly by the U.S. Department of Agriculture (USDA) and the Environmental Protection Agency (EPA) as a component of the Federal Interagency Energy/Environment Research and Development Program. The overall project focuses on identifying and analyzing certain interrelationships between society's needs for energy, environmental quality, and agricultural production and the impacts of alternative public policy strategies for dealing with these needs.

The Western States version of the Interregional Coal Analysis Model as described in this report is not an adequate representation of the simulation model in its final form. The final model will be national and interregional in coverage. However, the western model does illustrate the basic logic and structure of the activity as currently envisioned. In this, as in most major modeling work, full application lags development by a considerable time. Although the model is still in the development stage, this report is being published in order to stimulate discussion of the basic concepts and to solicit comments and suggestions. Colleagues in the energy modeling field, as well as individuals actively involved in all kinds of related policy analysis, are encouraged to send their comments to the author or to us.

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SUMMARY

Steam-electric coal production from Wyoming, Montana, North Dakota, New Mexico, Utah, Colorado, and Arizona is projected to increase from the 65 million tons of 1975 to 286 million in 1985. The largest increase is occurring in northeastern Wyoming, projected to rise from 3.5 million tons in 1975 to 106 million by 1985.

Other large increases are projected for Rosebud County, Montana, and the Four Corners area of New Mexico--all strip-mined coal. Deep-mined coal from central Utah is projected to increase from 3 million tons in 1975 to 16 million in 1985.

Electric utilities have already concluded contracts for a major portion of their Western coal purchases through 1985. Such contracts are a good basis for projecting 1985 total demand for Western steam coal when supplemented by other demand information and some policy assumptions. The simulation model described in this report reconstructs the coal supply (origin and transportation) patterns to match projected demand.

By 1985, strip mining will be disturbing about 5,800 acres of land annually under this projection. At current tax rates, State severance taxes would yield $575 million in total revenue to the seven-State region. Although the rapid buildup of strip mining in the most active area, northeastern Wyoming, would have mined 400 million tons of coal from that area during the 1975-84 decade, that part of Wyoming would still have 20 billion tons of coal reserves left in 1985. Only 2 percent of northeastern Wyoming's rich reserves would be depleted by 1985, even with the sharp production increase now foreseen.

However, alternative total demand projections for Western coal are also made based on the assumption that completion of certain large new electric power plants will be delayed. If 3-year construction delays were to occur in specified new power plants, which would then come on line after 1985, total Western coal output and use would rise to only 230 million tons instead of 286 million by 1985. These construction-delay projections illustrate how the simulation model will be used in its fully developed interregional form. The objective will be to assess the effects of alternative public policies or market demand levels on coal supply and development patterns.

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Western Energy: The Interregional Coal Analysis Model

John W. Green *

INTRODUCTION

Since the 1973 Middle East oil embargo the energy picture in the United States has been constantly changing. Uncertainty over the Government's national energy policy and the relative advantages of using different types of fuel have caused speculation about the location and intensity of energy development. Development has already created serious problems in the Western United States where coal mining has boomed in the last 5 years. The impacts on some rural communities have been severe.

This report describes a method for anticipating some of the impacts of coal development under different policy options. The Interregional Coal Analysis Model (ICAM) for the Western States, the subject of this report, projects the likely shifts in the patterns of coal production, transportation, and utilization which might result from alternative policy strategies. When completed, the national ICAM may be operated in coordination with other major modeling activities in the Federal Interagency Energy/Environment Integrated Assessment Program to provide a flexible and wide ranging analytical system to support the policy analysis activities of that program.

This report describes the interregional competition model for the Western States. It describes the structure of and the data in two models. The 1975 model describes the coal mining-large electrical generation plant interactions which existed in 1975. It develops a base solution against which alternative scenario solutions are compared. The 1985 model portrays a reasonable reference case for 1985. It also develops a base solution for use in comparing scenario analyses.

The results presented are preliminary. They were obtained by running the simulation model using the best available coefficients, which are reported in this publication. However, many of those coefficients have been updated and will not be in the national model. The Western model reported here is an accurate representation of the structure and procedure we are utilizing in the development and use of the national model.

The development of a third model for the year 2000 is under consideration. This will require reliance on more hypothetical information. Considerable added effort would be needed to modify the existing model. This added effort seems justified by the need to deal with difficult policy questions and analysis of impacts over a much longer time period--to 2000.

*John W. Green is a Regional Economist with the Economics, Statistics, and Cooperatives Service.

THE INTERREGIONAL COAL ANALYSIS MODEL

The national ICAM, when completed, will be a large-scale simulation model intended to assist in coal development planning and analysis. The model is being developed for major U.S. coal supply regions.

Supply Regions

There are six major U.S. coal supply regions: The Northern Great Plains, the Rocky Mountain States, the Interior, the Appalachian Region, the Gulf States, and the Pacific States (fig. 1). Regional profile reports are being developed for each of the major coal supply regions (24, 25). 1/ The information in these reports, plus other data, are being used to develop the interregional model. This Western States report deals with the model developed for the Northern Great Plains and Rocky Mountain States. The analysis described is an interregional analysis between the western coal producing areas and the other four coal supply regions.

Coal production areas (CPAs) are multicounty supply areas defined within each of the major coal supply regions. 2/ The breakdown of each major coal supply region into several coal production areas was necessary to make the model sensitive to the small area problems being analyzed by this project. Figures 2 and 3 describe the CPAs within the Northern Great Plains and Rocky Mountain coal supply regions, respectively.

The definition of several CPAs within the two western regions makes it possible to use the model to perform a Western States intraregional analysis. Such an analysis would consider only the CPAs within the Western States and perform an interregional analysis among them.

1/ The underscored numbers in parentheses refer to references listed at the end of this report.

2/ The boundaries of these CPAs, or coal supply regions, have been delineated by the research staff of this project, and will be standard throughout all project reports (24, 25). Boundaries are set along county lines, but no CPA crosses a State line. (Data on coal reserves is classified on a county-by-county basis by the Bureau of Mines; the county is the smallest geographic unit used in the Bureau's reserves data). Only counties with reserves of at least 10 million tons are considered for inclusion in CPAs, thus excluding minor deposits. However, in the eight Western States covered in this report, there are 90 counties with reserves of at least 10 million tons each. Ninety supply regions would make the analysis unwieldy and would obscure valid generalizations. Therefore, within a State, contiguous counties which contain coal reserves of very similar characteristics are grouped into one CPA. The main characteristics used are heat value and sulfur content. Appropriate county groupings were usually obvious; for example the lignite of CPA MT05 is different from the subbituminous coal of MT04. As a result of the county grouping process, 28 CPAs are delineated in these eight Western States. Seven of these CPAs consist of only one county, usually counties not adjacent to any other county with coal reserves. A South Dakota CPA is defined, because of its coal reserves, although it has no active or projected production. Consequently, the model covers eight States, but production comes from only seven.

Figure 1

Coal Supply Regions

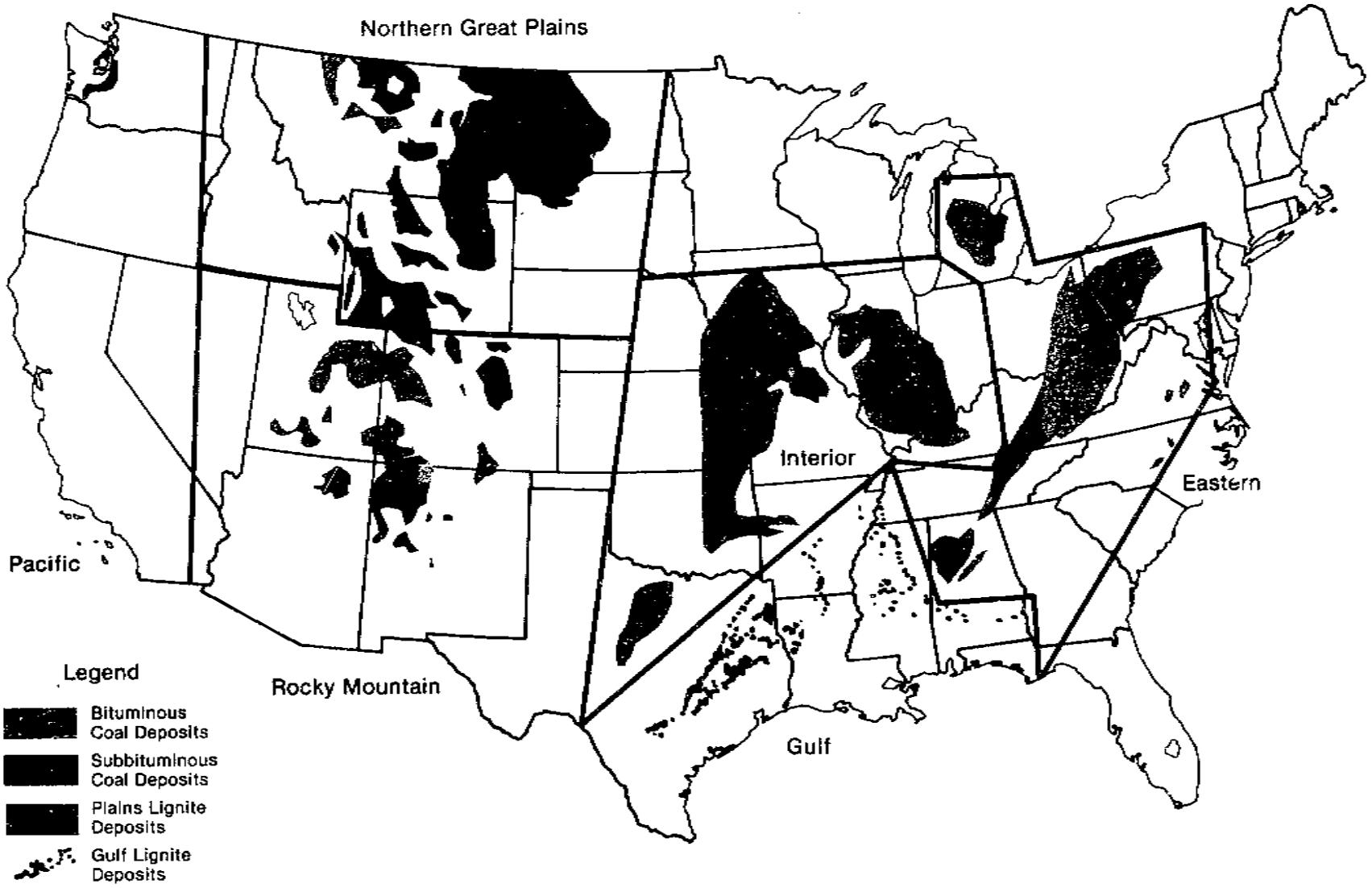


Figure 2

Northern Great Plains Coal Supply Areas (CPAs)

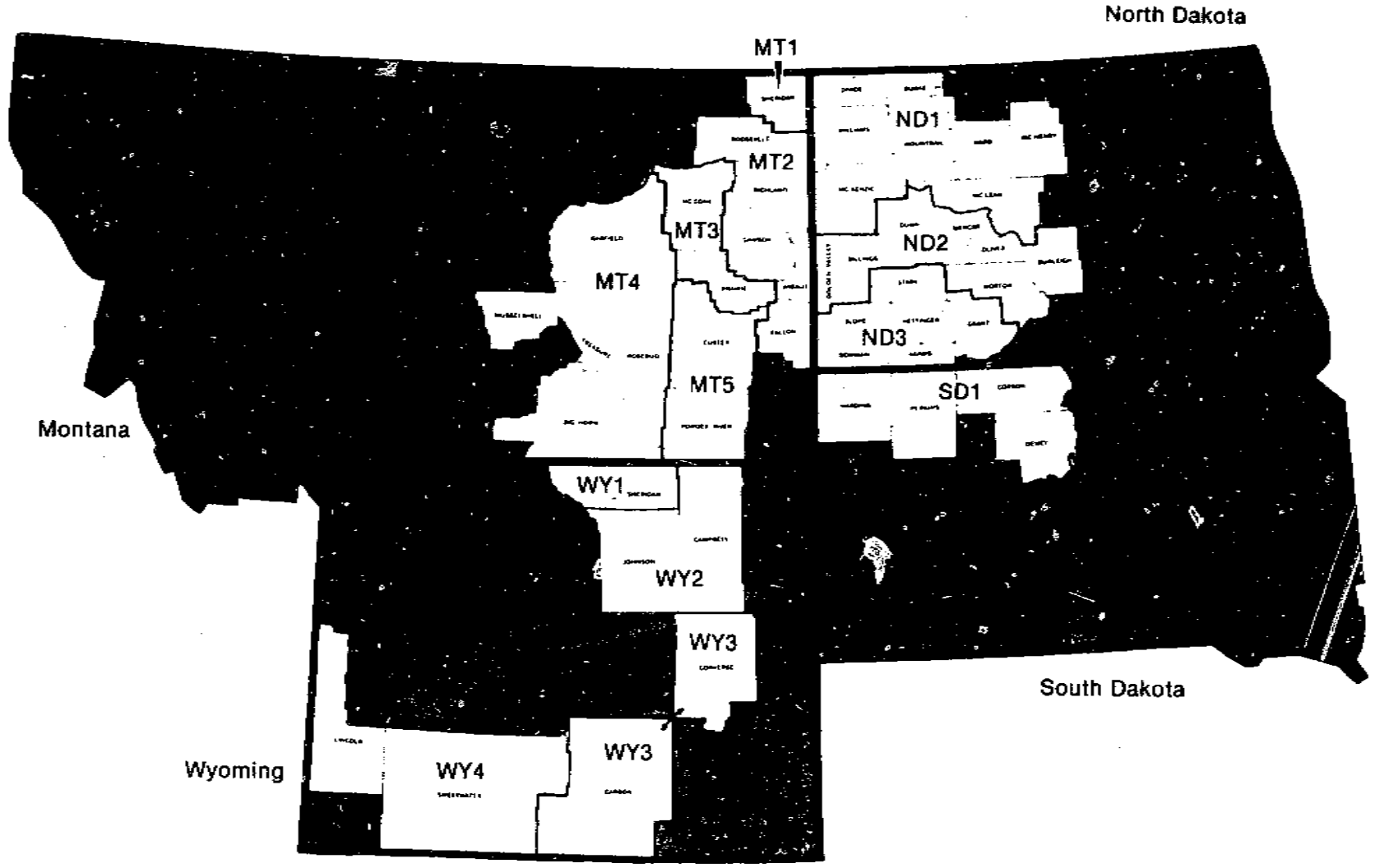
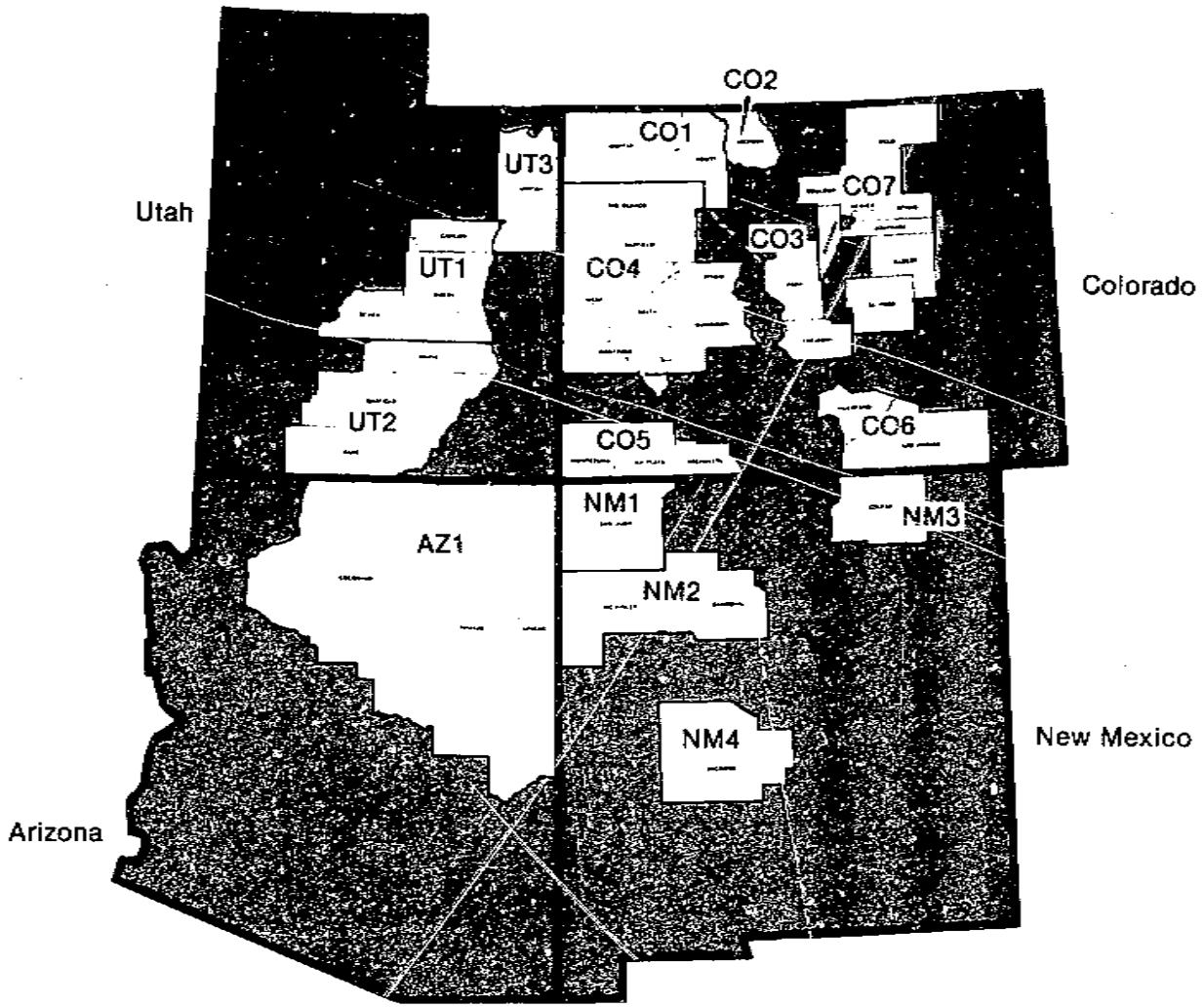


Figure 3

Rocky Mountain States Coal Supply Areas (CPAs)



Model Objectives

The specific objectives for the model are to determine the economic and environmental impacts of regional coal mining patterns triggered by changes in national demand for coal. This includes both interregional and intraregional analyses as defined above. The absolute level of demand for coal and its development implications for CPAs will be examined using alternative objectives for each run of the model (fig. 4). Such alternative objectives are:

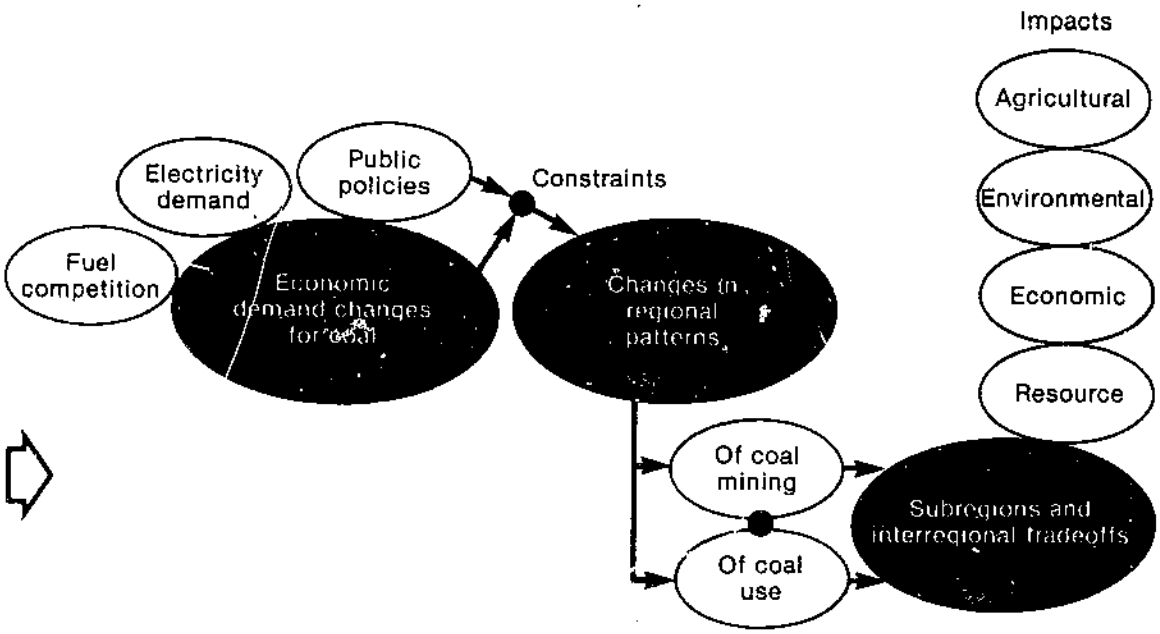
1. (a) Examine effects of Federal, State, and local energy-related policies on the location of coal mining and the resulting impacts on rural resource use. Such policies may include Federal and State air pollution regulations, State taxation policies, and Federal and State mined land reclamation laws.

   (b) Examine effects of Federal and State resource policies on the location of coal mining and the resulting impacts on rural resource use. Such policies may include State water resource regulations or State and Federal mine siting and leasing regulations.

2. Examine effects of alternative locations of coal processing facilities on the location of coal mining.

Figure 4

The Analytical Approach of the Coal Model



3. Examine shifts in regional coal production and resource use resulting from changes in consumer demand. These changes in demand may be the result of coal and other fuel price changes, consumer preferences, and industrial production levels.

A Mathematical Programming Approach

One objective of this project is to evaluate the economics, relative efficiencies, and certain impacts associated with delivering coal energy. The project attempts to identify and analyze the impacts of coal development on environmental quality, agricultural production potential, and rural communities. A large quantity of data, emphasizing total source-to-end-use systems, has been collected on the national coal supply system. 3/ Various combinations of data representing different components of the coal supply system are used as input to the computer model so that hypothetical system economics and efficiencies can be compared. Concerns related to agriculture, such as effects of reclamation requirements, water costs and availability, and mineral taxes can also be considered. Technically, the problem is cast as a mathematical programming problem; specifically, a simulation model.

Mathematical programming problems determine the optimal or preferred allocation of limited resources to meet a given objective. More specifically, they deal with conditions under which a set of resources in limited supply, such as materials, labor, and machines are to be utilized to produce a number of products. Alternatively, mathematical formulations can efficiently assess how varied assumptions about the above factors can affect mining location. Local, State, and Federal policies designed to regulate the provision of coal energy can be evaluated to assess their impact on the spatial location of mining and conversion facilities. Mathematical formulation allows for additional restrictions to be placed on the problem. These additional conditions may be specific or follow broad categories such as the total amount of each input available or the minimum quantity of each product desired. From all the possible allocations of scarce resources, mathematical programming allows identification of those combinations which maximize or minimize a quantifiable function such as cost or profit.

Linear programming deals with problems in which all relationships between the variables may be cast as linear functions. Specifically, a number of constraints in the form of linear inequalities are solved while maximizing or minimizing a linear combination of these variables. The objective of our problem is to minimize the cost of meeting coal energy requirements while insuring that certain constraints are satisfied.

The coal energy systems of the United States are described by a number of variables, each of which is linked to the others through a set of linear inequalities. An additional linear function of these variables, the objective function, is then defined and optimized. For the model described herein, the objective is to minimize the cost of meeting coal-derived electricity demands. All other equations required to define the structure of the energy system constitute the linear constraint equations. The model first simulates the coal supply system for large coal-fired electric generating plants and then optimizes the objective function for alternative sets of constraint equations.

The importance of the linear constraint equations should not be underemphasized. These equations reflect externalities such as social issues, water policies, net

3/ The data files and the computer programs developed to manage them are described in (9).

energy balances, and reclamation. Given the assumptions of certain scenarios, the constraint equations may be much more important than the objective function.

Each variable or activity in the system is assigned a unit cost. The product of the activity level and its unit cost is the total cost for that activity. The sum of total costs for all activities is the objective function to be minimized. The basis of the constraint equations are mass and energy balances, economic cost, regulatory restraints, and thermal efficiencies. The linear programming model is demand driven. Coal-generated electricity demands are met in a manner leading to lowest total cost. If the specified electrical demands cannot be met, the associated scenario is not technically feasible.

Model activities deal with the following general areas:

1. Production of coal.

2. Transportation of coal by various transportation modes.

3. Conversion of coal from one form into another including synthetic liquids, gas, and electric power.

4. Distribution of those energy forms to meet national and regional energy demands.

Two types of constraints may be present in the model: column constraints and row constraints. Column constraints are activity bounds that force the level of a particular activity to be greater than, less than, or equal to a given value. Row constraints force the sum of a set of activities to be greater than, less than, or equal to a defined value. For example, the total amount of coal that can be mined in a region must be less than or equal to the mining capacity of the region. The row constraints in our model may include:

1. Coal reserve rows. These limit the production of coal in a region to be less than or equal to the reserves of coal in that region.

2. Coal production rows. These limit the production of coal in a region to the mining capacity of the region.

3. Coal transshipment capacity rows. These insure that the flow of each coal type between regions is less than or equal to the capacity of the particular transshipment mode.

4. Coal-fired steam electric power generation rows. These limit the output of coal-fired power generation plants to the coal-fired generation capacity of each plant.

5. Sulfur dioxide (SO_2) emission rows. These limit the amount of SO_2 per million Btu that may be released in each region.

6. Coal conversion process capacity rows. These limit the conversion of coal to liquids or gases to the capacity of such facilities.

7. Regional water availability rows. These limit the total quantity of water consumed by all coal conversion processes in each region to the amount of water available in each region.

8. Coal-derived electric energy demand rows. These insure that the quantity of coal-derived electrical energy available in each region is at least equal to the demand for coal-derived electrical energy in that region.

9. Nonelectric coal energy demand rows. These insure that the quantity of synthetic coal energy produced satisfies the demand for that energy in each region.

10. Accounting rows. These are nonconstraining rows that facilitate arithmetic calculations within the report writing programs and provide summaries of variables for a quick overview of model results. For the purposes of our model, these accounting rows may include land, labor, coal production (underground and/or surface-mined), transportation, water, pollutants, health characteristics, reclamation, ancillary energy use, or net energy balances.

In addition to the above constraint rows, all activities may be bounded.

Western States Model Structure

This section defines each of the detailed equations that form the basis of the Western States model and places them in the context of the model as a whole. The notation used below is subject to change as the specific model undergoes continuing development.

Equation 1 is the objective function and represents the total cost of satisfying coal-derived energy demands. It is the sum of four components.

$$Z = C_i(PRO)_i + C_{ij}(TRANS)_{ij} + C_j(CONV)_j + C_{jk}(DIST)_{jk} \qquad (1)$$

where: first term = cost of mining coal (underground or surface) in CPA i.

second term = cost of transporting coal from CPA i to conversion plant j.

third term = cost of producing energy at plant j.

fourth term = cost of distributing coal-derived energy from conversion plant j to demand region k.

Constraining equations for the model are described in the following paragraphs. All the constraint equations described are not operational in the western models described later in this report.

Equation 2 limits the total production in CPA_i to the coal mining capacity of that area.

$$\Sigma PRO_i \leq MCAP_i \qquad (2)$$

Equation 3 limits the total quantity of coal mines in each CPA to the reserves of coal available in that area. The 1976 to 1984 annual production has been deleted from the reserves available for the 1985 model. Since we are analyzing 1985 scenarios, we need to subtract the coal mines each year to 1985 from the total coal reserves available.

$$\Sigma PRO_i \leq RES_{it} \qquad (3)$$

Equation 4 limits the total quantity of coal shipped via slurry pipeline between CPA i and a destination plant j to the annual capacity of the slurry pipeline assumed to exist.

$$\Sigma(SLUR)_{ij} \leq (SLCAP)_{ij} \qquad (4)$$

Equations 5, 6, and 7 limit the conversion of the coal entering each plant j into electricity, gas, or oil. Each equation takes into account the efficiencies of the respective conversion processes. Equation 5 limits the conversion of coal into electricity to the capacity of generation plant j. Equation 6 does the same for gasification of coal and equation 7 for liquefaction of coal. It may be necessary to modify these three equations to reflect various complements of pollution control equipment.

$$\Sigma(ELEC)_j \leq (ELCAP)_j \qquad (5)$$

$$\Sigma(GAS)_j \leq (GASCAP)_j \qquad (6)$$

$$\Sigma(LIQ)_j \leq (LIQCAP)_j \qquad (7)$$

Equation 8 places a limit on the amount of sulfur dioxide that may be released per million Btu of heat input.

$$\Sigma((TRANS)_{ij}(S)_i) \leq \Sigma((SO_2)_j(ELEC)_j) \qquad (8)$$

Equation 9 limits the total quantity of water consumed by all conversion plants to the amount of water available at that plant.

$$\Sigma((CONV)_j(WTRUSE)_j) \leq (WATER)_j \qquad (9)$$

The amount of electric energy produced by each plant, plus that imported, less that exported must at least equal the demand for electric energy in the utility service area to which the plant belongs.

$$\Sigma(ELEC)_{jk} \geq (ELECDEM)_k \qquad (10)$$

The terms used in the 10 equations listed above are defined below.

Z = the objective function to be minimized.

C_i = the cost of mining coal in CPA i.

$(PRO)_i$ = production level of coal in CPA i in thousands of tons.

C_{ij} = cost of transporting coal from CPA i to conversion plant j.

$(TRANS)_{ij}$ = amount of coal transported from CPA i to conversion plant j.

C_j = cost of producing a unit of output at conversion plant j.

$(CONV)_j$ = output of conversion plant j (includes $(ELEC)_j$, $(GAS)_j$, and $(LIQ)_j$).

C_{jk} = distribution cost of energy from conversion plant j to demand region k.

$(MCAP)_i$ = mining capacity in CPA i.

$(RES)_{it}$ = reserves of coal available in CPA i in time frame t.

$(SLUR)_{ij}$ = coal slurry transportation line from CPA i to conversion plant j.

$(SLCAP)_{ij}$ = annual transporting capacity of slurry pipeline ij.

$(ELEC)_j$ = output of electrical generation plant j.

$(ELCAP)_j$ = annual output capacity of electrical generation plant j.

$(GAS)_j$ = output of coal gasification plant j.

$(GASCAP)_j$ = annual output capacity of coal gasification plant j.

$(LIQ)_j$ = output of coal liquefaction plant j.

$(LIQCAP)_j$ = annual output capacity of coal liquefaction plant j.

$(S)_i$ = sulfur content of coal from CPA i.

$(SO_2)_j$ = sulfur dioxide regulation in effect at conversion plant j.

$(WTRUSE)_j$ = water use rate at conversion plant j.

$(WATER)_j$ = amount of water available at conversion plant j.

$(ELECDEM)_k$ = demand for electricity in utility service area k.

Model Limitations

Model limitations derive specifically from at least three sources: input data, systems structure, and appropriateness of the modeling methodology used. Specific problems arising from available data can be divided into two major parts: (1) the uncertain nature of some of the data, particularly that dealing with new energy systems not yet commercially available, and (2) the problems of projecting historic data, however good, to future years. An important aspect of projecting cost data is the choice of appropriate rates of escalation.

Problems with data in this simulation model application, as in all simulation model applications, were many and varied. Specific selling prices for coal in each CPA were not known, making it necessary to compute weighted averages or prices using known or assumed prices for each mine. Specific costs, modes, and routes of transportation were also unknown. Many shipments go entirely by rail while other shipments use a combination of rail and barge routes. Neither the input-output ratios nor the costs of generation were available for specific power plants in 1975. This made the task of projecting input-output ratios and electrical generating costs to 1985 more difficult. Coal prices (FOB mine) and transportation costs were projected to 1985 using a simple 6-percent annual escalation rate. A more complete discussion of these problems and assumptions follows in later sections.

There are several model structure limitations. These include the capability of electric utilities to switch from gas and oil to coal use, assumptions concerning intraregional electrical transmission costs and efficiencies, the blending of coal types, and the mixing of transportation modes to supply coal to end users. Assumptions were made concerning the amount of coal used by each electrical generating plant, ignoring the ability of these plants to switch back and forth between oil and coal depending on competitive price structures. Intraregional electrical transmission costs and efficiencies were ignored, assuming instead that the cost and efficiencies of transmission were reflected in the operating costs of the plants. The blending of coal types, given minimum attention in the development of this model, will be treated more adequately in the national interregional model. The regulation of sulfur dioxide emission levels may encourage coal blending activities to develop. Mixing of transportation modes to supply coal to generation plants has also been ignored in this model. Plans for the national model call for specific treatment of alternative modes of transportation and their costs.

The most important advantage of the mathematical programming structure is that it allows the user to formulate rational economic choices based on the best available technical and cost information. The methodology also has at least two important conceptual drawbacks. The first is the simplifying assumption that all relationships between variables are linear. The second is that a linear programming model is never a strictly accurate representation of the economic system with which it deals. It is merely a method of conceptualization that allows the analyst to formalize the basic strategic relationships controlling the described phenomenon and permitting manipulation of the situation. The linearity assumption is particularly limiting in the pricing of the various products or services essential to the coal supply and utilization trajectory. The unit cost of any commodity varies with the quantity of that commodity provided. It is possible to reflect this economic fact in a linear programming model; this has not been done in the development of this model.

We minimized the representation problem in this simulation model by including information for individual generating plants. We have attempted to look at data for each mine in each coal producing area and at the specific power plants which those mines supply. It has been necessary to aggregate the mines in each CPA to reflect conditions for that CPA. (See footnote, p. 2). However, aggregation has not occurred at the power plant level. We have also looked at the individual transportation links which connect a mine with an individual power plant. Therefore, the aggregation problem should not be serious in the transportation or generation portions of this model.

Perhaps the area of greatest potential misrepresentation of the operating economic system is demand. To formulate a demand for coal-derived electrical generation, it was necessary to determine the total demand for electricity and then separate out that portion of total electrical demand derived from coal. This involved certain simplifying assumptions concerning utilization of coal and noncoal-fired electrical generation plants. If certain of these assumptions prove to be inconsistent, it will be possible to develop alternative scenarios modifying these assumptions. To address the demand problem more satisfactorily, the ICAM can probably be linked to a very detailed Utility Simulation Model (USM), which represents the national electric utility industry and which has been developed as part of an EPA-funded study (15).

The development of operational policies or regulations using results of simulation analyses should be done carefully. The linear relationships present within linear programming models may cause dramatic shifts between regional activity levels. This occurs because linear programming algorithms set up ratios between coefficients. These ratios are constantly compared and if, as demand is met, their relative magnitudes switch, it may cause dramatic shifts in the levels of activities. This problem can be clarified by performing sensitivity analyses. Sensitivity analysis enables the analyst to define shift points and to temper the description of impacts to prevent unwarranted reliance on shifts caused by linearity assumptions.

The user of simulation models results should also be aware of the inaccuracy of specific numbers presented as output. Studies using simulation models should make base analyses reflecting most probable situations. These base results should not be interpreted as absolute levels expected to exist. Base results should be interpreted to reflect a situation similar to one which may exist in the scenario year. Then the results of alternative scenarios should be compared with the base results in a relative manner. (The results should be interpreted as an increase or a decrease of an approximate magnitude rather than in absolute terms). For example, when we develop a 1985 base scenario, the level of coal mining in a CPA should be interpreted as the level which may exist in 1985. The level of mining which will actually exist in 1985 may be lesser or greater than the level predicted using the model. The policymaker should not assume that the absolute level projected by the model will actually exist.

An acceptable way of presenting results of simulation model analyses is to show relative changes from a base line rather than absolute levels of activity which the model has predicted will occur under alternative scenario assumptions.

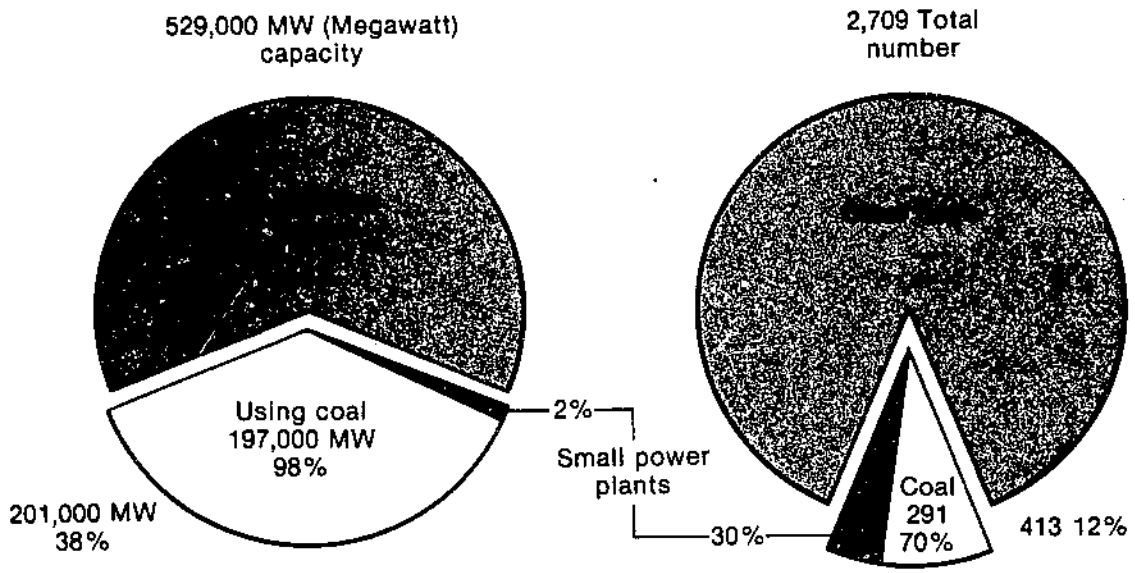
The linearity assumption is particularly troublesome with respect to coal supply pricing. The national coal model developed by the Department of Energy uses nonlinear coal pricing parameters. This approach is preferred to our linear approach.

DATA FOR THE 1975 WESTERN STATES MODEL

This section describes the development of the data used in the 1975 Western States model. 4/ Since this model is being designed to measure the impact of coal development in the United States, and since the major market for coal is the electricity utility industry, a reasonable beginning point for assessing the demand for coal is to inventory all electric utility power plants which burn coal to generate electricity. There were 413 power plants in the United States which burned coal to generate some or all of their electricity in 1975 (table 1). The plants which burn coal to generate electricity contributed 38 percent of the total generation capacity in the United States. Because of the difficulty in obtaining information for individual power plants, it seemed appropriate to investigate only a subset of the coal-fired electrical generating plants. Therefore, the megawatt capacity of each coal-fired power plant was examined and several cutoff levels analyzed. It was ultimately decided to model only those coal-fired power plants with a nameplate generating capacity 5/ of 100 megawatts or greater. This eliminates only 2 percent of the total coal-fired nameplate generating capacity in the United States (table 1 and fig. 5).

Figure 5

U.S. Power Plant Statistics, 1975



Of those coal-fired, most are large, 100 MW or over in size

291 plants of 100 MW or over account for 98% of coal-fired capacity

4/ The Western States model will undergo continuing development.

5/ Nameplate capacity is the generation capacity which each power plant is designed and built to produce. Operating conditions may prevent a plant from producing at nameplate capacity.

Table 1--U.S. power plant statistics, 1975 1/

Item	Unit	Statistic
Power plants	No.	2,709
Total capacity	MW	528,647
Power plants using coal	No.	413
Capacity of power plants using coal	MW	201,383
Percentage of MW capacity from coal-fired plants	Pct.	38
Percentage of power plants using coal	Pct.	15
Coal-fired power plants ≤ 100 MW	No.	103
Capacity of power plants ≤ 100 MW	MW	4,010
Percentage of MW capacity from coal-fired plants ≤ 100 MW	Pct.	1.99
Percentage of coal-fired power plants ≤ 100 MW	Pct.	25

1/ Includes 50 States and Puerto Rico.

Source: (16)

Nevertheless, the possibility of developing information on both smaller utility boilers and coal utilization in industrial boilers is being considered in cooperation with other related studies in EPA's Energy/Environment research and development program. Smaller plants are usually older, less efficient plants which are likely to be retired when larger, more efficient plants are built. The recent trend in new generating capacity has been towards larger plants.

App. table 1 lists all the coal-fired plants included in the 1975 national ICAM and describes each plant's ownership. There are 291 power plants greater than or equal to 100 megawatts in nameplate generating capacity. This list includes all plants supplied by western coal as well as all other coal-fired power plants in the Nation. The percentage ownership shown is important in allocating the output of each plant. The demand analysis will describe a demand for each utility service area. The output of each plant going to meet demand in each utility service area will be defined by the percentage ownership of that utility system in each plant.

App. table 2 lists all the power plants receiving coal from the Western States. It identifies and codes each transportation link to each power plant, including the CPA from which the coal was supplied and the amount of the shipment. From app. table 2, we can identify those CPAs which mined coal for use by each power plant. We can also identify all power plants receiving western coal and then proceed to develop the transportation links necessary for the analytical model. Therefore, we have three vital pieces of information for the interregional linear programming model: (1) the CPA which supplies the coal, (2) a transportation link from the CPA to the individual power plant, and (3) the individual power plant identification. For example, we can code the coal producing area (MNGSAZ01), the transportation link (AZ019014), and the power plant (CEG 9014). In addition, app. table 2 provides the proportion of each plant's input supplied by each transportation link. This number is in the form of a coal input to electricity output ratio (million Btu/million kWh). Only Western States coal sources are defined in detail (by CPA); the Interior, Appalachian, and Gulf major coal producing region sources will be broken into individual CPAs as the model is expanded to include those regions.

The first part of this section described how the number of power plants was reduced to a more manageable number and how the background information for these power

plants and their western coal sources was developed. The tables described below will list the exact coefficients entered into the simulation model.

The first portions of table 2 describe the model coefficients for the western region strip and underground mining activities. The code for each CPA supplying utility steam coal in 1975 is listed. As the model is expanded to include future scenarios, coefficients will be developed for vacant matrix intersections. Coefficients describing coal tonnage-to-Btu conversion values were obtained from the Northern Great Plains and Rocky Mountain regional reports (7,24,25). Strip mining in the Western States recovers approximately 90 percent of the coal in mined seams. Therefore, the coefficient describing depletion from reserves becomes 1.1111 for all strip mining activities. Moreover, underground mining in the Western States recovers approximately 50 percent of the coal. Therefore, the coefficient describing depletion of resources for underground mining becomes 2.000 for all underground mining activities. Production is described in both thousands of tons and in millions of Btu. The coefficient describing the entry into the mining transportation transfer accounting row is described in Btu because costs for transporting coal are expressed in dollars per million Btu. Therefore, as can be seen from table 2, the conversion from thousands of tons of production to millions of Btu of production is accomplished in the mining activities.

Table 2 also describes the coefficients for the western region transportation activities. Each transportation activity carries coal, expressed in Btu, from the CPA to the power plant. Therefore, each transportation activity has a cost, an input from the mining transfer row, an output to the power plant transfer row, and a coefficient to account for the capacity of the movement. The conversion from tons to Btu of production is accomplished in the mining activities. Therefore, the basic function of these transportation activities is to transport 1 million Btu of coal at a cost. The movement volume of the transportation activity is accumulated to accommodate future scenarios which may impose capacity limitations on specific transportation links. The transfer of coal through these transportation activities is assumed to be 99 percent efficient. Therefore, the input coefficient in the mining transfer row is 1.00 while the output coefficient in the power plant transfer row is 0.99. Transportation costs for certain mine mouth power plants are zero; but, in some instances, these zero coefficients have been modified to prevent cycling during problem solution.

Table 2 also describes the model coefficients for electrical generation plants supplied by western coal. Each generation activity receives coal from each of its CPA suppliers and converts those Btu of coal input to kilowatt hours of electricity output. This is accomplished at a cost expressed in dollars per million kilowatt hours of electrical production. The amount of electricity produced is accumulated and the generation capacity of the electrical plant is constrained.

There is a major weakness in the model because it uses coal-fired generating plants to meet both base- and intermediate-load electricity demand. The electrical demand requirement which drives the simulation model does not accurately reflect the base demand alone. That is, total electrical demand has not yet been reduced to reflect only the base-load portion intended to be met by coal-fired power plants. This will be done by analyzing the utilization factors for coal-fired power plants. Generation capacity and utilization factors will determine the estimated base demand load each plant is managed to meet. Output capacity for each power plant will be modified depending upon the age of the power plant and the change in the utilization factor.

Table 2 also describes the model coefficients for the simulation model right-hand side. Coefficients are shown only for those rows which have nonzero entries. Another approach would employ the previously mentioned Utility Simulation Model (USM) to provide a greater level of detail for demand analysis.

Table 2--Coefficients for 1975 western region ICAM 1/

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
Strip mining:	Dols. per 1,000 tons	Mil. Btu per 1,000 tons				
MNGSMT01	2/					
MNGSMT02	2/					
MNGSMT03	2/					
MNGSMT04	5,510.26	17,200				
MNGSMT05	2/					
MNGSND01	645.92	13,100				
MNGSND02	2,753.58	12,600				
MNGSND03	1,609.30	12,300				
MNGSWY01	8,835.75	19,300				
MNGSWY02	3,265.36	16,200				
MNGSWY03	5,858.26	19,300				
MNGSWY04	4,420.08	22,700				
MNGSAZ01	3,085.21	20,700				
MNGSNM01	5,000.19	23,100				
MNGSNM02	6,248.49	22,300				
MNGSC001	9,870.50	23,100				
MNGSC002	2/					
MNGSC004	2/					
MNGSUT01	2/					
MNGSUT02	2/					
Underground mining:						
MNGUNM01	2/					
MNGUNM02	2/					
MNGUNM03	2/					
MNGUNM04	2/					
MNGUC001	9,871.50	23,100				
MNGUC002	2/					
MNGUC003	2/					
MNGUC004	2/					
MNGUC005	2/					
MNGUC006	2/					
MNGUC007	8,411.43	18,000				
MNGUUT01	11,801.20	25,200				
MNGUUT02	2/					
MNGUUT03	2/					
Transportation:	Dols. per mil. Btu		1,000 tons per mil. Btu			
MT043001	0.9241		0.00006			
MT043007	0.8108		0.00006			
MT043014	1.1463		0.00006			
MT043029	0.5453		0.00006			
MT043086	1.3466		0.00006			
MT045003	0.6971		0.00006			
MT045004	0.4793		0.00006			
MT045007	0.4188		0.00006			
MT045011	0.5454		0.00006			
MT045013	0.4628		0.00006			

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
MT045014	0.6674		0.00006			
MT045016	0.6664		0.00006			
MT045017	0.2210		0.00006			
MT045018	0.5146		0.00006			
MT045022	0.4662		0.00006			
MT045024	0.5789		0.00006			
MT045025	0.5584		0.00006			
MT045035	0.3935		0.00006			
MT046002	0.3046		0.00006			
MT046005	0.2473		0.00006			
MT046007	0.2250		0.00006			
MT046008	0.3271		0.00006			
MT046010	0.3221		0.00006			
MT046011	0.3375		0.00006			
MT046012	0.3258		0.00006			
MT046013	3/0.0000		0.00006			
MT046016	0.4229		0.00006			
MT046022	0.2767		0.00006			
MT046023	0.1911		0.00006			
MT046024	0.2484		0.00006			
MT046028	0.4785		0.00006			
MT046031	1.0349		0.00006			
MT049020	0.0908		0.00006			
ND026014	0.1073		0.00008			
ND026003	0.0464		0.00008			
ND026023	0.0434		0.00008			
ND026025	0.3544		0.00008			
ND036032	0.1562		0.00008			
ND036009	0.2317		0.00008			
WY016024	0.6723		0.00005			
WY023002	0.7238		0.00006			
WY023015	0.5637		0.00006			
WY023027	0.6539		0.00006			
WY023056	1.0172		0.00006			
WY025009	0.4623		0.00006			
WY025012	0.6664		0.00006			
WY026019	0.6244		0.00006			
WY026021	0.5495		0.00006			
WY026022	0.4299		0.00006			
CO013100	0.3854		0.00004			
CO016015	0.2855		0.00004			
UT016015	0.4474		0.00004			
CO016024	0.6954		0.00004			
UT016001	0.7010		0.00004			
CO017014	0.2000		0.00004			
UT017014	0.6680		0.00004			
CO016029	0.4516		0.00004			
UT016017	0.1655		0.00004			
AZ019003	0.0242		0.00005			

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
NMO19001	3/0.0003		0.00004			
NMO19012	0.0529		0.00004			
COO11007	1.2617		0.00004			
COO11006	1.2618		0.00004			
UTO13020	1.4251		0.00004			
UTO13002	1.2930		0.00004			
UTO19018	0.0504		0.00004			
UTO19015	0.3059		0.00004			
UTO19010	3/0.0004		0.00004			
Generation:	Dols. per mil. kWh			Mil. Btu per mil. kWh		
CEG 3001	826.99			- 9,706.60		
MT04				- 251.40		
APP				- 9,455.20		
CEG 3002	435.00			- 9,462.46		
WY02				- 1,632.27		
UT01				- 591.40		
INT				- 70.02		
APP				- 7,168.76		
CEG 3007	752.99			-10,263.30		
MT04				- 338.69		
INT				- 9,202.10		
APP				- 722.54		
CEG 3014	847.99			- 9,827.34		
MT04				- 2,911.84		
APP				- 6,915.50		
CEG 3015	932.99			- 9,084.39		
WY02				- 498.73		
INT				- 8,585.65		
CEG 3027	614.99			- 9,802.99		
WY02				- 37.25		
INT				- 9,765.74		
CEG 3029	2,246.99			-11,248.10		
MT04				- 4,266.40		
WY03				- 4,705.10		
INT				- 2,276.61		
CEG 3050	1,197.99			-10,167.90		
WY03				- 9,937.06		
INT				- 230.81		

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
CEG 3056	1,896.99			- 9,572.35		
WY02				- 278.56		
INT				- 9,293.80		
CEG 3086	3,105.99			-12,556.90		
MT04				- 92.90		
APP				-12,464.00		
CEG 5001	1,091.99			- 9,942.65		
WY03				- 123.00		
INT				- 9,769.65		
CEG 5002	498.00			- 9,353.60		
WY03				- 182.40		
INT				- 9,171.20		
CEG 5003	1,239.99			-10,845.00		
MT04				- 8,627.18		
INT				- 2,217.80		
CEG 5004	1,038.99			-10,545.10		
MT04				- 794.05		
INT				- 9,751.06		
CEG 5005	2,034.99			- 9,966.57		
WY03				- 2,364.10		
INT				- 7,404.17		
APP				- 198.34		
CEG 5007	1,706.99			-10,491.70		
MT04				- 9,807.66		
INT				- 684.06		
CEG 5009	1,335.99			-10,250.10		
WY02				- 26.65		
INT				-10,223.50		
CEG 5011	1,674.99			-10,667.90		
MT04				- 678.48		
WY03				- 8,458.56		
INT				- 1,530.84		
CEG 5012	1,759.99			-10,685.10		
WY02				- 38.47		
INT				-10,646.60		
CEG 5013	699.99			- 9,667.92		
MT04				- 3,188.48		
INT				- 6,479.44		

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
CEG 5014	1,812.99			-10,735.00		
MT04				-10,735.00		
CEG 5016	4,907.99			-11,494.20		
MT04				-11,494.20		
CEG 5017	799.99			-10,215.20		
MT04				-10,215.20		
CEG 5018	1,833.99			-10,550.00		
MT04				- 322.83		
WY03				- 143.48		
C001				- 101.28		
UT01				- 99.17		
INT				- 9,460.17		
APP				- 423.05		
CEG 5022	1,706.99			-11,676.20		
MT04				- 1,387.13		
INT				- 5,561.36		
APP				- 4,727.68		
CEG 5024	1,006.99			-10,034.50		
MT04				- 251.87		
INT				- 9,607.08		
APP				- 175.60		
CEG 5025	3,857.99			-11,589.20		
MT04				- 6,909.51		
INT				- 4,679.74		
CEG 5028	6,666.99			-14,980.10		
WY03				- 9,340.08		
INT				- 396.97		
APP				- 5,243.03		
CEG 5035	1,494.99			-11,287.10		
MT04				- 290.08		
INT				-10,997.10		
CEG 5036	5,999.99			-12,293.60		
WY03				- 1,852.64		
UT01				- 540.92		
INT				- 9,900.00		
CEG 6001	688.99			- 9,809.08		
WY03				- 9,743.36		
UT01				- 34.33		
GLF				- 31.39		

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
CEG 6003	1,017.99			-11,289.90		
ND02				-11,289.90		
CEG 6004	932.99			-10,385.40		
WY03				-10,385.40		
CEG 6005	911.99			- 9,738.33		
MT04				- 3,030.57		
INT				- 6,707.76		
CEG 6006	688.99			-11,298.20		
WY03				-11,298.20		
CEG 6007	1,176.99			-10,168.70		
MT04				-10,168.70		
CEG 6008	1,335.99			-11,433.60		
MT04				- 7,757.69		
INT				- 3,675.90		
CEG 6009	799.99			-11,711.10		
ND03				-11,711.10		
CEG 6010	2,660.99			-11,512.60		
MT04				- 9,809.88		
INT				- 1,702.71		
CEG 6011	1,907.99			-11,185.40		
MT04				-11,185.40		
CEG 6012	1,441.99			- 9,490.71		
MT04				- 1,228.10		
WY03				- 1,634.30		
INT				- 6,594.14		
APP				- 34.17		
CEG 6013	799.99			-12,142.10		
MT04				-12,142.10		
CEG 6014	667.99			-10,991.80		
ND01				-10,991.80		
CEG 6016	1,144.99			-11,313.90		
MT04				- 2,568.26		
INT				- 8,745.65		

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
CEG 6017	1,356.99			-10,146.90		
WY03				- 5,915.62		
UT01				- 80.16		
GLF				- 4,151.08		
CEG 6019	741.99			-10,504.60		
WY02				- 302.53		
INT				-10,202.10		
CEG 6020	1,769.99			-12,772.70		
WY03				- 430.44		
INT				-12,342.50		
CEG 6021	2,140.99			-13,394.60		
WY02				- 4,138.92		
INT				- 9,255.65		
CEG 6022	1,557.99			-11,630.60		
MT04				- 1,926.03		
WY02				- 1,821.36		
INT				- 7,762.28		
APP				- 120.96		
CEG 6023	1,472.99			-11,764.40		
MT04				- 2,661.12		
ND02				- 9,103.33		
CEG 6024	911.99			-11,572.90		
MT04				- 291.64		
WY01				- 933.93		
C001				- 1,844.72		
INT				- 2,871.23		
GLF				- 5,631.36		
CEG 6025	1,239.99			-11,985.90		
ND02				-11,985.90		
CEG 6026	1,441.99			-11,140.20		
WY03				-11,140.20		
CEG 6028	2,607.99			-13,202.50		
MT04				-13,202.50		
CEG 6029	1,886.99			-12,639.90		
WY03				- 4,573.11		
WY04				- 965.69		
C001				- 7,101.09		

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxx8 and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
CEG 6030	1,886.99			-12,630.10		
WY03				- 5,364.02		
GLF				- 7,266.12		
CEG 6031	1,801.99			-11,527.30		
MT04				-11,527.30		
CEG 6032	1,123.99			-13,490.40		
ND02				-13,490.40		
CEG 7001	1,600.99			-10,703.30		
WY03				- 8,363.54		
GLF				- 2,339.74		
CEG 7003	858.99			-10,621.80		
WY03				-10,621.80		
CEG 7004	1,271.99			-11,301.40		
WY03				- 63.29		
GLF				-11,238.10		
CEG 7006	2,479.99			-12,500.40		
WY03				-12,500.40		
CEG 7013	5,999.99			-18,219.90		
WY03				- 368.04		
GLF				-17,851.90		
CEG 7014	5,999.99			-12,486.90		
WY03				- 4,487.80		
C001				- 315.92		
UT01				- 103.64		
GLF				- 7,579.55		
CEG 9005	836.99			-10,713.50		
WY04				-10.713.50		
CEG 9006	921.99			-10,909.90		
WY02				- 1,167.36		
C001				- 9,742.51		
CEG 9007	1,907.99			-10,412.00		
WY03				-10,412.00		
CEG 9008	656.99			-10,479.40		
WY04				-10,479.40		
CEG 9011	1,038.99			-10,807.20		
WY02				-10,807.20		

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
CEG 9016	1,345.99			-12,977.00		
WY03				- 4,413.47		
C001				- 6,040.79		
C007				- 2,522.73		
CEG 9019	995.99			-11,647.40		
WY03				-10,089.00		
C007				- 1,558.42		
CEG 9020	646.99			-10,033.00		
MT04				-10,033.00		
CEG 9014	1,345.99			-10,138.70		
AZ01				- 362.96		
NM02				- 9,136.98		
UT01				- 638.74		
CEG 9002	964.99			-10,167.80		
AZ01				- 9,128.69		
NM01				- 645.66		
UT01				- 393.50		
CEG 9013	1,999.99			-10,990.80		
C001				-10,990.80		
CEG 9009	1,430.99			-10,607.80		
C001				-10,607.80		
CEG 3023	1,525.99			- 9,724.28		
UT01				- 585.40		
INT				- 8,743.10		
APP				- 395.78		
CEG 3100	6,115.99			-12,968.40		
C001				- 85.59		
INT				- 1,267.92		
APP				- 203.60		
CEG 6015	1,759.99			-10,729.70		
C001				- 2,192.08		
UT01				- 136.27		
INT				- 7,239.35		
GLF				- 1,162.03		
CEG 9017	1,419.99			-11,000.40		
UT01				-11,000.40		
CEG 9003	2,840.99			-11,293.00		
AZ01				-11,293.00		

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
CEG 9001	1,801.99			-10,329.50		
NMOI				-10,329.50		
CEG 9012	2,013.99			-10,201.20		
NMOI				-10,201.20		
CEG 1007	3,999.99			-11,175.10		
COOI				- 226.85		
APP				-10,948.20		
CEG 1006	2,437.99			-10,716.90		
COOI				- 19.30		
APP				-10,700.30		
CEG 3020	1,112.99			- 9,646.12		
UTOI				- 105.14		
APP				- 9,540.98		
CEG 9018	1,907.99			-11,020.20		
UTOI				-11,020.20		
CEG 9015	2,002.99			-12,473.90		
UTOI				-12,473.90		
CEG 9010	1,557.99			-10,192.80		
UTOI				-10,192.80		
Right hand side (RHSOOI):						
NRESMTOI					1,000 tons-L	.48400+06
NRESMTO2					1,000 tons-L	.35590+07
NRESMTO3					1,000 tons-L	.13660+07
NRESMTO4					1,000 tons-L	.18395+08
NRESMTO5					1,000 tons-L	.42594+08
NRESNDOI					1,000 tons-L	.38820+07
NRESNDO2					1,000 tons-L	.64690+07
NRESNDO3					1,000 tons-L	.56440+07
NRESWYOI					1,000 tons-L	.92000+05
NRESWYO2					1,000 tons-L	.20606+08
NRESWYO3					1,000 tons-L	.10290+07
NRESWYO4					1,000 tons-L	.21160+07
NRESAZOI					1,000 tons-L	.35000+06
NRESNMOI					1,000 tons-L	.25452+07
NRESNMO2					1,000 tons-L	.41520+06
NRESNMO3					1,000 tons-L	.13810+07
NRESNMO4					1,000 tons-L	.27500+05
NRESCOOI					1,000 tons-L	.66675+07
NRESCOO2					1,000 tons-L	.95050+06

See footnotes at end of table. Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
NRESC003					1,000 tons-L	.20660+06
NRESC004					1,000 tons-L	.41005+07
NRESC005					1,000 tons-L	.43330+06
NRESC006					1,000 tons-L	.11103+07
NRESC007					1,000 tons-L	.13679+07
NRESUT01					1,000 tons-L	.10064+07
NRESUT02					1,000 tons-L	.29905+07
NRESUT03					1,000 tons-L	.40300+05
MCAPMT01					1,000 tons-L	.00000+00
MCAPMT02					1,000 tons-L	.33000+03
MCAPMT03					1,000 tons-L	.00000+00
MCAPMT04					1,000 tons-L	.22000+05
MCAPMT05					1,000 tons-L	.10000+01
MCAPND01					1,000 tons-L	.15250+04
MCAPND02					1,000 tons-L	.61410+04
MCAPND03					1,000 tons-L	.16120+04
MCAPWY01					1,000 tons-L	.10230+04
MCAPWY02					1,000 tons-L	.40510+04
MCAPWY03					1,000 tons-L	.14000+05
MCAPWY04					1,000 tons-L	.41910+04
MCAPAZ01					1,000 tons-L	.72250+04
MCAPNM01					1,000 tons-L	.73180+04
MCAPNM02					1,000 tons-L	.46800+03
MCAPNM03					1,000 tons-L	.10160+04
MCAPNM04					1,000 tons-L	.00000+00
MCAPC001					1,000 tons-L	.44720+04
MCAPC002					1,000 tons-L	.00000+00
MCAPC003					1,000 tons-L	.00000+00
MCAPC004					1,000 tons-L	.21940+04
MCAPC005					1,000 tons-L	.00000+00
MCAPC006					1,000 tons-L	.63200+03
MCAPC007					1,000 tons-L	.17300+03
MCAPUT01					1,000 tons-L	.93730+04
MCAPUT02					1,000 tons-L	.00000+00
MCAPUT03					1,000 tons-L	.00000+00
CAP 9016					mil. kWh-L	.10329+04
CAP 9006					mil. kWh-L	.41201+04
CAP 9011					mil. kWh-L	.18880+04
CAP 9019					mil. kWh-L	.32101+03
CAP 5013					mil. kWh-L	.33506+04
CAP 5025					mil. kWh-L	.73428+03
CAP 5016					mil. kWh-L	.21648+04
CAP 5014					mil. kWh-L	.23772+04
CAP 5036					mil. kWh-L	.33558+03
CAP 5003					mil. kWh-L	.53348+04
CAP 5004					mil. kWh-L	.55654+04
CAP 5011					mil. kWh-L	.33282+04

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
CAP 5007					mil. kWh-L	.47987+04
CAP 5009					mil. kWh-L	.69070+04
CAP 5018					mil. kWh-L	.21119+04
CAP 5002					mil. kWh-L	.86080+04
CAP 5028					mil. kWh-L	.54430+03
CAP 3029					mil. kWh-L	.38632+04
CAP 5017					mil. kWh-L	.17186+04
CAP 5022					mil. kWh-L	.15196+04
CAP 5035					mil. kWh-L	.46195+03
CAP 9005					mil. kWh-L	.24861+04
CAP 9007					mil. kWh-L	.43636+04
CAP 9008					mil. kWh-L	.34021+04
CAP 3056					mil. kWh-L	.19970+04
CAP 3015					mil. kWh-L	.98700+04
CAP 3050					mil. kWh-L	.26221+04
CAP 3027					mil. kWh-L	.54869+04
CAP 6016					mil. kWh-L	.10158+04
CAP 6024					mil. kWh-L	.27343+03
CAP 9001					mil. kWh-L	.10379+05
CAP 9012					mil. kWh-L	.24361+04
CAP 1007					mil. kWh-L	.40489+03
CAP 1006					mil. kWh-L	.11812+04
CAP 3020					mil. kWh-L	.49620+04
CAP 9018					mil. kWh-L	.91008+03
CAP 9015					mil. kWh-L	.78321+03
CAP 9010					mil. kWh-L	.25233+04
CAP 9003					mil. kWh-L	.75967+04
CAP 9017					mil. kWh-L	.11924+04
CAP 6015					mil. kWh-L	.49317+03
CAP 3100					mil. kWh-L	.38272+03
CAP 3023					mil. kWh-L	.47588+04
CAP 9009					mil. kWh-L	.12948+04
CAP 9013					mil. kWh-L	.81283+03
CAP 9002					mil. kWh-L	.80354+04
CAP 9014					mil. kWh-L	.79978+03
CAP 5024					mil. kWh-L	.14327+04
CAP 5005					mil. kWh-L	.64186+04
CAP 6012					mil. kWh-L	.16510+04
CAP 6022					mil. kWh-L	.86600+03
CAP 6009					mil. kWh-L	.14478+04
CAP 3002					mil. kWh-L	.12225+05
CAP 6023					mil. kWh-L	.84944+03
CAP 6032					mil. kWh-L	.44370+03
CAP 6014					mil. kWh-L	.17449+04
CAP 6003					mil. kWh-L	.16110+04
CAP 6004					mil. kWh-L	.16330+04
CAP 6017					mil. kWh-L	.42448+03
CAP 6029					mil. kWh-L	.33363+03

See footnotes at end of table.

Continued

Table 2--Coefficients for 1975 western region ICAM--Continued

Activity	Cost	PROxxxxB and MNTRxxxx	CAPxxxxx	PTRxxxxx	Unit and constraint	Coefficient
CAP 9020					mil. kWh-L	.99683+03
CAP 6013					mil. kWh-L	.27877+03
CAP 5001					mil. kWh-L	.12673+05
CAP 5012					mil. kWh-L	.41038+04
CAP 7004					mil. kWh-L	.26629+04
CAP 7001					mil. kWh-L	.25015+04
CAP 7013					mil. kWh-L	.15483+03
CAP 7014					mil. kWh-L	.23747+03
CAP 6025					mil. kWh-L	.79600+03
CAP 6011					mil. kWh-L	.14916+04
CAP 6005					mil. kWh-L	.30040+04
CAP 6010					mil. kWh-L	.12469+04
CAP 6008					mil. kWh-L	.15444+04
CAP 6007					mil. kWh-L	.29610+04
CAP 6028					mil. kWh-L	.46400+03
CAP 6031					mil. kWh-L	.15072+02
CAP 3001					mil. kWh-L	.15503+05
CAP 3014					mil. kWh-L	.68707+04
CAP 3086					mil. kWh-L	.78963+03
CAP 3007					mil. kWh-L	.92220+04
CAP 7006					mil. kWh-L	.52475+03
CAP 7003					mil. kWh-L	.10575+04
CAP 6019					mil. kWh-L	.95604+03
CAP 6021					mil. kWh-L	.50398+03
CAP 6026					mil. kWh-L	.59063+03
CAP 6006					mil. kWh-L	.24174+03
CAP 6030					mil. kWh-L	.78312+02
CAP 6001					mil. kWh-L	.18275+04
CAP 6020					mil. kWh-L	.72248+03

1/ The following abbreviations are used in this table: PROxxxxB-coal production by CPA in Btu per 1,000 tons; MNTRxxxx-mining transfer for each CPA; CAPxxxxx-mining capacity in each CPA; PTRxxxxx-transfer for each power plant; MNGS-strip mining; MNGU-underground mining

MT-Montana
ND-North Dakota
WY-Wyoming
AZ-Arizona
MNGSMT01 strip mining in CPA Montana 01
CEG 3001 electric generating plant 3001
INT-Interior region (Midwest)
APP-Appalachian region
NM-New Mexico
UT-Utah
CO-Colorado
GLF-Gulf region
NRES-coal reserves
MCAP-mining capacity
L-lower limit

2/ There are no cost or Btu coefficients for these activities because there was no utility steam coal production from these CPAs during 1975.

3/ These transportation activities have 0.0000 coefficients because the associated electrical generation plant is a mine-mouth plant and the transportation charges are included in the cost of mining or the generation cost.

Source: Computer printouts prepared as part of this research.

THE 1985 WESTERN STATES MODEL

The development of 1975 historical information for coal-fired power plants rated at 100 megawatts and greater provided a clear picture of the coal-fired electrical generation capacity supplied by western mines. The transportation links were also accurately described. Once we had a clear picture of the 1975 demand-supply situation, we could begin to think about how that situation would change in 1985, our initial scenario year.

The analysis of the coal demand-supply trajectory in 1985 involves several subanalyses. We first must examine the coal supply (mining) situation and then the electrical generation situation. To tie the demand and supply portions together, we must develop the transportation links. Also involved in the assessment of the mining situation is a determination of the requirements and costs of reclamation and taxation. The transportation links must deal with rail capacity and with additions to capacity. They must also describe alternative modes of transportation such as coal slurry pipelines. The electrical generation picture must include expansions of existing capacity and plants built after 1975. In addition, the potential exists for development of synthetic fuel plants using coal as a base stock. Therefore, this section is divided into subsections describing coal supply, coal transportation, and electrical generation. In addition, we discuss the demand for electricity and the scenario input coefficients to the simulation model.

Coal Supply

The most important information describing the 1985 coal supply situation is a summarization of additions to coal mining capacity (app. table 3). Additions to coal mining capacity are described for the entire Nation. (Additions to western coal mining capacity have not been separately summarized). The situation described in app. table 3 constantly changes. Also, we are probably not aware of all the additions planned. We constantly acquire information to keep app. table 3 current and accurate. The table is organized by year, beginning with 1976 and extending beyond 1985. To develop coal mining capacity for 1985, we use only those reported additions planned for operation before the end of 1984. The company and mine location is listed with mine type, capacity, seam thickness, and the source of the information. We have not included mines being developed for the metallurgical coal market. If a mine is being developed for both steam and metallurgical markets, we assign the entire output to the steam market since we have no way of determining the portion of the output going into each market.

A similar table (app. table 5) has been developed describing additions to coal-fired electrical generation capacity. This table will be described in detail in the electrical generation plant section. However, we have used this table to determine the demand for coal from western CPAs between 1976 and 1984. We staged the additions to electrical generation capacity and determined their coal use for each year. Then we subtracted the 1976 to 1984 coal requirements from the coal reserves remaining in each CPA at the end of 1975 (table 3). This process yields an estimate of the amount of coal reserves available in each CPA for the 1985 model. The 1985 rate of use is listed in table 3 and divided into the reserves available at the end of 1984 to determine the number of years of reserves remaining, assuming the 1985 rate of use. WY01 has the least number of years of reserves remaining with 17. NM03 has the greatest with 2,760. The amount of economical reserves present in each CPA is highly uncertain and constantly changing as exploration continues. In addition, the coal-fired generation capacity utilizing coal from each CPA is constantly changing. Generation plant operating dates are delayed and synthetic fuel plant locations and fuel sources are uncertain. In addition, we have assumed the 1985 rate of use to continue after 1985. We may decide later to extend our scenarios beyond 1985 and will then modify the

Table 3--Coal reserves balance for 1985 ICAM

CPA 1/	Reserves remaining after 1975 model run	Reserves needed 1976-84	Reserves available for 1985 model runs	1985 rate of use	Reserves remaining at 1985 rate of use
	1,000 tons				Years
AZ01	341,356	89,145	252,211	7,197	35
CO01	6,663,800	79,006	6,584,794	18,083	364
CO02	950,500	0	950,500	0	--
CO03	205,600	0	205,600	0	--
CO04	4,100,500	18,348	4,082,152	3,520	1,160
CO05	433,300	0	433,300	0	--
CO06	1,110,300	0	1,110,300	0	--
CO07	1,367,600	0	1,367,600	0	--
MT01	484,000	0	484,000	0	--
MT02	3,559,000	2,900	3,556,100	2,900	1,226
MT03	1,366,000	0	1,366,000	0	--
MT04	18,373,000	379,001	17,993,999	49,548	363
MT05	42,594,000	0	42,594,000	0	--
ND01	3,880,400	31,153	3,849,247	7,017	549
ND02	6,465,300	54,751	6,410,549	13,739	467
ND03	5,642,500	24,481	5,618,019	4,109	1,367
NM01	2,528,500	129,258	2,409,242	25,984	93
NM02	414,832	42,719	372,113	9,512	39
NM03	1,381,000	1,045	1,379,955	500	2,760
NM04	27,500	1,000	26,500	1,000	26
UT01	1,000,500	80,501	919,999	22,129	42
UT02	2,990,500	15,525	2,974,975	16,400	181
UT03	40,300	0	40,300	0	--
WY01	91,985	17,604	74,381	4,506	17
WY02	20,602,000	426,212	20,175,788	106,582	189
WY03	1,015,000	121,433	893,567	14,321	62
WY04	2,112,900	87,638	2,025,262	11,800	172

-- = Not applicable

1/ See footnote 1/ to table 2 for explanation of abbreviations.

Source: Compiled from Bureau of Mines reserve data and from use rates of existing and planned power plants. Summarized from data in app. table 5 (7, 18, 21).

analysis described in table 3. The table does, however, give us a tentative picture of the continuing viability of the coal mining industry in each western CPA.

The continued utilization of western coal heavily depends upon the price level of western coal relative to coal available in other producing areas. One of the most

important inputs to the simulation model in the coal supply area is the cost 6/ assumed for each CPA. Table 4 describes the 1985 coal prices assumed for strip and underground mined coal. The selling prices reported in Coal Week are for much broader areas than our CPAs. This causes similarity of prices for several CPAs. We would expect minor differences in selling prices between adjacent CPAs. Therefore, a more intensive analysis of these pricing differences will be performed as time permits. Another problem was how to price coal from the MT01, MT02, MT03, and MT05 CPAs. These CPAs lie in eastern Montana and contain mostly lignite reserves. Therefore, the decision was made to price these CPAs in a manner similar to the North Dakota CPAs. This may be later modified because of the seemingly low prices attached to coal from both North Dakota and eastern Montana.

Another important aspect of the coal supply situation is the characteristics assumed to exist for coal mined in each CPA. Table 5 describes the heat value, sulfur content, and pounds of sulfur per million Btu estimated for coal mines from each CPA. The Btu per pound describe the heat value of the coal burned by each electrical generation plant. The percent sulfur per pound is translated into the number of pounds of sulfur per million Btu using the Btu content described in the first column of table 5. The sulfur content will be used for the sulfur dioxide constraints in the simulation model.

The coal selling price assumed for each CPA includes the cost of reclamation and the cost of taxes paid to various taxing authorities. We will treat reclamation and taxation activities separately in our simulation model. Therefore, these costs must

6/ The model's present objective is to determine the cost of producing electricity, not to minimize cost in the usual linear programming sense. Simulation of the real world is improved by the use of selling prices rather than cost of production.

Table 4--Coal prices assumed in 1985 for strip and underground mined coal

CPA 1/	Price	CPA 1/	Price	CPA 1/	Price
	Dols. per ton		Dols. per ton		Dols. per ton
Strip:		Strip:		Underground:	
SAZ01	21.05	SWY01	10.15	UCO01	26.31
SCC01	26.31	SWY02	10.15	UCO02	26.31
SCC02	26.31	SWY03	23.31	UCO03	26.31
SCC04	26.31	SWY04	23.31	UCO04	26.31
SMT01	4.03	SCO07	26.31	UCO05	26.31
SMT02	4.03	SNM03	21.05	UCO06	26.31
SMT03	4.03	SCO05	26.31	UCO07	26.31
SMT04	13.16			UNM01	21.05
SMT05	4.03			UNM02	21.05
SND01	4.03			UNM03	21.05
SND02	4.03			UNM04	32.05
SND03	4.03			UUT01	26.31
SNM01	21.05			UUT02	26.31
SNM02	21.05			UUT03	26.31
SUT01	26.31			UWY04	26.31
SUT02	26.31			UWY03	26.31

1/ See footnote 1/ to table 2 for explanation of abbreviation for the activity.

Source: Computed by inflating 1978 selling prices (as reported by Coal Week) by 6 percent annually.

Table 5--Heat value and sulfur content of western coal

Activity and CPA 1/	Heat value	Sulfur content	
	Btu per lb.	Pct. per lb.	Lbs. per mil. Btu
MNGSAZ01	10,350	0.90	0.870
MNGSCO01	11,538	.50	.433
MNGSCO02	10,120	.30	.296
MNGSCO04	11,657	.50	.429
MNGSCO05	12,950	1.20	.927
MNGSCO07	9,000	.50	.556
MNGSMT01	6,350	.30	.472
MNGSMT02	6,500	.50	.769
MNGSMT03	7,635	.50	.655
MNGSMT04	9,025	.60	.665
MNGSMT05	7,698	.46	.598
MNGSND01	6,750	.52	.770
MNGSND02	6,767	1.01	1.493
MNGSND03	6,128	.78	1.273
MNGSNM01	11,560	.70	.606
MNGSNM02	11,164	.60	.537
MNGSNM03	12,560	.50	.398
MNGSUT01	12,591	.40	.318
MNGSUT02	9,780	1.10	1.125
MNGSWY01	9,300	.61	.656
MNGSWY02	8,040	.49	.609
MNGSWY03	9,570	.55	.575
MNGSWY04	8,852	.52	.587
MNGUCO01	11,538	.50	.433
MNGUCO02	10,120	.30	.296
MNGUCO03	10,874	.40	.368
MNGUCO04	11,657	.50	.432
MNGUCO05	12,944	1.20	.927
MNGUCO06	12,460	.50	.401
MNGUCO07	11,609	.30	.258
MNGUNM01	11,560	.70	.606
MNGUNM02	11,164	.60	.537
MNGUNM03	12,560	.50	.398
MNGUNM04	12,760	.60	.470
MNGUUT01	12,591	.40	.318
MNGUUT02	9,780	1.10	1.125
MNGUUT03	10,740	1.40	1.304
MNGUWY03	9,650	.90	.933
MNGUWY04	11,350	1.00	.881

1/ See footnote 1/ to Table 2 for explanation of abbreviation for the activity.

Source: Compiled from Bureau of Mines data base on western coal reserves (7).

be separated from the selling price of coal in each CPA. Table 6 describes the inputs used to determine the reclamation costs per ton and per acre for each CPA. The table describes the characteristics of the coal seams in each CPA and uses that information to determine the reclamation yield in acres per 1,000 tons. These acres are accumulated in the simulation model and reclaimed at the cost described in table 6. Many of these reclamation costs were obtained from (10). The cost of reclamation for the underground mining activities is highly questionable. A good analysis of underground mine reclamation costs in the Western States does not exist. Therefore, we had to impute values based on costs of underground mine reclamation in the Interior coal producing region.

Another important part of the selling price of coal in each CPA is the cost of taxes which the coal mining company must pay. ESCS has developed programs which can compute the amount of taxes paid under alternative mining conditions. These mine tax models used the prices described in table 4. The underground mine tax estimates are based on a 4.9 million-tons-per-year mine. The strip mine tax estimates are based on the 5 million-tons-per-year mine described in (13). All estimates are for a mine with a preparation plant and a loading facility. These tax estimates are good basic estimates of taxes paid by coal mines. They could be improved by using other mine sizes and by using better price and tax assessment information. The most important factor, however, is price. As a result, our questionable prices for North Dakota and Montana lignite could influence results obtained using the Western States model. Table 7 describes the taxes computed for each western CPA. The assumed price is listed with the taxes paid per ton for both strip and underground mines.

Table 8 summarizes the 1985 coal mine price, reclamation cost, and tax payment situation. For each mine type in each CPA, the total mining cost is listed with the reclamation cost and the tax payment. These latter two costs are subtracted from the total mining cost to derive the actual cost of mining for each mine type in each CPA. This cost is the input coefficient to the simulation model.

Coal Transportation

After the 1985 inventory of coal mines and electrical generation plants was developed, we could begin the development of transportation links to connect the coal supply and demand points. We were able to determine the source of coal for each electrical generation plant in almost all cases. These sources of supply are usually in the form of long-term contracts and are announced concurrently with plans for the construction of the generation facility. Therefore, we knew the transportation link to specify. If, for example, an electrical generation plant in Illinois was to be producing electricity in 1985 and getting its coal from MT04, we would simply set up an MT04-Illinois power plant transportation link. 7/

For those cases where we did not know the source of coal for a power plant, we determined whether the addition to generation capacity was part of an existing plant or whether it was a new plant. If it was an addition to a plant existing in 1975, we assumed that the addition to capacity would receive the same proportion of coal from western CPAs as did the capacity existing in 1975. If the plant was a new one, we looked at other plants in the same utility system and assumed the new plant would get the same proportion of coal from western CPAs as did other plants in the system. If we had no information indicating that plants in the system or the new plant received western coal, we assumed no western coal transportation links to that plant. This

7/ This is an example of the deterministic nature of the ICAM. Rather than permitting the Illinois power plant to be supplied by the least-cost CPA, current contracts are used as a guide. The disadvantage of this procedure is that opportunity costs are not evaluated.

Table 6--Working table to provide 1985 coal yield and reclamation ICAM input coefficients

CPA	Heat 1/ value	Sulfur 1/ content	Coal 2/ type	Seam 3/ thickness	Coal 2/ yield	Coal yield	Reclamation yield	1975 Reclamation cost		1985 Reclamation cost 7/	
	Btu per lb.	Pct.	Rank	Feet	Tons per acre foot	Tons per acre	Acres per 1,000 tons	Dols. per ton	Dols. per acre	Dols. per ton	Dols. per acre
Strip mining:											
AZ01	10,350	0.90	SUB	N/A	N/A	4/ 41,429	.024	4/ 0.07	4/ 2,900	0.13	5,200
C001	11,538	.50	BIT	N/A	N/A	4/ 14,444	4/ .069	4/ .07	4/ 2,600	.07	4,650
C002	10,120	.30	BIT	25	1,440	5/ 36,000	.028	6/ .08	6/ 3,000	.16	6,050
C004	11,657	.50	BIT	15	1,440	5/ 21,600	.046	6/ .14	6/ 3,000	.28	6,050
C005	12,950	1.20	BIT	12	1,440	5/ 17,280	.058	6/ .17	6/ 3,000	.34	6,050
C007	9,000	.50	SUB	15	1,416	5/ 21,240	.047	6/ .14	6/ 3,000	.28	6,050
MT01	6,350	.30	LIG	21	1,400	5/ 29,400	.034	6/ .10	6/ 3,000	.20	6,050
MT02	6,500	.50	SUB			4/ 27,647	.036	4/ .17	4/ 4,700	.30	8,400
MT03	7,635	.50	SUB	15	1,400	5/ 21,000	.048	6/ .14	6/ 3,000	.28	6,050
MT04	9,025	.60	SUB			4/ 65,714	.015	4/ .07	4/ 4,600	.13	8,250
MT05	7,698	.46	LIG	24	1,400	5/ 33,600	.030	6/ .09	6/ 3,000	.18	6,050
ND01	6,750	.52	LIG			4/ 13,333	.075	4/ .33	4/ 4,400	.59	7,900
ND02	6,767	1.01	LIG	N/A	N/A	4/ 17,200	.058	4/ .25	4/ 4,300	.45	7,700
ND03	6,128	.78	LIG	N/A	N/A	4/ 16,800	.060	4/ .25	4/ 4,200	.45	7,500
NM01	11,560	.70	SUB	N/A	N/A	4/ 33,333	.030	6/ .09	6/ 3,000	.18	6,050
NM02	11,164	.60	BIT	N/A	N/A	4/ 28,889	.035	4/ .09	4/ 2,600	.16	4,650
NM03	12,460	.50	BIT	10	1,440	5/ 14,400	.069	6/ .21	6/ 3,000	.42	6,050
UT01	12,491	.40	BIT	12	1,440	5/ 17,280	.059	6/ .21	6/ 3,000	.42	6,050
UT02	9,780	1.10	BIT	11	1,440	5/ 15,840	.063	6/ .19	6/ 3,000	.38	6,050
WY01	9,300	.61	SUB	N/A	N/A	4/ 98,000	.010	4/ .05	4/ 4,900	.09	8,800
WY02	8,040	.49	SUB	N/A	N/A	4/112,222	.009	4/ .03	4/ 3,400	.05	6,100
WY03	9,570	.55	SUB	N/A	N/A	4/ 37,143	.027	4/ .07	4/ 2,600	.13	4,650
WY04	8,852	.52	SUB	N/A	N/A	4/ 60,000	.017	4/ .05	4/ 3,000	.09	5,350
Underground mining:											
C001	11,538	.50	BIT	9	1,440	5/ 12,960	8/ .018	6/ .23	6/ 3,000	.46	6,050
C004	11,657	.50	BIT	8	1,440	5/ 11,520	8/ .020	6/ .26	6/ 3,000	.52	6,050
C006	12,460	.50	BIT	9	1,440	5/ 12,960	8/ .018	6/ .23	6/ 3,000	.46	6,050
C007	11,609	.30	SUB	9	1,416	5/ 23,744	8/ .018	6/ .24	6/ 3,000	.48	6,050
NM03	12,560	.50	BIT	10	1,440	5/ 14,400	8/ .016	6/ .21	6/ 3,000	.42	6,050
UT01	12,491	.40	BIT	9	1,440	5/ 23,960	8/ .018	6/ .23	6/ 3,000	.58	6,050
UT02	9,780	1.10	BIT	8	1,440	5/ 11,520	8/ .020	6/ .26	6/ 3,000	.52	6,050
WY03	9,650	.90	SUB	16	1,416	5/ 22,656	8/ .010	6/ .13	6/ 3,000	.26	6,050
WY04	22,350	1.00	SUB	12	1,416	5/ 16,992	8/ .014	6/ .18	6/ 3,000	.36	6,050

N/A = Not available

1/ Heat value and sulfur content were taken from table 5.

2/ Coal ranking and coal yield in tons per acre foot were obtained from (25).

SUB = subbituminous; BIT = Bituminous; LIG = Lignite.

3/ Seam thickness was estimated by averaging seam thicknesses reported for individual mines in (21).

4/ These values were obtained from (10).

5/ These values were calculated by multiplying seam thickness by coal yield.

6/ These values were estimaged from descriptions of 4 reclamation projects reported in (20).

7/ 1985 reclamation costs determined by inflating 1972 and 1975 costs by 6 percent per year and rounding to nearest $50.

8/ The reclamative yield for underground mines assumes that 23 percent of the coal yield is refuse.

Table 7--Taxes computed for western CPAs

CPA	Assumed price	Tax	
		Strip	Underground
	Dollars per ton		
AZ01	21.05	3.33	2/
C001	26.31	1.01	0.87
C002	26.31	1.03	2/
C003	1/	1/	1/
C004	26.31	1.08	0.94
C005	26.31	1.10	2/
C006	26.31	2/	1.03
C007	26.31	1.19	1.06
MT01	1/	1/	1/
MT02	4.03	0.98	2/
MT03	1/	1/	1/
MT04	13.16	3.51	2/
MT05	1/	1/	1/
NM01	21.05	0.75	2/
NM02	21.05	0.73	2/
NM03	21.05	0.70	0.85
NM04	1/	1/	1/
ND01	4.03	0.72	2/
ND02	4.03	0.72	2/
ND03	4.03	0.72	2/
UT01	26.31	0.14	0.35
UT02	26.31	0.12	0.31
UT03	1/	1/	1/
WY01	10.15	1.75	2/
WY02	10.15	1.67	2/
WY03	23.31	3.82	4.00
WY04	23.31	4.18	2/

1/ Taxes were not computed for these CPAs.
2/ Taxes were not computed for this mine type in this CPA. If a number was needed for the model, an estimate was made based on the nearest in-State CPA.

Source: (13, 14).

estimation procedure was necessary for only a few of the capacity additions. Alternative transportation scenarios involving different assumptions about transportation costs will be developed later in the present research project.

The most important part of the transportation activities is the cost of the transportation link. For those power plants which existed in 1975 and which were planning additions to capacity by 1985, we simply escalated the cost of transportation used in the 1975 simulation model (table 9). This 1975 transportation cost was escalated 6 percent per year. Therefore, the inflation factor assumed from 1975 to 1985 became

Table 8--Projected 1985 ICAM coal prices, reclamation costs, and tax payments

Mine type and CPA	Total mining cost	Reclamation cost	Tax payment	Actual cost of mining
	Dollars per ton			
SAZ01	21.05	0.07	3.33	17.65
SC001	26.31	.07	1.01	25.23
UC001	26.31	.23	.87	25.21
SC002	26.31	.08	1.03	25.20
SC003	26.31	.10	1/	--
UC003	26.31	.24	1/	--
SC004	26.31	.14	1.08	25.09
UC004	26.31	.26	.94	25.11
SC005	26.31	.17	1.10	25.04
UC006	26.31	.23	1.03	25.05
SC007	26.31	.14	1.19	24.98
UC007	26.31	.24	1.06	25.01
SMT01	4.03	.10	1/	--
SMT02	4.03	.17	.98	2.88
SMT03	4.03	.14	1/	--
SMT04	13.16	.07	3.51	9.58
SMT05	4.03	.09	1/	--
SNM01	21.05	.09	.75	20.21
SNM02	21.05	.09	.73	20.23
SNM03	21.05	.21	.70	20.14
UNM03	21.05	.21	.85	19.99
SNM04	21.05	.20	2/ .70	20.15
SND01	4.03	.33	.72	2.98
SND02	4.03	.25	.72	3.06
SND03	4.03	.25	.72	3.06
SUT01	26.31	.21	.14	25.96
UUT01	26.31	.23	.35	25.73
SUT02	26.31	.19	.12	26.00
UUT02	26.31	.26	.31	25.74
SUT03	26.31	.20	1/	--
SWY01	10.15	.05	1.75	8.35
SWY02	10.15	.03	1.67	8.45
SWY03	23.31	.07	3.82	19.42
UWY03	23.31	.13	4.00	19.18
SWY04	23.31	.05	4.18	19.08

-- = Not applicable
1/ Not computed.
2/ Estimated using adjacent CPAs.
S = Strip mine
U = Underground mine

1.7908477. If a power plant was completely new, we furnished North Dakota State University specialists with the mine source and the power plant destination and they used their transportation cost model to build a cost for that transportation link. Table 10

Table 9--1975 and 1985 transportation costs

Link[1/]	1975 cost	1985 cost	Link[1/]	1975 cost	1985 cost
	Dols. per mil. Btu			Dols. per mil. Btu	
C0019013	0.2656	0.4756	WY037006	0.5261	0.9422
WY029006	.0757	.1356	MT043007	.8108	1.4520
C0019006	.1113	.1993	MT043086	1.3466	2.4116
WY029011	.5623	1.0070	MT043014	1.4363	1.6549
MT045025	.5584	1.000	MT043001	.9241	1.6549
MT045016	.6664	1.1934	MT046031	1.0349	1.8533
MT045014	.6674	1.1952	MT046028	.4785	.8569
WY035036	.3353	.6005	MT046008	.3271	.5858
UT015036	.8733	1.5640	MT046010	.3221	.5768
MT045003	.6971	1.2484	MT046005	.2473	.4429
MT045004	.4793	.8584	MT046011	.3375	.6044
WY035011	.3915	.7011	ND026025	.3544	.6347
MT045011	.5454	.9767	WY037014	.4915	.8802
MT045007	.4188	.7500	C0017014	.2000	.3582
WY025009	.4623	.8279	UT017014	.6680	1.1960
MT045024	.5789	1.0367	WY037013	.1873	.3354
WY035018	.8611	1.5421	WY037001	.3595	.6438
MT045018	.5146	.9216	WY037004	.2382	.4266
C0015018	.0753	1.9257	WY025012	.6664	1.1934
UT015018	.5167	.9253	WY035001	.6846	1.2260
WY035002	.2917	.5224	MT049020	.0908	.1626
WY035028	.7851	1.4060	WY036029	.4401	.7882
WY033029	.5495	.9841	WY046029	.4714	.8442
MT043029	.5453	.9765	C0016029	.4516	.8087
WY023056	1.0172	1.8820	WY036017	1.1860	.3331
UT013023	.8223	1.4726	UT016017	.1655	.1964
WY023015	.5637	1.0095	WY036004	.3526	.6315
WY033050	.5606	1.0039	AZ019003	.0242	.0433
C0013100	.3854	.6902	NM019001	.0000	.0000
WY023027	.6539	1.1710	ND026003	.0464	.0831
MT046016	.4229	.7573	ND016014	.1073	.1922
C0016015	.2855	.5113	ND026032	.1562	.2797
UT016015	.4474	.8012	ND026023	.0434	.0777
WY016024	.6723	1.2040	MT046023	.1911	.3422
MT046024	.2484	.4448	UT019018	.0504	.0903
C0016024	.6954	1.2454	UT019015	.3059	.5478
WY036020	.2173	.3892	WY036012	.3286	.5885
WY036030	.1980	.3456	MT046012	.3258	.5835
WY026021	.5495	.9841	WY035005	.3344	.5989
WY026019	.6244	1.1182	MT045002	.4662	.8349
WY037003	.5457	.9773	WY039007	.0000	.0000
WY039016	.1239	.2219	C0019016	.1240	.2221
C0079016	.0830	.1486	WY039019	.2017	.3612
C0079019	.0409	.0732			

1/ The first four digits of the link are the CPA of origin for the coal; the last four digits are the electric power plant code. See app. tables 2 and 5 for power plant names.

Source: 1975 costs obtained from published rates of the Interstate Commerce Commission (23). 1985 costs obtained by inflating 1975 costs by 6 percent annually.

Table 10--Characteristics of 1985 transportation links for new power plants

Transportation link 1/	Cost 2/	One-way distance	Round-trip time	Cost 3/
	Dols. per mil. Btu	Miles	Hours	Dols. per ton
MT045043	0.808716	865	99.45	8.1549
UT019037	.535381	798	92.52	7.5318
WY027016	.901557	859	98.83	8.0989
WY027018	1.357790	1,298	144.22	12.1973
WY028004	1.536840	1,470	162.01	13.8058
WY028005	1.525090	1,459	160.87	13.7003
CO018006	1.014330	1,392	153.95	13.0763
MT048007	1.538350	1,653	180.94	15.5125
WY028013	1.045020	997	113.10	9.3877
NM018014	.960259	1,320	146.50	12.4029
NM018016	1.000000	1,375	152.19	12.9166
NM018017	.987023	1,357	150.33	12.7486
WY028018	1.525140	1,459	160.87	13.7007
NM018019	.980516	1,348	149.40	12.6646
NM018020	.940039	1,292	143.60	12.1417
MT048021	1.136113	1,461	161.08	13.7254
MT048022	1.379650	1,481	163.15	13.9121
UT019010	--	--	--	--
NM029014	.078171	96	19.93	0.9751
UT019017	.278547	411	52.50	3.9186
NM029021	.105028	131	23.55	1.3101
UT019022	.066692	92	19.51	0.9382
NM029025	.363530	477	59.33	4.5346
UT019026	.252007	371	48.36	3.5453
NM029026	.040024	45	14.65	0.4992
NM039026	.319419	471	58.71	4.4826
CO019027	.242226	326	43.71	3.1227
WY029028	.638608	606	72.67	5.7368
UT019029	.291162	430	54.47	4.0961
WY029030	1.122090	1,071	120.75	10.0800
WY029031	.201024	185	29.13	1.8059
UT019033	.315486	467	58.29	4.4383
NM029035	.189903	245	35.34	2.3688
CO019038	.253085	341	45.26	3.2627
UT019039	.360083	534	65.22	5.0657
NM049040	.257286	378	49.09	3.6106
MT049042	.127491	129	23.34	1.2856
WY023002	1.119040	1,068	120.44	10.0526
UT013020	1.254360	1,881	204.51	17.6466
CO043045	.936621	1,298	144.22	12.1991
CO043104	.966019	1,339	148.46	12.5820
WY023107	1.227830	1,160	129.95	11.0299
WY035002	.890759	1,007	114.13	9.5246
MT045013	1.182760	1,080	121.68	10.1731
MT045017	.849432	909	104.00	8.5655
MT045035	.792209	847	97.59	7.9885

See footnotes at end of table.

Continued

Table 10--Characteristics of 1985 transportation links for new power plants--Continued

Transportation link1/	Cost 2/	One-way distance	Round-trip time	Cost 3/
	Dols. per mil. Btu	Miles	Hours	Dols. per ton
WY026001	0.606290	575	69.46	5.4465
MT046002	.608645	649	77.11	6.1375
MT046007	.650463	694	81.77	6.5591
ND036009	.491480	352	46.40	3.3651
WY026022	.965138	919	105.03	8.6701
MT046022	.822768	879	100.90	8.2966
WY036026	.543538	614	73.49	5.8119
MT046037	.488851	519	63.67	4.9295
WY026038	.396428	373	48.57	3.5612
WY026040	.684373	650	77.22	6.1479
WY026041	.628765	596	71.63	5.6484
MT046043	.575077	612	73.29	5.7990
MT046045	.704085	752	87.76	7.0999
ND026046	.054843	36	13.72	.4147
WY027022	.906721	864	99.35	8.1453
WY029046	.717241	681	80.42	6.4432
WY027021	.805174	766	89.21	7.2331
UT014057	1.069610	1,603	175.76	15.0475
CO044057	1.011240	1,402	154.98	13.1710
WY027017	1.067830	1,019	115.37	9.5926
WY027019	1.117830	1,067	120.34	10.0418
WY027023	1.357710	1,298	144.22	12.1966
MT047025	1.420030	1,525	167.70	14.3193
WY027025	1.546920	1,480	163.05	13.8963
WY027026	1.078230	1,029	116.41	9.6860
WY017027	1.095680	1,211	135.23	11.2853
WY027028	1.573950	1,506	165.73	14.1392
WY027031	1.208190	1,154	129.33	10.8535
WY027033	1.161430	1,109	124.68	10.4334
WY027034	1.199170	1,145	128.40	10.7724
WY027037	1.312100	1,254	139.67	11.7870
WY027039	1.312100	1,254	139.67	11.7870
WY027040	1.647710	1,577	173.08	14.8018
MT043116	1.403040	1,409	155.70	14.1480
MT046013	--	--	--	--
ND026035	--	--	--	--
ND016039	--	--	--	--
AZ019002	--	--	--	--
WY049005	--	--	--	--
WY049008	--	--	--	--
NM019012	--	--	--	--
UT029034	--	--	--	--
ND026047	--	--	--	--
WY029043	--	--	--	--
CO019044	--	--	--	--

See footnotes at end of table.

Continued

Table 10--Characteristics of 1985 transportation links for new power plants--Continued

Transportation link 1/	Cost 2/	One-way distance	Round-trip time	Cost 3/
	Dols. per mil. Btu	Miles	Hours	Dols. per ton
MT029045	--	--	--	--
WY019047	--	--	--	--
CO019009	--	--	--	--
WY029023	--	--	--	--
CO019024	--	--	--	--
UT029032	--	--	--	--
UT029036	--	--	--	--

-- = Not applicable. Link is mine-mouth plant.
1/ See table 9, footnote 1/, for explanation of link coding.
2/ 1985 dollars.
3/ 1975 dollars.

Source: (5). Computer printouts also provided by the authors of (5).

describes those transportation costs developed by North Dakota State University (NDSU). 8/ Zero transportation costs were assumed for mine-mouth power plants.

Several new railroad links were assumed to be operating by 1985. One such link will be the line being built from the coal fields south of Gillette, Wyoming, to connect with the existing rail line running through Douglas, Wyoming.

Coal slurry pipelines may also be used to move coal in 1985. Costs and other information for coal slurry pipelines are being developed by NDSU. We will use coal slurry pipelines as alternative scenarios in our national coal model. We will not analyze the use of coal slurry pipelines in this report because adequate information is not yet available.

NDSU specialists are also developing rail link capacities to be used in our modeling effort. They will determine the carrying capacity of each rail link and then the model will accumulate coal shipments over those links up to the capacity of those links. Then, costs for expanding the capacity of various critical links will be developed and we will examine changes in the location of coal mining resulting from those investments in expanded rail capacity. In order to accumulate shipments of coal over specific rail links, we have converted the number of Btu per thousand tons of coal into a coefficient which describes thousands of tons of coal per million Btu. This is necessary because the cost of moving coal is expressed in dollars per million Btu (the model transports 1 million Btu at a specific cost). However, railroad carrying capacity is described in thousands of tons or number of cars per unit of time. Therefore, it is necessary to monitor our transportation coal movements in terms of thousands of tons. This is done by using the thousands of tons per million

8/ For this report, we simply list the transportation costs developed by the authors of (5). An explanation of the model methodology used to develop these costs is available in the cited report.

Btu coefficient described above. Table 11 describes both the million Btu per thousand tons and the thousand tons per million Btu coefficients used in both the 1975 and 1985 models.

NDSU engineers and economists are developing transportation costs for use in this western model. They have approached this problem from an engineering cost standpoint by developing a model which examines the equipment needed to transport coal and calculates a cost of that movement. They are also examining the railroad capacity problem and analyzing the cost of coal movements by slurry pipeline and barge.

Electrical Generation Plants

The coal supply-demand trajectory also involves electrical generation plants. In the western model, we consider only coal used by electrical generation plants. One source used to inventory electrical generation plants using western coal in 1985 was the 1975 list of power plants. This involved an analysis of changes in their annual coal use. This information is available from FERC (Federal Energy Regulatory Commission) Form 423. We used the 1976 Form 423 data to add or delete power plants which added or discontinued coal use in 1976. We intend to do the same with the 1977 Form 423. We plan to continue this analysis annually to maintain a current picture of power plants receiving western coal. App. table 4 shows how the 1975 western coal-fired electrical generation situation changed from 1975 to 1978.

The next step in identifying likely 1985 plants was a synthesis of construction plans for new coal-fired electrical generation facilities for 1985. Many government agencies and other sources have compiled lists of planned additions to electrical generation capacity year-by-year up to and beyond 1985. In addition, industry newsletters and newspapers report daily on the plans for new additions to capacity. These and many sources were scrutinized and app. table 5 was developed synthesizing the information. App. table 5 describes yearly additions to coal-fired electrical generation capacity. This table is used for scenario development. Since we are interested in a 1985 scenario, we incorporate into the model all of the proposed additions to electrical generation capacity from 1976 through 1985. In those cases where captive reserves 9/ supply the power plant, or where supply contracts have been determined, we force those linkages into the solution.

We developed two tables to summarize information about power plants demanding western coal in 1985. The first of these tables (app. table 6) lists power plants receiving western coal in 1975 which have no expansion plans from 1976 through 1985. These plants were assumed to obtain the same amount of coal in 1985 as they obtained in 1975. The CPA source of this coal does not change nor does the percentage of coal received. There are 64 of these power plants.

The second table (app. table 7) lists new power plants planned for completion by 1985 and power plants with expansion plans supplied by western coal. There are 94 of these power plants. In those cases where the power plant existed in 1975, we assumed that its expansion plans would utilize the same portion of western coal as in 1975. We had information on the western source of coal for almost all of the new plants. For those plants for which we had no information concerning their source of coal, we examined other power plants in the utility system or, in a very few instances, made an educated guess of where they would obtain their western coal.

9/ "Captive reserves" describes the vertically integrated situation in which the utility controlling the power plant also owns or controls the coal supply source (the mine). The utility may also own the rolling stock (usually railroad cars) in which the coal is transported.

Table 11--Coal Btu-tonnage conversion coefficients for use in monitoring capacity of transportation links

CPA	Coefficients	
	Mil. Btu per 1,000 tons	1,000 tons per mil. Btu
Strip mining:		
AZ01	20,700	0.0000483092
CO01	23,076	.0000432900
CO02	20,240	.0000495050
CO04	23,314	.0000429185
CO05	25,900	.0000386100
CO07	18,000	.0000555560
MT01	12,700	.0000839433
MT02	13,000	.0000746269
MT03	15,270	.0000653595
MT04	18,050	.0000537634
MT05	15,396	.0000649351
ND01	13,500	.0000763359
ND02	13,534	.0000793651
ND03	12,256	.0000813008
NM01	23,120	.0000432900
NM02	22,328	.0000448430
NM03	25,120	.0000398406
UT01	25,182	.0000396825
UT02	19,560	.0000510204
WY01	18,600	.0000518135
WY02	16,080	.0000617284
WY03	19,140	.0000518135
WY04	17,704	.0000440529
Underground mining:		
CO01	23,076	.0000432937
CO02	20,240	.0000495050
CO03	21,748	.0000460829
CO04	27,320	.0000429185
CO05	25,888	.0000386100
CO06	24,920	.0000401606
CO07	23,218	.0000431034
NM01	23,120	.0000432900
NM02	22,328	.0000448430
NM03	25,120	.0000398406
NM04	25,520	.0000392157
UT01	25,182	.0000396825
UT02	19,560	.0000510204
UT03	21,480	.0000465116
WY03	19,300	.0000518135
WY04	22,700	.0000440529

Source: (7).

Model Coefficients

The linear programming input data required for each power plant includes the net generation capacity expressed in million kilowatt hours, the input-output ratio expressed in million Btu per million kilowatt hours, and the operating cost expressed in dollars per million kilowatt hours (table 12). To obtain these 1985 inputs for each power plant, we examined historical information for existing power plants (19). Because of time constraints, a simple visual examination of the data from 1965 through 1974 was used to formulate 1985 coefficients. For instance, a power plant receiving western coal in 1975 would be examined and its net generation each year from 1965 through 1974 used to determine its net generation for 1985. If the plant was old and its net generation declining, this decline was continued to 1985. If the plant was new and maintaining a constant high level of generation output, this high level of net generation output was modified only slightly for 1985. Next, the input-output ratios for each plant were examined for the 1965 through 1974 period and an estimate made of the input-output ratio for the plant in 1985. The same procedure was followed for the operating cost for each plant. 10/ The 1965-74 historical data were also used to make estimates concerning the retirement of some power plants. The power plants estimated to be retired from production are indicated in table 12.

Power Plant Conversions

The 1975 inventory of coal-fired power plants can be expanded by adding those plants which have been or can be converted to coal use. The addition of these plants to the analysis of 1985 scenarios is necessary to obtain accurate estimates of large power plant coal use.

There are three major categories into which the conversion data can be divided. The first is a list of power plants greater than 100 megawatts which were converted to coal by mid-1979 (table 13). Between 1975 and 1979, 47,633 megawatts of capacity in the United States were switched to coal. Many of the generating units which were converted were located at power plants which already burned coal in other units of the same plant; therefore, many of the site locations are not new, but show increased coal-fired capacity at a location already existing in the model. Historical data are used to make estimates of coal requirements for those units converted through 1985.

The second major category of conversion data describes oil and gas-fired generating units which can be converted to coal firing with relative ease from a technical standpoint (table 14). These plants may have burned coal in the past or have boilers designed to burn coal. There is some coal handling equipment present and an area exists which could be or is being used for a coal stockpile. Table 14 indicates that this group of units and plants total 16,347 megawatts and that most are oil-fired.

A third group includes units at power plant sites which do not presently use coal as a boiler fuel and which could convert to coal use only with difficulty (table 15). This difficulty usually occurs because of substantial engineering and site problems

10/ We have developed hypotheses concerning a statistical model which may be used to provide these input coefficients for the linear programming model. We have had tentative discussions with an engineer concerning the feasibility of developing statistical models of this type and believe that they are potentially reliable. We will be pursuing the development of these models using historical 1965 through 1975 information. We hope to have an operational model available for use in defining 1985 power plant input characteristics for our national interregional model. We are also investigating the possibility of using existing models available through EPA's Energy/Environment R & D Program and through the Department of Energy for this purpose.

Table 12--Power plant coefficients for 1985 model

ICAM code	Power plant	Net generation	Input-output ratio	Operating cost	1985 capacity
		Mil. kWh	Mil. Btu per mil. kWh	Dols. per Mil. kWh	MW
3002	Gavin	15,000	10,000	850	2,600
3020	Cardinal	14,000	9,500	1,800	2,410
3045	Bailly	3,500	9,500	1,000	616
3104	Schahfer	6,000	10,000	900	1,020
3107	Sullivan	15,000	10,000	850	2,600
4057	Jackson Co.	6,000	10,000	900	1,000
5002	Baldwin	15,000	10,000	850	2,528
5013	Edwards	7,500	10,000	1,100	1,280
5017	Columbia	6,000	9,500	900	1,038
5035	Weston	2,000	10,500	1,400	435
5043	Pleasant Prairie	7,000	10,000	900	1,160
6001	George Neal	9,000	10,000	1,100	1,621
6002	Sherburne Co.	22,000	9,500	850	3,680
6006	Neal #3	6,500	10,000	900	1,060
6007	Boswell	6,000	10,500	1,500	1,015
6009	Big Stone	5,000	10,500	1,000	280
6013	Colstrip	8,000	10,000	950	1,363
6022	Alma	3,000	10,500	2,000	537
6026	Council Bluffs	4,500	11,000	1,800	781
6035	Square Butte	2,000	10,500	1,000	400
6037	Sioux Falls	1,000	10,500	1,000	200
6038	Gentleman	7,000	10,000	900	1,200
6039	Coal Creek	2,500	10,500	1,000	450
6040	Nebraska City	3,500	10,500	1,000	575
6041	Heartland	1,000	10,500	1,000	200
6043	Basin	900	10,500	1,000	150
6045	Brookston	5,000	10,000	950	800
6046	Antelope Valley	2,500	10,500	1,000	450
7016	Harrington	6,000	10,000	950	1,037
7017	Muskogee	6,000	10,000	950	1,030
7018	Welsh	9,500	9,500	900	1,584
7019	Flint Creek	3,000	10,500	1,000	528
7022	Jeffrey	15,000	9,500	850	2,880
7023	White Bluff	15,000	9,500	850	2,800
7025	Big Cajun	10,000	9,500	900	1,620
7026	Sooner	6,000	10,000	950	1,015
7027	Northeastern	5,500	10,000	950	900
7028	Rodemacher	6,000	10,000	950	1,020
7031	Unsited	4,000	10,000	1,000	700
7033	Unsited	4,000	10,000	1,000	700
7034	CRS Joint	1,500	10,500	1,000	280
7037	Unsited	4,000	10,000	1,000	700
7039	Unsited	4,000	10,000	1,000	700
7040	Nelson	3,300	10,000	950	540
8004	Deely, J.T.	5,500	10,000	950	894
8005	Parish	15,000	9,500	850	2,968
8006	Coleto Creek	3,300	10,000	950	550
8007	Fayette	6,500	10,000	950	1,100

Continued

Table 12--Power plant coefficients for 1985 model--Continued

ICAM code	Power plant	Net generation	Input-output ratio	Operating cost	1985 capacity
		Mil. kWh	Mil. Btu per mil. kWh	Dols. per Mil. kWh	MW
8013	South Plains	5,500	10,000	950	950
8014	Sandow	3,500	10,500	1,000	575
8016	Unsited	4,500	10,000	950	750
8017	Unsited	4,500	10,000	950	750
8018	Unnamed	4,500	10,000	950	750
8019	Unsited	4,500	10,000	950	750
8020	Unsited	4,500	10,000	950	750
8021	Unnamed	1,000	10,500	1,000	200
8022	Unnamed	1,000	10,500	1,000	200
9002	Navajo	14,000	9,500	900	2,303
9005	Jim Bridger	15,000	9,500	900	2,508
9008	Naughton	9,000	10,000	950	1,541
9009	Hayden	4,000	10,000	1,000	680
9010	Huntington Canyon	5,000	10,000	950	800
9012	San Juan	10,000	9,500	950	1,669
9014	Cholla	7,000	10,000	1,600	1,104
9017	Gardner	2,000	10,500	1,000	345
9021	Snowflake	800	10,500	1,100	125
9022	Emery	5,000	10,000	950	800
9023	Wyodak	2,000	10,500	1,100	330
9024	Craig	9,000	9,500	950	1,520
9025	Apache	2,000	10,500	1,000	350
9026	Coronado	6,000	10,000	950	1,050
9027	Nixon	4,500	10,000	1,000	750
9028	Pawnee	6,000	10,000	950	1,000
9029	North Valmy	3,000	10,500	1,000	500
9030	Boardman	3,000	10,500	1,000	500
9031	Laramie River	9,000	10,000	950	1,500
9032	Warner Valley	3,000	10,500	1,000	500
9033	Allen	12,000	9,500	900	2,000
9034	Garfield	6,000	9,500	900	1,000
9035	Plains	2,000	10,500	1,000	350
9036	Intermountain	13,500	9,500	900	2,250
9037	Unsited	5,000	10,000	950	800
9038	Future	6,000	10,000	950	1,000
9039	Pioneer	3,000	10,500	1,000	500
9040	Springville	2,000	10,500	1,000	330
6047	Coyote	2,500	10,500	1,000	410
3116	Belle River	8,000	10,000	950	1,350
7021	Nearmen Creek	3,500	10,500	1,000	566
9013	Drake	1,000	13,000	2,550	257
9006	Cherokee	4,500	12,000	1,650	802
9011	Comanche	2,500	11,000	1,850	383
5025	Wallace	--	--	--	--
5016	Fisk	--	--	--	--
5014	Crawford	1,500	12,500	3,250	702
5036	Dixon	300	13,000	3,250	119
5003	Joliet	7,000	12,000	2,200	1,787

Continued

Table 12--Power plant coefficients for 1985 model--Continued

ICAM code	Power plant	Net generation	Input-output ratio	Operating cost	1985 capacity
		Mil. kWh	Mil. Btu per mil. kWh	Dols. per Mil. kWh	MW
5004	Powerton	6,000	11,000	1,700	1,743
5011	Waukegan	2,000	13,000	3,000	932
5007	Will County	5,000	11,000	3,050	1,269
5009	Joppa	6,000	11,000	2,400	1,098
5024	Hennepin	1,200	11,000	1,800	306
5016	Wood River	1,500	12,000	3,300	501
5028	Venice 2	--	--	--	--
3029	State Line	4,000	11,000	3,500	972
3056	Breed	2,000	10,500	2,800	496
3023	Tanners Creek	5,000	10,000	2,700	1,101
3015	Clifty Creek	7,500	9,500	1,650	1,350
3050	Mitchell	2,500	10,500	2,000	529
3100	Edwardsport	--	--	--	--
3027	Cayuga	6,000	10,000	1,100	1,062
6016	Kapp	1,000	11,000	1,900	237
6015	Prairie Creek	1,000	12,000	2,650	245
6024	Sutherland	800	12,000	1,600	158
6020	Riverside	1,000	12,500	3,100	203
6030	Maynard	200	15,000	3,400	105
6021	Des Moines 2	1,000	14,000	3,800	189
6019	Burlington	1,000	10,500	1,350	212
7003	Lawrence	2,500	11,500	1,550	613
7006	Tecumseh	500	14,500	4,400	346
3007	Shawnee	9,000	10,500	1,350	1,750
3086	Marysville	500	13,500	5,550	200
3014	St. Clair	9,500	10,000	1,500	1,435
3001	Monroe	18,500	10,000	1,400	3,173
6031	Fox Lake	200	13,500	3,250	105
6028	Aurora	300	14,000	4,650	116
6008	Black Dog	2,000	11,500	2,400	488
6010	High Bridge	1,000	12,500	4,750	398
6005	King	3,000	10,000	1,650	598
6011	Riverside	1,500	12,000	3,400	384
6025	Hoot Lake	700	12,500	2,200	137
7014	Blue Valley	400	13,000	3,000	115
7013	Grand Ave.	--	--	--	--
7001	Hawthorne	4,000	11,000	2,850	909
7004	Montrose	3,000	11,000	2,200	564
5012	Meremec	4,000	11,000	3,150	924
5001	Labadie	15,000	10,000	1,800	2,484
9020	Corette	1,000	11,000	1,100	173
6029	Kramer	500	13,000	3,350	114
6017	Sheldon	1,300	11,000	1,750	229
6004	North Omaha	3,000	10,500	1,650	646
9003	Mohave	8,500	11,500	5,100	1,510
9001	Four Corners	12,000	10,500	2,200	2,170
6003	Leland Olds	1,500	11,500	1,800	700
6014	Young	1,500	11,500	1,200	257
6032	Heskett	500	13,500	2,100	100

Continued

Table 12--Power plant coefficients for 1985 model--Continued

ICAM code	Power plant	Net generation	Input-output ratio	Operating cost	1985 capacity
		Mil. kWh	Mil. Btu per mil. kWh	Dols. per Mil. kWh	MW
6023	Stanton	1,000	11,500	2,650	172
9018	Carbon	900	11,500	3,050	189
9015	Gadsby	900	11,500	3,150	252
6012	Genoa 3	2,000	10,000	2,450	346
5005	Oak Creek	8,500	10,000	3,600	1,692
5022	Pulliam	2,000	12,000	3,000	373
9007	Dave Johnston	5,000	11,000	3,000	788
9016	Arapahoe	1,000	13,000	2,400	251
9019	Valmont	1,000	12,000	1,800	180

-- = Plant retired.

Source: Summarized from app. tables 2, 4, 5, 6, and 7 which are based on sources shown in those tables. Input-output ratios and operating costs were subjectively developed using historical data published by the Federal Energy Regulatory Commission (19). One goal is to develop a reliable regression model to estimate input-output ratios and operating costs.

including need for major modifications, lack of coal handling equipment, or insufficient space for coal unloading equipment and stockpiles. This group of units totals 17,012 megawatts. Most are oil-fired units.

Yet another future market for coal is in private industry. Some units which presently exist may be ordered to switch to coal or new industrial units may be built with coal-fired capability. Table 16 describes industries which were issued preliminary prohibition orders in May, 1977. Table 17 lists industries issued preliminary construction orders in May, 1977. These industries, according to the order, will be prohibited from burning fuels other than coal as of some future date. These orders have changed substantially since they were issued because of changing governmental and judicial viewpoints. Coal supply information for private industry will not be included in scenario runs of this model. Further investigation of industrial coal use is underway. If an accurate data base can be developed, industrial coal will be included in later scenario runs of the national model.

Coal-Fired Electricity Demand

The analysis of the demand for coal-fired electrical generation is being performed by John McKean in the Economics Department at Colorado State University. His work is accompanying the development of the simulation model. A preliminary econometric approach to the problem has been defined and data essential for the analysis collected. The demand analysis will use historical data for major U.S. Standard Metropolitan Statistical Areas (SMSAs). 11/ These SMSAs are correlated with utility service areas owning the power plants defined in our 1975 and 1985 models.

11/ An SMSA is a specified area surrounding and including a major metropolitan center. There are about 285 of the SMSAs in the U.S. They are defined by the U.S. Office of Management and Budget in cooperation with the Bureau of the Census.

Table 13--Power plants greater than 100 MW converted to coal by 1979

State and power plant	Units	Capacity
	Identifying number	MW
Colorado:		
Drake	5-7	264
Arapahoe	1-4	252
Cherokee	1-4	767
Valmont	5	180
Delaware:		
Delaware City	1-3	120
Florida:		
Crystal River	1,2	964
Crist	4-7	1054
Gannon	5,6	552
Georgia:		
McDonough	1,2	458
Yates	1-7	1394
Port Wentworth	1-4	333
Illinois:		
Hutsonville	3,4	150
Wallace	3-7	271
Crawford	7,8	538
Fisk	19,20	495
Joliet	6-8	1196
Waukegan	6-8	774
Hennepin	1,2	310
Lakeside	1-7	161
Havana	6	450
Wood River	4,5	503
Indiana:		
Michigan City	2,3,12	540
Bailey	7,8	590
Mitchell	4-6,11	472
Stout	5-7	651
Pritchard	3-6	283
State Line	3,4	536
Iowa:		
Sutherland	1-3	158
M.L. Kapp	1,2	237
Riverside	3-5	100
Council Bluffs	1-3	781
Des Moines	6,7	189
George Neal	1-3	987
Muscatine	5-8	125
Kansas:		
Kaw	1-3	171
Quindaro	1,2	218
Lawrence	4,5	553
Tecumseh	7,8	229
Riverton	7,8	91
Kentucky:		
Paddy's Run	1-6	302
Cane Run	1-6	983

Continued

Table 13--Power plants greater than 100 MW converted to coal by 1979--Continued

State and power plant	Units	Capacity
	Identifying number	MW
Maryland:		
Wagner	3	359
Morgantown	1,2	1148
Chalk Point	1,2	788
Michigan:		
Weadock	7,8	326
Karn	1,2	550
St. Clair	1-4,6,7	1382
River Rouge	2,3	558
Conners Creek	15,16	300
Trenton Channel	7,8,9A	778
Minnesota:		
High Bridge	3-6	363
Riverside	1,2,6-8	358
Black Dog	1-4	488
Aurora	1,2	116
Clay Boswell	1-3	515
Mississippi:		
Daniel/Jackson Cnt.	1	500
Missouri:		
Hawthorne	1-5	969
Blue Valley	1-3	102
Meramec	1-4	880
Lake Rd.	2,4	124
Nebraska:		
Fremont 2	6-8	135
Sheldon	1,2	216
Kramer	1-3	114
North Omaha	1-5	646
Nevada:		
Reid Gardner	1-3	330
Mohave	1,2	1608
New Jersey:		
BL England	1,2	299
Mercer	1,2	606
New Mexico:		
San Juan	1,2	656
North Carolina:		
Sutton	1-3	588
North Dakota:		
Young	1,2	648
Heskett	1,2	100
Ohio:		
Miami Fort	5-8	1254
Tait	4,5	278
Hamilton	3,8,9	80
Toronto	5-7	172
Cardinal	1-3	1800

Continued

Table 13--Power plants greater than 100 MW converted to coal by 1979--Continued

State and power plant	Units	Capacity
	Identifying number	MW
Oklahoma:		
Muskogee	4,5	1030
Pennsylvania:		
Seward	2-5	243
Cromby	1	150
South Carolina:		
Robinson	1	174
Canadys	1-3	422
McMeekin	1,2	252
Urquhart	1-3	250
Jefferies	3,4	300
Tennesee:		
Allen	1-3	879
Texas:		
Deely	1,2	836
Utah:		
Gadsby	1-3	252
Virginia:		
Chesterfield	5,6	991
Glen Lyn	5,6	335
Wisconsin:		
Pulliam	3-8	380
Weston	1,2	148
N. Oak Creek	1-4	442
S. Oak Creek	5-8	1034
Total MW		47,633

Sources: (8). Also app. table 5.

Table 18 compares the coal supply and demand situation. The strip and underground mining capacity for each CPA is listed and totaled. Also listed and totaled is the amount of coal demanded by electrical generation plants from strip and underground mines. Based upon the information in table 18, the coal mining capacity will be inadequate in only four CPAs: MT02, ND01, NM04, and WY01. For purposes of the 1985 base model runs, we have increased the mining capacity in these four CPAs to meet the demand for coal from them.

Demand for coal can be divided into two major parts. The first and largest is the coal demand of coal-fired electrical generation plants. A smaller demand for coal is by private industry. Coal demanded by private industry will not be treated in this study.

The demand for coal-fired electrical generation depends on total demand for electricity. The demand analysis will examine the residential demand for electricity by formulating an econometric model which forecasts electricity demanded by residential households to 1985. As described above, this research is based on data collected for SMSAs. We consider a second equation to estimate demand for electricity in rural

Table 14--Power plants able to convert to coal with relative ease

State and power plant	Unit	Capacity	Present primary fuel
	Identifying number	MW	
Connecticut:			
Devon	7,8	214	Oil
Monville	1-5	182	Oil
Norwalk Harbor	1,2	333	Oil
Middletown	1-3	420	Oil
Bridgeport Harbor	1-3	675	Oil
Delaware:			
Edgemoor 1/	3,4	249	Gas
Georgia:			
McManus 1/	1,2	131	Oil
Effingham 1/	1	163	Oil
Illinois:			
Havana 1/	1-5	260	Oil
Crane 1/	1,2	384	Oil
Wagner 1/	1,2	271	Oil
Massachusetts:			
Brayton Point 1/	1-3	1152	Oil
Salem Harbor 1/	1-3	310	Oil
Mt. Tom 1/	1	140	Oil
Michigan:			
St. Clair 1/	5	300	Oil
River Rouge 1/	1	199	Oil
Minnesota:			
Fox Lake 1/	1-3	108	Oil
New Hampshire:			
Schiller 1/	3-6	179	Oil
New Jersey:			
Bergen	1,2	570	Oil
Burlington	6,7	300	Oil
Hudson	1	383	Oil
Deepwater	1,5-7	207	Oil
New York:			
Danskammer 1/	1-4	468	Oil
Albany 1/	1-4	400	Oil
Port Jefferson 1/	1-4	477	Oil
Arthur Kill	2,3	826	Oil
Astoria	1-5	1438	Oil
Ravenswood	1-3	1778	Oil
Lovett	1-5	496	Oil
Far Rockaway	4	114	Oil
Glenwood	4,5	227	Oil
Oklahoma:			
Mustang 1/	1,2	106	Gas
Pennsylvania:			
Southwark	1,2	356	Oil
Springdale	7,8	223	Oil
Cromby	2	201	Oil

Continued

Table 14--Power plants able to convert to coal with relative ease--Continued

State and power plant	Unit	Capacity	Present primary fuel
	Identifying number	MW	
Delaware	7,8	250	Oil
Virginia:			
Chesterfield 1/	2,4	234	Oil
Portsmouth 1/	3,4	376	Oil
Possum Point 1/	1-4	437	Oil
Yorktown 1/	1,2	310	Oil
Total MW	--	16,347	--

1/ These plants have emission limitations of 1.2 lb. SO_2 per mil. Btu or more.

Sources: (4), May 12, 1975, and July 12 and Dec. 12, 1976; (8); also, app. tables 5 and 7.

areas using Rural Electrification Administration data. The OBERS (joint USDA-Department of Commerce projections) population and income data are used for both SMSAs and rural areas.

The medium-run demand for electricity 12/ by households may be described as an equation which relates the quantity demanded to variables such as the age of the housing stock, the fuel used by household equipment, prices shown on typical electric bills, climatological data, and household characteristics. Dummy variables are used to represent other characteristics of the housing stock, the appliance stock, and the population. If we assume that appliance stocks cannot be adjusted instanteously, a lagged model is appropriate. Since we are applying the model to cross-section data, serial correlation is not a problem. Fortunately the distributed lag formulation does not expect serial correlation; therefore, the estimation process does not create it. Other models do, in fact, create serial correlation if the data do not reflect the serial correlation implied by the model.

Table 19 describes a preliminary list of variables for the household electricity demand analysis. The number of customers by income class and distribution parameters will also be included. The distribution of appliances by fuel type will be converted into percentages within the statistical analysis program. Prices and quantities of electricity are shown from three sources: (1) American Gas Association (AGA) data which provide electricity prices as well as substitute fuel prices for 1975 and other years; (2) prices computed from FERC ratios of revenues and customers; and (3) prices estimated from typical electric bill data obtainable from the FERC. Other data on marginal prices will be tested when it is received.

SMSAs appearing in the residential demand analysis are listed in app. table 8. A reduced list of SMSAs is used because of data limitations. It may be possible to expand this list to cover States and utility service areas not currently represented. App. table 8 also describes the representation of utility service areas by the SMSAs.

12/ Medium run implies that the appliance stock is fixed.

Table 15--Power plants able to convert to coal with difficulty

State and power plant	Unit	Capacity	Present primary fuel
	Identifying number	MW	
Arkansas:			
Ritchie 1/	1,2	812	Oil
Moses 1/	1,2	126	Oil
Colorado:			
Zuni 1/	1,2	107	Gas
Connecticut:			
Devon	1,3-6	258	Oil
Delaware:			
Edgemoor 1/	1,2	140	Oil
District of Columbia:			
Benning	10-14	162	Oil
Illinois:			
Collins 1/	4,5	1,010	Oil
Ridgeland 1/	1-4	582	Oil
Wood River 1/	1,2,3	150	Oil
Venice #2 1/	1-6	460	Oil
Maine:			
Mason 1/	1-5	117	Oil
Maryland:			
Gould St. 1/	3	103	Oil
Riverside 1/	1-5	321	Oil
Bradon Shores 1/	1,2	1,220	Oil
Westport 1/	1,3,4	145	Oil
Massachusetts:			
Somerset 1/	5,6	196	Oil
West Springfield 1/	1-3	209	Oil
Canal 1/	1	572	Oil
Mystic	4,5,6	442	Oil
New Boston	1,2	738	Oil
Michigan:			
Weadock 1/	4-6	206	Oil
Karn 1/	3,4	1,163	Oil
Morrow 1/	1-4	180	Oil
Delray 1/	11-16	411	Oil
Conners Creek 1/	8-10, 12-14	299	Oil
New Jersey:			
Deepwater	3,4	107	Oil
Kearney	7,8	288	Oil
Sewaren	1-4	446	Oil
Sayreville	1-5	376	Oil
Gilbert	1-3	127	Oil
New York:			
Oswego 1/	1-4	375	Oil
Northport 1/	1-4	1,535	Oil
Waterside	4-9, 14,15	345	Oil

See footnote at end of table.

Continued

Table 15--Power plants able to convert to coal with difficulty

State and power plant	Unit	Capacity	Present primary fuel
	Identifying number	MW	
East River	5,6,7	426	Oil
74th Street	3,9-11	219	Oil
Hudson Ave	5-8,10	459	Oil
Barrett	1,2	380	Oil
Ohio:			
Tait 1/	1-3,7,8	148	Oil
Oklahoma:			
Horseshoe Lake 1/	4-6	192	Gas
Mustang 1/	3,4	387	Gas
Muskogee 1/	3	185	Gas
Pennsylvania:			
Chester	5,6	124	Oil
Schuykill	1,3,9	249	Oil
Rhode Island:			
Manchester	9-11	139	Oil
Virginia:			
Chesterfield	1,3	160	Oil
Portsmouth	1,2	216	Oil
Total MW		17,012	

1/ Plants with emission limitations of 1.2 lb. SO_2 per mil. Btu or more.

Sources: (8); also app. table 5.

The demand analysis is currently in an elementary stage of development. The residential demand analysis will be completed shortly. Future work in estimating demand for coal-fired electricity generation will attempt to make use of existing models and studies to the greatest possible degree.

1985 RESULTS

This section describes results of analyses of 1985 scenarios. The number of scenarios analyzed is limited because of lack of data.

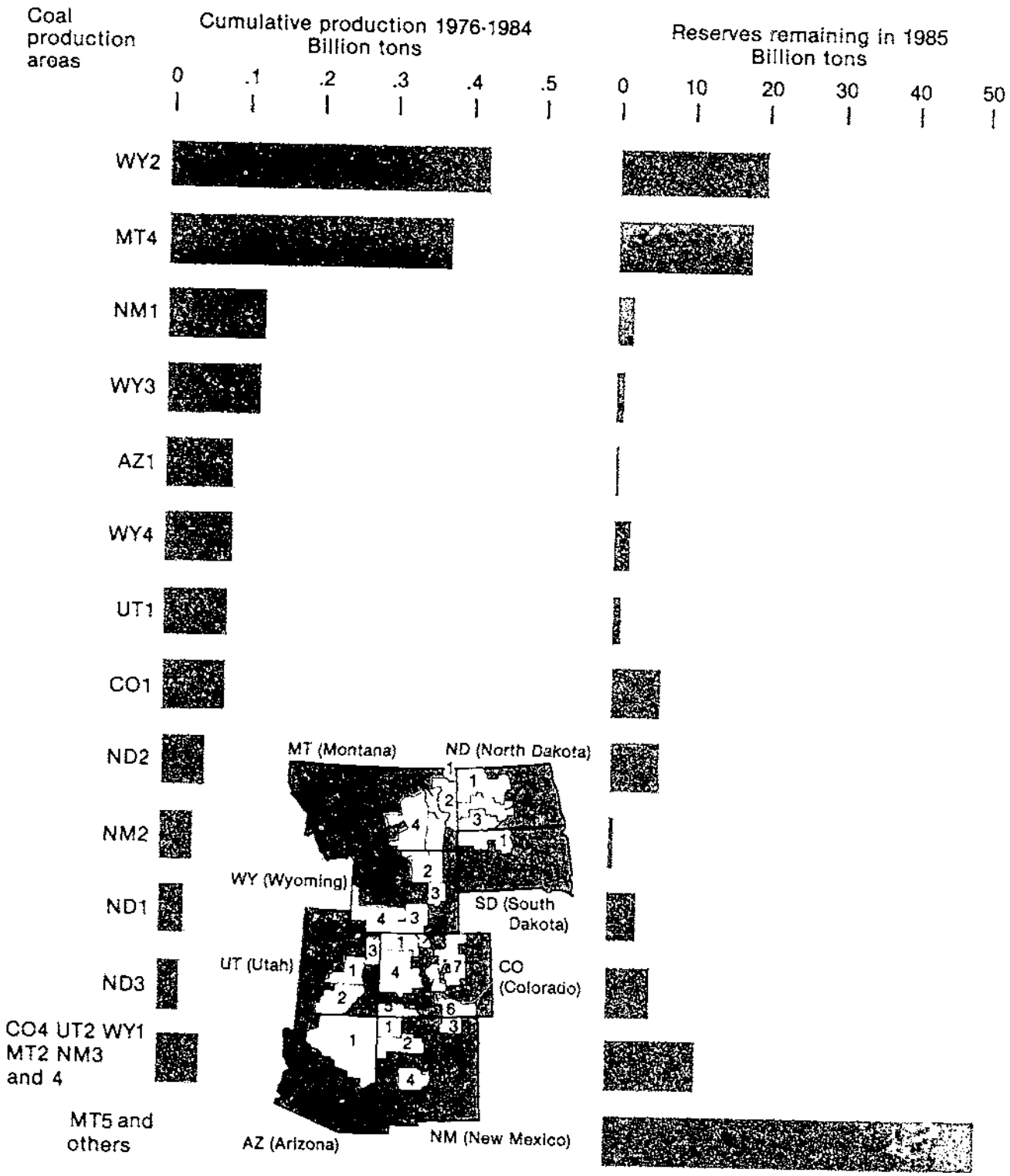
1985 Base Scenario Results

The 1985 base scenario includes power plants scheduled for operation by the end of 1985. We were able to determine the coal sources for most of these power plants (figs. 6 and 7). The 1985 base run forces those links into the model. 13/ Therefore, the 1985 base scenario can be described as a forced solution very similar to the 1975

13/ Strict linkage of power plant coal demands to predetermined supplies prevents the model from reflecting opportunity costs for other supply regions.

Figure 6

Projected Western Coal Production and Remaining Reserves



Production data for large power plants only.

Figure 7

Western Coal Production for Large Power Plants

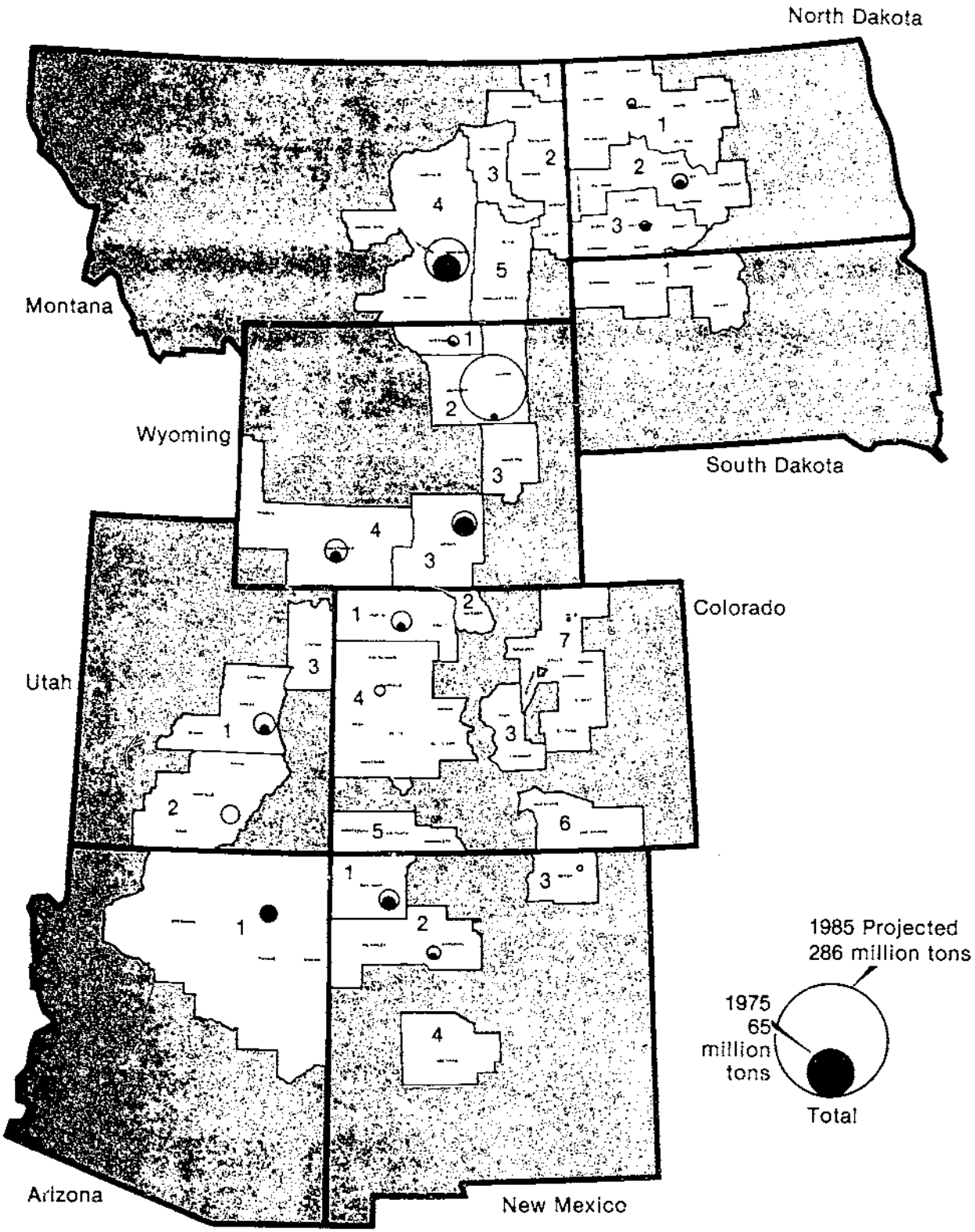


Table 16--Industries issued preliminary prohibition orders during May 1977

Name	Location	Number of units
International Paper	Jay, ME	2
Fraser Paper	Madawaske, ME	2
Chesapeake Corp.	West Point, VA	1
Continental Forest Industries	Hopewell, VA	2
E.I. DuPont deNemours	Seaford, DE	2
Allied Chemical	Hopewell, VA	1
Union Carbide	Institute, WV	1
Scott Paper	Chester, PA	2
FMC Corp.	Fredericksburg, VA	5
Avtex Fibers	Front Royal, VA	3
Union Camp	Savannah, GA	1
Scott Paper	Mobile, AL	2
International Paper	Vicksburg, MS	1
Continental Forest Industries	Port Wentworth, GA	4
Weyerhaeuser	Plymouth, NC	2
Monsanto	Pensacola, FL	6
Bowater	Calhoun, TN	5
Westvaco	Charleston, SC	2
Brown Company	Parchment, MI	2
A.E. Staley Manufacturing	Decatur, IL	3
Marathon	Robinson, IL	3
International Paper	Texarkana, TX	1
International Paper	Pine Bluff, AR	2
Kennecott Copper	Salt Lake City, UT	4

Source: (4), May 16, 1977.

base run. The major difference between the 1975 and the 1985 base runs is the additional power plants announced for completion before the end of 1985.

The differences between the 1975 and 1985 base solutions are described in table 20. The greatest increase in coal mining will occur in Wyoming and Utah. Coal producing area WY01 will increase production from only 13,000 tons in 1975 to over 3 million tons in 1985. The area around Gillette (Wyo.) will increase production from 3.4 million tons in 1975 to nearly 106 million tons in 1985. The coal producing areas in Utah will increase production from nearly 3 million tons in 1975 to nearly 26 million tons in 1985. Coal producing area UT02 increases from no production in 1975 to 9.5 million tons in 1985. Coal producing area MT04, which is the area around Colstrip, nearly triples its production from 1975 to 1985. Total production from all the western CPAs is projected to increase by 438 percent between 1975 and 1985. Individual CPAs which are likely to experience social and economic adjustment problems because of the large amount of new mine development between 1975 and 1985 include CO01, CO04, MT04, NM01, NM02, UT01, UT02, WY02, and WY04.

Table 17--Industries issued preliminary construction orders during May 1977

Name	Location	Number of units
Dartmouth College	Hanover, NH	1
Anheuser-Busch	Williamsburg, VA	2
Bellefield Boiler Plant	Pittsburg, PA	1
The Boeing Company	Ridley Township, PA	1
United States Steel	Fairfield, AL	2
International Paper	Georgetown, SC	1
Shell Oil	Mobile, AL	1
Goodyear Tire and Rubber	Gadsden, AL	1
J. P. Stevens	Wallace, SC	1
Kimberly-Clark	Memphis, TN	1
Phillip Morris	Eden, NC	3
B. F. Goodrich	Louisville, KY	1
Federal Paper Board	Riegelwood, NC	1
General Motors	Undesignated	3
The Upjohn Company	Kalamazoo, MI	1
Anheuser-Busch	Moorhead, MN	2
United States Steel	Gary, IN	2
Republic Steel	Grand River, OH	2
United States Steel	Mt. Iron, MN	2
General Motors	Oklahoma City, OK	3
E.I. DuPont deNemours	Deer Park, TX	2
Texaco	Port Neches, TX	1
Exxon	Baton Rouge, LA	3
Shell Oil	Geismar, LA	1
Shell Oil	Norco, LA	3
Shell Oil	Deer Park, TX	2
Fort Howard Paper	Muskogee, OK	1
Shell Oil	Fellows, CA	2
Shell Oil	Bakersfield, CA	2
Standard Oil	Oildale, CA	4

Source: (4), May 16, 1977.

Information on the amount of land disturbed is not available for the 1975 base run because this capability is not programmed into the 1975 model. Data for 1985 are shown in table 20. The same situation exists for tax payments. If development occurs according to the structure of our 1985 base scenario, there will be nearly 6,000 acres of land disturbed by coal mining in 1985. The disturbance of 6,000 acres will produce 286 million tons of coal and generate $575 million in tax revenues. The greatest amount of land will be disturbed in Wyoming, but North Dakota, Montana, and Colorado will also have large amounts of land disturbance. The greatest amounts of tax revenue will be generated in Wyoming and Montana because of their larger tax rates per ton of coal mined (fig. 8).

Figure 8

Projected 1985 Coal Prices, Costs, and Production for Large Power Plants (1975 Dollars)

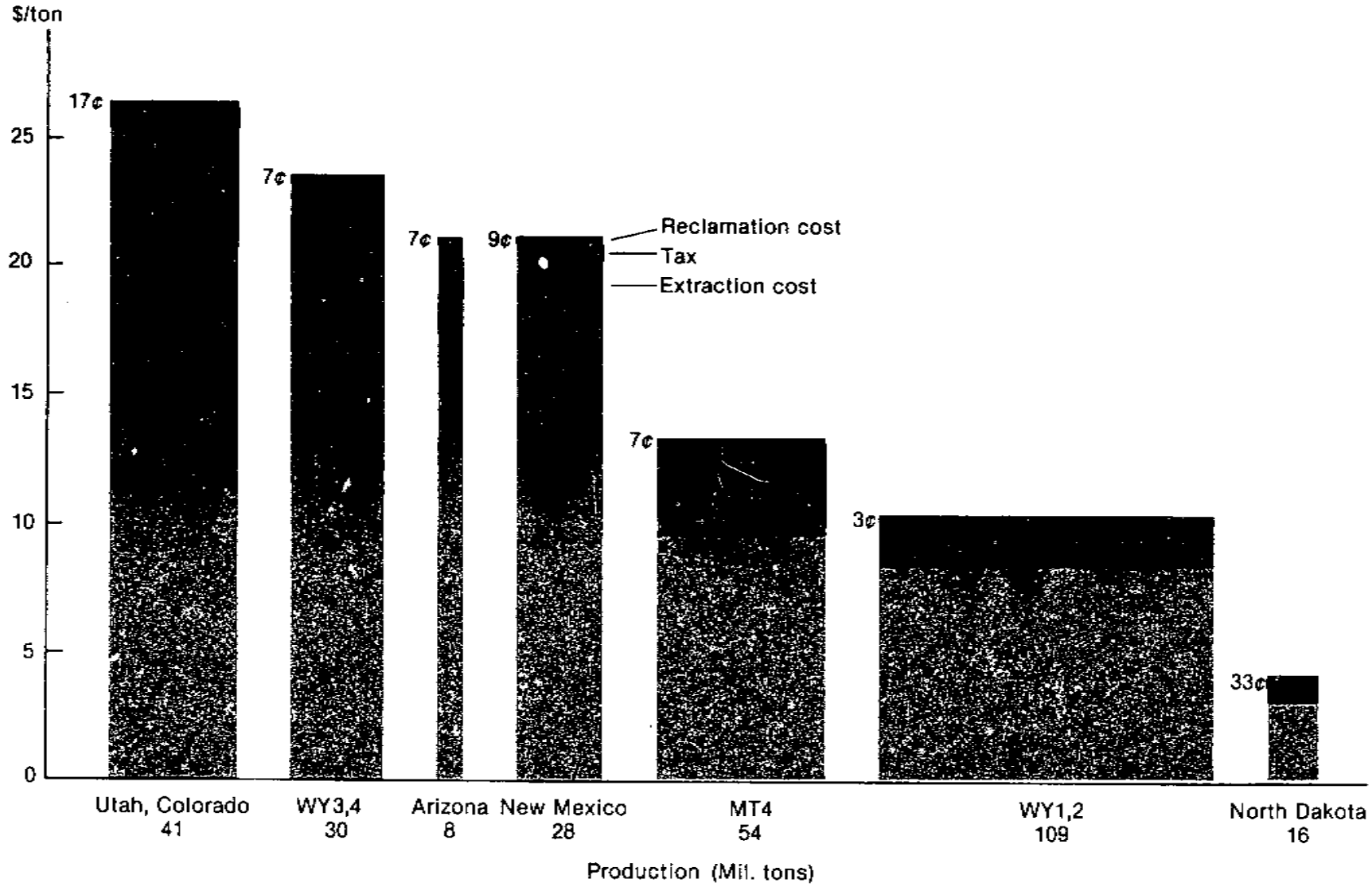


Table 18--Western coal supply-demand balance, 1985

CPA	Mining capacity			Coal demanded		
	Strip	Underground	Total	Strip	Underground	Total
	1,000 tons					
AZ01	19,986	0	19,986	7,197	0	7,197
CO01	26,092	7,080	33,172	13,252	4,831	18,083
CO02	3,000	0	3,000	0	0	0
CO03	0	0	0	0	0	0
CO04	603	15,139	15,742	0	3,520	3,520
CO05	250	0	250	0	0	0
CO06	0	3,232	3,232	0	0	0
CO07	11,000	363	11,363	0	0	0
MT01	0	0	0	0	0	0
MT02 1/	300	0	300	2,900	0	2,900
MT03	3,000	0	3,000	0	0	0
MT04	90,933	0	90,933	49,548	0	49,548
MT05	0	0	0	0	0	0
ND01 1/	6,364	0	6,264	7,017	0	7,017
ND02	45,689	0	45,689	13,739	0	13,739
ND03	5,057	0	5,057	4,109	0	4,109
NM01	83,618	0	83,618	25,984	0	25,984
NM02	9,968	0	9,968	9,512	0	9,512
NM03	500	1,716	2,216	500	0	500
NM04 1/	0	0	0	1,000	0	1,000
UT01	500	32,904	33,404	500	21,629	22,129
UT02	11,500	17,400	28,900	0	16,400	16,400
UT03	0	0	0	0	0	0
WY01 1/	2,787	0	2,787	4,506	0	4,506
WY02	126,775	0	126,775	106,582	0	106,582
WY03	26,330	2,500	28,830	14,321	0	14,321
WY04	25,895	1,600	27,495	11,800	0	11,800
Total	500,047	81,934	581,981	272,467	46,380	318,847

1/ Announced capacity expansions for these CPAs are not adequate to meet announced or assumed demand.

Source: App. table 5, also (18).

There were 246,650 million kilowatt-hours of electricity generated by power plants using western coal in 1975. This output includes kilowatt-hours generated using nonwestern coal in those power plants using both western and nonwestern coal. The output in 1985, using the same assumption, increased 296 percent over the 1975 output to 729,000 million kilowatt-hours of electricity.

The cost of producing 246,650 million kilowatt-hours of electricity in 1975 was $1.0183 billion. This cost includes the total cost of operation and maintenance at each power plant and the cost of western coal as fuel. The cost of supplying

Table 19--Preliminary list of variables for household electricity demand analysis

Variable	Description of variable
AGAGP	Gas price from AGA (household), 1975: dollars per million Btu
AGAPP	Propane price from AGA (household), 1975: dollars per million Btu
AGAEP	Electricity price from AGA (household), 1975: dollars per million Btu
AGA02P	#2 fuel oil price from AGA (household), 1975: dollars per million Btu
AGA01P	#1 fuel oil price from AGA (household), 1975: dollars per million Btu
AGACP	Coal price from AGA (household), 1975: dollars per million Btu
POPSM	Population/square mile (possible index of apartments with commercial rates)
MEDAGE	Median age: years
MEDINC	Median income: dollars
HUM75	Average humidity at 1 am for 1975: percent
HDD75	Total heating degree days for 1975: days
CDD75	Total cooling degree days for 1975: days
AVHDD	Average heating degree days for 1941-1970: days
SSPC	Percent of possible sunshine in 1975: percent
AVDB	Temperature exceeded 5% of the time (dry bulb thermometer): Fahr.
AVWB	Temperature exceeded 5% of the time (wet bulb thermometer): Fahr.
ELEV	Elevation: feet
GP60	Gas price from AGA (household), 1960: cents per therm
02P60	#2 fuel oil price from AGA (household), 1960: cents per gallon
01P60	#1 fuel oil price from AGA (household), 1960: cents per gallon
BCP60	Bituminous coal price from AGA, 1960: dollars per ton
ACP60	Anthracite coal price from AGA, 1960: dollars per ton
CKP60	Coke price from AGA, 1960: dollars per ton
BP60	Butane price from AGA, 1960: cents per gallon
PP60	Propane price from AGA, 1960: cents per gallon
KP60	Kerosene price from AGA, 1960: cents per gallon
EP60	Electricity price from AGA, 1960: mills per kWh
NTOT60	Total occupied housing units, 1960
NGHF60	Number of houses with gas heat, 1960
NOHF60	Number of houses with oil or kerosene heat, 1960
NCHF60	Number of houses with coal or coke heat, 1960
NEHF60	Number of houses with electric heat, 1960
NPHF60	Number of houses with propane heat, 1960
NOTHF60	Number of houses with wood or other heat, 1960
NONEHF60	Number of houses with no heat, 1960
NGWHF60	Number of houses with gas water heat, 1960
NEWHF60	Number of houses with electricity water heat, 1960
NCWHF60	Number of houses with coal or coke water heat, 1960
NPWHF60	Number of houses with propane water heat, 1960
NOWHF60	Number of houses with oil or kerosene water heat, 1960
NOTWHF60	Number of houses with wood or other water heating fuel, 1960
NONEWHF6	Number of houses with no water heating fuel, 1960
NGCF60	Number of houses with gas cooking fuel, 1960
NECP60	Number of houses with electricity cooking fuel, 1960
NPCF60	Number of houses with propane heating fuel, 1960
NOCH60	Number of houses with oil or kerosene cooking fuel, 1960
NCCF60	Number of houses with coal or coke cooking fuel, 1960
NOTCF60	Number of houses with wood or other cooking fuel, 1960
NONECF60	Number of houses with no cooking fuel, 1960
NWR160	Number of houses with wringer washer, 1960

Continued

Table 19--Preliminary list of variables for household electricity demand analysis--Continued

Variable	Description of variable
NAUT60	Number of houses with automatic washer, 1960
NWD60	Number of houses with washer-dryer combination, 1960
NONEW60	Number of houses with no washer, 1960
NGD60	Number of houses with gas heated clothes dryer, 1960
NED60	Number of houses with electric heated clothes dryer, 1960
NONED60	Number of houses with no clothes dryer, 1960
NFF60	Number of houses with one or more food freezers, 1960
NONEFF60	Number of houses with no food freezers, 1960
N1AC60	Number of houses with one airconditioner, 1960
N2AC60	Number of houses with 2 or more airconditioners, 1960
NCAC60	Number of houses with central air conditioning, 1960
NONEAC60	Number of houses with no air conditioning, 1960
N1TV60	Number of houses with 1 television set, 1960
N2TV60	Number of houses with 2 or more television sets, 1960
NONETV60	Number of houses with no television sets, 1960
TRIND75	Revenue large industrial customers, 1975 (FERC electricity)
MUN175	Dummy indicating municipal retailer of electricity
TEB50075	Typical electric bill for 500 kWh, 1975
TEB75075	Typical electric bill for 750 kWh, 1975
TEB10007	Typical electric bill for 1000 kWh, 1975
NDTOT70	Total number of dwellings, 1970
NAC170	Number of dwellings with air conditioning in 1 room, 1970
NAC270	Number of dwellings with air conditioning in 2 or more rooms, 1970
NACC70	Number of dwellings with central air conditioning
MEDR70	Median rent
NRES175	Number of residential customers, 1975 FERC
NCOM75	Number of commercial customers, 1975 FERC
NIND75	Number of industrial customers, 1975 FERC
KWHRES75	Residential electric consumption, 1975 FERC: 1,000 kWh
KWHCOM75	Commercial electric consumption, 1975 FERC: 1,000 kWh
KWHIND75	Industrial electric consumption, 1975 FERC: 1,000 kWh
TRRES175	Revenue residential customers, 1975 (FERC electricity)
TRCOM75	Revenue commercial customers, 1975 (FERC electricity)
NDWELTOT	Total dwellings, 1970
B6970	Dwellings constructed 1969-March 1970
B6568	Dwellings constructed 1965-1968
B6064	Dwellings constructed 1960-1964
B5059	Dwellings constructed 1950-1959
B4049	Dwellings constructed 1940-1949
BEARLY	Dwellings constructed 1930 or earlier
NTOT70	Total occupied housing units, 1970
NGHF70	Number of houses with gas heat, 1970
NOHF70	Number of houses with oil or kerosene heat, 1970
NCHF70	Number of houses with coal or coke heat, 1970
NWHF70	Number of houses with wood heat, 1970
NEHF70	Number of houses with electric heat, 1970
NPHF70	Number of houses with propane heat, 1970
NOTHF70	Number of houses with other heat, 1970
NONEHF70	Number of houses with no heat, 1970
NGWHF70	Number of houses with gas water heating fuel, 1970
NOWHF70	Number of houses with oil or kerosene water heating fuel, 1970
NCWHF70	Number of houses with coal or coke water heating fuel, 1970

Continued

Table 19--Preliminary list of variables for household electricity demand analysis--Continued

Variable	: Description of variable
NWWHF70	: Number of houses with wood water heating fuel, 1970
NEWHF70	: Number of houses with electricity water heating fuel, 1970
NPWHF70	: Number of houses with propane water heating fuel, 1970
NOTWHF70	: Number of houses with other water heating fuel, 1970
NONEWHF7	: Number of houses with no water heating fuel, 1970
NGCF70	: Number of houses with gas cooking fuel, 1970
NECF70	: Number of houses with electricity cooking fuel, 1970
NPCF70	: Number of houses with propane cooking fuel, 1970
NOCF70	: Number of houses with oil or kerosene cooking fuel, 1970
NCCF70	: Number of houses with coal or coke cooking fuel, 1970
NWCF70	: Number of houses with wood cooking fuel, 1970
NOTCF70	: Number of houses with other cooking fuel, 1970
NONECF70	: Number of houses with no cooking fuel, 1970
NWR70	: Number of houses with wringer washer, 1970
NAUT70	: Number of houses with automatic washer, 1970
NONEW70	: Number of houses with no washer, 1970
NGD70	: Number of houses with gas heated clothes dryer, 1970
NED70	: Number of houses with electricity heated clothes dryer, 1970
NONED70	: Number of houses with no clothes dryer, 1970
NDW70	: Number of houses with dishwasher, 1970
NONEDW70	: Number of houses with no dishwasher, 1970
NFF70	: Number of houses with food freezer, 1970
NONEFF70	: Number of houses with no food freezer, 1970
N1TV70	: Number of houses with 1 television set, 1970
N2TV70	: Number of houses with 2 or more television sets, 1970
NONETV70	: Number of houses with no television sets, 1970
S21 through S68	State dummies
48 dummy variables	indicating State of residence

Source: (11).

nonwestern coal is not included and therefore the total cost is understated. The national model, when completed, will include operation and maintenance costs and the costs of supplying all coal regardless of its region of origin. Following the same western model assumption (free nonwestern coal), the cost of producing 729,000 million kilowatt-hours of electricity for the base 1985 scenario was $8.8203 billion, an increase of 866 percent over 1975.

The 1975 base data reflect what actually happened and the 1985 base scenario reflects the model's initial projection based on best available information. Alternative scenarios developed for 1985 will be compared with 1985 base solutions.

1-, 2-, and 3-Year Power Plant Construction Delay Scenarios

It is likely that all power plants announced for operation by the end of 1985 will not be on schedule. However, it is unlikely that they will all be delayed by the same amount of time. But since it is impossible to separate those which will be delayed from those which will not be delayed, we will assume an equal delay for all plants. We have arbitrarily assumed 1-, 2-, and 3-year construction delays in plant operation.

Table 20--Base scenario results, 1975 and 1985

CPA	Coal production to steam plants ≥100 MW: 1975	Coal production to steam plants ≥100 MW: 1985	1975-1985 Change	Land disturbed 1985	Tax payments 1985
	1,000 tons		Percent	Acres	Mil. Dols.
AZ01	7,780	8,377	108	201	27.9
CO01	3,211	12,352	385	689	12.0
CO02	0	0	0	0	0
CO03	0	0	0	0	0
CO04	0	2,865	+	57	3.2
CO05	0	0	0	0	0
CO06	0	0	0	0	0
CO07	174	333	191	6	0.4
CO total	3,385	15,550	459	752	15.6
MT01	0	0	0	0	0
MT02	0	0	0	0	0
MT03	0	0	0	0	0
MT04	19,893	53,716	270	806	188.5
MT05	0	0	0	0	0
MT total	19,893	53,716	270	806	188.5
ND01	1,479	3,255	220	244	2.3
ND02	3,323	8,593	259	498	6.2
ND03	1,392	4,327	311	260	3.1
ND total	6,194	16,175	261	1,002	11.6
NM01	6,002	20,043	334	601	15.0
NM02	331	7,256	2,192	254	5.3
ND03	0	268	+	18	0.2
NM04	0	0	0	0	0
NM total	6,333	27,567	435	873	20.5
UT01	2,943	16,329	555	317	5.6
UT02	0	9,567	+	191	3.0
UT03	0	0	0	0	0
UT total	2,943	25,896	880	508	8.6
WY01	13	3,003	23,100	30	5.3
WY02	3,438	105,820	3,078	952	176.7
WY03	12,638	17,019	135	460	65.0
WY04	2,786	13,293	477	226	55.6
WY total	18,875	139,135	737	1,668	302.6
Total	65,403	286,416	438	5,809	575.3

Source: Computer printouts resulting from project work.

The first alternative scenario assumes that all plants scheduled to begin operation in 1985 will be delayed 1 year. The additions which they are scheduled to make to electrical generation capacity will be assumed not to occur. The specific power plants which are assumed not to become operational by 1985 are shown in table 21.

Table 22 describes the results of this 1-year delay and compares it with the 1975 and 1985 base runs described earlier. Delaying the construction of 1985 plants 1 year causes a decrease in coal production in COO1, MTO4, NDO2, UTO1, UTO2, and WYO2. The decreases in production levels are most noticeable in NDO2 and UTO2. Production in NDO2 will be approximately 25 percent less than the 1985 base scenario. Production in UTO2 will be approximately 33 percent less under the 1-year construction delay

Table 21--Data for 1-, 2-, and 3-year power plant construction delay scenarios

ICAH code	Power plants 1/		Total capacity 1985	Scheduled operation date 1985	1984	1983
					MW	
6002	Sherburne Co.	MN	3,680	--	800	--
6045	Brookston	MN	800	--	--	800
6046	Antelope Valley	ND	450	--	450	--
7022	Jeffrey Energy Ctr	KS	2,880	--	720	--
7023	White Bluff	AK	2,800	--	--	700
7025	Big Cajun	LA	1,620	540	--	--
7028	Rodemacher	LA	1,020	--	--	510
7037	Unsited	AK	700	--	--	700
7039	Unsited	AK	700	700	--	--
7040	Nelson	LA	540	540	--	--
8013	South Plains	TX	950	--	475	--
8016	Unsited	TX	750	--	--	750
8017	Unsited	TX	750	--	--	750
8018	Unnamed	TX	750	--	--	750
8019	Unsited	TX	750	--	750	--
9037	Unsited	CA	800	--	--	800
8020	Unsited	TX	750	--	--	750
9038	Future	CO	1,000	500	--	500
8021	Unnamed	TX	200	--	200	--
9039	Pioneer	ID	500	--	--	500
8022	Unnamed	TX	200	200	--	--
9040	Springville	AZ	330	--	330	--
9027	Nixon	CO	750	200	--	350
6047	Coyote	MT	410	410	--	--
9029	North Valmy	NV	500	--	--	250
9031	Laramie River	WY	1,500	--	--	500
9033	Allen	NV	2,000	500	500	500
9034	Garfield	UT	1,000	500	--	--
9036	Intermountain Power	UT	2,250	750	750	750

-- = Not applicable

1/ Subject to delay past scheduled operating date.

Source: Calculated from app. tables 5 and 7.

Table 22--Comparison of 1985 scenarios with 1975 and 1985 base solutions

CPA	Coal production				
			Scenario		
	1975 base	1985 base	1	2	3
	1,000 tons				
AZ01	7,780	8,377	8,377	8,377	8,377
CO01	3,211	12,352	10,514	10,514	8,280
CO02	0	0	0	0	0
CO03	0	0	0	0	0
CO04	0	2,865	2,865	2,865	2,865
CO05	0	0	0	0	0
CO06	0	0	0	0	0
CO07	174	333	333	333	333
CO total	3,385	15,500	13,712	13,712	11,478
MT01	0	0	0	0	0
MT02	0	0	0	0	0
MT03	0	0	0	0	0
MT04	19,893	53,716	52,833	49,693	46,895
MT05	0	0	0	0	0
MT total	19,893	53,716	52,833	49,693	46,895
ND01	1,479	3,255	3,255	3,255	3,255
ND02	3,323	8,593	6,634	4,675	4,675
ND03	1,392	4,327	4,327	4,327	4,327
ND total	6,194	16,175	14,216	12,257	12,257
NM01	6,002	20,043	20,043	15,193	11,261
NM02	331	7,256	7,256	7,256	7,256
NM03	0	268	268	268	268
NM04	0	0	0	0	0
NM total	6,333	27,567	27,567	22,717	18,785
UT01	2,943	16,329	15,186	14,043	10,233
UT02	0	9,567	5,909	3,655	1,472
UT03	0	0	0	0	0
UT total	2,943	25,896	21,095	17,698	11,705
WY01	13	3,003	3,003	3,003	3,003
WY02	3,438	105,820	99,908	97,115	86,837
WY03	12,638	17,019	17,019	17,019	17,019
WY04	2,786	13,293	13,293	13,293	13,293
WY total	18,875	139,135	133,223	130,430	120,152
Total	65,403	286,416	271,023	254,884	229,649
Cost (bil. dols.)	1.0183	8.8203	8.3560	7.8652	6.9791
Output (mil. kWh)	246,650	729,900	701,111	667,716	615,116

Source: Computer printouts from project.

scenario. Electricity output decreases to 701,111 million kilowatt-hours. Total cost decreases approximately one-half billion dollars.

The second alternative scenario assumes that all plants scheduled to begin operation in 1984 and 1985 will be delayed 2 years. The additions which they are scheduled to make to electrical generation capacity are deleted from the 1985 calculations. The specific power plants assumed not to become operational by 1985 are shown in table 21. Table 22 describes the results of this 2-year delay and compares it with the 1975 and 1985 base runs. Delaying the construction of scheduled 1984 and 1985 plants by 2 years causes a decrease of coal production in MT04, ND02, NM01, UT01, UT02, and WY02. These decreases are in addition to decreases caused by the 1-year delay scenario. The decreases in coal production will be most noticeable in North Dakota and Utah. Production in ND02 will decrease approximately 33 percent and production in Utah will decrease approximately 20 percent with most of the decrease coming in UT02. Electricity output decreases to 667,716 million kilowatt-hours. Total cost decreases approximately $1 billion from the 1985 base scenario.

The third alternative scenario assumes that all plants scheduled to begin operation in 1983, 1984, and 1985 will be delayed 3 years. The additions which they are scheduled to make to electrical generation capacity are deleted from 1985 calculations. The specific power plants assumed not to become operational by 1985 are shown in table 21. Table 22 describes the results of this 3-year delay and compares it with the 1975 and 1985 base runs. Delaying the construction of scheduled 1983, 1984, and 1985 plants by 3 years causes a decrease in coal production in CO01, MT04, NM01, UT01, UT02, and WY02. These decreases are in addition to decreases caused by the 2-year delay scenario. The decreases in coal production will be most noticeable in New Mexico and Utah, but especially in Utah where production drops from 17.7 million tons under the 2-year delay scenario to 11.7 million tons under the 3-year delay scenario. Arizona and North Dakota are unaffected by this 3-year delay scenario. The CPA WY02 loses 10 million tons of production, but it is from a level which is high enough that the decrease may not be noticeable. Electricity output decreases to 615,116 million kilowatt-hours. Total cost decreases approximately $1 billion from the 2-year delay scenario.

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Appendix table 1--ICAM power plants, codes, and ownership, 1975

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Alabama		
4006	004500-0200	Barry	100.0	Alabama Power Company
4052	004500-0400	Chickasaw	100.0	Alabama Power Company
4014	477000-0900	Colbert A	100.0	Tennessee Valley Authority
4014	477000-0905	Colbert B	100.0	Tennessee Valley Authority
4053	004500-0500	Gadsden	100.0	Alabama Power Company
4054	004500-0450	Gaston	73.6	Alabama Power Company
			26.4	Georgia Power Company
4011	004500-0600	Gorgas	100.0	Alabama Power Company
4030	004500-0800	Greene County	60.0	Alabama Power Company
			40.0	Mississippi Power Company
4005	477000-3800	Widows Creek A	100.0	Tennessee Valley Authority
4005	477000-3805	Widows Creek B	100.0	Tennessee Valley Authority
		Arizona		
9014	017000-0200	Cholla	100.0	Arizona Public Service
9002	433000-0750	Navajo 1-3	21.7	Salt River Project
			24.3	Bureau of Reclamation
			21.2	Los Angeles Dept. of Water and Power
			14.0	Arizona Public Service
			11.3	Nevada Power Company
			7.5	Tucson Gas and Electric
		Colorado		
9016	406000-0200	Arapahoe	100.0	Public Service of Colorado
9006	406000-0600	Cherokee	100.0	Public Service of Colorado
9011	406000-0650	Comanche	100.0	Public Service of Colorado
9013	108000-0100	Drake	100.0	Colorado Springs Dept. of of Public Utilities
9009	108500-0100	Hayden	100.0	Colorado-Ute Electric Assn.
		beginning 1976	47.3	Salt River Project
			52.7	Colorado-Ute Electric Assn.

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Colorado-continued		
9019	406000-1200	Valmont	100.0	Public Service of Colorado
		Delaware		
2014	120500-0300	Indian River	100.0	Delmarva Power and Light
		Florida		
4023	474000-0300	Big Bend	100.0	Tampa Electric
4032	195000-0100	Crist	100.0	Gulf Power
4022	474000-0100	Gannon	100.0	Tampa Electric
4041	195000-0300	Smith	100.0	Gulf Power
		Georgia		
4040	179000-0100	Arkwright	100.0	Georgia Power
4001	179000-2800	Bowen	100.0	Georgia Power
4019	179000-0900	Hammond	100.0	Georgia Power
4007	179000-1000	Harllee Branch	100.0	Georgia Power
4029	179000-0200	McDonough-Atkinson	100.0	Georgia Power
4047	179000-2500	Mitchell	100.0	Georgia Power
4020	179000-2550	Wansley	100.0	Georgia Power
4012	179000-2600	Yates	100.0	Georgia Power
		Illinois		
5002	222500-0800	Baldwin	100.0	Illinois Power
5010	078500-0100	Coffeen	100.0	Central Illinois Public Service
5014	111500-3000	Crawford	100.0	Commonwealth Edison
5032	457000-0100	Dallman	100.0	Springfield Water Light and Power
5034	457000-0200	Lakeside	100.0	Springfield Water Light and Power
5036	111500-0400	Dixon	100.0	Commonwealth Edison
5013	079000-0100	Edwards	100.0	Central Illinois Light
5016	111500-0100	Fisk	100.0	Commonwealth Edison

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Illinois-continued		
5030	078500-0200	Grand Tower	100.0	Central Illinois Public Service
5024	222500-0300	Hennepin	100.0	Illinois Power
5027	078500-0300	Hutsonville	100.0	Central Illinois Public Service
5003	111500-1000	Joliet	100.0	Commonwealth Edison
5009	145500-0100	Joppa	20.0	Illinois Power
			20.0	Kentucky Utilities Company
			40.0	Union Electric
			20.0	Central Illinois Public Service
5006	111500-1100	Kincaid	100.0	Commonwealth Edison
5023	078500-0400	Meredosia	100.0	Central Illinois Public Service
5004	111500-1300	Powerton	100.0	Commonwealth Edison
5028	512500-1100	Venice #2	100.0	Union Electric
5031	222500-0600	Vermilion	100.0	Illinois Power
5025	079500-0400	Wallace	100.0	Central Illinois Light
5011	111500-1600	Waukegan	100.0	Commonwealth Edison
5007	111500-1700	Will County	100.0	Commonwealth Edison
5018	222500-0700	Wood River	100.0	Illinois Power
		Indiana		
3045	345500-0100	Bailly	100.0	Northern Indiana Public Service
3056	225000-0200	Breed	100.0	Indiana and Michigan Electric
3027	404500-0900	Cayuga	100.0	Public Service of Indiana
3015	225500-0100	Clifty Creek	100.0	Ohio Valley Electric Corp.
3061	452000-0100	Culley	100.0	Southern Indiana Gas and Electric
3100	404500-0200	Edwardsport	100.0	Public Service of Indiana
3047	404500-0600	Gallagher	100.0	Public Service of Indiana
3043	404500-0250	Gibson Station	100.0	Public Service of Indiana
3046	345500-0400	Michigan City	100.0	Northern Indiana Public Service
3050	345500-0300	Mitchell	100.0	Northern Indiana Public Service
3102	404500-0500	Noblesville	100.0	Public Service of Indiana
3034	226000-0500	Petersburg	100.0	Indianapolis Power and Light
3073	226000-0200	Pritchard	100.0	Indianapolis Power and Light
3083	216800-0100	Ratts	100.0	Indiana Statewide Rural Elec. Coop.

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Indiana-continued		
3029	111000-0100	State Line	100.0	Commonwealth Edison
3037	226000-0100	Stout	100.0	Indianapolis Power and Light
3023	225000-0700	Tanners Creek	100.0	Indiana and Michigan Electric
3030	404500-0800	Wabash River	100.0	Public Service of Indiana
3033	452000-0500	Warrick	23.4	Southern Indiana Gas and Electric
			76.6	Aluminum Company of America
		Iowa		
6019	230500-0200	Burlington	100.0	Iowa Southern Utilities
6026	230000-0100	Council Bluffs	100.0	Iowa Power and Light
6021	230000-0200	Des Moines #2	100.0	Iowa Power and Light
6001	229500-0800	George Neal	15.2	Iowa-Illinois Gas and Electric
			14.7	Iowa Southern Utilities
			12.1	Iowa Power and Light
			58.0	Iowa Public Service
		projected 79	48.2	Iowa Public Service
			17.4	Interstate Power
			8.7	Northwestern Public Service
			25.7	Several small Iowa Cooperatives
6016	227000-0800	Kapp	100.0	Interstate Power
6030	229500-1300	Maynard	100.0	Iowa Public Service
6027	326000-0100	Muscatine	100.0	Muscatine Power and Water
6015	228500-2100	Prairie Creek	100.0	Iowa Electric Light and Power
6020	229000-0300	Riverside	100.0	Iowa-Illinois Gas and Electric
6024	228500-2600	Sutherland	100.0	Iowa Electric Light and Power
		Kansas		
7010	242000-0100	Kaw River	100.0	Kansas City Bd. of Public Utilities
7002	241500-0250	LaCygne 1 & 2	50.0	Kansas Gas and Electric Co.
			50.0	Kansas City Power and Light
7003	484500-0500	Lawrence	100.0	Kansas Power and Light
7011	149000-0300	Riverton	100.0	Empire District Electric

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Kansas-continued		
7006	483500-0700	Tecumseh	100.0	Kansas Power and Light
		Kentucky		
3024	245000-0100	Big Sandy	100.0	Kentucky Power
3038	245500-0200	Brown, E.W.	100.0	Kentucky Utilities
3028	275500-0200	Cane Run	100.0	Louisville Gas and Electric
3057	041000-0050	Coleman	100.0	Big Rivers Rural Electric Coop.
3067	141500-0100	Cooper	100.0	East Kentucky Power Coop., Inc.
3089	141500-0200	Dale	100.0	East Kentucky Power Coop., Inc.
3052	245500-0250	Ghent 1	100.0	Kentucky Utilities
3080	245500-0300	Green River	100.0	Kentucky Utilities
3040	275500-0600	Mill Creek	100.0	Louisville Gas and Electric
3068	275500-0400	Paddys Run	100.0	Louisville Gas and Electric
3003	477000-3000	Paradise	100.0	Tennessee Valley Authority
3007	477000-3200	Shawnee	100.0	Tennessee Valley Authority
3062	367000-0100	Smith	100.0	Owensboro Municipal Utilities
3097	245500-0600	Tyrone	100.0	Kentucky Utilities
	041000-0100	Reid, Robert (Station II)	18.9	Big Rivers Rural Electric Coop.
			81.1	Henderson Municipal Light Dept.
		Maryland		
2005	394500-0300	Chalk Point	100.0	Potomac Electric Power
3051	394500-0400	Dickerson	100.0	Potomac Electric Power
2004	394500-0600	Morgantown	100.0	Potomac Electric Power
3088	386500-0300	Smith	100.0	Potomac Edison
2013	026500-0300	Wagner	100.0	Baltimore Gas and Electric
		Massachusetts		
1001	334000-0200	Brayton Point	100.0	New England Electric System
1012	314000-0100	Somerset	100.0	Montaup Electric Company
1015	334000-1200	Salem Harbor	100.0	New England Electric System

Continued

Appendix table I--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Michigan		
3041	114500-1900	Campbell	100.0	Consumers Power
3055	114500-0400	Cobb	100.0	Consumers Power
3054	482000-0200	Conners Creek	100.0	Detroit Edison
3065	260500-0100	Eckert	100.0	Lansing Board of Water and Light
3094	260500-0100	Erickson 1	100.0	Lansing Board of Water and Light
3099	482000-0700	Harbor Beach	100.0	Detroit Edison
6024	228500-2600	Sutherland	100.0	Iowa Electric Light and Power
		Minnesota		
6028	307000-0100	Aurora (Syl Laskin)	100.0	Minnesota Power and Light
6008	347000-0300	Black Dog	100.0	Northern States Power
6007	307000-0300	Boswell	100.0	Minnesota Power and Light
6031	227000-0400	Fox Lake	100.0	Interstate Power
6010	347000-1300	High Bridge	100.0	Northern States Power
6025	365000-1400	Hoot Lake	100.0	Otter Tail Power
6005	347000-1400	King	100.0	Northern States Power
6011	347000-2700	Riverside	100.0	Northern States Power
		Mississippi		
4015	308000-0400	Watson	100.0	Mississippi Power
		Missouri		
7008	149000-0400	Asbury	100.0	Empire District Electric
7014	099500-0100	Blue Valley	100.0	Independence Power and Light
5037	109000-0100	Columbia	100.0	Columbia Water and Light
7013	241500-0100	Grand Avenue	100.0	Kansas City Power and Light
7001	241500-0200	Hawthorne	100.0	Kansas City Power and Light
5019	021000-0100	Thomas Hill	100.0	Associated Electric Coop.
7007	101000-0100	James River	100.0	Springfield City Utilities
5001	512500-1200	Labadie	100.0	Union Electric
7012	460000-0200	Lake Road	100.0	St. Joseph Light and Power

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Missouri-continued		
5012	512500-0400	Meramec	100.0	Union Electric
7004	241500-0300	Montrose	100.0	Kansas City Power and Light
5015	021000-0200	New Madrid 1 & 2	100.0	New Madrid Municipal Light and Power Dept.
7005	309500-0700	Sibley	100.0	Missouri Public Service
5008	512500-0700	Sioux	100.0	Union Electric
		Montana		
9020	484500-0700	Corette	100.0	Montana Power
6013	484500-0250	Colstrip	50.0	Montana Power
			50.0	Puget Sound Power and Light
		projected 1981	30.0	Montana Power
			20.0	Puget Sound Power and Light
			20.0	Portland General Electric
			15.0	Washington Water Power
			10.0	Pacific Power and Light
			5.0	Uncommitted
		Nebraska		
6029	331500-0400	Kramer	100.0	Nebraska Public Power District
6004	357000-0200	North Omaha	100.0	Omaha Public Power District
6017	331500-1100	Sheldon	100.0	Nebraska Public Power District
		Nevada		
9017	333000-0300	Gardner	100.0	Nevada Power
9003	450500-4500	Mohave	56.0	Southern California Edison
			20.0	Los Angeles Dept. of Water and Power
			14.0	Nevada Power
			10.0	Salt River Project

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		New Hampshire		
1004	405000-1100	Merrimack	100.0	Public Service of New Hampshire
		New Jersey		
2016	022000-0100	England	100.0	Atlantic City Electric
2006	405500-0500	Hudson	100.0	New Jersey Public Service Electric and Gas
2007	405500-1100	Mercer	100.0	New Jersey Public Service Electric and Gas
		New Mexico		
9001	017000-0300	Four Corners	38.8	Arizona Public Service
			9.4	Public Service of New Mexico
			5.0	El Paso Electric
			5.0	Tucson Gas and Electric
			7.2	Salt River Project
			34.6	Southern California Edison
9012	403500-0350	San Juan	50.0	Public Service of New Mexico
			50.0	Tucson Gas and Electric
		New York		
1003	341000-8000	Dunkirk	100.0	Niagara Mohawk Power
1009	339000-0600	Goudey	100.0	New York State Electric and Gas
1008	339000-0700	Greenidge	100.0	New York State Electric and Gas
1002	341000-7900	Huntley	100.0	Niagara Mohawk Power
1005	339000-1400	Milliken	100.0	New York State Electric and Gas
1007	422000-0500	Rochester 3 (Beebee)	100.0	Rochester Gas and Electric
1006	422000-0700	Rochester 7 (Russell)	100.0	Rochester Gas and Electric
		North Carolina		
4016	129500-0200	Allen	100.0	Duke Power
4036	072000-0100	Asheville	100.0	Carolina Power and Light

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		North Carolina-continued		
4003	339500-0250	Belews Creek 1 & 2	100.0	Duke Power
4033	139500-0500	Buck	100.0	Duke Power
4037	072000-0300	Cape Fear	100.0	Carolina Power and Light
4025	139500-0800	Cliffside	100.0	Duke Power
4043	139500-1000	Dan River	100.0	Duke Power
4035	072000-0500	Lee	100.0	Carolina Power and Light
4004	139500-2200	Marshall	100.0	Duke Power
4028	139500-2600	Riverbend	100.0	Duke Power
4008	072000-0900	Roxboro	100.0	Carolina Power and Light
4027	072000-1000	Sutton	100.0	Carolina Power and Light
4050	072000-1300	Weatherspoon	100.0	Carolina Power and Light
		North Dakota		
6032	313000-0500	Heskett	100.0	Montana-Dakota Utilities
6003	031000-0100	Leland Olds	100.0	Basin Electric Power Coop
6023	513500-0100	Stanton	100.0	United Power Association
6014	307500-0550	Young, Milton	100.0	Minnkota Power Coop
		Ohio		
3079	488000-0100	Acme	100.0	Toledo Edison
3058	104000-0100	Ashtabula	100.0	Cleveland Electric Illuminating
3026	104000-0200	Avon Lake	100.0	Cleveland Electric Illuminating
3042	488000-0200	Bay Shore	100.0	Toledo Edison
3019	480500-0300	Beckjord	76.4	Cincinnati Gas and Electric
			18.9	Dayton Power and Light
			4.7	Columbus and South Ohio Electric
3049	354500-0500	Burger	100.0	Ohio Edison
3017	109500-0200	Conesville	28.7	Columbus and Southern Ohio Electric
			60.4	Cincinnati Gas and Electric
			10.9	Dayton Power and Light
3020	070000-0100	Cardinal	50.0	Ohio Power Company

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Ohio-continued		
			50.0	Buckeye Power Coop., Inc.
3018	104000-0300	East Lake	83.1	Cleveland Electric Illuminating
			16.9	Duquesne Light Company
3087	354500-0100	Edgewater	100.0	Ohio Edison
3002	354575-0500	Gavin	100.0	Ohio Electric
3064	481500-0300	Hutchings	100.0	Dayton Power and Light
3025	356000-0100	Kyger Creek	100.0	Ohio Valley Electric Coop.
3095	103500-0200	Lake Road	100.0	Cleveland Division of Light and Power
3053	104000-0400	Lake Shore	100.0	Cleveland Electric Illuminating
3032	480500-0200	Miami Fort	21.1	Dayton Power and Light
			78.9	Cincinnati Gas and Electric
3013	355000-0200	Muskingum River	100.0	Ohio Power
3081	354500-0400	Niles	100.0	Ohio Edison
3075	355000-0300	Philo	100.0	Ohio Power
3092	109500-0500	Picway	100.0	Columbus and Southern Ohio Electric
3084	109500-0600	Poston	100.0	Columbus and Southern Ohio Electric
3005	354500-0700	Sammis	86.8	Ohio Edison
			7.9	Duquesne Light Company
			5.3	Pennsylvania Power
3004	481500-0400	Stuart	39.0	Cincinnati Gas and Electric
			35.0	Dayton Power and Light
3077	481500-0200	Tait	100.0	Dayton Power and Light
3085	355000-0400	Tidd	100.0	Ohio Power
3090	354500-0600	Toronto	100.0	Ohio Edison
3101	362000-0100	Vine Street	100.0	Orrville Municipal Utilities
		Pennsylvania		
3066	542000-0100	Armstrong	100.0	West Penn Power
2002	380000-0200	Brunner Island	100.0	Pennsylvania Power and Light
3048	140000-0600	Cheswick	100.0	Duquesne Light
3010	379500-1500	Conemaugh	16.5	Metropolitan Edison
			22.5	New Jersey Public Service Electric and Gas

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Pennsylvania-continued		
			11.4	Pennsylvania Power and Light
			20.7	Philadelphia Electric Co.
			3.8	Atlantic City Electric
			10.6	Baltimore Gas and Electric
			3.7	Delmarva Power and Light
			1.1	UGI Corporation
			9.7	Potomac Electric Power
2020	303500-0100	Crawford	100.0	Metropolitan Edison
2018	384000-0300	Cromby	100.0	Philadelphia Electric
2008	384000-0500	Eddystone	100.0	Philadelphia Electric
3060	140000-0200	Elrama	100.0	Duquesne Light
2019	379500-0300	Front Street	100.0	Pennsylvania Electric
3008	542000-0600	Hatfield's Ferry	20.0	The Potomac Edison Co.
			27.5	Monongahela Power Co.
			52.5	West Penn Power
3016	379500-0350	Homer City	50.0	New York State Electric and Gas Corp.
			50.0	Pennsylvania Electric
2001	379500-0400	Keystone	22.8	New Jersey Public Service Electric and Gas
			21.0	Philadelphia Electric Co.
			12.4	Pennsylvania Power and Light
			16.7	Jersey Central Power and Light
			2.4	Atlantic City Electric
			21.0	Baltimore Gas and Electric
			3.7	Delmarva Power and Light
2015	380000-0800	Martins Creek	100.0	Pennsylvania Power and Light
3076	542000-0400	Mitchell	100.0	West Penn Power
2003	380000-1300	Montour	100.0	Pennsylvania Power and Light
2009	380500-0100	New Castle	100.0	Pennsylvania Power Company
3071	140000-0300	Phillips	100.0	Duquesne Light
2012	303500-0300	Portland	100.0	Metropolitan Edison
3098	379500-1000	Seward	100.0	Pennsylvania Electric
3044	379500-1100	Shawville	100.0	Pennsylvania Electric
2010	380000-1000	Sunbury	100.0	Pennsylvania Power and Light

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Pennsylvania-continued		
2017	303500-0400	Titus	100.0	Metropolitan Edison
		South Carolina		
4043	447500-0400	Canadys	100.0	South Carolina Electric and Gas
4051	448000-0100	Grainger	100.0	South Carolina Public Service Authority
4040	448000-0200	Jefferies	100.0	South Carolina Public Service Authority
4038	139500-1900	Lee	100.0	Duke Power
4039	447500-0900	McMeekin	100.0	South Carolina Electric and Gas
4048	072000-0400	Robinson	100.0	Carolina Power and Light
4045	447500-1600	Urquhart	100.0	South Carolina Electric and Gas
4025	447500-1700	Wateree	100.0	South Carolina Electric and Gas
4042	448000-0075	Winyah (Georgetown)	100.0	South Carolina Public Service Authority
		South Dakota		
6009	365500-0250	Big Stone	47.5	Otter Tail Power Company
			32.5	Northwestern Public Service
			20.0	Montana-Dakota Utilities
		Tennessee		
4018	477000-0100	Allen	100.0	Tennessee Valley Authority
4021	477000-0500	Bull Run	100.0	Tennessee Valley Authority
4002	477000-4100	Cumberland	100.0	Tennessee Valley Authority
4010	477000-1400	Gallatin	100.0	Tennessee Valley Authority
4013	477000-1900	Johnsonville	100.0	Tennessee Valley Authority
4009	477000-2100	Kingston	100.0	Tennessee Valley Authority
4024	477000-1800	Sevier	100.0	Tennessee Valley Authority
4046	477000-3600	Watts Bar	100.0	Tennessee Valley Authority
		Texas		
8001	478500-0250	Big Brown	33.3	Dallas Power and Light

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		Texas-continued		
			33.3	Texas Power and Light
			33.3	Texas Electric Service
6002	478500-0575	Monticello	20.0	Dallas Power and Light
			50.0	Texas Power and Light
			30.0	Texas Electric Service
		projected 1978	50.0	Texas Power and Light
			50.0	Texas Electric Service
		Utah		
9018	517000-0500	Carbon	100.0	Utah Power and Light
9015	517000-1000	Gadsby	100.0	Utah Power and Light
9010	517000-1450	Huntington Canyon	100.0	Utah Power and Light
		Virginia		
4044	525000-0200	Bremo Bluff	100.0	Virginia Electric and Power
4017	525000-0300	Chesterfield	100.0	Virginia Electric and Power
3035	014000-0500	Clinch River	100.0	Appalachian Power
3069	014000-0600	Glen Lyn	100.0	Appalachian Power
4031	394500-0500	Potomac River	100.0	Potomac Electric Power
		Washington		
9004	370500-0450	Centralia	47.5	Pacific Power and Light
			15.0	Washington Water Power
			8.0	Seattle Dept. of Lighting
			7.0	Puget Sound Power and Light
			2.5	Portland General Electric Co.
			8.0	City of Tacoma
			8.0	Snohomish Co. Public Utility District
			4.0	Grays Harbor Co. Public Utility District

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		West Virginia		
3072	311000-0100	Albright	24.8	Potomac Edison Co.
			75.2	Monogahela Power
3011	014000-1200	Amos	29.6	Ohio Power Company
			70.4	Appalachian Power
3093	014000-0300	Cabin Creek	100.0	Appalachian Power
3022	311000-0200	Fort Martin	50.0	West Penn Power
			25.0	Monongahela Power
			25.0	Potomac Edison Co.
3006	311000-0500	Harrison	25.0	Monongahela Power
			50.0	West Penn Power Co.
			25.0	Potomac Edison Co.
3036	355000-0100	Kammer	100.0	Ohio Power
3059	014000-0700	Kanawha River	100.0	Appalachian Power
3012	355000-0600	Mitchell-Captina	100.0	Ohio Power
3009	525000-0700	Mount Storm	100.0	Virginia Electric and Power
3021	081000-0100	P. Sporn	71.2	Ohio Power Co.
			28.8	Appalachian Power
3096	311000-0300	Rivesville	100.0	Monongahela Power
3082	311000-0400	Willow Island	100.0	Monongahela Power
		Wisconsin		
6022	126000-0100	Alma	100.0	Dairyland Power Coop.
5029	283500-0100	Blount	100.0	Madison Gas and Electric
5017	554000-0250	Columbia	38.9	Wisconsin Public Service
			39.3	Wisconsin Power and Light
			21.8	Madison Gas and Electric
		projected 1978	39.3	Wisconsin Power and Light
			60.7	Wisconsin Public Service Corp.
5020	554000-0300	Edgewater	23.4	Wisconsin Public Service Corp.
			76.6	Wisconsin Power and Light
6012	126000-0450	Genoa 3	100.0	Dairyland Power Coop.
6018	554000-0600	Nelson Dewey	100.0	Wisconsin Power and Light
5005	553000-0400	Oak Creek, North	100.0	Wisconsin Electric Power

Continued

Appendix table 1--ICAM power plants, codes, and ownership, 1975--Continued

ICAM code	FERC code	State and plant name	Ownership share	Owning utility system
			Percent	
		West Virginia-continued		
5005	553000-0600	Oak Creek, South	100.0	Wisconsin Electric Power
5021	553000-0500	Port Washington	100.0	Wisconsin Electric Power
5022	554500-1500	Pulliam	100.0	Wisconsin Public Service
5033	554000-0900	Rock River	100.0	Wisconsin Power and Light
5026	553000-0700	Valley	100.0	Wisconsin Electric Power
5035	554500-2000	Weston	100.0	Wisconsin Public Service
		Wyoming		
9005	370500-1105	Jim Bridger	67.0	Pacific Power and Light
			33.0	Idaho Power Company
9007	370500-1200	Johnston	100.0	Pacific Power and Light
9008	517000-2000	Naughton	100.0	Utah Power and Light

Total = 291 coal-fired power plants

Source: (6, 16).

Appendix table 2--Power plants 100 MW or greater using coal, 1975

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4006	Barry	Mobile Bucks Alabama	1,904,588	1,771	A	Blue Creek #3 Mary Lee #1 Chetopa & Warrior Maxine	AL1	1,517,430	79.67
					B	Eagle #2	IL6	295,893	15.54
					C	Alston #4	KY1	54,572	2.87
					D	Australia	3503	36,693	1.93
4052	Chickasaw	Mobile Chickasaw Alabama	65,586	138	A	Blue Creek #3 Maxine	AL1	65,586	100.00
4054	Gaston	Shelby Wilsonville Alabama	4,222,683	952	A	Mary Lee #1 N. River Warrior Chetopa Cobb	AL1	3,473,156	82.25
					B	B.G. & M. #14	KY3	59,088	1.40
					C	Justus	KY6	59,088	1.40
					D	Mathews	TN1	117,655	2.78
					E	Homestead	KY1	513,816	12.17
4053	Gadsden	Etowah Gadsden Alabama	183,760	138	A	Blue Creek #3 Mary Lee 1 Chetopa Maxine	AL1	120,823	65.75
					B	Premele	KY4	35,268	19.19
					C	Interstate 127	KY3	6,858	3.74
					D	Harlan 1	KY5	6,857	3.73
					E	H & B 1	TN1	13,944	7.59
4011	Gorgas	Walker Gorgas Alabama	4,472,056	1,546	A	Mary Lee #1 Cobb	AL1	4,472,056	100.00
4030	Greene County	Greene Demopolis Alabama	1,244,569	568	A	Maxine Warrior	AL1	1,173,266	94.27
					B	Eagle	IL6	71,303	5.73
4014	Colbert A & B	Colbert Pride	2,788,167	1,396	A	Jane Ann #10	WV5	481	.02
					B	Providence #1	KY1	2,774,186	99.50

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4014 (continued)		Alabama				Martwick			
						Drake #3			
						Dotiki			
						Ziegler #9			
						Ohio			
						Homestead			
						South Hopkins			
						Ranch River 3,5,6			
					C	Ayer Pit & Russel	IN3	13,500	.48
4005	Widow's Creek A & B	Jackson Bridgeport & Stevenson Alabama	4,479,011	1,978	A	1/	KY0	747	.01
					B	Buckhorn	KY3	224,653	5.02
					C	S. Hopkins	KY1	3,136,527	70.03
						Ayrgem			
						Fies			
						LCM Evans			
						Perfect Circle			
						Colonial			
						Dotiki			
						Sinclair-Slope			
						Pyro #2			
						Debco			
						Island #9			
						Ziegler #9			
					D	Pull Tight	AL1	816,397	18.23
						V.H.R.			
						Fabius 1,2			
					E	Walden Ridge #1	TN2	300,687	6.71
9014	Cholla	Navajo Joseph City Arizona	377,400	114	A	Kayenta	AZ1	13,500	3.58
					B	McKinley/King	NM2	170,050	45.06
					C	Plateau & Star Pt	UT1	23,800	6.30
						Swisher & Gordon			
					D	Navajo	NM1	170,050	45.06
9002	Navajo	Coconino Page Arizona	3,377,000	1,606	A	Kayenta	AZ1	2,991,500	88.58
					B	Navajo	NM1	239,500	7.09
					C	Convulsion Canyon	UT1	146,000	4.32

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
9013	Drake	El Paso Colorado Springs Colorado	458,500	277	A	Wise Hill 5 Edna Eagle 5,6,7,9	CO1	450,680	98.30
					B	Corley S & A	CO3	7,820	1.70
9009	Hayden	Routt Hayden Colorado	645,100	164	A	Seneca	CO1	645,100	100.00
9016	Arapahoe	Denver Denver Colorado	575,200	250	A	Rosebud	WY3	195,600	34.00
					B	Eagle	CO7	111,800	19.44
					C	Edna/Energy	CO1	267,800	46.56
9006	Cherokee	Adams Denver Colorado	2,517,500	801	A	Belle Ayr	WY2	94,156	3.74
					B	Energy	CO1	2,071,849	82.30
					C	Eagle	CO7	176,251	7.00
					D	Rosebud	WY3	93,212	3.70
					E	Big Horn	WY1	82,032	3.26
9011	Comanche	Pueblo Pueblo Colorado	1,607,500	778	A	Belle Ayr Eagle Butte	WY2	1,591,582	99.01
					B	1/	AR1	1,034	.07
					C	1/	OK2	704	.04
					D	1/	CO6	11,467	.71
					E	1/	CO4	1,299	.08
					F	1/	UT1	497	.03
					G	1/	NM3	917	.06
9019	Valmont	Boulder Boulder Colorado	230,900	282	A	Rosebud	WY3	200,000	86.62
					B	Eagle	CO7	30,900	13.38
2014	Indian River	Sussex Millsboro Delaware	971,000	340	A	Sullivan, Rayne	PA2	971,000	100.00
2026	Delaware City	New Castle Delaware City Delaware	2,000	120	A	Local	Coke	2,000	100.00

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975 --Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
					B	McDowell	KY3	209,489	19.20
					C	Volunteer	KY1	192,004	17.77
						Little Joe			
						Shamrock			
						Alston 3,4			
4019	Hammond	Floyd Coosa Georgia	1,804,000	953	A	Corona Short Creek 480	AL1	746,309	41.37
					B	James Spur 7,9,10	KY5	127,691	7.08
					C	Buckhorn Mining 4	KY3	136,377	7.56
						Interstate Coal Co.		20,154	1.12
					D	Justus	KY6	187,369	10.39
					E	1/	KY1	5,000	.28
					F	High Top	TN1	21,000	1.16
					G	Blackfoot 5	IN3	460,000	25.50
					H	Premele Siding H & S Coal	KY4	100,000	5.54
4007	Harllee Branch	Putnam Milledgeville Georgia	2,989,000	1,746	A	McDowell	KY3	708,147	23.69
					B	Sigmon Prep Mountain Dive 1 Tesoro 13 Creech	KY5	1,300,000	43.49
					C	Matthews	TN1	917,000	30.68
					D	1/	VA1	2,000	.07
					E	Volunteer	KY1	61,853	2.07
4047	Mitchell	Dougherty Albany Georgia	410,000	218	A	Roaring Fork Harlan 1 Mountain Drive 1 Benham Bushy Mtn	KY5	295,080	71.97
					B	Interstate Coal	KY3	104,920	25.59
					C	H & B 1	TN1	3,000	.73
					D	Corbin, Premele	KY4	7,000	1.71
4020	Wansley	Heard Roopville Georgia	209,000	865	A	Blackfoot 5	IN3	148,265	70.94
					B	Alston 3 & 4	KY1	60,735	29.06

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975 --Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4012	Yates	Coweta Newman Georgia	3,033,000	1,488	A	Maxine Mary Lee #1 Chetopa Corona Nickel	AL1	581,000	19.16
					B	Osborne	VAI	96,000	3.16
					C	Blackfoot 5	IN3	22,000	.73
					D	Corbin Premele Bevins Branch Elkhorn Creek 2C MKM Lena	KY4	80,540	2.66
					E	Gem Coal 1 Margin 17-20 Buckhorn 4 Interstate Coal #127 & McDowell Gilway Fuels, Inc. & Fies	KY3	367,559	12.12
					F	J. L. Thacker 1 Bushy Mtn. Sigmon Prep. Benham James Spur, 7,9,10 Creech Sandy Fork MB 1 Roaring Fork Green Brook 1 Harlan 1 Stoney Fork Nally & Hayden 1 Lyles Coal Co. Turner Coal Mines 1 & 2	KY5	900,000	29.67
					G	Justus D. H. Campbell 1	KY6	340,712	11.23
					H	Little Joe Bennett	KY1	274,583	9.05

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
					I	Captain	IL5	9,000	.30
					J	Lewis Overton 2 D & H 1 Winfield Margo Spradlin	TN1	349,000	11.51
					K	Eagle	IL6	2,000	.07
					L	Boyd Co. 6	KY2	10,606	.35
4001	Bowen	Bartow Taylorsville Georgia	5,379,000	3,499	A	Sigmon Prep. Mountain Drive 1 Creech Stoney Fork Harlan 1 Tesoro	KY5	1,531,206	28.47
					B	Interstate Coal	KY3	454,794	8.45
					C	Little Joe Alston 3,4 Volunteer Shamrock	KY1	3,393,000	63.08
5010	Coffeen	Montgomery Coffeen Illinois	2,258,700	1,006	A	Captain	IL5	97,124	4.30
					B	Hillsboro Carbon Coal 10	IL3	2,100,000	92.97
					C	Sunspot	IL1	61,576	2.73
5030	Grand Tower	Jackson Grand Tower Illinois	536,300	195	A	Delta Central Prep.	IL6	104,203	19.43
					B	Fidelity 11 Captain	IL5	432,097	80.57
5027	Hutsonville	Crawford Hutsonville Illinois	370,400	200	A	Will Scarlet Central Prep. Delta	IL6	144,000	48.88
					B	Minnehaha	IN2	226,400	58.12
5023	Meredosia	Morgan Meredosia Illinois	738,800	564	A	Sunspot	IL1	408,778	55.33
					B	Baldwin 2,3,4 Captain	IL5	330,022	44.67

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
2002	Benning	Washington District of Columbia	104,000	718	A	Kopper Tipple	WV2	3,000	2.89
					B	Martwick	KY1	79,000	75.96
					C	Osborne	VA1	22,000	21.15
4032	Crist	Escambia Pensacola Florida	1,202,300	1,229	A	Eagle	IL6	698,500	58.10
					B	Little Joe Martwick Vogue	KY1	342,600	28.50
					C	Tiger Warrior Maxine	AL1	126,100	10.49
					D	South Africa	3003	1,400	.12
					E	Canada	4003	33,700	2.80
4041	Smith	Palm Beach Lynn Haven Florida	698,500	340	A	Eagle	IL6	214,700	30.74
					B	Little Joe	KY1	187,800	26.89
					C	South Africa	3003	257,700	4.72
					D	Australia	3505	33,000	.76
4022	Gannon	Hillsborough Tampa Florida	1,904,014	1,270	A	Little Joe, Volunteer	KY1	1,904,014	100.00
4023	Big Bend	Hillsborough Tampa Florida	1,767,856	891	A	Shamrock/Retiki/ Gibraltar	KY1	1,767,856	100.00
4049	Arkwright	Bibb Macon Georgia	276,999	181	A	Pardee Glammorgan	VA1	58,000	21.01
					B	Harlan/Stoney Fork	KY5	7,147	2.59
					C	Ikerd & Bandy	KY3	35,853	12.99
					D	High Top	TN1	175,000	63.41
4029	McDonough-Atkinson	Cobb Smyrna Georgia	1,086,000	856	A	Sigmon Prep. Plant Harlan 1 Stoney Fork Mountain Drive 1 Creech Tesoro 13	KY5	684,506	63.03

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
5013	Edwards	Peoria Bartonville Illinois	1,739,800	780	A	Sarpy Creek	MT4	713,318	41.00
					B	Buckheart Norris	IL1	939,492	54.00
					C	Burning Star 2,4	IL5	86,990	5.00
					D	Hawk's Nest	C04		
5025	Wallace	Tazewell Pekin Illinois	508,200	351	A	Sarpy Creek	MT4	303,000	60.00
					B	Buckheart Norris	IL1	141,588	27.00
					C	Burning Star 2,3	IL5	63,612	13.00
					D	Hawk's Nest	C04		
5016	Fisk	Cook Chicago Illinois	1,338,300	547	A	Decker	MT4	1,338,300	100.00
5014	Crawford	Cook Chicago Illinois	1,369,000	702	A	Decker	MT4	1,369,000	100.00
5036	Dixon	Lee Dixon Illinois	227,500	119	A	Seminoe	WY3	34,300	15.07
					B	Sufco/Utah 2	UT1	10,000	4.40
					C	Carbon Coal 10	IL3	174,000	76.48
					D	H & S Coal	KY4	9,200	4.04
5003	Joliet	Will Joliet Illinois	3,707,000	1,787	A	Colstrip/Decker	MT4	2,949,000	79.55
					B	Carbon Coal 10	IL3	137,046	3.70
					C	Monterey-Carter Captain	IL5	620,954	16.75
5006	Kincaid	Christian Kincaid Illinois	2,526,000	1,319	A	Carbon Coal 10	IL3	2,526,000	100.00
5004	Powerton	Tazewell Pekin Illinois	3,029,000	1,786	A	Decker	MT4	228,000	7.53
					B	Monterey-Carter	IL3	2,765,000	91.28
					C	Captain	IL5	36,000	1.19

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
5011	Waukegan	Lake Waukegan Illinois	1,903,100	933	A	Seminoe	WY3	1,509,000	79.29
					B	Decker	MT4	121,000	6.36
					C	Carbon Coal 10 Monterey-Carter	IL3	273,100	14.35
5007	Will County	Will Joliet Illinois	2,543,900	1,269	A	Decker	MT4	2,378,000	93.48
					B	Carbon Coal 10	IL3	32,300	1.27
					C	Captain	IL5	133,600	5.25
5009	Joppa	Massac Joppa Illinois	3,424,000	1,100	A	Belle Ayr	WY2	9,000	.26
					B	Blackfoot 5	IN3	129,000	3.77
					C	Roberts Tipple Martwick Weskol 6 Gibraltar South Wind Shamrock Kentucky Minerals (Rick) St. Charles	KY1	882,000	25.76
					D	Orient 4 Central Prep. Jader Delta Old Ben 21, 26	IL6	1,626,306	47.50
					E	Ziegler 11 Fidelity 11 Burning Star 3	IL5	777,694	22.71
5024	Hennepin	Putnam Hennepin Illinois	716,064	306	A	Savage	MT2	17,962	2.51
					B	Streamline	IL5	432,841	60.45
					C	Roberts, Martwick	KY1	117,968	16.47
					D	Ayrcoe	IN3	2,875	.40
					E	Powhatan	OH1	9,104	1.27
					F	Miller Tipple 2	KY4	3,459	.48
					G	Will Scarlet	IL6	33,000	4.61
					H	Mecco	IL1	95,000	31.27
					I	Processed	---	3,855	.54

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
5031	Vermilion	Vermilion Oakwood Illinois	462,378	182	A	Ayrcoe	IN3	12,088	2.61
					B	Streamline	IL5	450,290	97.39
5018	Wood River	Madison East Alton Illinois	1,063,546	650	A	Seminoe	WY3	14,461	1.36
					B	Decker	MT4	32,571	3.06
					C	Energy	CO1	10,251	.96
					D	Carbon Helper	UT1	10,003	.94
					E	Fidelity	IL5	936,883	88.09
					F	Old Ben	IL6	12,500	1.18
					G	Blue Diamond	KY5	42,613	4.01
					H	Ayrcoe	IN3	4,264	.40
5002	Baldwin	Randolph Baldwin Illinois	4,168,346	1,892	A	Hanna Basin	WY3	81,251	1.95
					B	Carbon Fuel Mine	UT1	4,864	.12
					C	Old Ben	IL6	691,122	16.58
					D	Fidelity	IL5	3,391,109	81.35
5032	Dallman	Sangamon Springfield Illinois	498,200	160	A	Peabody 10	IL3	239,414	48.06
					B	Murdock	IL4	78,420	15.74
					C	Sunspot	IL1	69,570	13.96
					D	Captain	IL5	69,228	13.90
					E	Baldwin 2,3,4 1/	TN2	3,000	.60
					F	Orient 3,6	IL6	32,268	6.48
					G	Jader/Blue Flame Paradise	KY1	6,300	1.26
5034	Lakeside	Sangamon Springfield Illinois	186,300	156	A	Peabody 10	IL3	85,295	45.78
					B	Murdock/Ziegler	IL4	38,918	20.90
					C	Sunspot	IL1	21,424	11.50
					D	Orient 3,6	IL6	16,214	8.70
					E	Capt./Baldwin 2,3,4	IL5	20,949	11.24
					F	1/	KY1	1,500	.81
					G	1/	IN3	1,700	.91
					H	1/	OK1	300	.16
5028	Venice #2	Madison Venice Illinois	340,000	500	A	Hanna Mine	WY3	212,000	62.35
					B	Carbon Coal 10	IL3	9,000	2.65
					C	Ayrcoe	IN3	119,000	35.00

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3029	State Line	Lake Hammond Indiana	2,159,000	972	A	Seminoe 1/Medicine Bow	WY3	903,000	41.83
					B	Decker	MT4	819,000	37.93
					C	Captain	IL5	90,590	4.20
					D	Peabody 10	IL3	346,410	16.04
3083	Ratts	Pike Pike Indiana	676,200	232	A	Ayrcoe	IN3	676,200	100.00
3056	Breed	Sullivan	1,017,500	496	A	Belle Ayr	WY2	29,600	2.91
					B	Ayrcoe	IN3	63,818	6.27
					C	Chinook	IN2	924,082	90.82
3023	Tanners Creek	Dearborn Lawrenceburg Indiana	2,163,900	1,100	A	Carbon Helper	UT1	130,300	6.02
					B	River Queen	KY1	1,945,600	89.91
					C	McDowell Homestead	KY3	30,850	1.43
					D	Unit Coal	KY4	30,850	1.43
					E	1/	WV5	6,700	.31
					F	1/	VA1	19,000	.87
					G	1/	WV6	600	.03
3015	Clifty Creek	Jefferson Madison Indiana	4,204,000	1,304	A	Belle Ayr	WY2	231,000	5.49
					B	Wright	IN3	1,725,365	41.04
					C	1/	IN0	15,635	.37
					D	Gibraltar/Min Dora	KY1	2,204,317	52.43
					E	1/	KY0	27,683	.67
3037	Stout	Marion Indianapolis Indiana	1,722,000	852	A	Unit Coal	KY4	24,375	1.42
					B	1/	VA1	1,896	.11
					C	1/	WV6	1,729	.10
					D	Minnehaha Center Point	IN2	1,036,559	60.20
					E	Lynnville Old Ben 2 Hawthorn	IN3	657,441	38.17
					F	Hampton Div	WV5		

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3073	Pritchard	Morgan Martinsville Indiana	726,000	394	A	Hawthorn West	IN3	726,000	100.00
3034	Petersburg	Pike Petersburg Indiana	1,800,000	724	A	Lynnville R & H Old Ben 2	IN3	1,744,100	96.90
					B	Center Point Dixon & Present	IN2	55,900	3.10
3045	Bailly	Porter Chesterton Indiana	1,290,160	616	A	1/	PA2	4,708	.36
					B	1/	PA1	8,745	.68
					C	1/	WV6	346	.03
					D	River King	IL5	209,890	16.27
					E	Ayrcoe	IN3	1,066,471	82.66
3050	Mitchell	Lake Gary Indiana	1,706,430	539	A	Medicine Bow	WY3	1,667,720	97.73
					B	Streamline Mine, Leahy	IL5	38,710	2.27
					C	Orchard Valley (as of 6/77)	CO4		
3046	Michigan City	Laporte Michigan City Indiana	1,593,550	740	A	Ayrcoe	IN3	88,630	5.56
					B	Ziegler	IL4	1,106,718	69.45
					C	Streamline Leahy	IL5	398,202	24.99
3100	Edwardsport	Knox Edwardsport Indiana	242,600	133	A	Energy	CO1	1,600	.66
					B	Lemmon Reliable	IN3	18,241	7.52
					C	Minnehaha	IN2	199,604	82.29
					D	Universal	IN1	19,355	7.98
					E	Delta Coal	KY1	2,700	1.11
					F	Rowland Mine	WV6	1,100	.45
3043	Gibson Station	Gibson Mt. Carmel Indiana	942,500	668	A	Old Ben 2	IN3	9,980	1.06
					B	Wabash	IL6	702,840	74.56
					C	Captain	IL5	229,680	24.37

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3102	Noblesville	Hamilton Noblesville Indiana	133,100	100	A	Ikerd & Bandy	KY3	3,800	2.85
					B	Universal	IN1	90,705	68.15
					C	Minnehaha	IN2	36,995	27.80
					D	Wabash	IL6	1,600	1.20
3047	Gallagher	Floyd New Albany Indiana	1,610,200	600	A	Ayrshire	IN3	895,600	55.62
					B	Delta Coal	KY1	653,500	40.59
					C	Stoney Fork	KY5	37,800	2.35
					D	Kempton 2	WV6	23,300	1.45
3030	Wabash River	Vigo Terre Haute Indiana	1,942,800	908	A	Kempton 2	WV6	40,800	2.10
					B	1/	KY4	8,609	.44
					C	1/	KY5	15,891	.82
					D	Hawthorn & Latta	IN3	1,383,905	71.23
					E	Minnehaha	IN2	478,199	24.61
					F	Universal	IN1	15,395	.79
3027	Cayuga	Vermilion Cayuga Indiana	2,628,900	1,062	A	Belle Ayr	WY2	10,100	.38
					B	Minnehaha	IN2	33,521	1.28
					C	Universal	IN1	2,585,279	98.34
3061	Culley	Warrick Newburg Indiana	1,161,372	415	A	Wright Lynnville	IN3	1,161,372	100.00
3033	Warrick	Warrick Yankstown Indiana	2,371,618	812	A	Squaw Creek Lynnville	IN3	2,371,618	100.00
3105	Dresser	Vigo Terre Haute Indiana	49,000	150	A	Minnehaha Chinook	IN2	49,000	100.00
6016	Kapp	Clinton Clinton Iowa	603,900	237	A	Rosebud	MT4	137,100	22.70
					B	Baldwin 2,3,4 Burning Star 2 Captain	IL5	460,825	76.31
					C	1/	IL1	5,975	.99

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
6015	Prairie Creek	Linn Cedar Rapids Iowa	470,900	244	A	Wise Hill 5 Eagle 5,6,7,9	CO1	98,200	20.85
					B	King	UT1	6,000	1.27
					C	Central Prep.	IL6	6,900	1.47
					D	Mecco Allendale	IL1	270,800	57.51
					E	Ziegler 11	IL5	39,000	8.28
					F	Lexington Seam	MO1	51,900	10.83
6024	Sutherland	Marshall Marshalltown Iowa	198,300	157	A	Big Horn	WY1	16,000	8.07
					B	Rosebud	MT4	5,000	3.63
					C	Eagle 5,6,7,9	CO1	31,600	14.74
					D	Big Ben 1 Lovilia	IA1	43,581	21.98
					E	Lexington Seam	MO1	94,841	47.83
					F	1/	MOO	1,659	.85
6020	Riverside	Scott Bettendorf Iowa	475,000	222	A	Seminoe 1	WY3	15,000	3.37
					B	Harrisburg	IL6	43,907	9.24
					C	Mecco Allendale Buckheart	IL1	415,093	87.39
6001	George Neal	Woodbury Salix Iowa	1,158,576	1,046	A	Vanguard/Medicine Seminoe Vanguard & Rimrock Rosebud	WY3	1,142,049	99.43
					B	Bow/Rosebud	UT1	3,455	0.30
					C	1/	MO1	3,072	0.27
6030	Maynard	Blackhawk Waterloo Iowa	44,389	97	A	Rosebud	WY3	18,851	42.47
					B	Volunteer	KY1	24,538	57.53
6026	Council Bluffs	Pottawattomie Council Bluffs Iowa	301,600	131	A	Rosebud	WY3	301,600	100.00

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
6021	Des Moines	Polk Des Moines Iowa	433,160	270	A	Belle Ayr Eagle Butte	WY2	133,835	30.90
					B	Lovilia	IA2	299,325	69.10
6019	Burlington	Des Moines Burlington Iowa	523,700	212	A	Belle Ayr Eagle Butte	WY2	15,100	2.88
					B	Lovilia	IA1	44,400	8.48
					C	Mecco Buckheart	IL1	464,200	88.64
6027	Muscatine	Muscatine Muscatine Iowa	291,602	120	A	Buckheart	IL1	203,597	69.82
					B	Fidelity 11	IL5	88,005	30.18
7011	Riverton	Cherokee Riverton Iowa	165,010	145	A	Clemen's Coal22,25	KS3	31,459	19.06
					B	Leon's Mine 1	OK1	133,551	80.95
7002	LaCygne	Linn LaCygne Iowa	1,475,100	893	A	Midway	MO5	1,475,100	100.00
7010	Kaw	Wyandotte Kansas City Kansas	142,869	161	A	Welch Chelsea Tipple Garland	OK1	86,361	60.45
					B	1/	AR1	97	.07
					C	Clemens 22,25	KS3	55,698	38.98
					D	Seminoe	WY3	565	.40
					E	Lovilia	IA2	148	.10
7003	Lawrence	Douglas Lawrence Kansas	798,800	613	A	Medicine Bow	WY3	798,800	100.00
7006	Tecumseh	Shawnee Tecumseh Kansas	338,800	346	A	Medicine Bow	WY3	338,800	100.00

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
7009	Quindaro #2,3	Wyandotte Kansas City Kansas	309,481	327	A	Seminoe	WY3	106,618	34.45
					B	Chelsea Porum	OK1	72,487	23,42
					C	Clemens 22,25	KS3	119,941	38.76
					D	Spadra	AR1	10,435	3.37
3057	Coleman	Hancock Hawesville Kentucky	1,490,500	521	A	Homestead Ohio Pit Rough River Martwick Retiki	KY1	1,370,300	91.94
					B	Ikerd and Bandy	KY3	22,700	1.52
					C	Ayrshire	IN3	97,500	6.54
3067	Cooper	Pulaski Burnside Kentucky	750,930	344	A	Rush Creek	WV5	27,700	3.69
					B	Green Mountain 1	KY6	620,930	82.69
					C	Clear Creek 2	TN1	102,300	13.62
3089	Dale	Clark Ford Kentucky	358,460	196	A	Ikerd and Bandy	KY3	6,440	1.80
					B	1/	KY4	1,971	.55
					C	Jerry Lynn	KY5	343,509	95.83
					D	Rush Creek	WV5	6,540	1.82
3024	Big Sandy	Lawrence Louisa Kentucky	2,214,800	1,097	A	Addington	KY3	756,660	34.16
					B	Ridgeway 1	KY2	131,978	5.96
					C	Unit Coal	KY4	1,325,762	59.87
					D	1/	VA1	300	.01
3038	Brown	Mercer Burgin Kentucky	1,435,913	740	A	Tejay Highland	KY5	961,319	66.95
					B	Unit Coal	KY4	7,377	.51
					C	Ikerd and Bandy	KY3	123,267	8.59
					D	Justus	KY6	115,219	8.02
					E	Camp Mines	KY1	134,131	9.34
					F	Ayrshire	IN3	94,600	6.59
3052	Ghent	Carroll Ghent Kentucky	1,321,550	557	A	Ayrshire Warrick	IN3	1,317,214	99.67
					B	1/	KY3	4,336	.33
3080	Green River	Muhlenburg Central City Kentucky	548,777	264	A	River Process 21,22 Highland	KY5	100,647	18.34
					B	Ohio Energy	KY1	300,130	54.69

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used Tons	Nameplate capacity MW	ICAM link	Mine	CPA[2/]	Coal transport[1/] Tons	Pct.
3080	(continued)					Paradise			
					C	Newold	KY3	81,000	14.76
						Rough River 3,5,6			
						Ikerd and Bandy 1,6			
					D	Green Mountain 1	KY6	67,000	21.21
3097	Tyrone	Woodford	52,692	137	A	Rough River	KY3	21,082	40.01
		Versailles			B	Drakes Creek	KY4	3,077	5.84
		Kentucky			C	Mies	KY5	28,533	54.15
						Sassafras			
3028	Cane Run	Jefferson	1,722,400	1,017	A	Riverview	KY1	1,722,400	100.00
		Louisville				Star			
		Kentucky				Roberts Tipple			
3068	Paddy's Run	Jefferson	20,700	338	A	Roberts Tipple	KY1	20,700	100.00
		Louisville							
		Kentucky							
3040	Mill Creek	Jefferson	1,580,900	711	A	Star/Vogue	KY1	1,580,900	100.00
		Kosmosdale							
		Kentucky							
3062	Smith	Daviess	1,014,495	416	A	Chinook	IN3	18,000	1.77
		Owensboro			B	Pleasant Hill	KY1	996,495	98.23
		Kentucky							
3003	Paradise	Muhlenberg	6,546,826	2,558	A	Sinclair	KY1	6,546,826	100.00
		Drakesboro				Ayrgem			
		Kentucky							
3007	Shawnee	McCracken	5,146,050	1,750	A	Rosebud	MT4	169,900	3.30
		Paducah				Eads			
		Kentucky			B	Old Ben 21,24,26	IL6	1,969,032	38.26
						Eads			
					C	Drake 3,4	KY1	2,644,856	51.40
						Caney Creek			
						Colonial			
						Vogue			

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3007	(continued)					Ken			
						Perfect Circle			
					D	Rough River	KY3	362,262	7.04
3104	Robert Reid	Webster	1,167,500	442	A	Homestead	KY1	1,167,500	100.00
		Sebree				Retiki			
		Kentucky				Martwick			
2011	Crane	Baltimore	9,000	400	A	Sugarhill	PA2	8,520	94.66
		Baltimore			B	Champion	PA1	160	1.78
		Maryland			C	Bridgeview	MD1	268	2.98
					D	1/	WV3	52	.58
2013	Wagner	Anne Arundel	656,000	1,043	A	Beaver	WV6	656,000	100.00
		Baltimore				K & J mine	PA		
		Maryland							
2005	Chalk Point	Prince Georges	830,000	1,387	A	Bostonia	PA2	822,000	99.04
		Aquasco			B	1/	MD1	8,000	.96
		Maryland							
3051	Dickerson	Montgomery	1,029,000	586	A	Eagle Mine	PA2	726,000	70.56
		Dickerson			B	Miller & McKnight	PA1	93,000	9.04
		Maryland			C	Loveridge	WV2	186,000	18.06
						Romesburg	MD1	214,000	
					D	Allegheny Mining	WV3	16,000	1.55
					E	1/	KY3	8,000	.78
2004	Morgantown	Charles	925,000	1,251	A	Laurel	PA2	811,000	87.68
		Newburg			B	Allegheny Strip	WV3	19,000	2.05
		Maryland			C	Bessemer	MD1	95,000	10.27
3088	Smith	Washington	238,100	110	A	Premier	VA1	4,400	1.85
		Williamsport			B	Jontee	WV4	14,300	5.96
		Maryland			C	Romesburg	MD1	216,300	90.84
					D	Laurel	PA2	2,500	1.05
					E	1/	VA0	600	.25
					F	Allegheny Strip	WV3	100	.04

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
1001	Brayton Point	Bristol Somerset Massachusetts	476,000	1,600	A B C D	River Queen Poland So. Africa Australia	KY1 2503 3003 3503	288,000 123,000 36,000 29,000	60.50 25.84 7.56 6.09
1015	Salem Harbor	Essex Salem Massachusetts	82,100	805	A	Poland	2503	82,100	100.00
1012	Somerset	Bristol Somerset Massachusetts	16,700	329	A	Poland	2503	16,700	100.00
3031	Karn	Bay Essexville Michigan	712,500	530	A B C	Williams Carson/Powhatan Sigmon	WV2 OH1 KY5	33,200 668,700 10,600	4.66 93.85 1.49
3041	Campbell	Ottawa West Olive Michigan	1,675,300	650	A B	Warner/Crown City 1/	OH1 WV1	1,675,200 100	99.99 .01
3055	Cobb	Muskegon Muskegon Michigan	1,362,900	510	A B C D E	Valley Strip 1 Valley Camp 3 Ken Fidelity Ayrcoe	OH1 WV1 KY1 IL5 IN3	137,000 137,000 932,600 73,500 82,200	10.05 10.10 68.43 5.39 6.03
3103	Weadock	Bay Essexville Michigan	1,532,500	614	A B	Williams Powhatan 3,4/Carson	WV2 OH1	179,300 1,353,200	11.70 88.30
3070	Whiting	Monroe Erie Michigan	893,500	325	A B	Hazard Kenmont	KY4 KY5	622,323 271,177	69.65 30.35
3091	Mistersky	Wayne Detroit Michigan	209,682	174	A	Hazard	KY4	209,682	100.00

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3065	Eckert	Ingham Lansing Michigan	520,400	386	A	Powhatan 1,3,5	OH1	520,400	100.00
3094	Erickson	Ingham Lansing Michigan	436,300	160	A	Crown City	OH1	436,300	100.00
3054	Conners Creek	Wayne Detroit Michigan	592,000	540	A	Consol 20	WV2	30,000	5.07
					B	1/	PA1	3,000	.51
					C	Sands/Betsy	OH1	70,000	11.82
					D	Majestic	KY4	489,000	82.60
3099	Harbor Beach	Huron Harbor Beach Michigan	286,000	121	A	Tateville	KY4	17,000	5.94
					B	Consol 20	WV2	85,000	29.72
					C	Powhatan 1,3,4	OH1	137,000	47.90
					D	McGregor	WV5	47,000	16.43
3086	Marysville	St. Clair Marysville Michigan	544,000	200	A	Decker	MT4	4,000	.74
					B	Wharton	WV5	15,000	2.76
					C	Nelms #2 Powhatan #5 Cravat Coal	OH1	89,000	16.36
					D	S. Fork Haddix	KY3	386,000	70.95
					E	Lorentz	WV2	50,000	9.19
3078	River Rouge	Wayne Detroit Michigan	62,000	933	A	Bell/King Knob	WV2	18,000	29.03
					B	C and K Piney Run	PA2	1,000	1.61
					C	Cravat Coal	OH1	35,000	56.45
					D	Champion	PA1	8,000	12.90
3014	St. Clair	St. Clair Belle River Michigan	2,983,000	1,905	A	Decker	MT4	884,000	29.63
					B	Century 1 and 2	KY3	655,000	21.96
					C	Cravat Coal	OH1	781,000	26.18
					D	S. Fork Haddix	KY3	537,000	18.00
					E	Champion	PA1	48,000	1.61
					F	1/	WV6	2,000	.07
					G	McGregor	WV5	76,000	2.55

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3039	Trenton Channel	Wayne Trenton Michigan	1,417,000	776	A	Federal	WV2	73,000	5.15
					B	C & K Piney Run	PA2	11,000	.78
					C	Powhatan #5 Georgetown Egypt Valley	OH1	260,000	18.35
					D	S. Fork Haddix	KY3	1,018,000	71.84
					E	Champion	PA1	55,000	3.88
3001	Monroe	Monroe Monroe Michigan	6,484,000	3,280	A	Decker	MT4	168,000	2.59
					B	Federal #2 Blacksville 1,2	WV2	193,000	2.98
					C	Georgetown	OH1	2,174,000	33.53
					D	S. Fork Haddix	KY3	130,000	2.00
					E	Carbon Fuel	WV5	3,510,000	54.13
					F	Poseytown Prep Glacial	PA2	309,000	4.77
3063	Presque Isle	Marquette Marquette Michigan	839,000	358	A	Dotiki/Leeco	KY1	372,860	44.44
					B	Smith Coal	KY4	228,140	27.19
					C	Warwick	PA1	17,898	2.13
					D	Benjamin Hepburnia	PA2	220,102	26.24
6031	Fox Lake	Sherburn Sherburn Minnesota	42,500	105	A	Big Sky	MT4	42,500	100.00
6028	Aurora	St. Louis Aurora Minnesota	388,700	226	A	Big Sky	MT4	388,700	100.00
					B	1/	WY1		
					C	1/	UT1		
					D	1/	MNO	test firings	
					E	1/	WV6		
					F	1/	KY4		
6007	Boswell	Itasca Cohasset Minnesota	2,070,900	514	A	Big Sky	MT4	2,070,900	100.00
6008	Black Dog	Dakota Minneapolis Minnesota	1,042,000	487	A	Rosebud	MT4	707,000	67.85
					B	River King	IL5	335,000	32.15

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
6010	High Bridge	Ramsey St. Paul Minnesota	886,000	397	A B C	Rosebud 1/ River King	MT4 KY1 IL5	755,000 8,000 123,000	85.21 .90 13.88
6005	King	Washington Stillwater Minnesota	1,668,000	598	A B C	Rosebud Ziegler 9 River King	MT4 KY1 IL5	519,000 66,000 1,083,000	31.11 3.96 64.93
6011	Riverside	Hennepin Minneapolis Minnesota	952,000	456	A B	Rosebud 1/	MT4 WY1	948,908 3,092	99.67 .33
6025	Hoot Lake	Ottertail Fergus Falls Minnesota	679,400	137	A	Beulah	ND2	679,400	100.00
4015	Watson	Harrison Handsboro Mississippi	1,531,000	1,174	A B C	Eagle Haddix(Falcon Coal) Don Bow Processed	IL6 KY3 KY1	893,400 180,700 427,400	58.35 11.80 27.92
5019	Thomas Hill	Randolph Moberly Missouri	1,288,000	470	A	Prairie Hill Bee Veer Mine	M03	1,288,000	100.00
5015	New Madrid	New Madrid New Madrid Missouri	1,374,456	650	A B	Baldwin 2,3,4 Homestead	IL5 KY1	1,251,956 89,000	91.09 6.48
7014	Blue Valley	Jackson Independence Missouri	193,930	115	A B C D E F G	Seminoe 2 Wise Hill 5 Belina 1 and 2 McNabb United Coal United Coal Ft. Scott Lexington Seam	WY3 CO1 UT1 OK1 OK3 KS3 M01	69,700 4,900 1,600 109,730 4,400 1,700 1,900	35.94 2.53 .82 56.58 2.27 .88 .98
7007	James River	Greene Springfield Missouri	178,975	253	A	Ft. Scott	KS3	178,975	100.00

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
5037	Columbia	Boone	83,910	107	A	Fidelity 11	IL5	20,531	24.47
		Columbia			B	Orient 3,4,6	IL6	60,623	72.25
		Missouri			C	Lexington Seam	MO1	2,756	3.28
7008	Asbury	Jasper	654,599	213	A	Clemens 22,25	KS3	87,065	13.30
		Asbury			B	Empire	MO5	563,095	86.03
		Missouri				Midway			
					C	United Coal	OK1	4,399	.67
7013	Grand Avenue	Jackson	172,900	126	A	Medicine Bow	WY3	3,500	2.02
		Kansas City			B	Chelsea Tipple	OK1	136,000	78.66
		Missouri			C	Ft. Scott	KS3	25,500	14.75
					D	Lexington Seam	MO1	7,900	4.57
					E	Panama #1	OK2	3,400	1.97
7001	Hawthorne	Jackson	1,032,100	908	A	Seminoe 1	WY3	806,500	78.14
		Kansas City			B	Rogers 1	OK1	212,500	20.59
		Missouri			C	Ft. Scott	KS3	10,500	1.05
					D	Lexington Seam	MO1	1,200	.12
					E	1/	---	1,000	.10
7004	Montrose	Henry	1,793,800	563	A	Seminoe 1	WY3	10,000	.56
		Clinton			B	Power	MO4	1,777,800	98.83
		Missouri				Tebo			
					C	Rogers 1	OK1	11,000	.61
7005	Sibley	Jackson	849,000	518	A	Rogers, 1,2	OK1	849,000	100.00
		Sibley							
		Missouri							
7012	Lake Road	Buchanan	157,250	125	A	Lexington Seam	MO1	106,500	67.73
		St. Joseph			B	Ft. Scott	KS3	14,500	9.22
		Missouri			C	Porum	OK1	36,250	23.05
5012	Meramec	St. Louis	1,936,000	923	A	Belle Ayr	WY2	7,000	.36
		St. Louis			B	Old Ben 1	IN3	120,000	6.20
		Missouri			C	Porum	KY1	210,000	10.85
						Southwind			
						Fies			
					D	Burning Star 4,2,3	IL5	775,835	40.07
						Captain			

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used Tons	Nameplate capacity MW	ICAM link	Mine	CPA[2/]	Coal transport[1/] Tons	Pct.
5012	(continued)				E	Old Ben 24 Eagle Orient 3,6 Delta	IL6	823,165	42.52
5008	Sioux	St. Charles West Alton Missouri	2,246,000	1,100	A	Porum, Fies	KY1	16,000	.71
					B	Old Ben 1	IN3	267,000	11.89
					C	Burning Star 4 Captain Baldwin 2,3,4	IL5	210,000	10.85
					D	Eagle Orient 3,6 Old Ben 24	IL6	772,048	34.37
					E	Monterey 1	IL3	823,165	42.52
5001	Labadie	Franklin Labadie Missouri	5,804,000	2,482	A	Hanna Mine	WY3	101,000	1.74
					B	Leahy Burning Star 2,3,4 Captain Fidelity 11	IL5	5,703,000	98.26
6013	Colstrip	Rosebud Colstrip Montana	197,000	358	A	Rosebud	MT4	197,000	100.00
9020	Corette	Yellowstone Billings Montana	700,000	173	A	Rosebud	MT4	700,000	100.00
6029	Kramer	Sarpy Bellevue Nebraska	239,400	113	A	Rosebud	WY3	86,600	36.18
					B	Sorensen	WY4	18,300	7.64
					C	Eagle 5,6,7,9	CO1	134,500	56.18
6017	Sheldon	Lancaster Hallam Nebraska	254,200	229	A	Seminoe 1 & 2	WY3	148,200	58.30
					B	Utah #2	UT1	2,000	.70
					C	Clemens 22,25	KS3	48,300	19.00
					D	McNabb Porum	OK1	55,700	21.91

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA 2/	Coal transport 1/	
			Tons	MW				Tons	Pct.
6004	North Omaha	Douglas Omaha Nebraska	956,000	645	A	Seminoe 2 Hanna Area	WY3	965,000	100.00
9017	Gardner	Clark Moapa Nevada	655,800	227	A	Deer Creek Swisher and Gordon Black Hawk Plateau and Star Pt. Utah 2 King	UT1	655,800	100.00
9003	Mohave	Clark Laughlin Nevada	3,820,000	1,636	A	Black Mesa	AZ1	3,820,000	100.00
1004	Merrimack	Merrimack Concord Bow New Hampshire	977,200	459	A B C D E	Champion Mt. Carmel Loveridge North Branch Rich Gap	PA1 PA2 WV2 WV3 KY5	15,700 30,700 865,500 64,900 400	1.61 3.14 88.57 6.64 .04
2016	England	Cape May Marmora New Jersey	744,633	475	A B C	Cowen O'Dennell #20 1/	WV4 WV2 ILO	29,156 712,727 2,750	3.92 95.71 .37
2006	Hudson	Hudson Jersey City New Jersey	558,100	1,114	A B C D	Eagle/Ringold/Sugar King Knob/Barbour Glamorgan Tipple 1/	PA2 WV2 VA1 WV4	278,700 198,100 77,600 3,700	49.94 35.50 13.90 .66
2007	Mercer	Mercer Hamilton New Jersey	1,029,020	653	A B C D E F	Horner/Badger Cross Brook North Branch McArthur/Iselin Fox/Washington Harlan	WV2 VA1 WV3 PA2 PA1 KY5	400,400 313,600 27,100 115,720 74,000 98,200	38.91 30.48 2.63 11.25 7.19 9.54
9001	Four Corners	San Juan Fruitland New Mexico	5,941,600	2,270	A	Navajo	NM1	5,941,600	100.00

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
9012	San Juan	San Juan Waterflow New Mexico	1,253,300	329	A	San Juan	NM1	1,243,300	100.00
1009	Goudey	Broome Johnson City New York	387,300	161	A	Pevler Mine	KY4	2,100	.54
					B	Various	PA2	359,705	92.88
					C	Champion	PA1	23,400	6.04
1008	Greenridge	Yates Dresden New York	540,800	198	A	McArthur	PA2	529,700	97.95
					B	1/	PA1	1,500	.28
					C	Affinity	WV6	9,600	1.77
1005	Milliken	Tompkins Ithaca New York	832,300	310	A	Champion	PA1	22,700	2.73
					B	McArthur	PA2	779,200	93.63
					C	Northeast Surface	WV2	8,900	1.07
					D	Romesburg	MD1	10,500	1.26
					E	Gauley	WV6	10,900	1.31
1002	Huntley	Erie Tonawanda New York	1,548,000	828	A	Sullivan	PA2	266,000	17.18
					B	Champion	PA1	210,000	13.57
					C	O'Donnel #20 King Knob 37 Love Ridge Williams Lorentz	WV2	393,747	25.44
					D	Cowen	WV4	43,033	2.78
					E	Wharton	WV5	161,013	10.40
					F	Keystone	WV6	60,207	3.89
					G	Smith Coal Johnson Constr.	KY4	126,436	8.17
					H	Blue Gem	KY3	57,132	3.69
					I	Deby Golden Glow Renwood Thacker	KY5	230,432	14.88
1003	Dunkirk	Chataque Dunkirk New York	1,194,000	628	A	Champion	PA1	396,000	33.17
					B	Mt. Carmel Belfast-Shale-Shane	PA2	681,000	57.04

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
1003	(continued)					Bark Camp Eagle-Ringsgold-Sugar			
					C	Blue Gem	KY3	91,000	7.62
					D	Love Ridge O'Donnel 20	WV2	26,000	2.18
1007	Rochester 3	Monroe Rochester New York	196,700	196	A	Nucla	CO1	4,000	2.03
					B	Sugarhill	PA2	88,378	44.93
					C	Champion	PA1	64,600	32.84
					D	Love Ridge Williams	WV2	30,100	15.30
					E	Greenbrook	KY5	6,700	3.41
					F	Ayrcoe	IN3	2,922	1.49
1006	Rochester 7	Monroe Rochester New York	542,600	252	A	Nucla	CO1	1,000	.18
					B	Champion	PA1	220,100	40.56
					C	Sugarhill	PA2	215,100	39.64
					D	Love Ridge Williams	WV2	96,200	17.73
					E	Greenbrook	KY5	10,200	1.88
4036	Asheville	Buncombe Skyland North Carolina	890,800	414	A	Knox Prep and Dock Cross Brook Cane Glamorgan Tipple Porter	VA1	126,400	14.19
					B	Lena Kathryn Blue Ribbon Totz Mari 1,2	KY4	20,644	2.32
					C	Margin 17-20 Blue Gem 3,4 Point Stone Gillis Way	KY3	135,714	15.24
					D	J. L. Thacker 1 Bledsoe Round Mtn. Terry Glen Golden Glow West Tipple	KY5	332,119	37.28

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4036	(continued)					Lyle			
					E	Justus	KY6	28,923	3.24
					F	Kent-Ivydell	TN1	200,000	22.45
						Sam 1			
						Premium 1			
						Daugherty 3,9 and Tipple 1-1			
						Aytes #1			
					G	Amer-Lee	WV6	11,350	1.27
					H	Jane Ann 10	WV5	11,350	1.27
					I	Renwood Tipple	TM2	24,300	2.73
4037	Cape Fear	Chatham Moncure North Carolina	733,700	421	A	Race Fork	VA1	207,200	28.24
						Glamorgan Tipple			
						Porter			
						Premier			
						Banner			
						Norton			
						Virginia Pocahontas			
						Melrose			
					B	Verner	WV5	100,000	13.63
					C	Blue Gem 3,4	KY3	61,453	8.39
						Hop			
						Bizivil			
						Point Stone			
					D	Deskins	KY4	193,293	26.34
						J and H			
						Cardinal 3			
						Wolf Creek 3			
						Mari 1,2			
						Sapphire			
					E	Mill Creek	KY5	120,654	16.44
						Bledsoe			
						West Tipple			
						Calico			
						Harland 1			
						Rockholds			
						Terry Glen			
					F	Tripple 1-1	TN1	15,000	2.04
					G	Crane Creek	WV6	36,100	4.92
						Amer-Lee			

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4035	Lee	Wayne Goldsboro North Carolina	697,300	402	A	Cross-Brook Cane Belibe Coal Melrose Kem Gem Knox Prep & Dock Dixiana Race Fork McClure River 1 Wellmore	VA1	128,500	18.43
					B	Rose Blanch 1 E and J Coal	WV6	9,516	1.36
					C	Chesterfield Verner Red Jacket Devon-Glen Alum	WV5	149,084	21.38
					D	Big Creek Wolf Creek 3 Caney Branch 9,11 Majestic	KY4	148,274	21.26
					E	Woodbine Prep. Mill Creek West Tipple Bledsoe Terry Glen	KY5	31,493	4.52
					F	Bizivil Hop Margin 17-20 Blue Gem 3,4 Hickory Tipple	KY3	95,811	13.74
					G	Justus	KY6	42,348	6.07
					H	Daugherty 3,9 Premium 1 Kopper Glo Tipple Viers Coal Co.	TN1	39,700	5.69
					I	Jade	KY1	52,574	7.55
4008	Roxboro	Person Roxboro North Carolina	3,831,600	1,813	A	Oakwood 1 Dale, Nora, Bruton Belibe Race Fork	VA1	769,700	20.09

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4008	(continued)					Five Oaks Premier Norton Anchor S. Keen and Runyon Esserville Plant and Todmorton Wellmore			
					B	Harris 1,2 McNamee Prep. Adamac Red Jacket	WV5	1,109,000	31.87
					C	Ken	KY1	91,000	
					D	McGuire	KY2	126,824	3.31
					E	Majestic Caney Branch 9,11 Wolf Creek 3 Osborne Gale Loading Dock Case 4	KY4	1,700,000	44.73
					F	Bishop	WV6	21,200	.55
					G	Oldhouse Branch	KY3	13,876	.36
4027	Sutton	New Hanover Wilmington North Carolina	813,600	672	A	Porter H and R Southern Imperial Melrose Va. Pocahontas Cross Brook-Cane Harlan Darby Norton Todmorten Dale, Nora, Bruton Glamorgan Tipple Mason	VA1	364,200	44.76
					B	Crane Creek Amer-Lee	WV6	18,306	2.25
					C	Mari 1,2 Sapphire Wolf Creek 3	KY4	154,172	18.95

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4027	(continued)				D	Point Stone Ky Gem Coal 1 Blue Gem 3,4	KY3	21,208	2.61
					E	West Tipple	KY5	183,207	22.52
					F	Justus	KY6	32,713	4.02
					G	Shattuck Klines	TN1	39,800	4.89
4050	Weatherspoon	Robeson Lumberton North Carolina	208,400	166	A	Knox Prep and Dock Norton Dale, Nora, Bruton	VA1	90,900	43.62
					B	American	WV6	2,200	1.06
					C	Osborne Wolf Creek 3 Premium	KY4	41,309	19.82
					D	Blue Gem 3,4	KY3	24,561	11.79
					E	Mill Creek Terry Glen Mine Nos 1,2	KY5	46,230	22.18
					F	Shattuck, Klines Big K	TN1	3,200	1.54
4016	Allen	Gaston Belmont North Carolina	1,824,728	1,155	A	Knox Prep/Norton	VA1	1,493,335	81.84
					B	Ohio 11, Vogue 3	KY1	308,822	16.92
					C	1/	WV5	1,439	.08
					D	1/	TN1	17,566	.96
					E	1/	WY6	3,566	.20
4003	Belews Creek	Stokes Walnut Cove North Carolina	3,023,006	2,160	A	McNamee Prep	WV5	69,970	2.31
					B	Wolf Creek/Osborne	KY4	2,605,910	86.21
					C	Norton/Pocahontas	VA1	347,126	11.48
4033	Buck	Rowan Spencer North Carolina	569,945	533	A	Cross Brook Cane	VA1	62,276	10.93
					B	American	WV6	78,323	13.74
					C	Red Jacket	WV5	295,795	51.90
					D	Majestic	KY4	125,404	22.00
					E	Mill Creek	KY5	8,147	1.43

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4025	Cliffside	Rutherford Cliffsides North Carolina	1,651,304	781	A	Oakwood/Belibe	VA1	1,651,304	100.00
4043	Dan River	Rockingham Eden North Carolina	433,246	290	A	Premier/Norton	VA1	36,669	8.46
					B	American	WV6	74,916	17.29
					C	Red Jacket	WV5	55,670	12.85
					D	Majestic	KY4	265,991	61.39
4004	Marshall	Catawba Terrell North Carolina	4,609,808	2,000	A	Oakwood/Belibe	VA1	2,692,990	58.42
					B	Mill Creek	KY5	904,394	19.62
					C	Justus	KY6	866,150	18.79
					D	Klines	TN1	123,220	2.67
					E	1/	WV5	23,054	.50
4028	Riverbend	Gaston Mt. Holly North Carolina	453,277	751	A	Home Creek	VA1	105,398	23.25
					B	Justus	KY6	343,463	75.77
					C	1/	TN1	4,416	.97
6003	Leland Olds	Mercer Stanton North Dakota	1,863,800	700	A	Glenharold	ND1	1,863,800	100.00
6014	Young	Oliver Center North Dakota	1,517,121	256	A	Noonan	ND1	1,517,121	100.00
6032	Heskett	Morton Mandan North Dakota	426,892	100	A	Beulah	ND2	426,892	100.00
6023	Stanton	Mercer Stanton North Dakota	735,500	172	A	Indian Head	ND2	569,100	77.38
					B	Sarpy Creek Rosebud	MT4	166,400	22.62
3020	Cardinal	Jefferson Brilliant Ohio	2,110,100	1,230	A	Carbon/Helper	UT1	23,000	1.09
					B	Carson Pit	OH1	1,280,800	60.70
					C	Valley Camp 3	WV1	741,600	35.15
					D	Pleasant Hill	KY1	43,500	2.06
					E	Bologna Coal	PA1	6,500	.31
					F	1/	WY6	14,700	.69

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3095	Lake Road	Cuyahoga Cleveland Ohio	119,541	160	A	Robertsville Pit/ Ellsworth Bonoman	OH1	119,541	100.00
3059	Ashtabula	Ashtabula Ashtabula Ohio	1,146,300	640	A	Cloe/Iselin	PA2	30,200	2.63
					B	Marion	PA1	203,500	17.75
					C	K and R Crawford	OH1	909,600	79.35
					D	1/	WV2	600	.05
					E	1/	WV1	1,800	.16
					F	1/	KY3	200	.02
					G	1/	KY5	200	.02
					H	1/	KY4	200	.02
3026	Avon Lake	Lorain Avon Lake Ohio	2,520,600	1,275	A	Cravat Coal	OH1	2,406,100	95.08
					B	Love Ridge	WV2	95,700	3.78
					C	Tateville/Champ	KY4	28,800	1.14
3018	East Lake	Lake Eastlake Ohio	2,947,000	1,257	A	Cloe/Iselin	PA2	255,600	8.67
					B	1/	WV1	3,300	.11
					C	Cravat Coal	OH1	2,485,900	84.35
					D	1/	WV6	25,596	.87
					E	Love Ridge	WV2	125,838	4.27
					F	1/	WV4	2,666	.09
					G	1/	KY3	15,733	.53
					H	1/	KY4	16,552	.52
					I	1/	KY5	15,815	.54
3053	Lake Shore	Cuyahoga Cleveland Ohio	1,016,600	518	A	Harold	PA1	52,000	5.12
					B	Kopper Slo Tipple	WV2	563,700	55.45
					C	McDowell	KY3	270,200	26.58
					D	Carson Pit	OH1	90,800	8.93
					E	Bostonia	PA2	39,900	3.92
3017	Conesville	Coshocton Conesville Ohio	2,726,430	1,275	A	King and Hale Simco Betsy Cravat Empire Meadowbrook Hutt Lisa	OH1	2,726,430	100.00

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3017	(continued)					Schlabach Speidel Carson Carson			
3092	Pickway	Pickaway Lockbourne Ohio	261,900	170	A	Mt. Sterling Carson Pit Marmon	OH1	211,668	80.82
					B	Pyro Strip Benedict 2 and Econ	OH4	50,232	19.18
3084	Poston	Athens Athens Ohio	601,500	232	A	Cab Strip	OH3	64,902	10.79
					B	Pyro Strip Benedict 3 and Econ Swan Pit	OH4	346,825	57.66
					C	Kimble Carson Pit Broken Arrow New Straitsville Nelsonville	OH1	189,773	31.55
3087	Edgewater	Lorain Lorain Ohio	416,880	240	A	West Freedom	PA2	27,700	6.64
					B	Shoemaker	WV1	27,000	6.48
					C	Piney Fork 1 Hoober Copperhead Nelms 2 Deckerd Suzie	OH1	338,280	81.15
					D	Kopper Slo Tipple	WV2	20,300	4.87
					E	Stevan Coal	WV5	3,200	.77
					F	1/	KY0	400	.10
3081	Niles	Trumbull Niles Ohio	574,390	313	A	Various	PA2	14,700	2.56
					B	Allied Fuels Glen Mary	PA1	198,000	34.47
					C	Valley Camp	WV1	5,112	.89
					D	Badger 13,14,15	WV2	9,800	1.71
					E	1/	WV6	1,588	.28

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3081	(continued)				F	Deckerd Suzie Cravat Kimble Piney Fork 1	OH1	265,037	46.14
					G	Patton Pit	OH4	80,153	13.95
3049	Burger	Belmont Shadyside Ohio	1,333,100	654	A	Alexander	WV1	224,762	16.86
					B	Unit 1	KY4	295,800	22.19
					C	Orlando	WV4	2,138	.16
					D	Powhatan #3	OH1	758,621	56.91
					E	Crown City	OH4	2,679	.20
					F	Various	PA2	49,100	3.68
3090	Toronto	Jefferson Toronto Ohio	305,530	206	A	Huberta 43	OH1	173,930	56.93
					B	Consol 1,2	WV1	131,600	43.07
3005	Sammis	Jefferson Stratton Ohio	4,941,840	2,456	A	Carson Pit Betsy Powhatan 1,3,4 Crown City K and R Crawford	OH1	3,330,840	67.40
					B	Eagle Coal	PA2	849,700	17.19
					C	Alexander	WV1	427,600	8.65
					D	Badger 13, 14, 15	WV2	129,200	2.61
					E	Unit 1	KY4	204,500	4.14
3002	Gavin	Gallia Gallipolis Ohio	5,433,310	2,600	A	Belle Ayr	WY2	937,700	17.25
					B	Carbon/Helper	UT1	339,400	6.25
					C	Morley	TN1	300	.01
					D	1/	KY1	19,600	.36
					E	Wolfpen	VA1	340,000	6.26
					F	McGuire	KY2	539,788	9.93
					G	1/	KY5	48,079	.88
					H	Drakes Creek	KY4	155,233	2.86
					I	Pyro/Bened./3/ Swan	OH4	1,996,142	36.74
					J	Cab Strip	OH3	196,616	3.62
					K	Nelsonville	OH1	144,152	2.65
					L	B and N Coal	OH2	161,390	2.97

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used Tons	Nameplate capacity MW	ICAM link	Mine	CPA[2/]	Coal transport[1/] Tons	Pct.
3002	(continued)				M	1/	WV1	12,400	.23
					N	Ann Lorentz 1	WV2	101,210	1.86
					O	Crane Creek	WV6	132,599	2.44
					P	Red Jacket	WV5	136,201	2.51
					Q	Keen and Runyon	VA1	151,900	2.80
					R	1/	IN0	20,600	0.38
3013	Muskingum River	Washington Beverly Ohio	3,459,600	1,638	A	Saginaw	OH1	2,868,663	82.92
					B	Central Ohio	OH2	121,537	3.51
					C	Wharton	WV5	183,100	5.29
					D	Terrco	PA1	300	.01
					E	Keystone #5	WV6	280,000	8.09
					F	Queen Coal	KY1	6,000	.17
3075	Philo	Muskingum Philo Ohio	116,500	500	A	Marmon	OH1	116,500	100.00
3085	Tidd	Jefferson Brilliant Ohio	393,200	226	A	Saginaw	OH1	239,103	60.81
					B	St. Clairsville	OH0	32,297	8.21
					C	Maidsville Ann Lorentz 1	WV2	5,100	1.30
					D	Deseret	UT1	18,700	4.76
					E	Bologna 248	PA1	98,000	24.92
3025	Kyger Creek	Gallia Gallipolis Ohio	3,345,000	1,086	A	Benedict 2/Econ	OH4	1,416,000	42.33
					B	Keystone	WV6	261,000	7.80
					C	Shoemaker	WV1	1,668,000	49.87
3101	Vine Street	Wayne Orrville Ohio	102,600	104	A	Hoover North	OH1	102,600	100.00
3032	Miami Fort	Hamilton North Bend Ohio	1,683,600	557	A	1/	WV4	6,100	.36
					B	Karen	PA1	73,700	4.38
					C	Hansford	WV5	13,000	.77
					D	Hazard	KY4	21,235	1.26
					E	1/	KY3	12,448	.74
					F	Jerry Lynn	KY5	33,495	1 99
					G	Ken/River Queen	KY1	933,100	55.42

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3032	(continued)				H	Addington	KY2	61,122	3.63
					I	Georgetown	OH1	491,813	29.21
					J	Universal	OH4	37,587	2.23
3019	Beckjord	Clermont New Richmond Ohio	2,426,600	1,221	A	Addington/Boyd	KY2	56,900	2.34
					B	Ken/River Queen	KY1	965,400	39.78
					C	Georgetown	OH1	898,126	37.01
					D	Universal	OH4	46,574	1.92
					E	Karen	PA1	233,600	9.63
					F	Hansford	WC5	179,300	7.39
					G	Keystone	WV6	37,700	1.55
					H	Lynnville	IN3	9,000	.37
3077	Tait	Montgomery South Dayton Ohio	465,500	449	A	Hazard Majestic	KY4	121,355	26.07
					B	Sapphire	KY5	202,767	43.56
					C	Sunnyhill	OH1	75,500	16.22
					D	Giles	KY3	39,978	8.59
					E	Ferrel	WV5	25,900	5.56
3064	Hutchings	Montgomery Dayton Ohio	533,600	414	A	Hazard/Majestic	KY4	5,748	1.08
					B	Giles	KY3	36,600	6.86
					C	Elkhorn	KY5	417,452	78.23
					D	Cole and Ramsey 1	TN1	29,400	5.51
					E	Race Fork	VA1	32,000	6.00
					F	Ferrel	WV5	12,400	2.32
3004	Stuart	Adams Aberdeen Ohio	5,101,600	2,441	A	Bevins Br., Hazard	KY4	1,055,531	20.69
					B	Green Mtn 1	KY6	60,086	1.18
					C	Powhatan	OH1	2,381,400	46.68
					D	Sapphire	KY5	297,463	5.83
					E	McGregor	WV5	973,500	19.08
					F	Van Lear Island Creek	KY3	333,620	6.54
3079	Acme	Lucas Toledo Ohio	355,070	307	A	Warwick	PA1	10,900	3.07
					B	Brands Run	WV2	91,500	25.77
					C	Powhatan	OH1	228,070	64.23
					D	Bevins Br./Hazard	KY4	19,409	5.47

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3079	(continued)				E	Sapphire	KY5	5,191	1.46
3042	Bay Shore	Lucas Toledo Ohio	1,671,600	640	A B C D E	Bevins Br./Hazard Powhatan Brands Run 1/ 1/	KY4 OH1 WV2 PA1 WV0	601,300 1,026,100 37,300 6,100 800	35.97 61.38 2.23 .36 .05
3127	Hamilton	Butler Hamilton Ohio	96,320	133	A B C D E	1/ Shannon Branch Lundale 1/ 1/	OH0 WV6 WV5 PA1 VA0	880 2,910 37,300 6,100 800	.91 3.02 2.23 .36 .05
3060	Elrama	Washington Elrama Pennsylvania	1,359,542	510	A B C	Christopher Hopwood Const. Warwick	WV2 PA2 PA1	42,219 846 1,316,477	3.11 .06 96.83
3071	Phillips	Allegheny South Heights Pennsylvania	1,197,000	411	A B C D	Rider Midway Coal Warwick Bartins 2 Snyder Brands Run Shannon Branch	PA2 PA1 WV2 WV6	1,019,599 849 111,301 65,251	90.09 .08 9.83 5.45
3048	Cheswick	Allegheny Cheswick Pennsylvania	1,387,000	565	A B C	Bostonia Warwick Harold Apollo Brands Run	PA2 PA1 WV2	992,050 466,723 160,744	61.26 28.82 9.93
2020	Crawford	Cauphin Middstown Pennsylvania	89,000	117	A B	Eagle Coal Washington	PA2 PA1	84,900 4,100	95.39 4.61
2012	Portland	Northampton Portland Pennsylvania	768,900	427	A B C D	Various/Bark Camp North Branch Ambrosia Coal Pinto Tipple	PA2 WV3 PA1 WV2	614,500 34,300 83,600 36,500	79.92 4.46 10.87 4.75

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
2017	Titus	Berks	472,900	225	A	1/	PA1	800	.17
		Reading			B	Glacial Mining	PA2	24,800	5.24
		Pennsylvania			C	Romesburg	MD1	22,500	4.76
					D	Cross Brook	VA1	36,200	7.65
					E	1/	WV3	1,900	.40
					F	Arkwright	WV2	69,476	14.69
					G	Cowen	WV4	54,124	11.45
					H	Big Fork 8,9	WV6	7,200	1.52
					I	Tateville	KY4	233,023	49.28
					J	Lewis Coal	KY3	22,877	4.84
2019	Front Street	Erie	380,000	118	A	Willowbrook	PA1	348,224	91.64
		Erie			B	Nanty-Glo	PA2	31,000	8.16
		Pennsylvania			C	1/	WV6	776	.20
3016	Homer City	Indiana	2,254,000	1,319	A	Clarion Fossil Fuels	PA2	2,254,000	100.00
		Homer City							
		Pennsylvania							
2001	Keystone	Armstrong	3,908,000	1,872	A	R.E.M. Coal	PA2	3,639,000	93.12
		Shelocta			B	Kerry Coal	PA1	269,000	6.88
		Pennsylvania							
3098	Seward	Indiana	654,000	268	A	Worrick	PA2	654,000	100.00
		Seward							
		Pennsylvania							
3044	Shawville	Clearfield	1,666,000	640	A	Henry	PA2	1,645,000	98.74
		Clearfield			B	Marion Mine	PA1	21,000	1.26
		Pennsylvania							
3010	Conemaugh	Indiana	3,935,000	1,872	A	Casselman Sales	PA2	3,840,000	97.59
		New Florence			B	Midway	PA1	95,000	2.41
		Pennsylvania							
2002	Brunner Island	York	3,505,000	1,559	A	Delta Mining	PA2	3,203,648	91.43
		York Haven			B	Emerald	PA1	278,000	7.93
		Pennsylvania			C	1/	MD1	352	.01
					D	1/	WV2	15,165	.43
					E	1/	WV4	6,835	.20

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
2015	Martins Creek	Northampton Martins Creek Pennsylvania	708,000	1,163	A B C	Vargo Coal O'Donnel 20 Addington	PA2 WV2 KY4	562,000 114,000 32,000	79.38 16.10 4.52
2010	Sunbury	Snyder Shamokin Dam Pennsylvania	1,371,000	410	A B C	Champion Mt. Carmel Processed	PA1 PA2 ---	651,000 568,000 152,000	47.48 41.43 11.09
2003	Montour	Montour Washingtonville Pennsylvania	3,831,000	1,642	A	Stahlman W. Freedom	PA2	3,831,000	100.00
2009	New Castle	Lawrence New Castle Pennsylvania	762,260	506	A	Fox Washington Marion Mine Ambrosia Big B	PA1	277,320	63.22
					B	Stahlman W. Freedom Mining Eagle Coal	PA2	481,930	36.38
					C	1/	OH1	3,010	.39
2018	Cromby	Chester Phoenixville Pennsylvania	232,000	418	A B C D	Bostonia Cadogan Valley Camp 3 Loveridge O'Donnel Lorentz Williams	PA2 PA1 WV1 WV2	9,000 60,000 32,000 131,000	3.88 25.86 13.79 56.47
2008	Eddystone	Delaware Eddystone Pennsylvania	1,321,000	1,089	A B C D E	Bessemer Poseytown Prep/ Glacial Champion Valley Camp 3 Loveridge Williams Lorentz King Knob Barbour	MD1 PA2 PA1 WV1 WV2	3,000 88,000 314,000 144,000 614,902	.23 6.66 23.77 10.90 46.55

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
2008	(continued)				F	Davis Coal	WV3	40,134	3.04
					G	Lost Run Mine	WV4	107,964	8.17
					H	1/	KY4	9,000	.68
3066	Armstrong	Armstrong Kittaning Pennsylvania	848,590	326	A	Eagle Coal	PA2	724,370	85.36
					B	Apollo	PA1	116,350	13.71
					C	Martiki	KY4	6,128	.91
3076	Mitchell	Washington Monongahela Pennsylvania	675,098	449	A	1/	PA1	5,950	.88
					B	Arkwright	WV2	645,680	95.64
					C	Powhatan	OH1	17,340	2.57
					D	Martiki	KY4	6,128	.91
3008	Hatfield	Greene Masontown Pennsylvania	4,362,980	1,728	A	Addington	KY4	769,470	17.64
					B	Champion	PA1	1,687,900	38.69
					C	Poseytown Prep/ Glacial	PA2	64,270	1.47
					D	Arkwright	WV2	1,841,340	42.20
3128	Springdale	Allegheny Springdale Pennsylvania	5,470	215	A	Arkwright	WV2	5,470	100.00
4048	Robinson	Darlington Hartsville South Carolina	286,100	207	A	Porter Virginia Pocahontas Melrose	VA1	62,200	21.74
					B	Mari 1,2 Wolf Creek 3 Osborne	KY4	148,123	51.77
					C	Blue Gem	KY3	14,890	5.20
					D	Deby Hd Rockholds Terry Glen	KY5	42,087	14.71
					E	G and F 1	TN1	18,400	6.43
					F	T and M	WV2	200	.07
					G	Crane Creek	WV6	200	.07
4038	Lee	Anderson Pelzer South Carolina	373,027	345	A	Maxine	AL1	9,224	2.47
					B	Crossbrook Hess Creek Lewis Creek	VA1	46,972	12.59

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used Tons	Nameplate capacity MW	ICAM link	Mine	CPA 2/	Coal transport 1/ Tons	Pct.
4038	(continued)				C	Straight Line	KY4	129,088	34.60
					D	Blue Gem	KY3	97,458	26.13
					E	Kent	TN1	37,661	10.10
					F	Sandy Fork	KY5	15,131	4.06
					G	Ryan's Creek	KY6	37,493	10.05
4034	Canadys	Colleton Canadys South Carolina	259,600	490	A	Straight Line M Jet Tipple Kilowatt Plt.	KY4	250,000	96.30
					B	Nancy Prep	KY3	1,116	.43
					C	Sandy Fork	KY5	8,484	3.27
4039	McMeekin	Lexington Columbia South Carolina	316,100	294	A	Norton Banner Dixona Prep Mullins Plant Dixiana	VA1	43,900	13.89
					B	Straight Line M Kilowatt Plt.	KY4	257,880	81.58
					C	Crest/Redbird	KY3	7,320	2.32
					D	Kent	TN1	7,000	2.21
4045	Urquhard	Aiken Augusta, Ga. South Carolina	446,200	250	A	Wise Dock	VA1	768	.17
					B	Johnson, Jet Tip.	KY4	340,800	76.38
					C	Crest, Redbird	KY3	46,592	10.44
					D	Sandy Fork	KY5	58,040	13.01
4026	Wateree	Richland Eastover South Carolina	1,364,600	772	A	Johnson Jet Tipple Kilowatt Plt.	KY4	108,861	7.98
					B	Nancy Prep. Sandy Fork	KY5	587,230	43.03
					C	Crest Redbird Tipple	KY3	657,909	48.21
					D	Wise Dock	VA1	3,900	.29
					E	1/	TN3	6,700	.49
4042	Winyah	Georgetown Moncks Corner South Carolina	631,274	315	A	Crest/Redbird Tip	KY3	630,782	99.92
					B	1/	TN1	492	.08

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4051	Grainger	Horrt Conway South Carolina	218,204	163	A	Wise Dock	VA1	92,048	42.18
					B	Johnson/Kilowatt Belmont #1 and 3	KY4	37,227	17.06
					C	Crest/Redbird Tip	KY3	86,452	39.62
					D	Lafollette #2	TN1	2,477	1.14
4040	Jefferies	Berkeley Moncks Corner South Carolina	584,215	346	A	Johnson/Kilowatt Belmont #1 and 3	KY4	584,215	100.00
6009	Big Stone	Grant Big Stone South Dakota	1,609,300	456	A	Gascoyne	ND3	1,592,200	98.94
					B	Wyodak #1	WY2	17,100	1.06
4018	Allen	Shelby Memphis Tennessee	1,773,423	990	A	Baldwin 2,3,4	IL5	481,103	27.13
					B	Ohio Martwick Drake 3 Gibraltar Homestead	KY1	1,292,320	72.87
4021	Bull Run	Anderson Clinton Tennessee	2,426,487	950	A	Johnson/Kilowatt	KY4	593,459	24.46
					B	Crest/Redbird	KY3	532,418	21.94
					C	Kenmont Harlan Jerry Lynn Bushy Mtn. Mine	KY5	1,296,406	53.43
					D	LaFollette #2	TN1	4,204	.17
4010	Gallatin	Sumner Gallatin Tennessee	2,406,843	1,255	A	D and R	KY3	358,037	14.88
					B	Richgap 1	KY5	14,801	.61
					C	S. Hopkins 2 Ziegler 9 Dotiki Drake Pyro 2 Island 9 Colonial Fies Providence 1	KY1	2,034,015	84.51

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4024	Sevier	Hawkins Rogersville Tennessee	2,327,825	846	A	Dean Jone 7 Lanham Black Diamond Laurel Melrose Horn Bros. L and M Little B Beeline Coal #1	VA1	872,290	37.47
					B	Blackfoot 5 Old Ben 1	IN3	247,130	10.62
					C	Margo Long Pit Dan Branch 3,4	TN1	648,190	27.85
					D	New Hignite 2 Paul Coal #1	KY5	271,804	11.67
					E	D and R 2	KY3	4,538	.19
					F	Duck Run	WV5	2,000	.09
					G	Drake 3,4	KY1	17,671	.76
					H	Elkhorn Creek 2C M and R	KY4	28,268	1.21
					I	Baldwin 2,3,4	IL5	234,351	10.07
					J	P and P 1	WV6	583	.03
					K	Williams #98	WV2	1,000	.04
4013	Johnsonville	Humphreys Johnsonville Tennessee	3,721,149	1,485	A	Rough River 3,5,6	KY3	113,940	3.06
					B	Margo, Long Pit	TN1	16,290	.44
					C	Bakersport Drake 3 Martwick Homestead Ohio South Hopkins Ziegler 9 Island #9	KY1	1,620,577	43.55
					D	Kaetzel Pit #3	IN3	43,055	1.16
					E	Margo, Long Pit	TN1	244,171	6.56
					F	Crown City	OH1	1,683,116	45.23

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4009	Kingston	Roane Kingston Tennessee	5,166,413	1,700	A	Ryan's Creek	KY6	36,398	.70
					B	Comb's 10	KY4	291,647	5.64
						Caudill's Branch			
					C	D and R 2	KY3	792,348	15.34
					D	Jerry Lynn	KY5	435,060	8.42
						Wisconsin Steel D-1			
						River Process 21,22			
						Mies and Bipper Tipple			
					E	Little T	TN1	3,421,551	66.23
						Lueking 1			
						Oliver Springs 3,5,6			
						Dean			
						Devonia			
						H and B 1			
						Clear Creek 2			
						A and W 1			
						McCall 5			
						Sam 1			
						Daugherty 3,9			
						Walnut Mt.			
						Shemco 3			
						Buffalo Coal 1			
						Laco 1			
						Spradlin			
						Plateau 2,5			
						H and W Coal 2			
						Tripple I 1			
						Jackson 1			
						Longwa 4,3			
						Indian Creek Coal #2			
						Earl and Rickey Coal #2			
						New River #2			
					F	James Nunley 3	TN2	186,919	3.62
					G	Volunteer	KY1	2,490	.05
						Little Joe			
						Hamilton 1,2			
4046	Watts Bar	Rhea Watts Bar Dam Tennessee	674,455	240	A	Allardt	TN1	291,759	43.26
						Cole and Ramsey 1			
						Phillips and Leab 1			

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
4046	(continued)					Clear Creek 2 Lewis D and H Coal 1 Perry and Howard 1 Mash #40			
					B	Custom 1 James Nunley 3 Walden Ridge 1	TN2	36,874	5.47
					C	Drake 3	KY1	345,822	51.27
4002	Cumberland	Stewart Cumberland City Tennessee	5,996,719	2,600	A	Providence 1 Homestead Ohio Martwick Drake 3 Camp 1,2	KY1	5,996,719	100.00
8001	Big Brown	Freestone Fairfield Texas	5,611,000	1,187	A	Big Brown	TX1	5,611,000	100.00
8002	Monticello	Titus Titus Texas	3,535,000	1,187	A	Monticello	TX1	3,535,000	100.00
9018	Carbon	Carbon Castle Gate Utah	433,000	189	A	Deseret	UT1	433,000	100.00
9015	Gadsby	Salt Lake Salt Lake City Utah	401,000	183	A	Deseret	UT1	401,000	100.00
9010	Huntington Canyon	Emery Huntington Utah	1,014,000	446	A	Deer Creek	UT1	1,014,000	100.00
3035	Clinch River	Russell Cleveland Virginia	1,789,200	712	A	Home Creek	VA1	1,730,200	96.70
					B	Kent Carb	KY4	59,000	3.30

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3069	Glen Lyn	Niles Glen Lyn Virginia	592,100	338	A	Kent Carb	KY4	109,000	18.41
					B	Home Creek	VA1	408,800	69.04
					C	Big Fork 8,9	WV6	55,500	9.37
					D	Chesterfield	WV5	13,300	2.25
					E	1/	KY1	5,500	.93
4031	Potomac River	Fairfax Alexandria Virginia	510,300	515	A	Home Creek	VA1	216,300	42.39
					B	Chesterfield	WV5	13,000	2.55
					C	Kent Carb	KY4	256,474	50.26
					D	Red Rocket	KY3	20,526	4.02
					E	1/	PA2	1,000	.19
					F	1/	TN1	3,000	.59
4044	Bremo Bluff	Fluvanna Bremo Bluff Virginia	526,400	254	A	Gauley Tip	WV4	11,797	2.24
					B	Chesterfield Hobet	WV5	440,203	83.63
					C	Kent Carb	KY4	74,400	14.13
4017	Chesterfield	Chesterfield Chester Virginia	551,000	1,484	A	Red Rocket	KY3	128,536	23.33
					B	Glenbrook 12 Kentucky D-Mine	KY5	200,526	36.39
					C	Lewis/Mash 40	TN1	45,000	8.17
					D	Hazard	KY4	34,316	13.43
9004	Centralia	Lewis Centralia Washington	4,200,000	1,460	A	Centralia Coal	WA1	4,200,000	100.00
3093	Cabin Creek	Kanawha Cabin Creek West Virginia	101,100	170	A	Lorado	WV5	3,387	3.35
					B	Stickney Tipple	WV6	97,713	96.65
3059	Kanawha River	Kanawha Glasgow West Virginia	1,244,300	439	A	K and R	OH1	909,600	73.10
					B	Marion	PA1	203,500	16.35
					C	Marg 11 & Cloe Tip	PA2	30,200	2.43
					D	Not available	WV5	3,300	.27
					E	Not available	WV6	97,700	7.85
3011	Amos	Kanawha St. Albans West Virginia	6,539,500	2,933	A	Lorado	WV5	4,804,500	73.47
					B	Stickney Tipple	WV6	2,500	.04
					C	D and R 2	KY3	580,907	8.88

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3011	(continued)				D	Paul 1	KY2	516,593	7.90
					E	Black Diamond	VA1	634,900	9.71
					F	Klines	TN1	100	.00
3021	P. Sporn	Mason New Haven West Virginia	1,373,600	1,106	A	Laurel/Melrose	VA1	418,600	30.47
					B	Stickney Tipple	WV6	160,365	11.67
					C	D and R 2	KY3	300,160	21.85
					D	M and R	KY4	35,440	2.58
					E	Lorado	WV5	457,135	33.28
					F	Riverside Coal	OH4	1,900	.14
3072	Albright	Preston Albright West Virginia	720,019	278	A	Kanes Creek	WV2	669,490	92.98
					B	Keontz Strip	MD1	35,599	4.94
					C	North Branch	WV3	14,930	2.07
3022	Fort Martin	Monongela Maidsville West Virginia	2,988,373	1,152	A	Eagle-Ringold-Sugar	PA2	172,135	5.76
					B	Arkwright Humphrey 7	WV2	2,816,238	94.24
3096	Rivesville	Marion Rivesville West Virginia	229,907	110	A	Apollo	PA1	6,534	2.83
					B	Kanes Creek Humphrey 7	WV2	38,000	16.53
					C	Stickney Tipple	WV6	164,908	71.73
					D	National	WV5	20,465	8.90
3082	Willow Island	Pleasants Pleasants West Virginia	425,497	215	A	Valley Camp 3	WV1	31,675	7.44
					B	Badger 13,14,15 Northeast Surface	WV2	255,747	60.11
					C	Carlisle	OH2	108,075	25.40
					D	Lost Run Cowen	WV4	30,000	7.05
3006	Harrison	Hatwood Harrison West Virginia	4,877,232	2,052	A	Northeast Surface/ Hormer	WV2	2,263,709	46.41
					B	Lost Run	WV4	121,886	2.50
					C	Wharton	WV5	1,110,299	22.77
					D	Keystone/Gauley	WV6	423,270	8.68
					E	D and R 2	KY3	121,574	2.49
					F	Hawkeye	KY4	827,484	16.97
					G	1/	KY1	9,010	.18

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
3036	Kammer	Marshall Moundsville West Virginia	1,528,900	712	A	Ireland Mine	WV1	1,314,300	85.96
					B	Elam Dock-Addington	KY2	18,500	1.21
					C	Slaughter Cr. Dock	WV0	196,100	12.83
3012	Mitchell-Captina	Marshall Moundsville West Virginia	3,083,500	1,633	A	Mt. Victory	KY3	90,589	2.94
					B	Ziegler 9	KY1	66,711	2.16
					C	Cravat	OH1	280.200	9.09
					D	Laurel/Melrose	VA1	76,600	2.48
					E	Northeast Surface/ Horner	WV2	613,500	19.90
					G	1/	PA1	3,700	.12
3009	Mount Storm	Grant Mt. Storm West Virginia	3,303,000	1,662	A	Wharton	WV5	182,028	5.51
					B	Laurel Run & North Branch	WV3	2,108,000	63.82
					C	Jone Tee	WV4	45,625	1.38
					D	Keontz Strip	MD1	767,000	23.22
					E	Northeast Surface/ Horner	WV2	200,347	6.07
6022	Alma	Buffalo Alma Wisconsin	645,000	188	A	Belle Ayr	WY2	101,000	15.66
					B	Sarpy Creek	MT4	106,800	16.56
					C	Burning Star 4 Baldwin 2,3,4	IL5	200,400	34.17
					D	Ken/River Queen	KY1	172,800	26.79
					E	Majestic	KY4	6,700	1.02
					F	Processed	-	37,300	5.78
					G	Allendale	IL1	20,000	3.10
6012	Genoa	Vernon Genoa City Wisconsin	1,156,900	346	A	Hanna	WY3	199,200	17.22
					B	Sarpy Creek	MT4	149,700	12.94
					C	Burning Star 2,3 Baldwin 2,3,4,	IL5	249,068	21.53
					D	Will Scarlet	IL6	101,732	8.79
					E	Fossil Fuels	KY5	3,700	.32
					F	1/	TN1	500	.04
					G	Colonial Mid America Term	KY1	403,500	34.88
					H	Processed	-	49,500	4.28

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
5029	Blount	Dane Madison Wisconsin	58,500	196	A	Dotiki Riverview	KY1	51,800	88.55
					B	Will Scarlet	IL6	6,700	11.45
5005	Oak Creek	Milwaukee Oak Creek Wisconsin	3,168,600	1,692	A	Hanna	WY3	715,600	23.72
					B	Old Ben #1	IN3	187,200	5.91
					C	Eagle-Ringold-Sugar	PA2	63,000	1.99
					D	River Queen	KY1	533,600	16.84
					E		IL6	1,633,200	51.54
5021	Port Washing-ton	Ozaukee Port Washington Wisconsin	553,000	400	A	Powhatan	OH1	23,800	3.17
					B	Mt. Carmel	PA2	148,000	19.73
					C	River Queen	KY1	129,600	17.28
					D	Old Ben #1	IL6	201,400	26.85
					E	Old Ben #21	IN3	247,300	32.97
5026	Valley	Milwaukee Milwaukee Wisconsin	612,100	336	A	Colonial	KY1	99,400	16.24
					B	Old Ben #2	IN3	163,500	26.71
					C	Old Ben #1	IL6	349,200	57.05
5017	Columbia	Columbia Columbia Wisconsin	1,744,859	545	A	Colstrip	MT4	1,744,859	100.00
5020	Edgewater	Sheboygan Sheboygan Wisconsin	1,011,679	477	A	Dotiki	KY1	36,024	3.56
					B	Chinook	IN3	108,680	10.74
					C	Midland	IL1	609,397	60.24
					D	Murdock	IL4	177,817	17.58
					E	Burning Star 2	IL5	79,761	7.88
6018	Nelson Dewey	Grant Cassville Wisconsin	577,296	227	A	Burning Star 2 Baldwin 2,3,4	IL5	577,296	100.00
5033	Rock River	Rock Beloit Wisconsin	295,212	150	A	Murdock	IL4	37,205	12.60
					B	Will Scarlet	IL6	31,116	10.54
					C	Burning Star 2	IL5	146,863	49.75
					D	Dotiki	KY1	80,028	27.11

See footnotes at end of table.

Continued

Appendix table 2--Power plants 100 MW or greater using coal, 1975--Continued

ICAM code	Plant name	County, town, & state	Total coal used	Nameplate capacity	ICAM link	Mine	CPA[2/]	Coal transport[1/]	
			Tons	MW				Tons	Pct.
5022	Pulliam	Brown Green Bay Wisconsin	881,400	454	A	Sarpy Creek	MT4	104,700	11.88
					B	Clarion 1215	PA1	153,000	17.36
					C	Pine Flats	PA2	203,900	23.13
					D	Dotiki Riverview Vogue	KY1	365,100	41.42
					E	Blackfoot 5 Hawthorn West	IN3	54,700	6.21
5035	Weston	Marathon Rothschild Wisconsin	257,100	157	A	Colstrip	MT4	6,600	2.57
					B	Dotiki	KY1	52,000	20.22
					C	Murdock	IL4	95,021	36.96
					D	Delta Will Scarlet	IL6	80.879	31.46
					E	Blackfoot 5 Hawthorn West	IN3	22,600	8.79
9005	Jim Bridger	Sweetwater Rock Springs Wyoming	1,863,000	1,121	A	Bridger	WY4	1,863,000	100.00
9007	Johnston	Converse Glenrock Wyoming	3,218,000	817	A	Johnston	WY3	3,218,000	100.00
9008	Naughton	Lincoln Naughton Wyoming	1,719,000	707	A	Sorenson	WY4	1,719,000	100.00

1/ Unknown shipments less than 1 percent of total coal consumed have been eliminated from operational status.
2/ Foreign source codes are those assigned by the Federal Energy Regulatory Commission and correspond to the country named in the mine column, i.e. Australia = 3503.

Source: (16)

Appendix table 3--Reported additions to steam coal mining capacity, by year

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1976:						
1	Falcon Coal Company	Oldhouse Branch	Breathitt	Kentucky	S	1.50
1	Falcon Coal Company	Falcon #1	Breathitt	Kentucky	S	.90
3	Martiki Coal Corp.	Martiki	Martin	Kentucky	S	1.20
1	Blue Diamond Coal Co.	Unnamed	Perry	Kentucky	U	.30
1	Tampa Electric Co.	Unnamed	Harlan	Kentucky	U	.80
1	Blue Diamond Coal Co.	Justus	McCreary	Kentucky	U	.60
1	Gilbert Fuel Co.	Crown City	Gallas	Ohio	S	.50
1	Rochester and Pittsburgh Coal	Urling #2	Armstrong	Pennsylvania	U	.20
1	Rochester and Pittsburgh Coal	Margaret #11	Armstrong	Pennsylvania	U	.20
3	Rochester and Pittsburgh Coal	Urling #3	Armstrong	Pennsylvania	U	.45
1	North American Coal	Josephine #2	Indiana	Pennsylvania	U	.30
1	Rochester and Pittsburgh Coal	Emilie #4	Armstrong	Pennsylvania	U	.25
1	Helvetia Coal Co.	Lucerne #8	Indiana	Pennsylvania	U	.40
1	North Somerset Mining	Unnamed	Somerset	Pennsylvania	U	.10
1	Old Home Manor	No. 8	Indiana	Pennsylvania	U	.20
1	Island Creek Coal	Vail #20	Harrison	Ohio	U	.40
1	Eastover Mining Co.	Virginia #2	Wise	Virginia	U	.30
1	Bell Petroleum	Brush Fork #1	Mercer	West Virginia	U	.20
1	Bell Petroleum	Brush Fork #2	Mercer	West Virginia	U	.20
1	Island Creek Coal	Unnamed	Logan	West Virginia	S	.40
1	Bell Petroleum	Spring Fork	Kanawha	West Virginia	S	.40
1	Valley Camp Coal	Cedar Grove	Kanawha	West Virginia	U	.50
1	Zapata Coal Corp.	Betty	Logan	West Virginia	U	.50
1	Allegheny Pittsburgh Coal	Unnamed	Webster	West Virginia	S	1.00
1	Cedar Coal Company	Coal Fork #1	Raleigh	West Virginia	U	.20
1	Old Home Manor	Unnamed	Unlocated	Pennsylvania	U	.20
2	Milton Fuller	Mel Martinez	Archuleta	Colorado	S	.25
2	Eagle Head Coal	McGinley	Mesa	Colorado	U	.25
2	Adolph Coors Co.	Lincoln	Weld	Colorado	U	.20
2	Garland Coal & Mining	Garland Bokoshe #10	LeFlore	Colorado	S,U	.25

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1977:						
3	Peabody Coal. Co.	Spur	Warrick	Indiana	U	.20
3	Peabody Coal. Co.	Alston #4	Ohio	Kentucky	U	.40
3	Helvetia Coal Co.	Lucerne #9	Indiana	Pennsylvania	U	.15
3	Cantebury Coal Co.	Dianne	Armstrong	Pennsylvania	U	.15
3	Old Home Manor	No. 4	Indiana	Pennsylvania	U	.20
3	G.M. and W. Coal	Grove #3	Cambria	Pennsylvania	U	.40
3	G.M. and W. Coal	Grove #4	Cambria	Pennsylvania	U	.20
3	U.S. Steel Corp.	Cumberland	Greene	Pennsylvania	U	.40
3	Benjamin Coal Co.	Various mines	Clearfield	Pennsylvania	S	.10
3	Westmoreland Coal	Holton-Taggart	Wise	Virginia	U	.30
3	Southern Ohio Coal	Martinka #1	Marion	West Virginia	U	1.20
3	Laurel Run Mining	No. 1	Grant	West Virginia	U	.40
3	Elkay Mining Co.	Bradshaw	McDowell	West Virginia	U	.50
3	Valley Camp Coal	Donaldson	Kanawha	West Virginia	U	.50
3	Southern Appalachia Coal	Ivy Creek	Boone	West Virginia	U	.30
3	Riverton Coal Co.	Unnamed	Fayette	West Virginia	S	.50
3	Sunflower Energy Corp.	Old Blue Ribbon	Delta	Colorado	U	.10
3	Peabody Coal Co.	Seneca	Routt	Colorado	S	.20
3	Knife River Coal	Gascoyne	Bowman	North Dakota	S	.10
3	Consolidation Coal	Glenharold	Mercer, Oliver	North Dakota	S	.10
3	Soldier Creek Coal	Soldier Canyon	Carbon	Utah	U	.40
3	Republic Steel	North River #1	Fayette	Alabama	U	.70
3	Amax Coal	Chinook	Clay	Indiana	S	.70
3	Pontiki Coal	Pontiki	Martin	Kentucky	U	.40
3	Scotts Branch Co.	Scotts Branch	Pike	Kentucky	U	.20
3	Leslie Coal Mining	Leslie	Pike	Kentucky	U	.20
3	Island Creek Coal	Big Creek 1 and 2	Unknown	Kentucky	U	.10
3	Southern Ohio Coal	Racoon #3	Vinton	Ohio	U	.40
3	Southern Ohio Coal	Meigs #1	Meigs	Ohio	U	.50
3	Southern Ohio Coal	Meigs #2	Meigs	Ohio	U	.40

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1977: Continued						
3	Oak Run Coal	Unnamed	Fayette	Pennsylvania	U	.50
3	Cedar Coal Co.	Twin Poplar #1	Boone	West Virginia	U	.10
3	Cedar Coal Co.	Big John #4	Boone	West Virginia	U	.10
3	Baukol-Noonan	Center	Oliver	North Dakota	S	2.60
3	Texas Utilities Generating	Monticello	Titus	Texas	S	.60
3	Zeigler Coal Co.	Zeigler #11	Randolph	Illinois	U	.30
3	American Electric Power	Albany	Athens	Ohio	U	.50
3	Quarto Mining Co.	Powhattan #7	Monroe	Ohio	U	1.00
3	Colowyo Coal Co.	Colowyo	Moffat	Colorado	S	.60
3	Jim Walter Resources	Blue Creek #4	Tuscaloosa	Alabama	U	.10
3	Mettiki Coal Corp.	Mettiki	Garrett	Maryland	U	.20
3	Energy Fuels Corp.	Energy 1 and 2	Routt	Colorado	S,U	.90
3	Utah International	San Juan	San Juan	New Mexico	S	.30
3	Pittsburg & Midway Coal	McKinley	McKinley	New Mexico	S	.70
3	Texas Utilities Generating	Martin Lake	Panola	Texas	S	2.40
3	Braztah Corp.	Braztah 3,4,5,6	Carbon	Utah	U	.50
3	Peabody Coal Co.	Wilberg	Emery	Utah	U	.20
3	Consolidation Coal	Emery	Emery	Utah	U	.50
3	Carter Mining Co.	North Rawhide	Campbell	Wyoming	S	2.00
3	Atlantic Richfield	Black Thunder	Campbell	Wyoming	S	.03
3	Big Horn Coal	Big Horn #1	Sheridan	Wyoming	S	1.40
3	Wyodak Resources	Wyodak N and S	Campbell	Wyoming	S	.10
3	FMC Corporation	Skull Point	Lincoln	Wyoming	S	.80
3	Amax Coal	Belle Ayr	Campbell	Wyoming	S	9.90
3	Old Ben Coal	Old Ben 25,27	Franklin	Illinois	U	1.50
3	Sunoco Energy Development	Cordero	Campbell	Wyoming	S	3.00
3	American Electric Power	Various mines	Breathitt	Kentucky	S,U	1.00
3	Peabody Coal	Alston #1	Ohio	Kentucky	S	1.00
3	Utah International	Navajo	San Juan	New Mexico	S	.30
1	U.S. Pipe & Foundry	Blue Creek #3	Jefferson	Alabama	U	1.50

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1977: Continued						
1	Midland Coal Co.	Rapatee	Knox	Illinois	S	.70
1	Freeman United Coal	Crown #2	Macoupin	Illinois	U	1.90
1	Morterey Coal Co.	Burning Star #5	Jackson	Illinois	U	2.80
3	Amax Coal	Wabash	Wabash	Illinois	U	.70
3	Old Ben Coal	Old Ben #2	Pike	Indiana	S	.40
1	Peabody Coal	Panama	Henderson	Kentucky	U	2.30
1	Chapperal Coal	No. 3	Pike	Kentucky	U	.40
1	Bell Coal Corp.	Unnamed	Bell	Kentucky	U	.30
1	North Somerset Mining	Unnamed	Somerset	Pennsylvania	U	.30
3	Laurel Run Mining	No. 1	Grant	West Virginia	U	.40
1	Rochester & Pittsburgh	Iselin #9	Indiana	Pennsylvania	S	.40
1	Plateau Mining	E. Tennessee	Campbell	Tennessee	U	.80
1	Eastover Mining	Virginia #2	Wise	Virginia	U	.40
3	Elkay Mining	Bradshaw	McDowell	West Virginia	U	.50
1	Valley Camp Coal	Cedar Grove	Kanawha	West Virginia	U	1.00
3	Southern Appalachia Coal	Ivy Creek	Boone	West Virginia	U	.30
1	Cedar Coal	Big John #3	Boone	West Virginia	U	.20
3	Sewell Coal Co.	Meadow River	Fayette	West Virginia	U	.15
1	Island Creek Coal	Unnamed	Logan	West Virginia	S	.60
1	Cedar Coal Co.	Big John #2	Boone	West Virginia	U	.10
3	Peabody Coal Co.	Kayenta	Navajo	Arizona	S	2.30
3	Western Slope Carbon	Hawks Nest	Gunnison	Colorado	U	.10
3	Energy and Export Ltd.	McKinley #1	Mesa	Colorado	U	.10
2	Ruby Construction	Sun	Routt	Colorado	U	.30
2	Big Ben Coal	Big Ben #1	Lucas	Iowa	U	.20
2	Island Creek Coal	Unnamed	Carbon	Utah	U	2.00
3	Swisher Coal	Gordon Creek #3	Carbon	Utah	U	.10
2	Swisher Coal	Swisher #5	Emery	Utah	U	.20
3	Swisher Coal	Huntington Canyon #4	Emery	Utah	U	.20
3	Peabody Coal	Deer Creek	Emery	Utah	U	1.00

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1977: Continued						
2	Peabody Coal Co.	Unnamed	Emery	Utah	U	.70
2	5M Corporation	John Henry	Kane	Utah	U	.40
3	Valley Camp of Utah	Utah #2	Carbon	Utah	U	.10
3	Valley Camp of Utah	Belina #1	Carbon	Utah	U	.20
2	Falcon Coal Co.	Unnamed	Campbell	Wyoming	S	.30
3	Jim Walter Resources	Blue Creek 3	Jefferson	Alabama	U	.50
3	Blazer Fuels Co.	Blazer	Routt	Colorado	U	.25
3	Chimney Rock Coal	Chimney Rock	Archuleta	Colorado	S	.03
3	Colorado Westmoreland	Orchard Valley	Delta	Colorado	U	.30
3	Empire Energy Corp.	Eagle 5	Moffat	Colorado	U	.20
3	General Exploration	Roadside	Mesa	Colorado	U	.20
3	Imperial Coal Co.	Lincoln	Weld	Colorado	U	.20
3	Limon Fuels Co.	Limon	Elbert	Colorado	S	.30
3	Sheridan Enterprises	McClane Canyon	Garfield	Colorado	S	.30
3	Sunland Mining Corp.	Apex 2	Routt	Colorado	U	.10
3	Arch Mineral Corp.	Unnamed	Unlocated	Illinois	S	1.00
3	Consolidation Coal Co.	Desoto	Jackson	Illinois	S	2.00
3	Peabody Coal Co.	Lewis	Clay, Vigo	Indiana	S	.20
3	Big H Combs Coal	Big H Combs	Letcher	Kentucky	U,S	.10
3	Falcon Coal	Kentucky River 1	Perry	Kentucky	U,S	.25
3	Falcon Coal	Haddix 1	Breathitt	Kentucky	U,S	.25
3	K-W Mining Co.	Davella 1	Martin	Kentucky	S	.05
3	Landmark Mining Co.	No. 2	Unlocated	Kentucky	U,S	.40
3	Southeast Coal Co.	406	Letcher	Kentucky	U	.08
3	Peabody Coal Co.	Sinclair-Slope	Muhlenberg	Kentucky	U	.40
3	Peabody Coal	Alston 3	Ohio	Kentucky	U	.60
3	Peabody Coal Co.	Camp 11	Union	Kentucky	U	.50
3	Peabody Coal Co.	Graham Hill	Muhlenberg	Kentucky	U	.30
3	Amcord Inc.	Sundance	McKinley	New Mexico	S	.20
3	Western Coal Co.	San Juan	San Juan	New Mexico	S	.20

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1977: Continued						
3	Husky Industries	Husky Strip	Stark	North Dakota	S	.06
3	Cherokee Coal Co.	Porter	Wagoner	Oklahoma	S	.10
3	Consolidation Coal Co.	Westland 2	Washington	Pennsylvania	U	.15
3	Shannon Coal Co.	Unit 246	Clarion	Pennsylvania	S	.48
3	W.P. Stahlman Coal Co.	Unit 248	Clarion	Pennsylvania	S	.09
3	Texas Utilities Co.	Big Brown	Freestone	Texas	S	.60
3	Coal Search Corp.	Knight	Sevier	Utah	U	.50
3	Coastal States Energy	Convulsion Canyon	Sevier	Utah	U	.50
3	United States Fuel	King	Carbon	Utah	U	.30
3	Washington Irrigation and Development	Centralia	Lewis	Washington	S	1.00
3	Island Creek Coal	Alpine 2	Grant	West Virginia	U	.15
3	Bethlehem Mines Corp.	Barbour 108	Barbour	West Virginia	U	.10
3	Big Mountain Coals	Big Mountain	Boone	West Virginia	U,S	.20
3	Cedar Coal	Coalburg 1	Boone	West Virginia	U	.20
3	Southern Appalachian Coal	Lens Creek 1	Kanawha	West Virginia	U,S	.10
3	Arch Mineral Corp.	Seminoe 2	Carbon	Wyoming	S	.50
3	FMC Corp.	Skull Point	Lincoln	Wyoming	S	.80
3	Rosebud Coal Sales	Rosebud	Carbon	Wyoming	S	.30
1978:						
3	Martiki Coal Corp.	Martiki	Martin	Kentucky	S	1.40
3	Rochester and Pittsburgh Coal	Urling #3	Armstrong	Pennsylvania	U	.05
3	Canterbury Coal Co.	Dianne	Armstrong	Pennsylvania	U	.15
3	G.M. & W. Coal Co.	Grove #4	Cambria	Pennsylvania	U	.20
3	U.S. Steel Corp.	Cumberland	Greene	Pennsylvania	U	.60

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1978: Continued						
3	Benjamin Coal Co.	Various mines	Clearfield	Pennsylvania	S	.10
3	Westmoreland Coal Co.	Holton-Taggart	Wise	Virginia	U	.30
3	Laurel Run Mining	No. 1	Grant	West Virginia	U	.40
3	Elkay Mining Co.	Bradshaw	McDowell	West Virginia	U	.50
3	Elkay Mining Co.	Rum Creek	Logan	West Virginia	U	.30
3	Valley Camp Coal	Donaldson	Kanawha	West Virginia	U	.50
3	Southern Appalachia Coal	Ivy Creek	Boone	West Virginia	U	.30
3	Riverton Coal Co.	Unnamed	Fayette	West Virginia	S	.20
3	Sunflower Energy Corp.	Old Blue Ribbon	Delta	Colorado	U	.10
3	Peabody Coal Co.	Seneca	Routt	Colorado	S	.20
3	Kaiser Steel Corp.	West York	Colfax	New Mexico	S	.50
3	Knife River Coal Mining	Gascoyne	Bowman	North Dakota	S	.50
3	Soldier Creek Coal	Soldier Canyon	Carbon	Utah	U	.20
3	Zeigler Coal Co.	Zeigler #5	Douglas	Illinois	U	.60
3	Amax Coal	Wabash	Wabash	Illinois	U	.70
3	Old Ben Coal Co.	Old Ben #2	Pike	Indiana	S	.50
3	Youghiogheny and Ohio Coal	Cadiz Portal	Harrison	Ohio	U	.40
3	Monterey Coal Co.	Unnamed	Wayne	West Virginia	U	.01
3	Cedar Coal Co.	Twin Poplar #1	Boone	West Virginia	U	.20
3	Sewell Coal Co.	Meadow River	Fayette	West Virginia	U	.20
3	Peabody Coal Co.	Kayenta	Navajo	Arizona	S	1.00
3	Cambridge Mining Corp.	CMC	Mesa	Colorado	U	.15
3	Coastal Mining Energy	S. Utah Fuels #1	Sevier	Utah	U	.50
3	Swisher Coal Co.	Huntington Canyon	Emery	Utah	U	.20
3	Peabody Coal Co.	Deer Creek	Emery	Utah	U	.30
3	Valley Camp of Utah	Belina #1	Carbon	Utah	U	.60
3	Western American Energy	Thompson	Grand	Utah	U	.20
3	Western American Energy	Rilda Canyon	Emery	Utah	U	.20
3	Zeigler Coal Co.	Zeigler #11	Randolph	Illinois	U	.90
3	Southeast Coal Co.	Caudill's Br.	Letcher	Kentucky	U	.25

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1978:	Continued					
3	American Electric Power	Albany	Athens	Ohio	U	.50
3	Quarto Mining Co.	Powhattan #7	Monroe	Ohio	U	1.00
3	Consolidation Coal Co.	Canadian	Jackson	Colorado	S	.50
3	Colowyo Coal Co.	Colowyo	Moffat	Colorado	S	1.40
3	Anschutz Coal Co.	Thompson Creek	Pitkin	Colorado	U	.10
3	Decker Coal	E and W Decker	Big Horn	Montana	S	2.80
3	Mead Corporation	North Mulga	Jefferson	Alabama	U	.10
3	Jim Walter Resources	Blue Creek #4	Tuscaloosa	Alabama	U	.80
3	Monterey Coal Co.	Monterey #2	Clinton	Illinois	U	1.00
3	Mettiki Coal Corp.	Mettike	Garrett	Maryland	U	.50
3	Sewanne Mining Co.	Rineau #2	Rio Blanco	Colorado	U	.40
3	Coal Fuels	Dawson Unit	Routt	Colorado	U	.50
3	Utah International	Trapper	Moffat	Colorado	S	1.70
3	Westmoreland Resources	Sarpy Creek	Big Horn	Montana	S	.50
3	Utah International	San Juan	San Juan	New Mexico	S	.90
3	Pittsburg and Midway Coal	McKinley	McKinley	New Mexico	S	1.30
3	Texas Utilities Generating	Martin Lake	Panola	Texas	S	3.60
3	Braztah Corp.	Braztah 3,4,5,6	Carbon	Utah	U	2.00
3	Peabody Coal Co.	Wilberg	Emery	Utah	U	.50
3	Atlas Minerals	Factory Butte	Wayne	Utah	U	.30
3	Carter Mining Co.	North Rawhide	Campbell	Wyoming	S	5.00
3	Atlantic Richfield	Black Thunder	Campbell	Wyoming	S	2.70
3	Big Horn Coal	Big Horn #1	Sheridan	Wyoming	S	.30
3	Wyodak Resources	Wyodak	Campbell	Wyoming	S	1.70
3	Rocky Mountain Energy	Stansbury #1	Sweetwater	Wyoming	U	.40
3	Energy Development Co.	Vanguard #2	Carbon	Wyoming	U	.20
3	Medicine Bow Coal	Medicine Bow	Carbon	Wyoming	S	.30
3	Old Ben Coal Co.	Old Ben 25,27	Franklin	Illinois	U	1.50
3	Inland Steel Co.	Inland #2	Hamilton	Illinois	U	.10
3	Falkirk Mining Co.	Falkirk	McLean	North Dakota	S	5.50

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1978: Continued						
3	Eastover Mining Co.	Bell #7	Bell	Kentucky	U	.10
3	Kerr-McGee Corp.	Jacobs Ranch	Campbell	Wyoming	S	2.50
3	Eastover Mining Co.	Brookside #4	Harlan	Kentucky	U	.05
3	American Electric Power	Various mines	Breathitt	Kentucky	S,U	1.00
3	Utah International	Navajo	San Juan	New Mexico	S	1.00
3	Republic Steel	North River #1	Fayette	Alabama	U	.55
3	Amax Coal	New Delta	Saline	Illinois	S	1.60
3	Amax Coal	Ayrcat	Vermillion	Illinois	S	1.50
3	Amax Coal	Chinook	Clay	Indiana	S	.60
1	Peabody Coal Co.	Sinclair	Muhlenburg	Kentucky	S	6.00
3	Pontiki Coal Corp.	Pontiki	Martin	Kentucky	U	.60
3	Scotts Branch Co.	Scotts Branch	Pike	Kentucky	U	.50
3	Leslie Coal Mining	Leslie	Pike	Kentucky	U	.50
3	Island Creek Coal	Big Creek 1,2	Unlocated	Kentucky	U	.80
3	Canada Coal Co.	No. 2	Pike	Kentucky	U	.50
3	Southern Ohio Coal	Racoon #3	Vinton	Ohio	U	.50
3	Southern Ohio Coal	Meigs #1	Meigs	Ohio	U	.60
3	Southern Ohio Coal	Meigs #2	Meigs	Ohio	U	.50
1	Quarto Mining Co.	Powhattan #4	Monroe	Ohio	U	3.20
1	North Somerset Mining	Unnamed	Somerset	Pennsylvania	U	.40
3	Oak Run Coal	Unnamed	Fayette	Pennsylvania	U	.50
3	Cedar Coal Co.	Big John #4	Boone	West Virginia	U	.20
1	Island Creek Coal	Unnamed	Logan	West Virginia	S	1.20
3	Island Creek Coal	Upshur #2	Upshur	West Virginia	U	.50
1	Tipperary Oil and Gas	Unnamed	Las Animas	Colorado	U	.50
3	CF and I Steel Corp.	Maxwell	Las Animas	Colorado	U	.10
2	Bill's Coal Co.	Bill's Coal	Osage	Kansas	S	.25
3	Texas Utilities Generating	Monticello	Titus	Texas	S	2.00
3	Public Service Oklahoma	PSO#1	Sheridan	Wyoming	S	.10
3	Energy Development Co.	Vanguard 3	Carbon	Wyoming	U	.20

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1978: Continued						
3	Jim Walter Resources	Blue Creek #3	Jefferson	Alabama	U	.50
3	Chimney Rock Coal	Chimney Rock	Archuleta	Colorado	S	.07
3	Coal Fuels	Anchor-Tresnor	Mesa, Garfield	Colorado	U	.30
3	Colorado Westmoreland	Orchard Valley	Delta	Colorado	U	.20
3	Empire Energy Corp.	Eagle 7	Moffat	Colorado	U	.30
3	Empire Energy Corp.	Eagle 9	Moffat	Colorado	U	.45
3	General Exploration	Roadside	Mesa	Colorado	U	.30
3	Imperial Coal Co.	Lincoln	Weld	Colorado	U	.10
3	Limon Fuels Co.	Limon	Elbert	Colorado	S	.50
3	Morrison-Knudsen Co.	Hayden Gulch	Routt	Colorado	S	.10
3	Quinn Devleopment Co.	Tomahawk	Delta	Colorado	S	.08
3	Amax Coal Co.	Sunspot	Fulton	Illinois	S	.50
3	Arch Mineral Corp.	Unnamed	Unlocated	Illinois	S	1.00
3	Morris Coal	Morris 5	Williamson	Illinois	U	.40
3	Morris Coal	Morris 6	Williamson	Illinois	U	.25
3	Peabody Coal Co.	Baldwin 2	St. Clair	Illinois	U	.50
3	Amax Coal Co.	Ayrshire	Warrick	Indiana	S	.60
3	Cherokee Coal Co.	Fulton	Bourbon	Kansas	S	.15
3	Big H Combs Coal Co.	Big H Combs	Letcher	Kentucky	U,S	.10
3	Falcon Coal Co.	South Fork	Breathitt	Kentucky	S	1.50
3	Falcon Coal Co.	Spicewood	Breathitt	Kentucky	S	.80
3	Falcon Coal Co.	Ky River 1	Perry	Kentucky	U,S	.25
3	Falcon Coal Co.	Haddix 1	Breathitt	Kentucky	U,S	.25
3	K-W Mining Co.	Davella 3	Martin	Kentucky	U	.15
3	Kaneb Services	Breathitt(2 mines)	Breathitt	Kentucky	S	.50
3	Plastics Univeral Corp.	Plastics Univ.	Knox	Kentucky	S	.24
3	Southeast Coal Co.	406	Letcher	Kentucky	U	.02
3	Peabody Coal Co.	Sinclair Slope	Muhlenburg	Kentucky	U	.35
3	Peabody Coal Co.	Camp #11	Union, Webster	Kentucky	U	.50
3	Peabody Coal Co.	Moorman #14	Muhlenburg	Kentucky	U	.50

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1978: Continued						
3	Peabody Coal Co.	Big Sky	Rosebud	Montana	S	.10
3	Westmoreland Resources	Absaloka	Big Horn	Montana	S	.50
3	Cherokee Coal Co.	Porter	Wagoner	Oklahoma	S	.20
3	Garland Coal and Mining	Rosehill	Haskell	Oklahoma	S	.10
3	Consolidation Coal Co.	Westland 2	Washington	Pennsylvania	U	.10
3	Duquesne Light Co.	Warwick 5	Greene	Pennsylvania	U	.05
3	Keystone Energy Co.	KECO 1	Jefferson, Armstrong	Pennsylvania	S	.20
3	Leechburg Mining Co.	Foster	Armstrong	Pennsylvania	U	.25
3	Shannon Coal Co.	Unit 2000	Clarion	Pennsylvania	S	.24
3	Eugene B. Shirley Co.	Wallace 1	Hopkins	Texas	S	.18
3	Coal Search Corp.	Knight	Sevier	Utah	U	.25
3	Coal Search Corp.	Rock Canyon	Sevier	Utah	U	.25
3	Coastal States Energy	Convulsion Canyon	Sevier	Utah	U	.10
3	U.S. Fuel Co.	King	Carbon	Utah	U	.30
3	Utah Power and Light	Wilberg	Emery	Utah	U	.50
3	Island Creek Coal	Alpine 2	Grant	West Virginia	U	.20
3	Laurel Run Mining	Mt. Storm 1	Grant	West Virginia	U	.40
3	Big Mountain Coals	Big Mountain	Boone	West Virginia	U,S	.20
3	Cedar Coal Co.	Coalburg 1	Boone	West Virginia	U	.20
3	A.T. Massey Coal	Mingo County	Mingo	West Virginia	U	.50
3	Riverton Coal Co.	Fayette City	Fayette	West Virginia	U,S	.20
3	Southern Resources	Raleigh Co.	Raleigh	West Virginia	U	.25
3	Amax Coal Co.	Eagle Butte	Campbell	Wyoming	S	3.80
1979:						
3	Canterbury Coal Co.	Dianne	Armstrong	Pennsylvania	U	.10
3	G.M. and W. Coal Co.	Grove #4	Cambria	Pennsylvania	U	.20
3	U.S. Steel Corp.	Cumberland	Greene	Pennsylvania	U	.60
3	Benjamin Coal Co.	Various mines	Clearfield	Pennsylvania	S	.10
3	Westmoreland Coal Co.	Holton-Taggert	Wise	Virginia	U	.10

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1979: Continued						
3	Laurel Run Mining	No. 1	Grant	West Virginia	U	.50
3	Elkay Mining Co.	Rum Creek	Logan	West Virginia	U	1.08
3	Valley Camp Coal	Donaldson	Kanawha	West Virginia	U	.50
3	Sunflower Energy Corp.	Old Blue Ribbon	Delta	Colorado	U	.10
3	Seneca Coals Ltd.	Seneca	Routt	Colorado	S	.20
3	Amax Coal	Wabash	Wabash	Illinois	U	.30
3	Youghiogheny and Ohio Coal	Cadiz Portal	Harrison	Ohio	U	.40
3	Monterey Coal Co.	Unnamed	Wayne	West Virginia	U	.21
3	Sewell Coal Co.	Meadow River	Fayette	West Virginia	U	.35
3	Western Slope Carbon	Hawks Nest	Gunnison	Colorado	U	.20
3	Cambridge Mining Corp.	CMC	Mesa	Colorado	U	.50
3	Plateau Mining Co.	Star Point #3	Carbon	Utah	U	.60
3	Utah Power and Light	Deer Creek	Emery	Utah	U	.10
3	Valley Camp of Utah	Belina #1	Carbon	Utah	U	.20
3	Western American Energy	Thompson	Grand	Utah	U	.10
3	Amax Coal	Chinook	Clay	Indiana	S	.10
3	Pontiki Coal Corp.	Pontiki	Martin	Kentucky	U	.40
3	Scotts Branch Co.	Scotts Branch	Pike	Kentucky	U	.35
3	Leslie Coal Mining	Leslie	Pike	Kentucky	U	.20
3	Island Creek Coal	Big Creek 1,2	Unlocated	Kentucky	U	.30
3	Southern Ohio Coal	Racoon #3	Vinton	Ohio	U	.20
3	Southern Ohio Coal	Meigs #1	Meigs	Ohio	U	.70
3	Southern Ohio Coal	Meigs #2	Meigs	Ohio	U	.20
3	Island Creek Coal	Upshur #1	Upshur	West Virginia	S	.60
3	CF and I Steel Corp.	Maxwell	Las Animas	Colorado	U	.25
3	Texas Utilities Generating	Monticello	Titus	Texas	S	2.0
3	Public Service Oklahoma	PSO #1	Sheridan	Wyoming	S	.40
3	Energy Development Co.	Vanguard 3	Carbon	Wyoming	U	.20
3	Coalite Inc.	Brilliant	Winston	Alabama	S	.30
3	Mead Corporation	North Mulga	Jefferson	Alabama	U	.30

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1979: Continued						
3	Jim Walter Resources	Blue Creek #4	Tuscaloosa	Alabama	U	.90
3	Monterey Coal Co.	Monterey #2	Clinton	Illinois	U	1.10
3	Mettiki Coal Corp.	Mettiki	Garrett	Maryland	U	.80
3	Coal Fuels	Dawson Unit	Routt	Colorado	U	.50
3	Cameron Engineers	Station Creek	Elbert	Colorado	S	.50
3	Utah International	Trapper	Moffat	Colorado	S	.60
3	Western Energy Co.	Rosebud	Rosebud	Montana	S	1.40
3	Westmoreland Resources	Sarpy Creek	Big Horn	Montana	S	2.50
3	Utah International	San Juan	San Juan	New Mexico	S	1.40
3	Pittsburg and Midway	McKinley	McKinley	New Mexico	S	1.50
3	Texas Utilities Generating	Martin Lake	Panola	Texas	S	5.00
3	Peabody Coal Co.	Wilberg	Emery	Utah	U	.10
3	Carter Mining Co.	N. Rawhide	Campbell	Wyoming	S	2.00
3	Atlantic Richfield	Black Thunder	Campbell	Wyoming	S	7.10
3	Rocky Mountain Energy Co.	Hanna	Carbon	Wyoming	U	.20
3	Rocky Mountain Energy Co.	Twin Creek	Lincoln	Wyoming	S	1.50
3	Carter Oil Co.	Coballo	Campbell	Wyoming	S	1.00
3	FMC Corp.	Skull Point	Lincoln	Wyoming	S	.20
3	Stansbury Coal Co.	Stanbury #1	Sweetwater	Wyoming	U	.30
3	Amax Coal Co.	Belle Ayr	Campbell	Wyoming	S	.70
3	Kerr-McGee Corp.	East Gillette	Campbell	Wyoming	S	1.20
3	Black Butte Coal	Black Butte	Sweetwater	Wyoming	S	.60
3	Old Ben Coal Co.	Old Ben 25,27	Franklin	Illinois	U	1.00
3	Inland Steel Co.	Inland #2	Hamilton	Illinois	U	.15
3	Falkirk Mining Co.	Falkirk	McLean	North Dakota	S	.50
3	Sunoco Energy Development	Cardero	Campbell	Wyoming	S	3.00
3	Eastover Mining Co.	Bell #7	Bell	Kentucky	U	.20
3	Kerr-McGee Corp.	Jacobs Ranch	Campbell	Wyoming	S	3.90
3	Eastover Mining Co.	Brookside #4	Harlan	Kentucky	U	.05
3	American Electric Power	Various mines	Breathitt	Kentucky	S,U	1.00

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1979: Continued						
3	Zapata Corp-Getty Oil	Grizzly Creek	Jackson	Colorado	S	.50
3	Groves-Calder	Unnamed	Huerfano	Colorado	S	.10
3	Utah International	Navajo	San Juan	New Mexico	S	1.40
3	Carbon Coal Co.	Gamerco	McKinley	New Mexico	S	1.50
3	Armco Steel Corp.	Unnamed	LeFlore	Oklahoma	U	.50
3	Peter Kiewit and Sons	Whitney	Sheridan	Wyoming	S	1.00
3	Ziegler Coal Co.	Ziegler #11	Randolph	Illinois	U	.30
1	Pittsburg and Midway	Nortonville	Hopkins	Kentucky	S	1.00
1	Pittsburg and Midway	Drake #5	Muhlenburg	Kentucky	U	.50
3	McInnes Coal Mining	McInnes	Pike	Kentucky	U	.10
3	Southeast Coal Co.	Eastern Ky	Letcher	Kentucky	U	.10
3	American Electric Power	Albany	Athens	Ohio	U	.50
3	Quarto Mining Co.	Powhattan #7	Monroe	Ohio	U	.90
3	Consolidation Coal Co.	Canadian	Jackson	Colorado	S	.50
3	W.R. Grace and Hanna Mining	Colowyo	Moffat	Colorado	S	2.00
3	Decker Coal Co.	Decker	Big Horn	Montana	S	5.70
3	Coastal Energy and Coal	Hamilton	Skagit	Washington	U	1.00
3	Jim Walter Resources	Blue Creek 3	Jefferson	Alabama	U	.45
3	Coal Fuels	Anchor-Tresner	Mesa, Garfield	Colorado	U	.30
3	Empire Energy Corp.	Eagle 6	Moffat	Colorado	U	.30
3	Empire Energy Corp.	Eagle 7	Moffat	Colorado	U	.30
3	General Exploration Co.	Cameo	Mesa	Colorado	U	.20
3	General Exploration Co.	Roadside	Mesa	Colorado	U	.50
3	Morrison-Knudson Co.	Hayden Gulch	Routt	Colorado	S	.65
3	Quinn Development Co.	Tomahawk	Delta	Colorado	S	.17
3	Morris Coal Inc.	Morris 6	Williamson	Illinois	U	.25
3	Peabody Coal Co.	Baldwin 2	St. Clair	Illinois	U	.80
3	Peabody Coal Co.	Baldwin 3	St. Clair	Illinois	U	.50
3	Zeigler Coal Co.	No. 6	Douglas	Illinois	U	.50
3	Amax Coal	Ayrshire	Warrick	Indiana	S	1.00

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1979: Continued						
3	Peabody Coal	Hawthorn West	Greene	Indiana	S	.80
3	Falcon Coal Co.	Ky River 1	Perry	Kentucky	U,S	.25
3	Falcon Coal Co.	Haddix 1	Breathitt	Kentucky	U,S	.25
3	K-W Mining Co.	Davella 3	Martin	Kentucky	U	.05
3	Kaneb Services Inc.	Breathitt(2 mines)	Unlocated	Kentucky	S	.50
3	Peabody Coal Co.	Camp 11	Union, Webster	Kentucky	U	.50
3	Peabody Coal Co.	Moorman 14	Muhlenburg	Kentucky	S	.50
3	Pittsburg and Midway Coal	Fiddle Bow	Hopkins	Kentucky	U	.25
3	Pittsburg and Midway Coal	Pleasant Hill	Hopkins	Kentucky	S	.50
3	Knife River Coal Mining	Savage	Richland	Montana	S	.10
3	Peabody Coal Co.	Big Sky	Rosebud	Montana	S	.50
3	Westmoreland Resources	Absaloka	Big Horn	Montana	S	2.50
3	Amcord Inc.	Sundance	McKinley	New Mexico	S	.10
3	Husky Industries	Husky Strip	Stark	North Dakota	S	.10
3	Youghiogheny and Ohio Coal	Nelms 2	Harrison	Ohio	U	.20
3	Garland Coal and Mining	Rosehill	Haskell	Oklahoma	S	.10
3	Cambria Coal Co.	Unit 480	Cambria	Pennsylvania	S	.18
3	Duquesne Light Co.	Warwick 5	Greene	Pennsylvania	U	.20
3	Shannon Coal Co.	Unit 2000	Clarion	Pennsylvania	S	.24
3	Shannon Coal Co.	Unit 1300	Clarion	Pennsylvania	S	.24
3	Brazos Electric Power	San Miguel	Atascosa	Texas	S	.50
3	Texas Utilities Co.	Rockdale	Milan	Texas	S	.50
3	Coal Search Corp.	Accord Lake	Sevier	Utah	U	.50
3	Coal Search Corp.	Rock Canyon	Sevier	Utah	U	.25
3	Coastal States Energy	Convulsion Canyon	Sevier	Utah	U	.40
3	U.S. Fuel Corp.	Mohrland	Emery	Utah	U	.30
3	Island Creek Coal	Alpine 2	Grant	West Virginia	U	.50
3	Laurel Run Mining	Mt. Storm 1	Grant	West Virginia	U	.50
3	A.T. Massey Coal	Mingo Co.	Mingo	West Virginia	U	1.00
3	Southern Resources	Raleigh Co.	Raleigh	West Virginia	U	.25

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1979: Continued						
3	Amax Coal Co.	Eagle Butte	Campbell	Wyoming	S	2.40
3	Consolidation Coal Co.	Pronghorn	Campbell	Wyoming	S	2.00
3	Cravat Coal Co.	Deadman	Lincoln	Wyoming	S	.20
3	Energy Development	Vanguard 2,3	Carbon	Wyoming	S,U	.20
3	Ranchers Energy Corp.	Campbell Co.	Campbell	Wyoming	S	.20
3	Rocky Mtn Energy Co.	South Haystack	Uinta	Wyoming	S	1.50
3	Rocky Mountain Energy Co.	Atlantic Rim	Carbon	Wyoming	S	1.00
3	Sheridan Enterprises	Welch 6	Sheridan	Wyoming	S	.30
1980:						
3	Rochester and Pittsburgh Coal	Urling 1	Armstrong	Pennsylvania	U	.35
3	U.S. Steel Corp.	Cumberland	Greene	Pennsylvania	U	.60
3	Benjamin Coal Co.	Various Mines	Clearfield	Pennsylvania	S	.10
3	Elkay Mining Co.	Run Creek	Logan	West Virginia	U	.12
3	Valley Camp Coal Co.	Donaldson	Kanawha	West Virginia	U	.50
3	Seneca Coals Ltd.	Seneca	Routt	Colorado	S	.10
3	Youghiogheny and Ohio Coal	Cadiz Portal	Harrison	Ohio	U	.20
3	Monterey Coal Co.	Wayne	Wayne	West Virginia	U	.74
3	Western Slope Carbon	Hawks Nest	Gunnison	Colorado	U	.10
3	Energy and Export Co.	McKinley 1	Mesa	Colorado	U	.10
3	Valley Camp of Utah	Belina #2	Carbon	Utah	U	.20
3	Plateau Mining Co.	Star Point 3	Carbon	Utah	U	.40
3	Swisher Coal Co.	Gordon Creek 3	Carbon	Utah	U	.30
3	Valley Camp of Utah	Belina 1	Carbon	Utah	U	.30
3	Western American Energy	Thompson	Grand	Utah	U	.20
3	Scotts Branch Co.	Scotts Branch	Pike	Kentucky	U	.20
3	Leslie Coal Mining Co.	Leslie	Pike	Kentucky	U	.10
3	Island Creek Coal	Upshur 1	Upshur	West Virginia	S	.80
3	CF and I Steel	Maxwell	Las Animas	Colorado	U	.60
3	McInnes Coal Co.	McInnes	Pike	Kentucky	U	.20

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1980: Continued						
3	Southeast Coal Co.	Eastern Kentucky	Letcher	Kentucky	U	.15
3	Anschutz Coal Co.	Thompson Creek 1,3	Pitkin	Colorado	U	.50
3	Inland Steel Co.	Inland 1	Hamilton	Illinois	U	.50
3	Falkirk Mining Co.	Falkirk	McLean	North Dakota	S	1.00
3	Sunoco Energy Development	Cordero	Campbell	Wyoming	S	3.00
3	Westmoreland Resources	Sarpy Creek	Big Horn	Montana	S	2.50
3	Texas Utilities Generating	Twin Oaks	Robertson	Texas	S	2.00
3	Texas Municipal Power Pool	Gibbon Creek	Grimes	Texas	S	.20
3	Drummond Company	Various mines	Tuscaloosa	Alabama	S	.60
3	Eastover Mining Co.	Bell #7	Bell	Kentucky	U	.30
3	Mintech Corp.	Watkins Lignite	Adams	Colorado	S	2.00
3	Kerr-McGee Corp.	Jacobs Ranch	Campbell	Wyoming	S	2.10
3	Eastover Mining Corp.	Brookside #4	Harland	Kentucky	U	.10
3	Amax Coal Co.	Belle Ayr	Campbell	Wyoming	S	.10
3	American Electric Power	Various mines	Breathitt	Kentucky	S,U	2.00
3	Moon Lake Electric	Gordon	Rio Blanco	Colorado	U	1.50
3	Zapata Corp. - Getty Oil	Grizzly Creek	Jackson	Colorado	S	1.50
3	Northern Energy Resources	Spring Creek	Big Horn	Montana	S	3.00
3	Armco Steel Corp.	Unnamed	LeFlore	Oklahoma	U	.20
3	Coalite Inc.	Brilliant	Winston	Alabama	S	.18
3	Mead Corporation	North Mulga	Jefferson	Alabama	U	.10
3	Jim Walter Resources	Blue Creek #4	Tuscaloosa	Alabama	U	.20
3	Monterey Coal Co.	Monterey #2	Clinton	Illinois	U	1.10
3	Mettiki Coal Corp.	Mettiki	Garrett	Maryland	U	.30
3	Consolidation Coal Co.	Unnamed	Noble	Ohio	S	2.50
1	Island Creek Coal	Upshur 2	Upshur	West Virginia	U	3.00
3	Adolph Coors Co.	King	Delta	Colorado	U	.25
2	Merchants Petroleum Co.	Unnamed	Routt	Colorado	U	4.40
2	Midland Coal Co.	Unnamed	Rio Blanco	Colorado	S	.20
2	Pittsburg and Midway	Edna	Routt	Colorado	S	1.10

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1980: Continued						
3	Energy Fuels Corp	Energy 1,2	Routt	Colorado	S,U	1.00
3	Coal Fuels	Dawson Unit	Routt	Colorado	U	.50
3	Colorado Westmoreland	Converse	Delta	Colorado	U	1.50
3	Cameron Engineers	Station Creek	Elbert	Colorado	S	.50
2	Empire Energy Corp	Wise Hill 5,6,7	Moffat	Colorado	S,U	2.00
2	Paul S. Coupey	Unnamed	Routt	Colorado	S	1.00
2	American Electric Power	Unnamed	Routt	Colorado	S	1.00
3	Western Energy Co.	Rosebud	Unlocated	Montana	S	2.61
3	Pittsburg and Midway Coal	McKinley	McKinley	New Mexico	S	.70
3	Texas Utilities Generating	Martin Lake	Panola	Texas	S	1.00
3	Utah Power and Light	Wilberg	Emery	Utah	U	1.00
3	Utah Power and Light	Straight Canyon	Emery	Utah	U	2.50
3	Inspiration Development Co.	Ferron Canyon	Emery	Utah	U	1.00
3	Centennial Coal Assoc.	Unnamed	Carbon	Utah	U	.50
3	Atlas Minerals	Factory Butte	Wayne	Utah	U	.20
2	Clinton Oil Co.	Unnamed	Sevier	Utah	U	1.00
3	Carter Mining Co.	No. Rawhide	Campbell	Wyoming	S	2.00
3	Atlantic Richfield	Black Thunder	Campbell	Wyoming	S	2.80
3	Shell Oil Company	Buckskin	Campbell	Wyoming	S	2.00
3	Northwestern Resources	Grass Creek	Hot Sprgs	Wyoming	S	.70
3	Rocky Mountain Energy	Hanna	Carbon	Wyoming	U	.50
3	Peter Kiewit and Sons	Twin Creek	Lincoln	Wyoming	S	1.00
3	Carter Oil Company	Coballo	Campbell	Wyoming	S	2.00
3	Big Horn Coal Co.	Big Horn #1	Sheridan	Wyoming	S	.50
3	Kemmerer Coal Co.	Sorenson	Lincoln	Wyoming	S	1.10
2	Kemmerer Coal Co.	Elkol	Lincoln	Wyoming	S	1.10
3	Bridger Coal Co.	Bridger	Sweetwater	Wyoming	S	1.65
3	FMC Corp.	Skull Point	Lincoln	Wyoming	S	.20
3	Rocky Mtn. Energy Co.	Stansbury 1	Sweetwater	Wyoming	U	.25
3	Kerr-McGee Corp.	Gillette	Campbell	Wyoming	S	3.10

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1980: Continued						
3	Black Butte Coal	Black Butte	Sweetwater	Wyoming	S	4.80
2	Columbine Mining Co.	Rainbow #8	Sweetwater	Wyoming	U	.20
3	Coal Fuels	Anchor-Tresnor	Garfield, Mesa	Colorado	U	.40
3	Empire Energy Corp.	Eagle 6	Moffat	Colorado	U	.30
3	General Exploration Co.	Cameo	Mesa	Colorado	U	.40
3	General Exploration Co.	Roadside	Mesa	Colorado	U	.20
3	Morrison-Knudsen Co.	Hayden Gulch	Routt	Colorado	S	.25
3	Sunland Mining Corp.	Apex 2	Routt	Colorado	U	.25
3	Micor Inc.	Unnamed	Unlocated	Illinois	S	1.00
3	Peabody Coal Co.	Baldwin 3	St. Clair	Illinois	U	.80
3	Peabody Coal Co.	Baldwin 4	St. Clair	Illinois	U	.50
3	Zeigler Coal Co.	No. 6	Douglas	Illinois	U	.50
3	Amax Coal Co.	Ayrshire	Warrick	Indiana	S	.20
3	Falcon Coal Co.	Ky River 1	Perry	Kentucky	S,U	.25
3	Falcon Coal Co.	Haddix 1	Breathitt	Kentucky	S,U	.25
3	Landmark Mining Co.	No. 2	Unlocated	Kentucky	S,U	.10
3	Pittsburg and Midway Coal	Fiddle Bow	Hopkins	Kentucky	U	.25
3	Pittsburg and Midway Coal	Pleasant Hill	Hopkins	Kentucky	S	.50
3	Burlington Northern	Musselshell	Musselshell	Montana	S	.30
3	Westmoreland Resources	Absaloka	Big Horn	Montana	S	2.50
3	Amcord, Inc.	Sundance	McKinley	New Mexico	S	.20
3	Arch Mineral Corp.	Unit #1	San Juan	New Mexico	S	.40
3	Chaco Energy	Hospah	McKinley	New Mexico	S	.50
3	Chaco Energy	Star Lake	McKinley	New Mexico	S	.50
3	Cherokee Coal Co.	Unnamed	San Juan	New Mexico	S	2.00
3	Coteau Properties Co.	Mercer Co.	Mercer	North Dakota	S	3.00
3	Husky Industries	Husky Strip	Stark	North Dakota	S	.10
3	Youghiogheny and Ohio Coal	Nelms 2	Harrison	Ohio	U	.10
3	Cambria Coal Co.	Unit 480	Cambria	Pennsylvania	S	.01
3	Duquesne Light Co.	Warwick 5	Greene	Pennsylvania	U	.05

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1980: Continued						
3	Shannon Coal Co.	Unit 1300	Clarion	Pennsylvania	S	.24
3	Shannon Coal Co.	Unit 1300D	Clarion	Pennsylvania	S	.18
3	W.P. Stahlman Coal	Unit 131	Jefferson	Pennsylvania	S	.11
3	Brazos Electric Power	San Miguel	Atascosa	Texas	S	2.50
3	Texas Utilities Co.	Rockdale	Milam	Texas	S	2.10
3	C.T. Corp. System	Carbon Co.	Carbon	Utah	U	.50
3	Coal Search Corp.	Accord Lake	Sevier	Utah	U	.50
3	Coal Search Corp.	Rock Canyon	Sevier	Utah	U	.50
3	Coastal States Energy	Convulsion Canyon	Sevier	Utah	U	.20
3	United State Fuel	Mohrland	Emery	Utah	U	.35
3	A.T. Massey Coal	Mingo Co.	Mingo	West Virginia	U	.50
3	Amax Coal Co.	Eagle Butte	Campbell	Wyoming	S	3.403
3	Consolidation Coal Co.	Pronghorn	Campbell	Wyoming	S	1.50
3	Pittsburg and Midway Coal	Wildcat Creek	Campbell	Wyoming	S	3.80
3	Ranchers Energy Corp.	Campbell Co.	Campbell	Wyoming	S	.30
3	Ranchers Energy Corp.	Campbell Co.	Campbell	Wyoming	S	.20
3	Rocky Mtn. Energy Co.	South Haystack	Uinta	Wyoming	S	1.00
3	Rocky Mtn. Energy Co.	Atlantic Rim	Carbon	Wyoming	S	1.00
3	Sheridan Enterprises	Welch 6	Sheridan	Wyoming	S	1.70
3	Rochester and Pittsburgh Coal	Emilie #4	Armstrong	Pennsylvania	U	.05
3	Rochester and Pittsburgh Coal	Urling #1	Armstrong	Pennsylvania	U	.10
3	U.S. Steel Corp.	Cumberland	Greene	Pennsylvania	U	.80
3	Benjamin Coal Co.	Various mines	Clearfield	Pennsylvania	S	.10
3	Monterey Coal Co.	Wayne	Wayne	West Virginia	U	.75
1981:						
3	Western Slope Carbon	Hawks Nest	Gunnison	Colorado	U	.20
3	Valley Camp of Utah	Belina #2	Carbon	Utah	U	.60
3	Valley Camp of Utah	O'Connor #1	Carbon	Utah	U	.20
3	McInnes Coal Mining	McInnes	Pike	Kentucky	U	.40
3	Southeast Coal Co.	Eastern Kentucky	Letcher	Kentucky	U	.10

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1981:	Continued					
3	Barnes and Tucker Co.	Yellow Creek	Cambria	Pennsylvania	U	.08
3	Anschutz Coal Co.	Thompson Creek 1,3	Pitkin	Colorado	U	.20
3	El Paso Natural Gas	Thunderbird	Campbell	Wyoming	S	2.50
3	Monterey Coal Co.	Monterey #2	Clinton	Illinois	U	.30
3	Adolph Coors	King	Delta	Colorado	U	.25
3	Coal Fuels	Dawson Unit	Routt	Colorado	U	.50
3	Atlantic Richfield	Mt. Gunnison	Gunnison	Colorado	U	.50
3	Western Energy Co.	Rosebud	Unlocated	Montana	S	1.55
3	Utah Power and Light	Wilberg	Emery	Utah	U	.20
3	Atlas Minerals	Factory Butte	Wayne	Utah	U	.20
3	Atlantic Richfield	Black Thunder	Campbell	Wyoming	S	2.70
3	Shell Oil Company	Buckskin	Campbell	Wyoming	S	2.00
3	Rocky Mtn. Energy Co.	Hanna	Carbon	Wyoming	U	.25
3	Carter Oil Co.	Coballo	Campbell	Wyoming	S	2.00
3	Rocky Mtn. Energy Co.	China Butte	Carbon	Wyoming	S	1.00
3	Kemmerer Coal Co.	Sorenson	Lincoln	Wyoming	S	1.10
3	Amax Coal Co.	Belle Ayr	Campbell	Wyoming	S	2.00
3	Kerr-McGee Corp.	East Gillette	Campbell	Wyoming	S	4.70
3	Rocky Mtn. Energy Co.	Black Butte	Sweetwater	Wyoming	S	1.20
3	Texas Utilities Generating	Forest Grove	Henderson	Texas	S	1.00
3	Texas Utilities Generating	Twin Oaks	Robertson	Texas	S	2.00
3	Texas Municipal Power Pool	Gibbon Creek	Grimes	Texas	S	3.80
3	Drummond Company	Various mines	Tuscaloosa	Alabama	S	.30
3	Cameron Engineers	Watkins Lignite	Adams	Colorado	S	3.00
3	Kerr-McGee Corp.	Jacobs Ranch	Campbell	Wyoming	S	2.20
3	American Electric Power	Various mines	Breathitt	Kentucky	S,U	2.00
3	Utah Power and Light	Escalante	Garfield	Utah	U	1.00
3	Northern Energy Resources	Spring Creek	Big Horn	Montana	S	4.00
3	Consolidation Coal Co.	Burnham Complex	San Juan	New Mexico	S	2.00
3	Rocky Mtn. Energy Co.	Long Canyon	Sweetwater	Wyoming	U	.50

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1981: Continued						
3	Inland Steel Co.	Inland #2	Hamilton	Illinois	U	.55
3	Knife River Coal Mining	Beulah	Mercer, Oliver	North Dakota	S	1.20
3	Coal Fuels	Anchor-Tresnor	Mesa, Garfield	Colorado	U	1.00
3	Colorado Westmoreland	Orchard Valley	Delta	Colorado	U	.50
3	General Exploration Co.	Cameo	Mesa	Colorado	U	.40
3	Amax Coal Co.	Crab	Orchard	Illinois	S	1.00
3	Freeman United Coal Mining	Crown 3	MaCoupin	Illinois	U	1.00
3	Nicor Inc.	Unnamed	Unlocated	Illinois	S	1.00
3	Peabody Coal	Baldwin 4	St. Clair	Illinois	U	.80
3	Zeigler Coal Co.	No. 6	Douglas	Illinois	U	.50
3	Landmark Mining Co.	No. 2	Unlocated	Kentucky	U,S	.10
3	Peabody Coal Co.	Martwick	Muhlenburg	Kentucky	U	.50
3	Amax Coal Co.	Sarpy Creek	Crow Reservation	Montana	S	5.00
3	Burlington Northern	Musselshell	Musselshell	Montana	S	.30
3	Consolidation Coal Co.	Ranch Project	Big Horn	Montana	S	1.50
3	Peabody Coal Co.	Big Sky	Rosebud	Montana	S	.50
3	Shell Oil Co.	Pearl	Big Horn	Montana	S	1.00
3	Arch Mineral Corp.	Unit 1	San Juan	New Mexico	S	.40
3	Chaco Energy	Hospah	McKinley	New Mexico	S	.50
3	Chaco Energy	Star Lake	McKinley	New Mexico	S	1.00
3	Western Coal Co.	Bisti	San Juan	New Mexico	S	.40
3	Coteau Properties Co.	Mercer	Mercer	North Dakota	S	3.00
3	Knife River Coal Mining	Sprecher	Grant	North Dakota	S	.20
3	Natural Gas Pipeline	Dunn Center	Dunn	North Dakota	S	7.00
3	Peabody Coal Co.	Nelsonville	Perry	Ohio	U	.50
3	Youghiogheny and Ohio Coal	Nelms 2	Harrison	Ohio	U	.20
3	Youghiogheny and Ohio Coal	Allison	Belmont	Ohio	U	.10
3	No. American Coal Corp.	Athens	Henderson	Texas	S	1.00
3	Shell Oil Co.	Rockdale	Milam	Texas	S	1.00
3	Coal Search Corp.	Accord Lake	Sevier	Utah	U	1.00

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1981: Continued						
3	Coal Search Corp.	Rock Canyon	Sevier	Utah	U	1.00
3	United State Fuel Co.	Mohrland	Emery	Utah	U	.28
3	Atlantic Richfield	Coal Creek	Campbell	Wyoming	S	1.70
3	Commonwealth Edison Co.	Carbon Basin	Carbon	Wyoming	S,U	.50
3	Consolidation Coal Co.	Pronghorn	Campbell	Wyoming	S	1.50
3	Kemmerer Coal Co.	North Block	Lincoln	Wyoming	S	1.50
3	Pittsburg and Midway Coal	Wildcat Creek	Campbell	Wyoming	S	1.00
3	Ranchers Energy Corp.	Campbell Co.	Campbell	Wyoming	S	.30
3	Rocky Mtn. Energy Co.	So. Haystack	Uinta	Wyoming	S	.50
3	Rocky Mtn. Energy Co.	Atlantic Rim	Carbon	Wyoming	S	.50
3	Sheridan Enterprises	Welch 6	Sheridan	Wyoming	S	1.00
1982:						
3	Rochester and Pittsburgh Coal	Urling #1	Armstrong	Pennsylvania	U	.10
3	Benjamin Coal Co.	Various mines	Clearfield	Pennsylvania	S	.10
3	Monterey Coal Co.	Wayne	Wayne	West Virginia	U	.29
3	Western Slope Carbon	Hawks Nest	Gunnison	Colorado	U	.20
3	Energy and Export Ltd.	McKinley #1	Mesa	Colorado	U	.10
3	Valley Camp of Utah	O'Connor #1	Carbon	Utah	U	.30
3	Consolidation Coal Co.	Emery Strip	Emery	Utah	S	1.50
3	Island Creek Coal Co.	Upshur #1	Upshur	West Virginia	S	3.50
3	McInnes Coal Mining	McInnes	Pike	Kentucky	U	.30
3	Southeast Coal Co.	Eastern Kentucky	Letcher	Kentucky	U	.15
3	Barnes and Tucker Co.	Yellow Creek	Cambria	Pennsylvania	U	.38
3	Freeport Coal Co.	Lorencito	Las Animas	Colorado	U	.20
3	El Paso Natural Gas	Thunderbird	Campbell	Wyoming	S	2.50
3	Coal Fuels	Dawson Unit	Routt	Colorado	U	.60
3	Atlantic Richfield	Mt. Gunnison	Gunnison	Colorado	U	.60

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1982: Continued						
3	Shell Oil Company	Youngs Creek	Big Horn	Montana	S	4.00
3	Texas Utilities Generating	Martin Lake	Panola	Texas	S	1.00
3	Atlas Minerals	Factory Butte	Wayne	Utah	U	.20
3	Carter Mining Co.	No. Rawhide	Campbell	Wyoming	S	1.00
3	Atlantic Richfield	Black Thunder	Campbell	Wyoming	S	1.90
3	Rocky Mtn. Energy Co.	Hanna	Carbon	Wyoming	U	.25
3	Carter Oil Co.	Coballo	Campbell	Wyoming	S	3.00
3	Rocky Mtn. Energy Co.	Red Rim	Carbon	Wyoming	S	1.00
3	Rocky Mtn. Energy Co.	China Butte	Carbon	Wyoming	S	1.00
3	Wyodak Resources	Wyodak	Campbell	Wyoming	S	2.50
3	Kerr-McGee Corp.	East Gillette	Campbell	Wyoming	S	3.50
3	Inland Steel Co.	Inland #2	Hamilton	Illinois	U	.50
3	Drummond Company	Cedrum	Tuscaloosa	Alabama	S	1.80
3	Cameron Engineers	Watkins Lignite	Adams	Colorado	S	5.00
3	American Electric Power	Various Mines	Breathitt	Kentucky	S,U	2.00
3	Utah Power and Light	Escalante	Garfield	Utah	U	1.00
3	Northern Energy Resources	Spring Creek	Big Horn	Montana	S	3.00
3	Rocky Mtn. Energy Co.	Long Canyon	Sweetwater	Wyoming	U	.50
1	Old Ben Coal Co.	Unnamed	Gibson	Indiana	U	2.00
3	Amax Coal Co.	Unnamed	Knox	Indiana	S	1.10
3	Texas Utilities Generating	Forest Grove	Henderson	Texas	S	1.80
3	Texas Utilities Generating	Twin Oaks	Robertson	Texas	S	2.00
3	General Exploration Co.	Cameo	Mesa	Colorado	U	.10
3	Village Land Co.	McGinley	Mesa	Colorado	U	.10
3	Amax Coal Co.	Unnamed	Unlocated	Illinois	U	.50
3	Freeman United Coal Co.	Crown 3	Macoupin	Illinois	U	1.00
3	Shell Oil Co.	Annex 1	Logan	Illinois	U	.20
3	Western Fuels Assn.	Unnamed	Saline	Illinois	U	.70
3	Zeigler Coal Co.	No. 6	Douglas	Illinois	U	.50
3	Amax Coal Co.	Wilson	Knox	Illinois	S	1.10

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1982: Continued						
3	Peabody Coal Co.	Chieftan	Sullivan	Indiana	S	.50
3	Peabody Coal Co.	Henderson B	Henderson	Kentucky	U	.50
3	Landmark Mining Co.	No. 2	Unlocated	Kentucky	S,U	.10
3	Peabody Coal Co.	Martwick	Muhlenberg	Kentucky	U	.50
3	Burlington Northern	Musselshell	Musselshell	Montana	S	.30
3	Consolidation Coal	Ranch Project	Big Horn	Montana	S	1.50
3	Peabody Coal Co.	Big Sky	Rosebud	Montana	S	.50
3	Shell Oil Co.	Pearl	Big Horn	Montana	S	1.00
3	Arch Mineral Corp.	Unit 1	San Juan	New Mexico	S	.40
3	Chaco Energy	Hospah	McKinley	New Mexico	S	.50
3	Chaco Energy	Star Lake	McKinley	New Mexico	S	1.00
3	Utah International Inc.	Wesco	San Juan	New Mexico	S	6.00
3	Western Coal Co.	Bisti	San Juan	New Mexico	S	.60
3	Consolidation Coal Co.	Dakota Star	Mercer	North Dakota	U	4.00
3	Coteau Propoerties Co.	Mercer	Mercer	North Dakota	S	1.10
3	Husky Industries	Husky Strip	Stark	North Dakota	S	.10
3	Knife River Coal Mining	Sprecher	Grant	North Dakota	S	.30
3	Nokota Mining Co.	Garrison	McLean	North Dakota	S	.50
3	Peabody Coal Co.	Nelsonville	Morgan	Ohio	U	.50
3	Youghiogheny and Ohio Coal	Allison	Belmont	Ohio	U	.10
3	North American Coal	Athens	Henderson	Texas	S	2.00
3	Shell Oil Co.	Rockdale	Milam	Texas	S	1.00
3	Rocky Mtn. Energy Co.	Red Rim	Carbon	Wyoming	S	1.00
3	Rocky Mtn. Energy Co.	China Butte	Carbon	Wyoming	S	2.00
3	Kerr-McGee Corp.	East Gillette	Campbell	Wyoming	S	2.00
3	Inland Steel Co.	Inland #2	Hamilton	Illinois	U	.50
3	Peabody Coal Co.	Star Lake	McKinley	New Mexico	S	.50
3	Utah Power and Light	Alton	Kane	Utah	S	1.00
3	American Electric Power	Various mines	Breathitt	Kentucky	S,U	3.00
3	Utah Power and Light	Escalante	Garfield	Utah	U	1.00

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1982: Continued						
3	Armco Steel Corp.	Unnamed	LeFlore	Oklahoma	U	.10
3	Rocky Mtn. Energy Co.	Long Canyon	Sweetwater	Wyoming	U	.50
3	Cameron Engineers	Watkins Lignite	Adams	Colorado	S	2.50
3	Coal Fuels	Anchor-Tresnor	Mesa, Garfield	Colorado	U	1.00
3	General Exploration	Cameo	Mesa	Colorado	U	.10
3	Amax Coal Co.	Unnamed	Unlocated	Illinois	U	.50
3	Shell Oil Co.	Annex 1	Logan	Illinois	U	.50
3	Western Fuels Assn.	Unnamed	Saline	Illinois	U	.50
3	Peabody Coal Co.	Chieftan	Sullivan	Indiana	S	.50
3	Peabody Coal Co.	Penndiana	Sullivan	Indiana	S	.50
3	Landmark Mining Co.	No. 2	Unlocated	Kentucky	S,U	.10
3	Peabody Coal Co.	Henderson B	Henderson	Kentucky	U	.50
3	Peabody Coal Co.	Henderson C	Henderson	Kentucky	U	.50
3	Peabody Coal Co.	Martwick	Muhlenberg	Kentucky	U	.50
3	Energy Fuels Corp.	McKinna 1,3	Emery	Utah	U	.50
3	United States Fuel	Mohrland	Emery	Utah	U	.41
3	Amax Coal Co.	Eagle Butte	Campbell	Wyoming	S	1.80
3	Atlantic Richfield	Coal Creek	Campbell	Wyoming	S	2.30
3	Commonwealth Edison	[illegible]bon Basin	Carbon	Wyoming	S,U	1.00
3	Energy Development	[illegible]rth Knobs	Carbon	Wyoming	S	.50
3	Peabody Coal Co.	No. Antelope	Campbell	Wyoming	S	2.50
3	Pittsburgh and Midway Coal	Wildcat Creek	Campbell	Wyoming	S	1.00
3	Benjamin Coal Co.	Various mines	Clearfield	Pennsylvania	S	.10
1983:						
3	Valley Camp of Utah	O'Connor #1	Carbon	Utah	U	.20
3	Consolidation Coal Co.	Emery Strip	Emery	Utah	S	1.50
3	Barnes and Tucker Co.	Yellow Creek	Cambria	Pennsylvania	U	.32
3	Freeport Coal Co.	Loren[illegible]	Las Animas	Colorado	U	.40
3	Atlantic Richfield	Mt. [illegible]ison	Gunnison	Colorado	U	.70

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1983: Continued						
3	Shell Oil Co.	Youngs Creek	Big Horn	Montana	S	2.00
3	Texas Utilities Generating	Martins Lake	Panola	Texas	S	2.00
3	Atlas Minerals	Factory Butte	Wayne	Utah	U	.10
3	Peabody Coal Co.	Rochelle	Campbell	Wyoming	S	2.00
3	Atlantic Richfield	Black Thunder	Campbell	Wyoming	S	2.77
3	Rocky Mtn. Energy Co.	Hanna	Carbon	Wyoming	U	.30
3	Carter Oil Co.	Coballo	Campbell	Wyoming	S	2.00
3	Peabody Coal Co.	Providence	Webster	Kentucky	S	.80
3	Burlington Northern	Musselshell	Musselshell	Montana	S	.30
3	Consolidation Coal Co.	Ranch Project	Big Horn	Montana	S	2.00
3	Peabody Coal Co.	Big Sky	Rosebud	Montana	S	.50
3	Arch Mineral Corp.	Unit 1	San Juan	New Mexico	S	.40
3	Arch Mineral Corp.	Unit 2	San Juan	New Mexico	S	.40
3	Chaco Energy	Hospah	McKinley	New Mexico	S	.50
3	Chaco Energy	Star Lake	McKinley	New Mexico	S	1.00
3	Peabody Coal Co.	Star Lake East	McKinley	New Mexico	S	.50
3	Utah International	Wesco	San Juan	New Mexico	S	4.00
3	Western Coal Co.	Bisti	San Juan	New Mexico	S	.50
3	Knife River Coal Mng.	Sprecher	Grant	North Dakota	S	.50
3	Nokota Mining Co.	Garrison	McLean	North Dakota	S	.50
3	North American Coal	Indian Head	Mercer	North Dakota	S	.40
3	Peabody Coal Co.	Nelsonville	Morgan	Ohio	U	.50
3	Youghiogheny and Ohio Coal	Allison	Belmont	Ohio	U	.10
3	Brazos Electric Power	San Miguel	Atascosa	Texas	S	.50
3	North American Coal	Athens	Henderson	Texas	S	2.00
3	Shell Oil Co.	Rockdale	Milam	Texas	S	2.00
3	Consolidation Coal Co.	Emery Strip	Emery	Utah	S	1.50
3	Energy Fuels Corp.	McKinna 1,3	Emery	Utah	U	.50
3	United State Fuel	Mohrland	Emery	Utah	U	.53
3	Utah International Inc.	Alton	Kane	Utah	S	1.00

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1]	Company	Mine	County	State	Mine type[2]	Capacity addition
						Mil. tons
1983: Continued						
3	Amax Coal Co.	Eagle Butte	Campbell	Wyoming	S	1.00
3	Atlantic Richfield	Coal Creek	Campbell	Wyoming	S	4.00
3	Commonwealth Edison	Carbon Basin	Carbon	Wyoming	S,U	2.50
3	Northern Energy Resources	Antelope	Converse	Wyoming	S	.50
3	Peabody Coal Co.	Gillette	Campbell	Wyoming	S	2.50
3	Pittsburg and Midway Coal	Wildcat Creek	Campbell	Wyoming	S	1.00
3	Ranchers Energy Corp.	Campbell Co.	Campbell	Wyoming	S	.50
1984:						
3	Benjamin Coal Co.	Various mines	Clearfield	Pennsylvania	S	.10
3	Valley Camp of Utah	O'Connor #1	Carbon	Utah	U	.30
3	Consolidation Coal Co.	Emery Strip	Emery	Utah	S	.50
3	Barnes and Tucker Co.	Yellow Creek	Cambria	Pennsylvania	U	.08
3	Freeport Coal Co.	Lorencito	Las Animas	Colorado	U	.40
3	Atlantic Richfield	Mt. Gunnison	Gunnison	Colorado	U	.30
3	Burlington Northern	Circle West	McCone	Montana	S	1.00
3	Shell Oil Co.	Youngs Creek	Big Horn	Montana	S	2.00
3	Texas Utilities Generating	Martins Lake	Panola	Texas	S	1.00
3	Peabody Coal Co.	Rochelle	Campbell	Wyoming	S	2.00
3	Rocky Mtn. Energy Co.	Red Rim	Carbon	Wyoming	S	.50
3	Inland Steel Co.	Inland #2	Hamilton	Illinois	U	.20
3	Natural Gas Pipeline Co.	Unnamed	Dunn	North Dakota	S	7.00
3	Nevada Power Co.	Alton	Kane	Utah	S	4.00
3	Kerr-McGee Corp.	Jacobs Ranch	Campbell	Wyoming	S	1.80
3	American Electric Power	Various mines	Breathitt	Kentucky	S,U	3.00
3	Utah Power and Light	Escalante	Garfield	Utah	U	2.00
3	Rocky Mtn. Energy Co.	Long Canyon	Sweetwater	Wyoming	U	.50
3	Village Land Co.	McGinley	Mesa	Colorado	U	.10
3	Amax Coal Co.	Unnamed	Unlocated	Illinois	U	.90

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1984: Continued						
3	Amax Coal Co.	Unnamed	Unlocated	Illinois	S	1.10
3	Shell Oil Co.	Annex #1	Logan	Illinois	U	.50
3	Peabody Coal Co.	Chieftan	Sullivan	Indiana	S	1.00
3	Peabody Coal Co.	Penndiana	Sullivan	Indiana	S	.50
3	Landmark Mining Co.	No. 2	Unlocated	Kentucky	U,S	.10
3	Peabody Coal Co.	Henderson B	Henderson	Kentucky	U	.60
3	Peabody Coal Co.	Henderson C	Henderson	Kentucky	U	.50
3	Peabody Coal Co.	Martwick	Muhlenberg	Kentucky	U	.50
3	Arch Mineral Corp.	Unit 1	San Juan	New Mexico	S	.40
2	Arch Mineral Corp.	Unit 2	San Juan	New Mexico	S	.40
3	Chaco Energy	Hospah	McKinley	New Mexico	S	2.00
3	Chaco Energy	Star Lake	McKinley	New Mexico	S	1.00
3	Western Coal Co.	Bisti	San Juan	New Mexico	S	.50
3	Consolidation Coal Co.	Renners Cove	Mercer	New Mexico	S	3.00
3	Husky Industries	Husky Strip	Stark	North Dakota	S	.10
3	Knife River Coal Mining	Sprecher	Grant	North Dakota	S	.50
3	Nokota Mining Co.	Garrison	McLean	North Dakota	S	2.50
3	Peabody Coal Co.	Nelsonville	Morgan	Ohio	U	.20
3	Youghiogheny and Ohio Coal	Allison	Belmont	Ohio	U	.10
3	Brazos Electric Power	San Miguel	Atascosa	Texas	S	2.50
3	Lower Colorado River Authority	Camp Swift	Bastro	Texas	S	.30
3	North American Coal	Athens	Henderson	Texas	S	1.00
3	Shell Oil Co.	Rockdale	Milam	Texas	S	2.00
3	Energy Fuel Corp.	McKinna 1,3	Emery	Utah	U	1.00
3	United States Fuel	Mohrland	Emery	Utah	U	.50
3	Amax Coal Co.	Eagle Butte	Campbell	Wyoming	S	4.50
3	Atlantic Richfield	Coal Creek	Campbell	Wyoming	U	2.00
3	Commonwealth Edison	Carbon Basin	Carbon	Wyoming	S,U	.50
3	Kerr-McGee Coal	East Gillette	Campbell	Wyoming	S	.50
3	Mobil Oil Corp.	Unnamed	Campbell	Wyoming	S	2.00

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source[1/]	Company	Mine	County	State	Mine type[2/]	Capacity addition
						Mil. tons
1984: Continued						
3	Northern Energy Resources	Cherokee	Carbon	Wyoming	S	2.00
3	Northern Energy Resources	Antelope	Converse	Wyoming	S	4.00
3	Peabody Coal Co.	No. Antelope	Campbell	Wyoming	S	2.50
3	Peabody Coal Co.	Gillette	Campbell	Wyoming	S	2.50
3	Pittsburg and Midway Coal	Wildcat Creek	Campbell	Wyoming	S	1.00
1985:						
3	Western Slope Carbon	Hawks Nest	Gunnison	Colorado	U	.50
3	Valley Camp of Utah	O'Connor #1	Carbon	Utah	U	.50
3	Consolidation Coal Co.	Emery Strip	Emery	Utah	S	.50
3	Moon Lake Electric	Gordon	Rio Blanco	Colorado	U	2.30
3	Atlantic Richfield	Mt. Gunnison	Gunnison	Colorado	U	.30
3	Westmoreland Resources	Sarpy Creek	Big Horn	Montana	S	4.50
3	Dryer Bros. Co.	Circle West	McCone	Montana	S	2.00
3	Peabody Coal Co.	Rochelle	Campbell	Wyoming	S	3.00
3	Wyodak Resources	Wyodak	Campbell	Wyoming	S	3.50
3	Sunoco Energy Development	Cordero	Campbell	Wyoming	S	3.00
3	Utah Power and Light	Alton	Kane	Utah	S	4.00
3	Kerr-McGee Corp.	Jacobs Ranch	Campbell	Wyoming	S	2.50
3	American Electric Power	Various mines	Breathitt	Kentucky	S,U	5.00
3	Utah Power and Light	Escalante	Farfield	Utah	U	1.00
3	Consolidation Coal Co.	Burnham Complex	San Juan	New Mexico	S	2.00
3	Kaiser Steel Corp.	York Canyon	Colfax	New Mexico	S	.70
3	Coal Fuels	Anchor-Tresnor	Mesa, Garfield	Colorado	U	2.00
3	Sheridan Enterprises	McClane Canyon	Garfield	Colorado	U	2.70
3	Amax Coal Co.	Unnamed	Unlocated	Illinois	U	.20
3	Shell Oil Co.	Annex 1	Logan	Illinois	U	.40
3	Peabody Coal Co.	Penndiana	Sullivan	Indiana	S	1.00
3	Landmark Mining Co.	No. 2	Unlocated	Kentucky	U,S	.10
3	Peabody Coal Co.	Henderson C	Henderson	Kentucky	U	.60
3	Peabody Coal Co.	Big Sky	Rosebud	Montana	S	.50
3	Westmoreland Resources	Absaloka	Big Horn	Montana	S	4.50

See footnotes at end of table.

Continued

Appendix table 3--Reported additions to steam coal mining capacity, by year--Continued

Data source 1/	Company	Mine	County	State	Mine type 2/	Capacity addition
						Mil. tons
1985: Continued						
3	Arch Mineral Corp.	Unit 1	San Juan	New Mexico	S	.50
3	Arch Mineral Corp.	Unit 2	San Juan	New Mexico	S	.40
3	Chaco Energy	Hospah	McKinley	New Mexico	S	2.00
3	Chaco Energy	Star Lake	McKinley	New Mexico	S	1.50
3	Tucson Gas and Electric	Gallo Wash	San Juan	New Mexico	S	.60
3	Western Coal Co.	Bisti	San Juan	New Mexico	S	.50
3	Consolidation Coal Co.	Underwood	McLean	North Dakota	S	1.50
3	Nokota Mining Co.	Garrison	McLean	North Dakota	S	3.10
3	Youghiogheny and Ohio Coal	Allison	Belmont	Ohio	U	.10
3	Lower Colorado River Authority	Camp Swift	Bastro	Texas	S	.50
3	Coastal States Energy	Convulsion Canyon	Sevier	Utah	U	1.80
3	Energy Fuels Corp.	McKinna 1,3	Emery	Utah	U	1.90
3	United States Fuel	Mohrland	Emery	Utah	U	.13
3	Amax Coal Co.	Eagle Butte	Campbell	Wyoming	S	2.00
3	Atlantic Richfield	Coal Creek	Campbell	Wyoming	S	1.50
3	Commonwealth Edison	Carbon Basin	Carbon	Wyoming	S,U	1.00
3	Mobil Oil Corp.	Unnamed	Campbell	Wyoming	S	2.00
3	Northern Energy Resources	Cherokee	Carbon	Wyoming	S	4.00
3	Northern Energy Resources	Antelope	Converse	Wyoming	S	3.00
3	Pittsburg and Midway Coal	Wildcat Creek	Campbell	Wyoming	S	1.00
3	Ranchers Energy Corp.	Campbell Co.	Campbell	Wyoming	S	1.00
3	Western Fuel Corp.	Converse Co.	Converse	Wyoming	S	3.00

1/ Numerals in column 1 refer to following sources of data:
(1) Bureau of Mines Circular IC 8725, June, 1976 (22)
(2) Bureau of Mines Circular IC 8719, May, 1976 (21)
(3) Coal Age, February 1978 (2)

2/ Mine types are designated as follows:
S = strip
U = underground
S,U = both strip and underground

Appendix table 4--FERC Form 423 coal supply data for power plants supplied by western coal

ICAM code	Power plant and state	BOM region 1/	Coal supplied 1975	1976	1977	1978
			Tons			
9014	Cholla	1804	13,500	--	--	--
	Arizona	1835	340,100	445,100	556,100	1,139,300
		2049	23,800	--	--	--
9002	Navajo	1608	--	--	64,100	--
	Arizona	1708	--	--	93,000	--
		1804	3,384,700	6,083,500	6,753,800	6,290,400
		1835	239,500	--	149,900	--
		2049	146,000	234,900	558,200	727,500
9013	Drake	1608	--	--	21,400	--
	Colorado	1708	458,500	685,273	869,600	--
9009	Hayden	1708	458,500	685,273	1,068,013	1,553,000
	Colorado					
9016	Arapahoe	1608	111,800	54,300	16,200	--
	Colorado	1708	267,800	497,600	915,000	635,300
		1956	195,600	56,000	--	--
9006	Cherokee	1708	2,248,100	1,581,600	1,847,300	1,919,400
	Colorado	1956	269,400	100	184,500	--
9011	Comanche	1956	1,607,500	2,638,500	2,537,500	2,817,300
	Colorado					
9019	Valmont	1608	30,900	--	--	--
	Colorado	1708	--	--	44,200	235,300
		1956	200,000	265,500	418,200	273,500
5013	Edwards	2230	573,700	768,863	640,831	776,684
	Illinois	1608	--	--	--	98,797
5025	Wallace	2230	303,000	298,800	--	--
	Illinois	1608	--	--	--	2,119
5016	Fisk	2230	1,338,300	756,000	681,000	489,000
	Illinois	1956	--	5,000	130,000	97,900
5014	Crawford	2230	1,369,000	1,064,000	761,100	549,000
	Illinois	1956	--	22,000	347,400	258,400
5036	Dixon	1956	34,300	--	--	21,000
	Illinois	2049	10,000	--	--	--
5003	Joliet	2230	2,949,000	2,915,000	1,969,000	1,808,300
	Illinois	1956	--	--	796,000	1,410,000

See footnote at end of table.

Continued

Appendix table 4--FERC Form 423 coal supply data for power plants supplied by western coal--Continued

ICAM code	Power plant and state	BOM region 1/	Coal supplied 1975	1976	1977	1978
			Tons			
5004	Powerton	2230	228,000	279,000	--	438,500
	Illinois	1956	--	--	--	235,000
5011	Waukegan	1956	1,509,000	1,480,000	1,523,000	1,457,000
	Illinois	2230	121,000	218,000	184,000	462,000
5007	Will County	2230	2,378,000	2,556,000	1,737,000	1,563,000
	Illinois	1956	--	50,000	697,000	643,100
5009	Joppa	1956	9,000	--	--	--
	Illinois					
5024	Hennepin	2230	17,962	--	--	--
	Illinois					
5018	Wood River	1708	10,251	66,013	86,010	--
	Illinois	1956	14,461	--	--	--
		2049	10,003	--	--	--
		2230	32,571	--	--	--
		1608	--	716,748	830,671	1,105,039
5002	Baldwin	1956	81,251	--	173,875	208,461
	Illinois					
5028	Venice 2	1956	212,000	--	--	--
	Illinois					
3029	State Line	1956	903,000	787,000	528,000	62,000
	Indiana	2230	819,000	1,264,000	1,315,000	1,202,000
3056	Breed	1956	29,600	--	--	--
	Indiana					
3023	Tanners Creek	2049	130,300	30,800	126,600	677,600
	Indiana	1608	--	10,000	--	--
		1956	--	10,600	30,500	126,800
3015	Clifty Creek	1956	231,000	--	--	334,000
	Indiana					
3050	Mitchell	1608	--	--	--	51,100
	Indiana	1956	1,667,720	1,077,990	894,600	279,400
		1708	--	--	256,600	339,100
		2049	--	--	--	337,000
3100	Edwardsport	1608	1,600	--	--	--

See footnote at end of table.

Continued

Appendix table 4--FERC Form 423 coal supply data for power plants supplied by western coal--Continued

ICAM code	Power plant and state	BOM region 1/	Coal supplied 1975	1976	1977	1978
			Tons			
3027	Cayuga Indiana	1956	10,100	--	--	143,700
6016	Kapp Iowa	2230 1956	137,100 --	128,600 --	93,200 2,700	92,600 --
6015	Prairie Creek Iowa	1608 2049	96,200 6,000	116,000 --	118,000 --	207,500 --
6024	Sutherland Iowa	1608 1956 2230	31,600 16,000 5,000	98,000 --	117,000 --	86,000 --
6020	Riverside Iowa	1956	16,000	--	--	--
6001	George Neal Iowa	1956 2049	1,152,049 3,455	2,440,616 --	2,553,780 --	2,314,500 --
6030	Maynard Iowa	1956	18,851	--	95,900	12,000
6026	Council Bluffs Iowa	1956	301,600	301,700	299,400	1,381,300
6021	Des Moines 2 Iowa	1956	133,835	181,788	167,061	291,315
6019	Burlington Iowa	1956	15,100	5,300	32,600	27,700
7003	Lawrence Kansas	1956 1708	798,800 --	723,400 --	708,600 --	786,300 46,500
7002	LaCygne Kansas	1956	--	107,000	1,778,900	2,539,200
7006	Tecumseh Kansas	1956 1708	338,800 --	342,100 --	310,900 --	412,000 38,200
3007	Shawnee Kentucky	2230 1956	169,900	41,867	41,665	50,404 445,920
3086	Marysville Michigan	2230	4,000	--	--	--

See footnote at end of table.

Continued

Appendix table 4--FERC Form 423 coal supply data for power plants supplied by western coal--Continued

ICAM code	Power plant and state	BOM region 1/	Coal supplied 1975	1976	1977	1978
			Tons			
3014	St. Clair Michigan	2230	884,000	1,710,000	2,296,000	2,759,000
3001	Monroe Michigan	2230	168,000	--	--	--
6031	Fox Lake Minnesota	2230	42,500	92,700	154,500	75,000
6028	Aurora Minnesota	2230	388,700	347,300	360,100	379,200
6007	Boswell Minnesota	2230	2,070,900	2,412,700	2,336,300	2,081,600
6008	Black Dog Minnesota	2230	707,000	689,000	649,000	556,000
6010	High Bridge Minnesota	2230	775,000	592,000	494,000	501,000
6005	King Minnesota	2230	519,000	715,000	884,000	801,000
6100	Riverside Minnesota	2230	863,000	709,000	790,000	728,000
6002	Sherburne Co. Minnesota	2230	647,000	2,424,000	4,067,000	4,644,000
6025	Hoot Lake Minnesota	2138	679,400	669,400	712,200	658,700
7014	Blue Valley Missouri	1608	4,900	1,800	--	--
		1956	69,700	--	--	--
		2049	1,600	--	--	--
7013	Grand Avenue Missouri	1956	3,500	--	--	--
7001	Hawthorne Missouri	1956	806,500	769,300	541,700	571,700
7004	Montrose Missouri	1956	10,000	--	--	--

See footnote at end of table.

Continued

Appendix table 4--FERC Form 423 coal supply data for power plants supplied by western coal--Continued

ICAM code	Power plant and state	BOM region 1/	Coal supplied 1975	1976	1977	1978
			Tons			
5012	Meramec Missouri	1956	7,000	--	--	--
5001	Labadie Missouri	1608	--	--	--	48,000
		1708	--	--	--	345,000
		1956	101,000	208,000	154,000	222,000
		1835	--	--	--	482,000
		2049	--	--	--	379,000
6013	Colstrip Montana	2230	197,000	1,422,000	2,250,000	2,469,000
9020	Corette Montana	2230	700,000	581,000	661,000	564,000
6029	Kramer Nebraska	1608	134,500	42,000	--	--
		1956	104,900	245,400	195,678	239,469
6017	Sheldon Nebraska	1956	148,200	254,266	288,620	323,657
		2049	2,000	4,321	160,190	115,866
6004	North Omaha Nebraska	1956	965,000	1,096,950	1,279,700	1,377,660
9017	Gardner Nevada	2049	655,800	820,500	828,400	1,010,700
9003	Mohave Nevada	1804	3,820,000	4,174,000	4,568,000	2,684,000
9001	Four Corners New Mexico	1835	5,941,600	6,757,100	7,390,300	6,206,500
9012	San Juan New Mexico	1835	1,243,300	1,263,600	1,731,300	2,082,100
1007	Rochester 3 New York	1608	4,000	--	--	--
1006	Rochester 7 New York	1608	1,000	--	--	--
6003	Leland Olds North Dakota	2138	1,863,800	3,697,800	3,371,000	3,539,000
6014	Young North Dakota	2138	1,517,121	1,580,835	1,530,452	3,392,540

See footnote at end of table.

Continued

Appendix table 4--FERC Form 423 coal supply data for power plants supplied by western coal--Continued

ICAM code	Power plant and state	BOM region 1/	Coal supplied 1975	1976	1977	1978
			Tons			
6032	Heskett North Dakota	2138	426,892	527,200	577,200	472,000
6023	Stanton North Dakota	2138 2230	569,100 166,400	788,800 --	731,500 --	795,000 --
3020	Cardinal Ohio	2049 1956	23,000 --	-- --	-- --	4,300 68,200
3002	Gavin Ohio	1956 2049 1608	937,700 339,400 --	2,010,700 863,400 275,300	3,620,700 812,700 15,800	4,312,100 34,500 --
6009	Big Stone South Dakota	2138	1,609,300	2,459,700	2,237,200	2,862,300
9018	Carbon Utah	2049	433,000	454,000	585,000	364,000
9015	Gadsby Utah	2049	401,000	379,000	468,000	212,000
9010	Huntington Canyon Utah	2049	1,014,000	914,000	1,217,000	1,538,000
6022	Alma Wisconsin	1956 2230	101,000 106,800	101,100 72,700	-- 198,500	-- 200,700
6012	Genoa 3 Wisconsin	1956 2230	199,200 149,700	182,400 170,100	-- 234,200	-- 254,500
5005	Oak Creek Wisconsin	1956 2049	751,600 --	682,300 --	703,000 --	677,700 26,600
5029	Blount Wisconsin	2230	--	3,000	14,400	60,500
5017	Columbia Wisconsin	2230 1956	1,744,859 --	1,867,463 --	1,881,426 --	1,674,730 1,221,826
6018	Nelson Dewey Wisconsin	2230	--	169,474	135,684	115,211
5002	Pulliam Wisconsin	2230	104.700	90,800	67,500	57,300

See footnote at end of table.

Continued

Appendix table 4--FERC Form 423 coal supply data for power plants supplied by western coal--Continued

ICAM code	Power plant and state	BOM region 1/	Coal supplied 1975	1976	1977	1978
			Tons			
5035	Weston Wisconsin	2230	6,600	17,900	6,400	2,800
9005	Jim Bridger Wyoming	1956	1,863,000	2,432,000	4,930,000	4,540,000
9007	Dave Johnston Wyoming	1956	3,218,000	2,716,000	3,248,000	3,360,000
9008	Naughton Wyoming	1956 2049	1,719,000 --	1,170,000 748,000	2,730,000 --	2,340,000 --

-- = none

1/ BOM = Bureau of Mines

Source: (16)

Appendix table 5--Additions to generation capacity: 1976-1990

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
1976:			MW	1,000 tons	
8002	Texas Power & Light Co. Monticello #2 Titus Co., Texas	Monticello, minemouth	575	3,300	2
4023	Tampa Electric Company Big Bend #3 Hillsborough Co., Florida *has captive reserves available	Island #9, Kentucky	446	1,219	8,4a
4020	Georgia Power Co. Wansley #1 Heard Co., Georgia (Carrollton) Co., Illinois	Old Ben Coal, Franklin	865	2,300	2,8,13
5038	Central Illinois Light (FGD system) Duck Creek #1 Fulton Co., Illinois (Canton)	Orient #4, Zirden, Illinois	400	1,080	2,8
5002	Illinois Power Baldwin #3 Randolph Co, Illinois (Baldwin)	Baldwin, Illinois	635	1,710	2,8
3043	Public Service of Indiana (FGD system) Gibson #2 Gibson Co., Indiana (Princeton) Carlinville, Illinois	Carter Oil/Monterey mine	650	1,500	2,8
3108	Northern Indiana Public Service Schahfer #14 Jasper Co., Indiana (Wheatfield) Valley, Paonia, Colorado	Westmoreland/Orchard	500	1,200	2,8

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1976: Continued					
3017	Columbus & Southern Ohio Electric Conesville #5 Coshocton Co., Ohio Ireland,Moundsville, West Virginia *has captive reserves available	Ohio	411	1,100	2,8,13
6001	Iowa Public Service George Neal #3 Woodbury Co., Iowa (Salix) *has captive reserves available	Energy Development Hanna, Wyoming	520	1,750	2,9
6002	Northern States Power Sherburne #1 Sherburne Co., Minnesota (Becker) *Mississippi River is water source (FGD system)	Colstrip/Absaloka, Montana	710	2,250	2,9
5044	Springfield Utilities (FGD system) Southwest #1 Greene Co., Missouri (Springfield)	Ft. Scott, Kansas Cherokee Coal, Kansas	200	650	4b,9
9017	Nevada Power Co. (FGD system) Gardner #3 Clarke Co., Nevada (Moapa) *has captive reserves	Deer Creek/Clear Creek, Utah	110	365	2,10
6013	Montana Power Company (FGD system) Colstrip #2 Rosebud Co., Montana (Coalstrip) *has captive reserve available	Colstrip-Rosebud, Montana	330	2,367	2,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1976:	Continued				
6033	City of Fremont Fremont #1 Dodge Co., Nebraska (Fremont)	Jacobs Ranch, Wyoming	134	990	4b,9
8033	Texas Utilities Generating (FGD system) Martin Lake #1 Rusk Co., Texas (Tatum) *mine mouth plant *has captive reserves	Martin Lake Mine/ Texas Utilities, Texas	750	3,500	2,9
9005	Pacific Power & Light Jim Bridger #2 Sweetwater Co., Wyoming *has captive reserves	captive mine, Wyoming (Rock Springs) (Jim Bridger)	500	1,800	4b,9
2021	Pennsylvania Power Co. (FGD system) Mansfield #1 Beaver Co., Pennsylvania (Shippingport) (Duquesne Light Co.)	Powhatan 1,3,4,7, Ohio Peg Run, Utilities, Pennsylvania Glenbrook, Kentucky Arkwright, West Virginia	809	3,000	10
5039	Union Electric Co. Rush Island #1 Jefferson Co., Missouri	Burning Star 2,3,4/ Consol Coal, Illinois	575	1,400	2,10
9009	Colorado-Ute Electric Assn. Hayden #2 Routt Co., Colorado	Seneca	260	760	7
1977:					
8004	San Antonio Public Service J.T. Deely #1 Bexar Co., Texas (San Antonio)	Sunoco/Cordero, Campbell Co., Wyoming	418	1,450	2,4b,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1976: Continued					
4042	S. Carolina Public Service Authority (FGD system) Winyah #2 Georgetown Co., South Carolina (Georgetown)	Potter, Mack, Stoney Fork, Creech, Kentucky	280	463	2,5,8,13
3052	Kentucky Utilities Co. Ghent #2 Carroll Co., Kentucky (Ghent)	RP, Hazard, Kentucky	550	600	2,4a,8
6035	Minnkota Power Co-op Square Butte Oliver Co., North Dakota (Center) *addition to Young Plant-26,000 water afy (Missouri River) *mine mouth	Baukol Noonan, Center, North Dakota	234	2,500	2,9
5040	Central Illinois Public Service (FGD system) Newton #1 Jasper Co., Indiana (Petersburg)	Delta, Marion, Illinois	550	1,100	2,4a,8
3034	Indianapolis Power & Light (FGD system) Petersburg #3 Pike Co., Indiana (Petersburg)	Blackfoot #5, Indiana Abbot 1/ Blue Creek, Kentucky	515	1,200	2,8
4057	Mississippi Power Co. Jackson Co. #1 (Daniel #1) Jackson Co., Mississippi (Moss Point)	Swisher Coal, Emery Co., Utah (Subsidiary)	500	750	2,4a,8,13
3016	Pennsylvania Electric Homer City #3 Indiana Co. (Homer City)	Lucerne 6,8,9/Homer City/Hawk/ Josephine 2, Sweard, Pennsylvania	650	1,300	4a,10,8

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1977: Continued					
3020	Cardinal Operating Co. (Buckeye Power Inc.) (Ohio Power) Cardinal #3 Brilliant, Ohio	Donaldson/Charleston, West Virginia	615	1,500	2,4a,10
6036	Interstate Power Co. Lansing #4 Allamakee Co., Iowa	Amax, Gillette, Wyoming	324	943	2,10
7018	Southwestern Electric Power Welsh #1 Morris Co., Texas (Cason)	Amax/Belle Ayr, Campbell Co., Wyoming	528	1,586	2,9
9010	Utah Power & Light (FGD system) Huntington Canyon Emery Co., Utah *14,000 afy (Electric Lake) *has captive reserves	Peabody/Deer Creek, Huntington Canyon, Utah	400	1,300	2,9
9005	Pacific Power & Light Jim Bridger #3 Sweetwater Co., Wyoming (Rock Springs) *has captive reserves	Jim Bridger, Wyoming	500	1,800	4b,9
7002	Kansas City Power & Light (FGD system) LaCygne #2 Linn Co., Kansas (LaCygne)	Amax, Gillette, Wyoming	630	1,400	2,9
6002	Northern States Power (FGD system) Sherburne #2 Sherburne Co., Minnesota (Becker) *Mississippi River is water source	Colstrip/Absaloka,Montana	680	2,250	2,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1977:	Continued				
5039	Union Electric Company Rush Island #2 Jefferson Co., Missouri (Crystal City)	Burning Star 2,3,4/ Consolidation, Illinois	575	1,800	2,9
5015	Associated Electric Co-op New Madrid #2 (New Madrid)	Baldwin 1/ New Madrid Co., Missouri	600	1,900	2,9
6033	Fremont Dept. Utilities Fremont #2 Dodge Co., Nebraska (Fremont)	Jacobs Ranch, Wyoming	87 or 200	450	10
3106	East Kentucky Power Co-op Spurlock #1 Maysville Co., Kentucky	Addington Bros.#5, Eastern Kentucky	300	1,000	8,2,13
7017	Oklahoma Gas & Electric Muskogee #4 Muskogee Co., Oklahoma (Muskogee)	Arco/Black Thunder, Campbell Co., Wyoming	572	1,650	9,2
7016	Southwestern Public Service Company Harrington #1 Potter Co. (Amarillo) Texas	Arco/Black Thunder, Campbell Co., Wyoming Amax/Belle Ayr, Wyoming McKinley Mine, New Mexico	360	1,000	4b,7
1978:					
8004	San Antonio Public Service (oil & coal) J.T. Deely #2 Bexar Co., Texas (San Antonio)	Sunoco/Cordero, Campbell Co., Wyoming	418	1,450	1,2,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1978:	Continued				
3040	Louisville Gas & Elec. (FGD system) Mill Creek #3 Jefferson Co., Kentucky (Kosmosdale)	Star U.G., Riverview/Spot Mkt., Western Kentucky	425	1,035	8 1,2,5,13
9023	Pacific Power & Light Wyodak #1 Gillette, Wyoming	Amax/Belle Ayr, Gillette, Wyoming	330	1,600	1,2,5
4056	South Mississippi Electric Power Assoc. Morrow #1 Lamar Co., Mississippi (Purvis) *captive reserves	Sandyfork,Kentucky	180	400	8 1,4a,13
4056	Morrow #2 Lamar Co., Mississippi (Purvis)	Sandyfork, Kentucky	180	400	8 1,4a,13
8002	Texas Power & Light Monticello #3 Mt. Pleasant, Texas *lignite-mine mouth	Monticello captive, Hopkins Co., Mine, Texas		3,900	9 1,2,4b
8003	Texas Utilities Gener. Martin Lake #2 Rusk Co., Texas (Tatum) *captive reserve-mine mouth *lignite (FGD system)	Martin Lake Mine, Texas	750	5,000	9 1,4b
7019	Southwestern Electric Power Flint Creek #1 Benton Co., Arkansas (Siloam Springs)	Amax Coal/Belle Ayr, Wyoming	528	1,700	1,2,5b 9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1978: Continued					
7017	Oklahoma Gas & Electric Muskogee #5 Muskogee Co., Oklahoma	Arco/Black Thunder, Campbell Co., Wyoming	572	1,650	1,2,4b,9
5017	Wisconsin Power & Light (FGD system) Columbia #2 Columbia Co., Wisconsin (Portage) (Wisconsin Public Service/ Madison Gas & Electric)	Arco/Black Thunder, Campbell Co., Wyoming	513	1,900	1,4a,9
9014	Arizona Public Service Co. (FGD system) Cholla #2 Navajo Co., Arizona (Joseph City) *water requirements estimated at 25,700 afy *limestone scrubber	Pittsburg & Midway/ McKinley, Gallup, New Mexico	263	800	1,2,4b 7,8
9025	Arizona Electric Power Co-op (FGD systems) Apache #2 Cochise Co., Arizona (Cochise) *has captive reserves, unit train (90 cars)	Mentmore Mine, Gallup, New Mexico (Also Colorado)	175	550	7,9 1,2
3017	Columbus & Southern Ohio Electric (FGD system) Conesville #6 Coshocton Co., Ohio (Conesville) *has captive reserves	Ireland, Mounds- ville, Wyoming	375	1,100	1,2,3 4a,8,13
N/A	Upper Peninsula Generating Co. Presque Isle #7 Marquette Co., Michigan (Marquette)	Colstrip-Rosebud/ Westmoreland (50%), Montana Absaloka-Sarpy/ Western Energy Co., (50%) Montana	80	100	1,4a,8,13

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1978: Continued					
N/A	Upper Peninsula Generating Co. Presque Isle #8 Marquette Co., Michigan (Marquette)	Colstrip-Rosebud/ Westmoreland (50%), Montana Absaloka-Sarpy/ Western Energy Co., (50%) Montana	80	100	1,4a,8,13
7016	Southwestern Public Service Harrington #2 Potter Co., Texas (Amarillo) *coal and gas	Arco/Black Thunder, Campbell Co., Wyoming McKinley/P & M, New Mexico	317	1,000	1,2,4b,9
9022	Utah Power & Light (FGD system) Emery #1 Emery Co., Utah (Castle Dale) *14,000 afy *has captive reserves	Deseret (Chorch), Huntington, Utah	415	650	1,4b,9
3032	Cincinnati Gas & Electric (FGD system) Miami Fort #8 Hamilton Co., Ohio (North Bend)	Tiltonville, (Georgetown), Ohio	500	1,200	3,4a,8,13,12
5041	Southern Ilinois Power Co-op Williamson Co., Illinois (Marion)	Delat Mine/Annax, Illinois	272	768	1,2,8,12
3043	Public Service of Indiana (FGD system) Gibson #3 Gibson Co., Indiana (Princeton)	Carter Oil/Monterey mine, Carlinville, Illinois	650	1,500	1,8
4059	Alabama Power Co. James Miller #1 Jefferson Co., Birmingham, Alabama *coal will be trucked	King Coal Co.,Jefferson Co., Alabama	660	950	1,2,4,8,13

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1978: Continued					
4060	Alabama Power Co-op (FGD system) Tombigbee #2 Washington Co., Alabama (LeRoy)	Champion, Big Bend, Hamilton Mine, Alabama	235	300	1,2,8,13
4020	Georgia Power Co. Wansley #2 Heard Co., Georgia (Carrollton)	Old Ben #24, Illinois, Indiana Blackfoot #5	865	1,500	1,4a,8,13
4058	Savannah Electric & Power Port Wentworth #1 Chatham Co., Georgia (Savannah) *conversion From Oil & Gas to Coal	D & H, Tennessee Osborne, Virginia Premele, Kentucky	342	1,000	1,4a,8,11
5032	Springfield Municipal Dallman #3 Springfield, Illinois (Sangamon Co.) *electro-static precipitator-wet limestone	Crown 2 Mine, Virden,Illinois Murdock Mine, Murdock Illinois	193	565	1,2,4a 7,10
5042	Illinois Power Co. Havana #6 Mason Co. (Havana) Illinois	Energy Fuels, Routt Co., Colorado Beechford-Tilford Golden Oak, Kentucky	450	1,200	4a,1,7
1979:					
6039	United Power Assoc. Co-op Coal Creek #1 McLean Co., North Dakota (Falkirk) Power Assoc. - ownership: 44% UPA, 56% CPA. (FGD system) *construction in progress - 15,000 water afy (Missouri River) *lignite	Falkirk mine/North Dakota	500	2,500	1,4b,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1979: Continued					
6038	Nebraska Public Power District Lincoln Co., Nebraska (Sutherland) *Sutherland Reservoir is water source-railroad spur planned	Arco/Black Thunder, Wyoming	650	2,000	1,2,4b,9,16
6022	Dairyland Power Coop. Alma #6 Buffalo Co., Wisconsin (Alma) *jointly owned w/Northern States Power	Belle Ayr/Amax, Gillette, Wyoming	350	1,000	4a,11
3107	Indiana & Michigan Electric Co. Sullivan #1 Sullivan Co. (Sullivan) Indiana	Chinook/Amax, Indiana Ayrshire/Amax, Indiana Minnehana/Amax, Indiana	1,300	3,000	4a
9012	Public Service of New Mexico San Juan #3 San Juan, New Mexico (Water Flow) *water source is San Juan River-20,200 afy *captive reserves	Navajo, San Juan, New Mexico	534	1,933	9,1,2,4b
3110	Southern Indiana Gas & Electric Brown #1 Possy Co., Indiana	Old Ben Coal, 1,2/Indiana	250	700	1,4a,5,12
8003	Texas Utilities Gener. (FGD system) Martin Lake #3 Rusk Co., Texas (Tatum) *mine mouth plant *captive reserves *lignite	Martin Lake Mine, Texas	750	3,000	1,4b,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAN code	Power system, plant and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1979: Continued					
4060	Alabama Power Co-op (FGD system) Tombigbee #3 Washington Co., Alabama (Leroy)	Big Ben Mining Co. (50/50) Champion, Alabama	235	300	1,8,12,13
8005	Houston Lighting & Power W. A. Parish #5 Ft. Bend Co., Texas (Richmond)	Kerr-McGee/Jacobs Ranch, Gillette, Wyoming (Coal from N. Montana in 1981-Ash)	660	2,350	2,4b,9
8007	Lower Colorado River Auth. City of Austin Fayette #1 Fayette Co., Texas	Decker Mine/Montana Black Thunder/Wyoming	550	2,200	1,2,4b,9
3108	Northern Indiana Public Service Schahfer #15 Jasper Co., Indiana (Wheatfield)	Westmoreland/Orchard Valley, Paonia, Colorado Hanna Mine, Wyoming	527	1,200	1,2,11,8
9025	Arizona Electric Power Co-op (FGD system) Apache #3 Cochise Co., Arizona (Cochise) *has captive reserves	Mentmore, New Mexico	204	550	1,2,4a,9,16
9026	Salt River Project (FGD system) Coronado #1 Apache Co., Arizona (St. John's)	San Juan, Farmington, New Mexico Kaiser, York Canyon, New Mexico Coastal States, Utah	395	730	1,2,4b, 9,11,16
9024	Colorado-Ute Electric Assoc. Craig #2 Moffat Co., Colorado (Craig) *mine mouth	Trapper Mine Utah International, Utah	400	1,225	1,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1979:	Continued				
3043	Public Service of Indiana (FGD system) Gibson #4 Gibson Co., Indiana (Princeton)	Carter Oil/Monterey mine, Carlinville, Illinois	650	1,500	1,8
7022	Kansas Power & Light (FGD system) Jeffrey Energy Center #1 Pottawatomie Co., Kansas (Belvue) *5 mile railroad spur line	Amax/Belle Ayr, Gillette, Wyoming	680	2,100	1,4b,9
3109	Monongahela Power Co. (FGD system) (Allegheny Power System) Pleasants #1 Pleasants Co., West Virginia (St. Mary's)	Northeast Surface, West Virginia	626	1,500	1,4a,8,13
N/A	Upper Peninsula Generating Company Presque Isle #9 Marquette Co., Michigan (Marquette)	Colstrip-Rosebud/ Westmoreland Coal/Montana (50%) Absaloka-Sarpy/ Western Energy Co./Montana (50%)	90	100	1,4a,8,13,12
6001	Iowa Public Service George Neal #4 Woodbury Co., Iowa (Salix) *has captive reserves	Vanguard & Rimrack, Hanna, Wyoming Carter Oil/Rawhide Mine, Wyoming	576	1,750	1,2,11,9
6026	Iowa Power & Light Council Bluffs #3 Pottawatomie Co., Iowa (Council Bluffs)	Eagle Butte-Campbell Gillette, Wyoming	650	2,000	1,2,4b,9
6040	Omaha Public Power Dist. Nebraska City #1 Otoe Co., Nebraska (Nebraska City) *3 mile railroad spur	Carter Oil/Rawhide, Gillette, Wyoming Rosebud, Hanna, Wyoming	575	2,500	1,2,4b,11,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1979: Continued					
7026	Oklahoma Gas & Electric Sooner #1 Noble Co., Oklahoma (Ponca City)	Arco/Black Thunder, Campbell, Wyoming	515	1,650	1,2,4b,9
7027	Public Service of Okla. Northeastern #3 Rogers Co., Oklahoma (Oologah) *has captive reserves	Kerr/McGee, Gillette, Wyoming Rodgers Co. Mine/ Public Service, Oklahoma Bighorn, Wyoming	450	1,450	1,4b,9
6041	Heartland Consumer Power Dist. Heartland Southeastern South Dakota *water source is Missouri River	Gillette, Wyoming	200	600	4b,9
1980:					
6039	United Power Assoc. Coalcreek #2 Underwood, North Dakota McLean Co. *Lignite *Water-15,000 afy (Missouri River)	Falkirk Mine, McLean Co., North Dakota	500	2,000	1,4b
9014	Arizona Public Service Cholla #3 Navajo Co., Joseph City, Arizona *water requirements estimated at 35,700 afy	Midway/McKinley Gallup, New Mexico	289	827	4a,1
7023	Arkansas Power & Light White Bluff #1 Jefferson Co., Arkansas (Redfield)	Kerr/McGee/Jacobs Ranch, Wyoming	700	2,500	1,2,4b,11,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1980: Continued					
9031	Basin Electric Power Cooperative Laramie River #1 Wheatland, Wyoming	Jim Bridger, Wyoming Sun Oil, Cordero, Wyoming	500	1,600	1,2,3,4b,9
3104	Big Rivers Electric Corp. (Green) Robert Reid #2 Webster Co., Kentucky	Martwick, Homestead/ Peabody Coal, Kentucky	240	950	1,5,13
4008	Carolina Power & Light Co. Roxboro #4 Pierson Co. (Roxboro) North Carolina	Ken 16, Mingo Co., West Virginia Island Creek, Kentucky	720	900	1,4a,8,13,7
8006	Central Power & Light Coletto Creek #1 Gonzales Co. (Victoria) Texas *30 million tons coal over 25 years	Colo-Wyo, Axial, Colorado	550	1,300	1,4b,8,7
2014	Delmarva Power & Light Indian River #4 Sussex Co., Delaware	Avery Coal, Pennsylvania Cooks Run, Westport, Pennsylvania Continental Coal, Ohio	400	800	1,2,5,11,8
3040	Louisville Gas & Electric Millcreek #4 Jefferson Co., Kentucky (Kosmosdale)	Riverview, Star/Peabody, Western Kentucky	495	600	1,2,4a,8,13
2021	Pennsylvania Power Mansfield #3 Shipping Port, Pennsylvania	Powhatan, Ohio Arkwright, West Virginia Gallatin, Pennsylvania	825	3,000	1,4a,5,13
5043	Wisconsin Electric Power Pleasant Prairie #1 Kenosha Co., Wisconsin	North Rawhide, Wyoming	580	1,000	1,4a,12,14

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1980: Continued					
3109	Monongahela Power (FGD system) Pleasants #2 Pleasants Co. West Virginia (Eureka)	Northeast Surface	626	1,500	1,8,13,14
7016	Southwestern Public Service Co. Harrington #3 Potters Co., Texas (Amarillo)	Arco/Black Thunder, Campbell Co, Wyoming McKinley/P & M, New Mexico	317	1,000	1,4b,8
6043	East River Electric Power Co-op Basin #1 Brule Co., South Dakota	Belle Ayr/Amax, Gillette, Wyoming	150	500	4b,9,14
8005	Houston Lighting & Power W. A. Parish #6 Ft. Bend Co., Texas (Richmond) *coal/gas/oil	Kerr-McGee/Jacobs Ranch/ Gillette, Wyoming	660	2,350	1,2,4b,9
8007	Lower Colorado River Auth. City of Austin Fayette #2 Fayette Co., Texas	Decker Coal, Montana Black Thunder/ARCO, Wyoming	550	2,200	1,2,4b,9
9030	Portland General Electric Carty #1 Morrow Co., Oregon (Boardman) *proposed slurry pipeline from Eastern Wyoming *water source is Columbia River	Amax/Belle Ayr, Gillette, Wyoming	530	1,600	1,4b,9
7025	Cajun Electric Power Co-op Big Cajun 2 #1 Pointe Coupee Parish, Louisiana (New Roads)	Jim Bridger, Wyoming Buckskin, Gillette, Wyoming	550	2,000	1,2,9

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1980: Continued					
6007	Minnesota Power & Light Clay Boswell #4 Itasca Co., Minnesota (Cohasset)	Peabody/Big Sky, Colstrip, Montana	500	1,900	1,4b,9
7029	Kansas City Power & Light Iatan #1 Platte Co., Missouri	Belle Ayr, Eagle Junction Mines, Wyoming	726	2,700	1,4b,11,16
7018	Southwestern Electric Power Welsh #2 Morris Co., Texas (Cason) *has captive reserves *low sulfur coal-rail delivery	Amax/Belle Ayr, Campbell Co., Wyoming	528	1,586	1,2,4b,7,9
9022	Utah Power & Light (FGD system) Emery #2 (Hunter) Emery Co., Utah (Castle Dale) *water, 14,000 afy *has captive reserves	American Coal, Huntington, Utah	415	650	1,4b,9
9026	Arizona Salt River Project (FGD system) Coronado #2 Apache Co., Arizona (St. Johns)	Coastal States, Utah San Juan, Farmington, New Mexico	395	730	1,4b,11,9,16
7022	Kansas Power & Light (FGD system) Jeffrey Energy Center #2 Pottawatomie Co., Kansas (Belvue, Kansas) *5 mile railroad spur line	Amax/Belle Ayr, Gillette, Wyoming	680	2,100	1,4b,9,16
3041	Consumer Power Co. Campbell #3 Ottawa Co., Michigan (Port Sheldon)	Crown City, Ohio	770	1,500	1,4a,8,13, 11,14

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1980: Continued					
3094	Lansing Board of Water Erickson #2 Eaton Co., Michigan (Lansing)	Crown City, Warner Collieries, Ohio	169	400	1,4a,8,14
7026	Oklahoma Gas & Electric Sooner #2 Noble Co., Oklahoma (Ponca City)	Arco/Black Thunder, Wyoming Campbell Co., Wyoming	567	1,650	1,2,4a,9
7027	Public Service of Oklahoma Northeastern #4 Rogers Co., Oklahoma (Oolagah) Public Service Oklahoma/ Sheridan Wyoming *has captive reserves	Kerr-McGee,Gillette, Wyoming	450	1,450	1,4b,9
6042	City of Lincoln Laramie #2 Lancaster Co., Nebraska (Lincoln) *Sutherland Reservoir is water source-railroad spurs planned.	Seminoe 2, Wyoming	200	700	3,9,14
3067	East Kentucky Rural Electric Co-op John Sherman Cooper Pulaski Co., Kentucky (Burnside)	Highlands River/Del Coal/ Ikerd Bandy/Cane Run/ J & S Coal/Kentucky	500	600	4a,8
9024	Colorado Ute Electric Association Craig #1 Moffat Co., Colorado *mine mouth *Yampa River as water source	Trapper Mine, Utah International, Colorado	400	1,225	1,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1980: Continued					
7021	Kansas City Bd of Public Utilities Nearmen Creek #1 Kansas City, Kansas Wyandotte Co. *1000 ft. railroad spur line	Carter Oil/Rawhide & Caballo, Gillette, Wyoming Central Prep, Saline Co., Illinois	300	850	9,1,4b,11
9005	Pacific Power & Light Jim Bridger #4 Sweetwater Co., Wyoming (Rock Springs) *has captive reserves	Bridger Mine, Wyoming	500	2,000	1,2,4b,9
8009	Texas Municipal Power Pool San Miguel #1 McMullen Co., Texas *has captive reserves	San Miguel Strip Mine, Texas	400	1,600	4b,1,8,15
9027	City of Colorado Springs R.D. Nixon #1 El Paso Co., Colorado (Colorado Springs)	Colowyo, Craig, Colorado	200	750	8,1,2,4b
1981:					
N/A	Ames (Iowa) Municipal Electric System Ames Unit #8 Ames, Iowa Story Co.	Not available	65	150	1,5
3111	Cincinnati Gas & Electric (FGD system) East Bend #2 Boone Co., Kentucky (Rabbit Hash)	Kentucky Prince Coal, Perry Co., Kentucky	600	700	1,4a,7,8,13

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1981:	Continued				
4055	Gainesville-Alachua Co. Deerhaven #2 Alachua Co., Florida (Hagne) (FLA.) Regional Electric *FEA ordered conversion from 2.4 mmbl of oil to 600,000 tons coal	Mine No. 22 Big Creek Mine, West Virginia	235	600	1,8,13,7
N/A	Grand Haven (MI) Bd of Light & Power Grand Haven #3 Ottawa Co., Michigan	Not available	40	50	1,4a
N/A	Grand Haven (MI) Bd of Light & Power Grand Haven #4 Ottawa Co., Michigan	Not available	40	50	1,4a
N/A	Grand Island (Neb) Electric Dept. Platte #1 Hall Co., Grand Island, Nebraska	Wyodak Corp, Gillette, Wyoming	100	400	1,4b,7
3114	Indiana Statewide Rural Electric Coop., Inc. (Hoosier) Merom #2 Merom, Indiana	Blackfoot #5, Indiana Center Point, Indiana	500	1,350	1,5
7049	Grand River Dam Auth. (Oklahoma) Chouteau #1 Mayes Co., Pryor, Oklahoma	North Rawhide, Powder River, Wyoming	490	1,900	1,4b,11
6051	Iowa Southern Util. Co. Ottumwa #1 Chillicothe, Iowa	Cordero Mine, Gillette, Wyoming	675	2,500	1,2,4b,5

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1981: Continued					
4057	Mississippi Power Co. Gulf Power Company (50-50 Ownership) Jackson Co. #2 (Daniel #2) Cumbest Bluff, Mississippi	Swisher Coal, Utah Co., Utah	518	750	1,2,4a,8,13
6038	Nebraska Public Power District Gentleman #2 Sutherland, Nebraska *Sutherland Reservoir is water source-railroad spurs planned	Arco/Black Thunder, Wyoming	650	2,000	1,2,4b,9
9012	Public Service of New Mexico San Juan #4 San Juan Co., New Mexico Waterflow *water - 20,200 afy (San Juan River)	Wesco, San Juan, New Mexico	534	1,933	1,2,9
9029	Sierra Pacific Power Valmy #1 Battle Mountain, Humboldt Co., Nevada (Valmy)	Coastal States, Salina, Utah	250	1,000	1,4b,7,9
8014	Texas Power & Light Sandow #4 Milam Co., Texas (Rockdale) *lignite	San Juan Mine, New Mexico	545	2,100	1,8,4b
9014	Arizona Public Service (FGD system) Cholla #4 Navajo Co., Arizona (Joseph City)	Pittsburg & Midway/ McKinley, Gallup, New Mexico	375	1,200	1,9,4b

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1981:	Continued				
3106	East Kentucky Power Coop., Inc. Spurlock #2 Mason Co., Kentucky (Maysville)	Addington Bros. #5/ Boyd Co., Kentucky	500	1,000	2,8
6047	Montana-Dakota Utilities Co. Coyote #1 Beulah, North Dakota Mercer Co. *Mine mouth *water 11,000 afy (Lake Sakakawea)	Knife River, Beulah, North Dakota	414	1,100	2,4b
7025	Cajun Electric Power Co-op Big Cajun #2 New Roads, Louisiana	Jim Bridger, Wyoming Buckskin, Gillette, Wyoming	550	2,000	1,2,9,15,16
3104	Big Rivers Electric Co-op (FGD system) Robert Reid #3 (Green) Webster Co., Kentucky (Sebree)	Homestead/Peabody Coal, Kentucky	200	800	1,4a,8,13
9028	Public Service of Co. Pawnee #1 Morgan Co., Colorado (Brush)	Amax/Belle Ayr, Gillette, Wyoming	500	1,600	1,2,4b,9
6009	Otter Tail Power Co. Big Stone #2 Grant Co., South Dakota (Big Stone City) *addition to Big Stone Plant (lignite)	Gascoyne/Knife River Coal, North Dakota	410	2,500	1,4b,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1961: Continued					
8009	Texas Municipal Power Pool San Miguel #2 McMullan Co., Texas *mine mouth *has captive reserves	San Miguel strip, Texas	400	1,600	4b,9
9031	Basin Electric Power Cooperative Laramie River #2 Platte Co., Wyoming (Wheatland)	Sun Oil/Cordero mine, Buckskin, Gillette, Wyoming (After 1981)	500	1,600	3,4b,9
5019	Associated Electric Co-op Thomas Hill #3 Randolph Co. Missouri (Thomas Hill) *captive reserves	Bee Veer, Prairie Hill/ Peabody Coal, Missouri	670	800	1,2,4b,8,12
5040	Central Illinois Public Service (FGD system) Newton #2 Jasper Co., Illinois (Newton)	Delta, Illinois	550	1,100	1,2,4a,8
8005	Houston Light & Power W. A. Parish #7 Ft. Bend Co., Texas	Kerr McGee/Jacobs Ranch, Gillette, Wyoming	750	2,580	8,1,2,4b
4059	Alabama Power Co. James Miller #2 Jefferson Co., Alabama (West Jefferson) *coal will be trucked	King Coal,Jefferson Co., Alabama	660	950	2,4,8,13
3052	Kentucky Utilities Ghent #3 Carroll Co., Kentucky (Ghent)	Southeast Coal, Kentucky	500	600	1,4a,8

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1981:	Continued				
3121	Appalachian Power Co. Mountaineer (Project 131) Mason Co., West Virginia (New Haven)	Lorado Prep, Wyoming	1,300	3,600	4a,7,1
1982:					
7023	Arkansas Power & Light White Bluff #2 Jefferson Co., Arkansas (Redfield)	Gillette Jacobs Ranch/Wyoming Antelope/Wyoming	700	2,500	1,2,3b,11,9
4042	South Carolina Public Serv. Auth. (FGD system) Winyah #3 Georgetown Co., South Carolina (Georgetown)	Potter, Mack, Stoney Fork, Creech, Kentucky	280	750	13,11
6046	Basin Electric Power Cooperative Antelope Valley #1 Beulah, North Dakota Mercer Co. (lignite) *mine mouth *water - 19,000 afy (Lake Sakakawea)	Mine Mouth Beulah-Hazen, North Dakota Buckskin, Gillette, Wyoming (After 1981)	438	2,600	1,2,4b
7028	Central Louisiana Electric Rodemacher #2 Rapids Parish, Louisiana (Boyce)	Gillette, Wyoming	530	1,750	1,2,4b,9
4065	Carolina Power and Light Co. Mayo #1 Person Co., North Carolina (Roxboro) Creech, Kentucky * captive reserves	Ken 16/Mingo Co., West Virginia Potter, Mack, Stoney Fork	720	2,800	1,4a,11,13,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1982: Continued					
6027	City of Muscatine Muscatine #9 Muscatine Co., Iowa (Muscatine)	Orient 3 & 6, Illinois	150	250	1,4b,9,7
3120	Indiana & Michigan Electric Co. Rockport #1 (Project 2601) Rockport, Indiana	Helper, Utah North Rawhide, WY	1,300	3,000	1,11,8
3114	Indiana Statewide Rural Electric Cooperative, Inc. Merom #1 Merom, Indiana	Blackfoot #5, Indiana Center Point, Indiana	490	1,350	1,5
N/A	Marquette Bd of Light and Power Shiras #3 Marquette Co., Michigan	Peabody Coal, East Ohio	44	170	1,2,4a,8,13
6013	Montana Power Co. (FGD System) Colstrip #3 Rosebud Co., Montana (Colstrip) *captive reserves	Western Energy, Montana Rosebud, Montana	700	2,367	1,4b,9
8015	Texas Municipal Power Agency Gibbons Creek #1 Walker Co., Texas (Huntsville) *lignite *captive	Gibbons Creek, Grimes Co. Mine/Texas	408	1,200	1,2,4b
7031	Western Farmers Electric Coop. Eastern Oklahoma #1 Choctaw Co., Oklahoma (Ft. Towson)	Choctaw Mine, Oklahoma	376	1,000	1,3,4b,8

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1982: Continued					
5035	Wisconsin Public Service Corp. Weston #3 Marathon Co., Wisconsin (Rothschild) *scrubber not required *low sulfur use	Black Thunder, Wyoming	300	800	1,4a,7,12
9024	Colorado-Ute Electric Assn. Craig #4 Moffat Co., Colorado (Craig) *mine mouth	Trapper Mine, Colorado	380	1,225	1,4b,9,11
3043	Public Service of Indiana Gibson #5 Gibson Co., Indiana (Princeton)	Carter Oil, Illinois	650	1,500	7
7021	Kansas City Board of Public Utilities Nearman Creek #2 Kansas City, Kansas Wyandotte Co. Central Prep, Saline Co., Illinois	Carter Oil/Rawhide & Caballo, Gillette, Wyoming	300	1,000	15,16
4059	Alabama Power Co. James Miller #3 Jefferson Co. Birmingham, Alabama *coal will be trucked & rail	King Coal Co.,Jefferson Co. Alabama Bessie Mine, Drummond, Alabama	660	950	2,1,4,8,7
4063	Georgia Power Co. Scherer #1 Monroe Co., Georgia (Forsyth)	Ken 16, Mingo Co, West Virginia Westmoreland, West Virginia Ireland Mine, Consol Coal, West Virginia	818	1,200	11,8,1,4a

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1982: Continued					
5013	Central Illinois Light Edwards #4 Peoria Co., Illinois (Bartonville)	Sarpy Creek, Montana	500	1,300	4a,8,11
7022	Kansas Power & Light Jeffrey Energy Center #3 Pottawatomie Co., Kansas (Bellvue) (FGD system) *5-mile railroad spur line	Amax/Belle Ayr, Gillette, Wyoming	680	2,110	1,3,4b,9,16
7018	Southwestern Electric Power Welsh #3 Morris Co., Texas (Cason) *low sulfur coal-rail delivery	Amax/Belle Ayr, Campbell, Wyoming	528	1,586	1,4b,7,9
9034	Utah Power & Light Garfield #1 Garfield Co., Texas (Escalante) *has captive reserves	Deseret Mine, Utah Belina #1/Utah	500	1,625	4b,9,14
9026	Salt River Project Coronado #3 Apache Co., Arizona (St. Johns) (FGD System) (Indefinite)	Constal States, Utah San Juan, New Mexico	350	1,000	1,9
3129	Grand Haven Board of Power & Light Island #3	Not available	100	350	15,16
9049	Western Farmers Electric Co-op Southeast #1 (Hugo)	Not available	400	1,500	

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1982: Continued					
5043	Wisconsin Electric Power Pleasant Prairie #2 Kenosha Co., Wisconsin	North Rawhide, Wyoming	580	1,000	1,4a,8
3117	Dayton Power & Light Killeen #2 Adams Co., Ohio (Wrightsville)	Sapphire Mine/Elkorn & Jellico, Kentucky Ferrel/Hampton Co, West Virginia	600	1,400	1,2,4a,8,13
7048	Southwestern Public Service Tolk #1 Earth, Texas	Arco/Black Thunder, Campbell Co, Wyoming	513	1,500	1,2,3,8
4062	City of Lakeland (Florida) McIntosh #3 Polk Co., Florida (Lakeland)	Eagle, Illinois Little Joe, Kentucky Kaneb Services, Inc.	364	300	4a,7,11
2021	Duquesne Light Co. Mansfield #2 Beaver Co., Pennsylvania (Shipping port) (FGD system) *captive reserves	Powhatan, Ohio Pegs Run, Pennsylvania Arkwright, West Virginia	825	2,000	4a,13
1983:					
9028	Public Service of Colorado Pawnee #2 Morgan Co., Colorado (Brush)	Amax/Belle Ayr, Gillette, Wyoming	500	1,600	4b,9
9024	Colorado Ute Electric Association Craig #3 Moffat Co., Colorado (Yampa) *mine mouth	Trapper Mine, Colorado	400	1,200	4b,15,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
1983:	Continued		MW	1,000 tons	
7025	Cajun Electric Power Coop Big Cajun #2 New Roads, Louisiana	Jim Bridger, Wyoming Buckskin, Gillette, Wyoming	550	2,000	1,8
5038	Central Illinois Light (FGD system) Duck Creek #2 Fulton Co., Illinois	Orient #4, Virden, Illinois	400	1,080	1,2,8,15
9014	Arizona Power Service Co. Cholla #5 Navajo Co., Arizona (Joseph City) *water, 25,700 afy	Pittsburg & Midway/McKinley, Gallup, New Mexico	350	1,200	1,4b
4069	Florida Power Corp. Crystal River #4 Crystal River, Florida	Electro Mine, Kentucky	640	700	1,2,4a,11,7
N/A	South Carolina Public Service Auth. Site X #1		450	469	2,5
8005	Houston Light & Power W.A. Parish #8 Ft. Bend Co., Texas (Richmond)	Kerr-McGee/Jacobs Ranch, Gillette, Wyoming	600	2,579	4b,8,15,16
3052	Kentucky Utilities Co. Ghent #4 Ghent, Kentucky	Southeast Prep., Kentucky	500	1,437	1,5,13,7
3115	Louisville Gas & Electric Trimble Co. #1 Trimble Co., Kentucky (Wise's Landing)	Riverview, Star/ Peabody Coal, Kentucky	495	600	1,4a,8,13

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1983: Continued					
6013	Montana Power Company (FGD system) Colstrip #4 Rosebud Co., Montana *captive reserves	Colstrip-Rosebud/ Western Energy, Montana	700	2,367	1,4b
9032	Nevada Power Co. (FGD system) Warner Valley #1 Washington Co., Utah (St. George) *captive reserves *slurry from Alton Field, UT	King/Hiawatha, Carbon Co, Utah	250	800	1,4b,9,7,16
1010	New York State Electric & Gas Cayuga Lake #1 Tompkins Co., New York (Ithaca)	Iselin/Rayne, Pennsylvania Century, West Virginia Romesburg, Maryland	850	2,000	1,4a,8
7017	Oklahoma Gas & Electric Co. Muskogee #6 Muskogee Co., Oklahoma (Muskogee)	Arco/Black Thunder Campbell Co., Wyoming	505	1,500	15,16
7015	Sikeston (MO)Bd. of Municipal Utilities Sikeston #1 Sikeston, Missouri Scott Co. *limestone scrubbers	Jim Bridger, Wyoming Central Prep., Saline Co., Illinois	235	600	1,2,4b,11,15
3110	Southern Indiana Gas & Electric Brown #2 Posse Co., Indiana	Old Ben Coal 1,2/Indiana Blackfoot #5	250	800	1,5,8

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
1983: Continued			MW	1,000 tons	
4070	Seminole Electric Bostwick #1 Putnam Co., Florida (Palatka) *167 million tons between 1982-2010	Dotiki Mine/Kentucky New Mine White Co./Illinois	600	2,000	2,3,11
9022	Utah Power & Light Emery #3 (Hunter) Naughton, Wyoming *water, 14,000 afy	Deseret (Chorch),Huntington, Utah	415	650	1,4b
5020	Wisconsin Power & Light Edgewater #5 Sheboygan Co., Wisconsin (Edgewater) *50% owned by Wisconsin Electric Power	Coal Creek Mine/ Campbell Co., Wyoming	400	800	1,4a,8
6052	Iowa-Illinois Gas & Electric Co. Louisa #1 Muscatine, Iowa *jointly owned w/several utilities	Seminoe 1, Wyoming	685	2,500	1,2,3,4b,11
3108	Northern Indiana Public Service Schahfer #17 Jasper Co, Indiana (Wheatfield)	Hanna Mine, Wyoming Westmoreland/Orchard Valley/ Paonia, Colorado	380	1,200	3,7
9023	Pacific Power & Light Wyodak #2 Campbell Co., Wyoming (Gillette) *water is recycled waste water from Gillette Municipal Sewage System	Wyodak Mine/Wyoming	330	5,500	3,4b,9
7039	Arkansas Power & Light Independence #1 Independence Co., Arkansas (Newark)	Kerr-McGee/Jacobs Ranch, Gillette, Wyoming (A G & S Lignite Mine late 80's, Arkansas)	700	2,500	1,2,3,4b,11,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1983:	Continued				
8015	Texas Municipal Power Pool Gibbons Creek #2 Walker Co., Texas (Huntsville) *has captive reserves	Gibbons Creek, Grimes Co. Strip Mine, Texas	400	1,200	4b,9
4059	Alabama Power Co. James Miller #4 Jefferson Co., Alabama (West Jefferson)	King Coal, Alabama	660	950	2,4,8,13
7023	Arkansas Power & Light White Bluff #4 Jefferson Co, Arkansas	Kerr-McGee/Jacobs Ranch Wyoming	700	2,800	8
7014	City of Independence Missouri Blue Valley #4 Jackson Co. Missouri (Independence)	Seminoe, Wyoming United Coal, Oklahoma	150	400	4b,11
3034	Indianapolis Power & Light Petersburg #4 Pike Co., Indiana (Petersburg)	85% Contracted Lynnville, Indiana R & H/ Old Ben, Indiana Center Point, Indiana	515	1,200	13
7026	Oklahoma Gas & Electric Co. Sooner #3 Noble Co., Oklahoma	Arco/Black Thunder Campbell Co., Wyoming	700	2,500	15,16
1984:					
3120	Indiana & Michigan Electric Co. Rockport #2 (Project 2601) Rockport, Indiana	Helper, Utah North Rawhide, Wyoming	1,300	3,000	1,11,8

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1984: Continued					
9035	Plains Electric G & T Plains #1 McKinley Co. (Prewitt), New Mexico 2500 Ac. Site for Expansion to 3-4 Units (1000 MW)	San Juan, New Mexico	330	1,035	4b,8,15,16
9031	Basin Electric Power Cooperative Laramie River #3 (Wheatland), Wyoming Platte Co.	Jim Bridger, Gillette, Wyoming Sun Oil/Cordero Mine	500	1,600	1,2,4b,9,15
4042	South Carolina Public Authority Winyah #4 Georgetown Co., South Carolina (Georgetown)	Potter, Mack, Stoney Fork, Creech, Kentucky	280	463	1,6,13
3116	Detroit Edison Co. Belle River #1 St. Clair Co., Mississippi (St. Clair)	Decker, Montana	676	900	1,4a,8,13
3066	Allegheny Power Service Corp. Lower Armstrong #1 Armstrong Co., Pennsylvania	Eagle Coal, Pennsylvania	625	1,500	1,7,15
3111	Cincinnati Gas & Electric East Bend #1 Boone Co., Kentucky (Rabbit Hash) (FGD system)	Jerry Lynn, Perry Co, Kentucky	650	700	1,4a,7,8
3041	Consumers Power Co. (MI) Campbell #4 Ottawa Co, Mississippi (Port Sheldon)	Crown City, Ohio	800	1,000	1,14

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAH code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1984: Continued					
4063	Georgia Power Co. Scherer #2 Monroe Co., Georgia (Forsyth) *coal via Southern Railway from	Westmoreland Coal, West Virginia Appalachian, W.V.	818	1,200	1,4a,11,8,13
2023	Baltimore Gas & Electric Brandon Shores #1 Anne Arundel Co, Maryland	Not available	610	1,150	7,11
3062	East Kentucky Power Coop J.K. Smith #1	Diamond Coal 5,6,7 Floyd County, Kentucky	600	2,000	15,16
9050	Golden Valley Electric Assn., Inc. Healy #3 Alaska	Not available	115	500	15,16
8016	Houston Light & Power Freestone #1 Freestone Co., Texas (Fairfield) (Lignite) *captive reserves	Big Brown Mine, Freestone Co, Texas	750	2,750	1,4b
6053	Minnesota Power & Light Floodwood St. Louis Co., Minnesota (Floodwood) *subbituminous	Big Sky, Montana	800	3,200	1,3,4b
9032	Nevada Power Company Warner Valley #2 Washington Co., Utah (St. George) *water, 10,000 afy-proposed *captive reserves *slurry from Alton Field, UT	King/Hiawatha, Carbon Co, Utah	250	800	1,4b,9

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1984: Continued					
6002	Northern States Power Sherburne #3 Sherburne Co, Minnesota (Becker) (FGD System) *Mississippi River is water source	Colstrip, Montana Absaloka Mine, Westmoreland, Montana	800	2,250	1,4b,9,11,7
9038	Public Service of Colo. Future #1 Southeastern, Colorado	Jacobs Ranch, Wyoming Trapper Mine/Utah Intn'l, Colorado	500	1,600	1,4b,9,13,7
7042	Southwestern Electric Power Co. H. W. Prikey #1 Hallsville, Texas Harrison Co.	Hallsville Co Mine, Texas	640	2,500	1,2
8010	Texas Utilities Generating Co. Forest Grove #1 Athens, Texas	Assume mine mouth near Athens, Texas	750	3,000	7
N/A	Big River Electric Wilson #1 (Brec Station 4) Centertown, Kentucky	Not available	440	1,500	7
3131	Kentucky Utilities Co. Hancock #1	Not available	650	2,000	15,16
9051	Oak Creek Power Co. Oak Creek ST3	Not available	800	2,500	15,16
9052	Public Service Southeastern #1 Las Animas, Colorado	Not available	470	1,500	15,16
8011	Texas Utilities Gener. Twin Oak #1 Robertson Co., Texas (Bremond) *lignite *captive reserves-mine mouth	Twin Oaks Mine, Texas ALCOA, Robertson Co, Texas	750	3,000	1,2,4b,9

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1984: Continued					
5046	Western Illinois Power Coop. Pearl Station #2 Pike Co., Illinois (Pearl)	River King 6/Baldwin 2,3,4, Illinois	400	750	1
4069	Florida Power Corp. Crystal River #5 Crystal River, Florida	Creech, Coalgood, Harlan Co., Kentucky	640	700	1,2,4a,11,13
8015	Texas Municipal Power Pool Gibbons Creek #3 Walker Co., Texas (Huntsville) *lignite-captive reserves	Gibbons Creek Grimes Co. Strip Mines, Texas	400	1,200	3,4b
6046	Basin Elec. Power Co-op Antelope Valley #2 Mercer Co., North Dakota (Beulah) (FGD system) *water 19,000 afy (Lake Sakakawea) *lignite *mine mouth	Beulah-Hazen, North Dakota Buckskin, Gillette, Wyoming (After 1981)	440	2,900	1,4b,9
N/A	Sunflower Electric Co-op Homcomb #1 Kansas	Not available	300	1,000	15,16
3020	Buckeye Power Inc. (Ohio Power) Cardinal #4 Jefferson Co., Ohio (Brilliant)	Carson Pit, Ohio	615	1,500	4a
1985:					
3066	Allegheny Power Service Corp. Lower Armstrong #2 Armstrong Co., Pennsylvania	Eagle Coal, Pennsylvania	625	1,500	1

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
1985: Continued			MW	1,000 tons	
3116	Detroit Edison Co. Belle River #2 St. Clair Co., Mississippi	Decker, Montana	676	900	1,4a,8,7, 13,12
4065	Carolina Power & Light Co. Mayo #2 Person Co., North Carolina (Roxboro)	Ken 16/Mingo Co.,West Virginia Potter, Mack, Stoney Fork, Creech, Kentucky	736	850	1,4a,11, 13,16
3117	Dayton Power & Light Killeen #1 Adams Co., Ohio (Wrightsville)	Saphire Mine/ Hampton Div, Kentucky Ferrel, West Virginia	600	1,400	1,2,8,13,7
7008	Empire District Electric Coop. Asbury #3 Jasper Co., Missouri (Asbury) (Indefinite)	Seminoe 1, Wyoming	300	1,000	1,4b,9
N/A	Florida Power & Light Co. Martin Co. #3 Florida *Indefinite	Not available	640	1,000	1,15,16
N/A	Gulf Power Co. Ellis #2 Florida *Indefinite	Not available	500	1,000	1,8,13
N/A	Gulf States Utilities Nelson #6 Calcasis Parish, Louisiana	Jacobs Ranch, Wyoming	540	2,500	1,4b,9,15,16
3125	Indianapolis Power and Light Patriot #1 Marion Co. Indiana (Indianapolis)	Lynnville, Indiana	650	1,500	1,4a,7

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1985: Continued					
3115	Louisville Gas & Electric Trimble Co. #2 Trimble Co., Kentucky (Wise's Landing)	Riverview, Star/ Peabody Coal, Kentucky	495	600	1,4a,8,13
6044	Nebraska Public Power District Comstock #1 Comstock, Nebraska Custer Co. *river reservoir required	Black Thunder/Arco, Wyoming	600	2,000	1,2,4b
9033	Nevada Power Co. Harry Allen #1 Clark Co., Nevada (Las Vegas) *captive reserves *slurry	King (Hiawatha), Carbon Co, Utah Future Coal Slurry Line from Alton Field, Utah	500	295	1,4b,11,9
3051	Potomac Electric Power Dickerson #4 Montgomery Co., Maryland (Appalachian Coal)	Eagle Coal, Pennsylvania Romesburg, Maryland Loveridge, West Virginia	800	3,000	1,2,4a,8,13
3118	Richmond Indiana Power & Light Whitewater Valley #3 Wayne Co., Indiana (Whitewater)	Hawthorn/Peabody, Indiana	193	384	1,4a,11
4023	Tampa Electric Co. Big Bend #4 Hillsborough Co., Florida *captive reserves	Island #9, Kentucky Poland Imports	425	1,000	1,11,8
6040	Omaha Public Power District Nebraska City #2 Nebraska City, Nebraska	North Rawhide, Gillette Wyoming Rosebud, Hanna, Wyoming	565	2,500	2,11

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1985: Continued					
9040	Tucson Gas & Electric Springerville #1 Apache Co., Arizona (Springerville) *captive reserves	San Juan Basin Coal, Santa Fe, New Mexico	350	1,000	1,3,11,8
9022	Utah Power & Light Emery #4 (Hunter) Naughton, Wyoming *water, 14,000 afy	Deseret (Chorch), Huntington, Utah	400	650	1,4b,9
5047	Wisconsin Electric Power Koshkonong #1 Jefferson Co., Wisconsin	Carbon Fuel Mine, Wyoming	400	500	1,4a,14
	Upper Peninsula Power Co. (MI) Unsited Coal #1		90	333	3,5
1012	New York State Electric & Gas Somerset #1 Somerset, New York *bituminous	Iselin/McArthur, Pennsylvania	850	2,000	1,3,7
8003	Texas Utilities Gener. Co. Martin Lake #4 Rusk Co., Texas (Tatum)	Martin Lake Mine, Texas	793	3,000	4b,1,16
4063	Georgia Power Co. Scherer #3 Monroe Co., Georgia (Forsyth) Westmoreland/West Virginia	Ken 16, Mingo Co, West Virginia	818	1,200	1,4a,8,11,13
1011	Power Authority of New York Arthur Kill #1 (MTA) Richmond Co., New York (Staten Island) (Coal/Oil/Refuse) - conversion to coal only	Champion, Pennsylvania	700	1,700	2,1,4a,8,14

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1985: Continued					
3108	Indiana Public Service Schafer #18 Jasper Co, Indiana (Wheatfield)	Orchard Valley/ Westmoreland, Colorado	380	700	13,15
7025	Cajun Electric Power Coop. Big Cajun 3 #1 Southern Louisiana *subbituminous	New Mine/Spadra Arkansas	550	2,000	3,5,7
7048	Southwestern Public Serv. Tolk #2 Earth, Texas	Arco/Black Thunder, Campbell Co., Wyoming	508	1,500	1,4b,8,15
8003	Texas Utilities Gener. Martin Lake #4 Rush Co., Texas (Tatum) *mine mouth *captive reserves *lignite (FGD System)	Martin Lake Mine, Texas	750	3,000	9,1
8012	Houston Lighting & Power Limestone #1 Limestone Co, Texas * lignite	Mine mouth Grass Creek Leon & Greeston Co., Texas	750	3,000	7
7026	Oklahoma Gas & Electric Co. Sooner #4 Noble Co., Oklahoma	Arco/Black Thunder Campbell Co., Wyoming	500	1,800	15,16
4070	Seminole Electric Coop (FLA) Bostwick #2 Putnam Co., Florida (Palatka)	Dotiki Mine/MAPCO, Kentucky	600	2,000	3

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1985: Continued					
5044	Springfield Utilities (MO) Southwest #2 Greene Co., Missouri (Springfield)	Ft. Scott, Kansas Cherokee Coal, Kansas	250	650	3,14
9042	Platte River Power Auth. Rawhide #1 Larimer Co. Colorado *bituminous	Gillette Mine, Wyoming Colowyo Coal, Wyoming	255	800	3,4b,7
9034	Utah Power & Light Garfield #2 Garfield Co., Utah (Escalante) *has captive reserves	Utah #2/Utah Deseret Mine/Utah	500	1,625	4b,9,14
9029	Sierra Pacific Power Valmy #2 Battle Mountain, Humbolt Co., Nevada	Coastal States Salina, Utah McKinley Mine, Pittsburgh & Midway, New Mexico	250	1,000	1,7,9,11
N/A	Big Rivers Electric Corp. Wilson #2 (Brec Station 4) Livermore, Kentucky	Western Kentucky	440	N/A	11
N/A	Gulf Power Co. Caryville #1 Florida	Not available	553	N/A	15,16
N/A	Kentucky Power Co. (AEP) Project 2602 #1	Not available			15
N/A	Oak Creek Power Co. Oak Creek ST1 Colorado	Not available	800	N/A	15,16
N/A	Oak Creek Power Co. Oak Creek ST2 Colorado	Not available	800	N/A	15,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1985: Continued					
N/A	Deseret Generating & Transmission Moonlake #1 Utah	Not available	360	N/A	15,16
6047	Montana Dakota Utilities Coyote #2 Mercer Co., North Dakota (Beulah) *has captive reserves *dry SO_2 and particulate removal system	Beulah Mine, North Dakota	410	1,100	4b,7,8
7039	Arkansas Power & Light Independence #2 Independence Co., Arkansas (Newark)	Antelope, Wyoming Kerr-McGee/Jacobs Ranch, Gillette, Wyoming (A G & S lignite mine late 80's, Arkansas)	700	2,500	1,2,4b,11,9
1986:					
N/A	Springfield Municipal Undesignated #1	Not available	192	N/A	15,16
2024	General Public Utilities Coho #1 Lake City, Pennsylvania	Not available	625	N/A	1
9033	Nevada Power Company Harry Allen #2&3 Clark Co., Nevada (Las Vegas) *4 mile rail spur *slurry pipeline from Alton, UT *captive reserves	U.S. Fuel/Hiawatha, Carbon Co., Utah Atlas Fuels, Hanksville, Utah	500 ea.	3,200	1,4b,9
3066	Allegheny Power Service Corp. Lower Armstrong #3 Armstrong Co., Pennsylvania	Eagle Coal, Pennsylvania	625	1,500	1,15

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1986: Continued					
N/A	Public Service of Colorado Southeastern CO1 Las Animas, Colorado	Not available	470	N/A	15,16
7028	Central Louisiana Electric Rodemacher #3 Rapids Parish, Louisiana (Boyce) *uncertain	Jacobs Ranch/Wyoming	510	1,750	4b,9
8016	Houston Light & Power (lignite) Freestone #2 Freestone Co., Texas (Fairfield) *captive reserves	Kerr-McGee/Jacobs Ranch Gillette, Wyoming	750	2,775	1,4b,8,15
9027	Colorado Springs Elec. Dept. Nixon #2 El Paso Co., Colorado (Fountain)	Colowyo,Craig, Colorado	350	767	4b,9,15
N/A	Southwestern Electric Power Co. Mansfield Texas or Arkansas	Not available	640	N/A	1
N/A	Western Farmers Elec. Coop *coal/oil N/D #2 Oklahoma	Not available	350	N/A	1,4b
N/A	Mississippi Power & Light Co. Unsited A #1 Mississippi	Not available	700	N/A	15,16
N/A	Mississippi Power Co. Undesignated Site A	Not available	548	N/A	15,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1986: Continued					
N/A	South Carolina Public Service Authority Site X #2	Not available	450	N/A	15,16
N/A	Detroit Edison Co., Inc. Unsited	Not available	650	N/A	3
N/A	Kentucky Utilities Co. Hancock #2	Not available	700	N/A	3
3126	Buckeye Power Inc. Buckeye #1 Ohio	Not available	650	N/A	3
N/A	Houston Lighting & Power Limestone #2 Limestone Co, Texas	Minemouth Northwestern Resources Co. Leon & Greestone Co., Texas	750	3,500	3,7
N/A	Texas Municipal Power Pool Unspecified #2	Not available	200	N/A	3
N/A	Illinois Power Unsited Fossil *bituminous	Not available	450	N/A	3
5035	Wisconsin Public Service Corp. Weston #4 Rothschild, Wisconsin (Marathon Co.) *subbituminous	Black Thunder, Wyoming	300	N/A	3
N/A	Montana-Dakota Utilities Fossil *lignite	Not available	120	N/A	3
N/A	Florida Power Corp. Fossil #1 *bituminous	Not available	660	N/A	3,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1986:	Continued				
7041	CK Clippins Arkansas Power & Light Coal #6	Lignite	700	N/A	3
7044	Louisiana Power & Light Coal #7	Not available	700	N/A	3
7045	Central Louisiana Electric Co. Dolet Hills #1 *lignite	Not available	640	N/A	3
N/A	Big Rivers Electric Unnamed #2 Centertown, Kentucky	Not available	440	N/A	7
N/A	Commonwealth Edison Co. Unspecified	Not available	550	N/A	
N/A	Upper Peninsula Power Unsited #2	Not available	90	333	15,16
N/A	Missouri Public Service Co. Plant X #1	Not available	100	N/A	3
7025	Cajun Electric Power Coop Big Cajun 3 #1 *lignite	Not available	540	N/A	3
N/A	Oklahoma Gas & Electric Unsited Coal #3	Not available	500	N/A	3
9045	Utah Power & Light Nephi #1 (Plant X) Juab Co. (Nephi), Utah	Not available	500	N/A	3,4b

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1986: Continued					
9037	Pacific Gas & Electric Fossil #1 Salano, California (Collinsville) *bituminous, captive reserves	Belina 1, Utah 2, Valley Camp, Utah	800	2,600	3
4067	Tampa Electric Co. Beacon Key-Ruskin Hillsborough Co., Florida (Ruskin)	Brown-Badgett, Kentucky	425	500	4a,1,2
4023	Tampa Electric Co. Big Bend #4 Hillsborough Co., Florida (Tampa)	Not available	425	500	4a,1,2
7046	Central Telephone & Utilities Corp. Unnamed #1 Central Kansas	Not available	400	1,250	4b
9047	Montana Power Co. Unnamed Unsited	Not available	350	1,100	4b,9
8017	City Public Service of San Antonio Unnamed San Antonio, Bexar Co., Texas	Not available	375	N/A	4b
8007	Lower Colorado River Authority Fayette #3 LaGrange, Texas	Texas Resources Development Fayette, Washington Co, Texas	N/A	4,000	11
N/A	Jacksonville Electric Authority Unsited #1 Florida	Not available	563	N/A	15,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1986: Continued					
N/A	South Carolina Electric & Gas Co. Undesignated #1	Not available	500	N/A	15,16
N/A	Kaukauna, City of Water & Electric Depts. Kaukauna #1	Not available	150	N/A	15,16
N/A	Arkansas Power & Light Unsited C1	Not available	N/A	N/A	15
N/A	Central Louisiana Electric Co. Rodenmacher #3	Not available	N/A	N/A	15
N/A	Louisiana Power & Light Co. LPL-Coal Unit B1	Not available	N/A	N/A	15
N/A	Cajun Electric Power Co-op Big Cajun 4 #1	Not available	560	N/A	15,16
N/A	Oklahoma Gas & Electric Co. Unknown #1	Not available	500	N/A	15,16
N/A	Allied Power Co-op Unsited #1	Not available	550	N/A	15,16
N/A	Central Iowa Power Co-op Guthrie County #1	Not available	550	N/A	15,16
N/A	Nebraska Public Power District Fossil Unit #3	Not available	650	N/A	15,16
N/A	Public Service of Colorado Unsited #1	Not available	470	N/A	15,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1986: Continued					
N/A	Tri State Generating & Transmission Assn., Inc. Unsited #1 Colorado	Not available	500	N/A	15,16
3098	General Public Utilities Seward #7 Indiana Co., Pennsylvania (Seward)	Worrick, Pennsylvania	800	1,800	1,4a,8,3, 6,13
1987:					
8011	Texas Utilities Generating Co. Twin Oak #2 Robertson Co., Texas (Bremond) *mine mouth *captive reserves *lignite	Twin Oaks Mine, Texas Alcoa/Robertson Co., Texas	750	3,000	1,4b,9,15
3084	Columbus & Southern Ohio Electric Poston #5 Athens Co., Ohio (Athens) (FGD System) *captive reserves	Ireland, Moundsville, West Virginia	444	1,000	1,8,15
5041	Southern Illinois Power Cooperative Marion #5 Williamson Co., Illinois (Marion)	Not available	150	400	1,4a,8
1014	Central Maine Power Sears Island (Sears Island) Waldo Co., Maine	Not available	600	1,400	1,4a,8

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1987: Continued					
5040	Central Illinois Public Service Plant X No. 1 (Newton #3) Jasper Co., Illinois (Newton) (FGD System)	Not available	600	1,480	1,8
N/A	Delmarva Power & Light Vienna #9 N/D	Not available	400	N/A	1,3
9036	ICPA-Los Angeles Dept. of Water & Power Intermountain #1 Lynndyl, Utah * water 50,000 afy	Not available	750	2,500	1,4b,9
N/A	Florida Power Corp. Fossil #2	Not available	660	N/A	1,16
4063	Georgia Power Co. Scherer #4 Monroe Co., Georgia (Forsyth)	Virginia, East. Kentucky	818	1,200	1,4a,8,13
7040	Gulf States Utilities Nelson #5 Calacasse Parish, Louisiana (Westlake)	Kerr-McGee, Wyoming	540	2,500	1,4b,9
3125	Indianapolis Power & Light Patriot #2 Indiana	Not available	650	850	1,4b,9,11
7021	Kansas City Bd of Public Utilities Nearman #2 Kansas City, Kansas Wyandotte Co. *1,000-ft. rail spur lines	Carter Oil/Rawhide & Caballo, Gillette, Wyoming Midwest, Saline Co., Illinois	319	850	1,4b,9,11

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1987: Continued					
9033	Nevada Power Company Harry Allen #4 Clark Co., Nevada (Las Vegas) *4 mile rail spur *slurry pipeline from Alton, UT *captive reserves	U.S. Fuel/Hiawatha, Carbon Co., Utah Atlas, Hanksville, Utah	500	2,275	1,4b,9
6001	Iowa Public Service George Neal #5 Woodbury Co., Iowa (Salix)	Vanguard Mine	600	1,500	7,11
N/A	Wisconsin Electric Power Ozaukee Co, Wisconsin	Not available	600	1,500	7
N/A	Florida Power & Light Co. Martin County #4 Florida	Not available	640	N/A	1,15,16
N/A	Minnesota Power & Light Co. Undesignated #1	Not available	555	N/A	15,16
6002	Northern States Power Sherburne #4 Sherburne Co., Minnesota (Becker) (FGD system) *Mississippi River is water source	Colstrip, Montana	800	2,250	1,4b,11,9
N/A	Northern States Power N/D #2 Wisconsin	Colstrip, Montana	650	N/A	1,11
N/A	West Texas Utilities N/D	Not available	640	N/A	1

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
1987: Continued			MW	1,000 tons	
3111	Cincinnati Gas & Electric East Bend #3 Boone Co., Kentucky (Rabbit Hash) (FGD System)	Kentucky Prince Coal, Perry Co., Kentucky	700	N/A	3
3122	Columbus & Southern Ohio Electric Newbury #1	Not available	375	N/A	3
3110	Southern Indiana Gas & Electric Brown #3 Posse Co., Indiana	Not available	530	N/A	3,16
3115	Louisville Gas & Electric Trimble Co. #3 Trimble Co., Kentucky (Wise's Landing)	Not available	675	N/A	3,2
N/A	East Kentucky Power Coop Unsited	Not available	1,130	N/A	3
N/A	Texas Utilities Services, Inc. Unsited Coal #2 *lignite	Not available	750	N/A	3
N/A	Unsited Coal #3 *lignite	Not available	750	N/A	3
N/A	Columbus & Southern Ohio Poston #5	Not available	444	N/A	15,16
N/A	Central Power and Light (TX) Lake Diversion-Kemp #1 *subbituminous	Not available	640	N/A	3,15,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1987: Continued					
N/A	Kentucky Power Co. (AEP) Project 2602 #2	Not available	N/A	N/A	
9037	Pacific Gas & Electric Fossil #2 Salano Co, California (Collinsville) *bituminous, capitve reserves	Belina 1, Utah/2, Utah	800	2,600	3,4b,7
N/A	Potomac Electric Montgomery Co., Maryland	Not available	800	N/A	7
2022	Atlantic City Electric Co. Deepwater New Jersey *bituminous	Not available	300	N/A	3
N/A	Upper Peninsula Power Co. Unsited Coal #3	Not available	90	N/A	3
N/A	Associated Electric Coop. Unsited Coal *bituminous	Not available	630	N/A	3
N/A	Dairyland Power Coop., Inc. Southern Minnesota *bituminous	Not available	800	N/A	3
N/A	Virginia Electric & Power Company Fossil Unit #1	Not available	840	N/A	3
N/A	South Carolina Public Service Auth. Site X #3	Not available	450	N/A	3,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1987: Continued					
N/A	Alabama Power Co. Unsited-Site A #1	Not available	800	N/A	3
N/A	Mississippi Power & Light Coal #8	Not available	820	N/A	3,7
7029	Kansas City Power & Light Iatan #2 *subbituminous	Not available	726	N/A	3,16
N/A	Southwestern Elec. Power Lake Diversion	Not available	517	N/A	3
N/A	Oklahoma Gas & Electric Unsited Coal #4	Not available	500	N/A	3
N/A	Commonwealth Edison Co. Unspecified	Not available	550	N/A	15,16
N/A	Baltimore Gas & Electric BC Coal Unit #1	Not available	N/A	N/A	15
N/A	Mississippi Power & Light Co Unsited A #2 Mississippi	Not available	700	N/A	15,16
N/A	Colorado Ute Elec. Assn. Southwest #1 *bituminous	Colowyo Coal, Wyoming	250	N/A	3
1988:					
N/A	Soyland Power Coop Unsited	Illinois Coal	600	1,250	7
4074	Mississippi Power & Light Co. Mississippi Desota Co., Mississippi	Don Bow Processed/Kentucky	700	1,500	3,7,13

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1988: Continued					
N/A	Navajo Indian Tribal Govt. Unnamed	McKinley Co. (Crownpoint)	300-400	N/A	4b
N/A	South Carolina Electric & Gas Co. Undesignated #2	Not available	500	N/A	15,16
9040	Tucson Gas & Electric Co. Springerville #2 Apache Co., Arizona (Springerville)	San Juan Basin Coal Sante Fe, New Mexico	350	1,000	15,16
N/A	Oklahoma Gas & Electric Co. Unknown #2	Not available	500	N/A	15,16
N/A	Public Service of Colorado Unsited #2	Not available	470	N/A	15,16
N/A	Tri-State Generating & Transmission Assn., Inc. Unsited #2 Colorado	Not available	500	N/A	15,16
N/A	Alabama Power Co. Unsited-Site A #2 Birmingham, Alabama	Not available	818	N/A	1,13
1013	Niagra Mohawk Power Lake Erie #1 Chautauqua Co., New York (Dunkirk) *possible use of western coal	Montana & Wyoming	850	2,000	1,4a,11,8
9045	Utah Power & Light Nephi #2 (Plant Y) *bituminous	Not available	500	N/A	3,15,16

Continued

Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1988: Continued					
9036	ICPA Los Angeles Dept. of Water & Power Intermountain #2 Lynndyl, Utah *water 50,000 afy	Not available	750	2,500	1,4b,9
8006	Central Power & Light Coleto Creek #2 Victoria, Texas Gonzales Co.	Colowyo,Craig, Colorado	550	1,000	1,2,4b,9
9033	Nevada Power Company Harry Allen #4 Clark Co., Nevada (Las Vegas) *4 mile rail spur *slurry pipeline from Alton, UT *captive reserves	U.S. Fuel/Hiawatha, Carbon Co., Utah Atlas, Hanksville, Utah	500	2,275	1,4b,11,9
N/A	Arkansas Power & Light Unsited #2	Not available	N/A	N/A	15
N/A	Tucson Gas & Electric N/D #2	San Juan Basin Coal, Santa Fe, New Mexico	350	N/A	1,11
N/A	Baltimore Gas & Electric Co. Brandon Shores #2 Anne Arundel Co, Maryland	Not available	N/A	1,150	7,11
9043	Unknown Company Gillette #1 Gillette, Wyoming Campbell Co. *may expand by 500 MW in 2000	Not available	330	1,100	4b,9
7047	Empire Energy Ctr., MO. Center #4 Jasper Co., Missouri Joplin/(Area)	Western Coal	120	N/A	4b

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1988: Continued					
N/A	South Carolina Public Site X #4	Not available	450	N/A	15,16
9041	Public Service Co. of New Mexico Bisti #1 San Juan Co., New Mexico	Not available	500	N/A	4b
7020	Arkansas Power & Light Co. Mine mount Arkansas Lignite Energy Center #1 (AR-LEC) Calhoun Co. Arkansas	Sparta Mine/Arkansas	750	N/A	7
N/A	Upper Peninsula Power Unsited #4	Not available	90	N/A	15,16
N/A	San Antonio Public Service Board Undesignated #1	Not available	500	N/A	15,16
1989:					
N/A	Arkansas Power & Light Unsited C2	Not available	N/A	N/A	15
N/A	Oklahoma Gas & Electric Co. Unknown #3	Not available	500	N/A	15,16
N/A	Tri State Generating & Transmission Assn., Inc. Unsited #3 Colorado	Not available	500	N/A	15,16
3125	Indianapolis Power & Light Patriot #3	Not available	650	N/A	1
5047	Wisconsin Elec. Power Kosakonong #2 Jefferson Co., Wisconsin	Not available	400	500	1,4a

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1989: Continued					
9036	ICPA Los Angeles Dept. of Water & Power Intermountain #3,4 Lynndyl, Utah *water 50,000 afy	Not available	750 ea.	2,500	1,4b,9,16
N/A	Northern States Power Unsited #1	Colstrip/Montana	800	N/A	1,11
5038	Central Illinois Light Company Duck Creek #3 Canton, Illinois	Freeman, Virden, Illinois	500	N/A	1,2
3115	Louisville Gas & Electric Trimble #4 Trimble Co., Kentucky	Not available	675	N/A	2
1013	Niagara Mohawk Power Corp. Lake Erie #2 Dunkirk, New York Chautauqua Co.	Montana & Wyoming	850	2,000	1,2,4a,11,8
N/A	Pennsylvania Power & Light Z-2 Unlocated *Possibly along Susquehanna River, Danpan Co.	Not available	800	1,800	4a
9044	Intermountain Consumers Power Association *Late 1980's Hatch Flats Rio Blanco Co., Colorado	Roosevelt, Utah	300-800	N/A	4b
Future Plants-1990s					
N/A	Florida Power Corp. Fossil #3	Not available	660	N/A	15,16

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1990s: Continued					
N/A	Oklahoma Gas & Electric Co. Unknown #1	Not available	500	N/A	15,16
7020	Arkansas Power & Light Mine mouth Arkansas Lignite Energy Center #2 (AR-LEC) Calhoun Co., Arkansas	Sparta Mine, Arkansas	750	N/A	7
N/A	General Public Utilities Pennsylvania	Not available	N/A	N/A	15
N/A	Metropolitan Edison Scottsville #1 Pennsylvania	Not available	625	N/A	15
N/A	Pennsylvania Power Co. Wehrum #1	Not available	300	N/A	
N/A	N/D	Not available	625	N/A	
N/A	N/D	Not available	800	N/A	
N/A	Gulf Power Co. Now indefinite Ellis #3 (Florida)	Not available	500	N/A	
N/A	Nevada Power Company Indefinite Reid Gardner #4	Not available	125	N/A	
N/A	Tucson Gas & Electric N/D #3 San Juan Basin Coal/Santa Fe	Not available	350	N/A	
N/A	Utah Power & Light Indefinite Naughton #4 Kemmerer, Wyoming	Not available	415	N/A	

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity MW	Coal required 1,000 tons	Data source
1990s: Continued					
N/A	Indefinite Naughton #5 Kemmerer, Wyoming	Not available	415	N/A	
N/A	Washington Water Power Company WWP #1 Late 1980's	Not available	500	N/A	
N/A	Florida Power & Light	Not available	730	N/A	
N/A	N/D 80's N/D #1	Not available	N/A	N/A	
N/A	N/D 80's N/D #2	Not available	730	N/A	
N/A	Wisconsin Electric Power Unnamed Ozaukee Co., Wisconsin	Not available	600	800	4a
N/A	Unknown Junsau or Adams Co.	Not available	300	400	4a
9026	Salt River Project Coronado #3 Apacas Co. (St. John's)	Not available	350	730	4b
N/A	Alabama Power Co. Unsited-Site A #3	Not available	800	N/A	15
N/A	Southern California East Coal #'s 1-4	Not available	1,000/ea	N/A	4b
N/A	Edison Unsited #1	Not available	1,500	N/A	7
N/A	Empire Energy Center, Mo. Center #5 Jasper Co. (Joplin Area)	Western Coal	300	1,000	4b

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Appendix table 5--Additions to generation capacity: 1976-1990--Continued

ICAM code	Power system, plant, and location	Coal source	Nameplate capacity	Coal required	Data source
			MW	1,000 tons	
1990s: Continued					
N/A	State of Montana Dept. of Natural Resources Energy Park #1 Gascow AFB, Montana (Valley Co.)	Not available	300	960	4b
	#2	Not available	300	960	4b
	#3	Not available	300	960	4b
3084	Columbus & Southern Ohio Electric Poston #6 Athens Co., Ohio (Athens) (FGD system) *captive reserves	Ireland, Moundsville, West Virginia	444	1,000	1,8,15,16
9041	Public Service Co. of New Mexico Bisti #2 San Juan Co., New Mexico	Not available	500	N/A	4b
9041	Public Service Co. Bisti #3 San Juan Co., New Mexico	Not available	500	N/A	4b
9034	Utah Power & Light Garfield #3 Garfield Co. Utah	Not available	500	1,625	4b
N/A	Utah Power & Light Garfield #4 Garfield Co. Utah	Not available	500	1,625	4b

See footnotes on next page.

Continued

Sources for scenario data:

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7. Clippings File: "Wall Street Journal," "Coal Outlook"
8. "Coal Outlook," January 10,1977, October 1976, Pasha Publications
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14. Staff Interpolation of Mine Source on Basis of Utility-Historical Contracts.
15. "Coal Fired Powerplants' Federal Status Report", April 79, U.S. Dept. of Commerce
16. "Inventory of Power Plants in the United States", April 79, U.S. Dept. of Energy

Appendix table 6--Power plants with no expansion plans supplied by western coal, 1985

ICAM code	Plant name	County, state, & town	Total coal needed	Western coal needed		Source
			1,000 tons		Pct.	
9013	Drake	El Paso Colorado Colorado Sprgs	459	280 179	100.00	C001 C001
9006	Cherokee	Adams Colorado Denver	2,518	269 2,249	10.68 89.32	WY02 C001
9011	Comanche	Pueblo Colorado Pueblo	1,608	1,608	100.00	WY02
5025	Wallace (retired-1980)	Tazewell Illinois East Peoria	508	303	59.65	MT04
5016	Fisk (retired-1980)	Cook Illinois Chicago	1,338	1,338	100.00	MT04
5014	Crawford	Cook Illinois Chicago	1,369	1,368	100.00	MT04
5036	Dixon	Lee Illinois Dixon	228	34 10	14.91 4.39	WY03 UT01
5003	Joliet	Will Illinois Joliet	3,707	2,949	79.55	MT04
5004	Powerton	Tazewell Illinois Pekin	3,029	228	7.53	MT04
5011	Waukegan	Lake Illinois Waukegan	1,903	1,509 121	79.30 6.36	WY03 MT04
5007	Will County	Will Illinois Joliet	2,544	2,378	93.47	MT04
5009	Joppa	Massac Illinois Joppa	3,424	9	0.26	WY02

Continued

Appendix table 6--Power plants with no expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant name	County, state, & town	Total coal needed	Western coal needed		Source
			1,000 tons		Pct.	
5024	Hennepin	Putnam Illinois Hennepin	716	18	2.51	MT04
6004	North Omaha	Douglas Nebraska Omaha	965	965	100.00	WY03
9003	Mohave	Clark Nevada Laughlin	3,820	3,820	100.00	AZ01
9001	Four Corners New Mexico Fruitland	San Juan	5,942	5,942	100.00	NM01
6003	Leland Olds	Mercer North Dakota Stanton	1,864	1,864	100.00	ND02
6014	Young	Oliver North Dakota Center	1,517	1,517	100.00	ND01
6032	Heskett	Morton North Dakota Mandan	427	427	100.00	ND02
6023	Stanton	Mercer North Dakota Stanton	736	569 166	77.31 22.55	ND02 MT04
9018	Carbon	Carbon Utah Castle Gate	433	433	100.00	UT01
9015	Gadsby	Salt Lake Utah Salt Lake City	401	401	100.00	UT01
6012	Genoa 3	Vernon Wisconsin Genoa City	1,157	199 150	17.20 12.96	WY03 MT04
5005	Oak Creek	Milwaukee Wisconsin Oak Creek	3,169	716	22.59	WY03

Continued

Appendix table 6--Power plants with no expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant name	County, state, & town	Total coal needed	Western coal needed		Source
			1,000 tons		Pct.	
5022	Pulliam	Brown Wisconsin Green Bay	881	105	11.92	MT04
9007	Dave Johnston	Converse Wyoming Glenrock	3,218	3,218	100.00	WY03
5018	Wood River	Madison Illinois East Alton	1,064	14 33 10 10	1.32 3.10 0.94 0.94	WY03 MT04 C001 UT01
5028	Venice 2 (retired-1980)	Madison Illinois Venice	340	212	62.35	WY03
3029	State Line	Lake Indiana Hammond	2,159	903 819	41.82 37.93	WY03 MT04
3056	Breed	Sullivan Indiana Sullivan	1,018	30	2.95	WY02
3023	Tanners Creek	Dearborn Indiana Lawrenceburg	2,164	130	6.01	UT01
3015	Clifty Creek	Jefferson Indiana Madison	4,204	231	5.49	WY02
3050	Mitchell	Lake Indiana Gary	1,706	1,668	97.77	WY03
3100	Edwardsport (retired-1980)	Knox Indiana Edwardsport	243	2	0.83	C001
3027	Cayuga	Vermilion Indiana Cayuga	2,629	10	0.38	WY02

Continued

Appendix table 6--Power plants with no expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant name	County, state, & town	Total coal needed	Western coal needed		Source
			1,000 tons		Pct.	
6016	Kapp	Clinton Iowa Clinton	604	137	22.68	MT04
6015	Prairie Creek	Linn Iowa Cedar Rapids	471	96	20.38	C001
6024	Sutherland	Marshall Iowa Marshalltown	198	6 5 32	3.03 2.53 16.16	WY01 MT04 C001
6020	Riverside	Scott Iowa Bettendorf	475	16	3.37	WY03
6030	Maynard	Blackhawk Iowa Waterloo	44	19	43.18	WY03
6021	Des Moines 2	Polk Iowa Des Moines	433	134	30.95	WY02
6019	Burlington	Des Moines Iowa Burlington	524	15	2.86	WY02
7003	Lawrence	Douglas Kansas Douglas	799	799	100.00	WY03
7006	Tecumseh	Shawnee Kentucky Paducah	5,146	170	3.30	MT04
3086	Marysville	St. Clair Michigan Marysville	54	4	0.74	MT04
3014	St. Clair	St. Clair Michigan Belle River	2,983	884	29.63	MT04
3001	Monroe	Monroe Michigan Monroe	6,484	168	2.59	MT04

Continued

Appendix table 6--Power plants with no expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant name	County, state, & town	Total coal needed	Western coal needed		Source
			1,000 tons		Pct.	
6031	Fox Lake	Martin Minnesota Sherburn	43	43	100.00	MT04
6028	Aurora	St. Louis Minnesota Aurora	389	389	100.00	MT04
6008	Black Dog	Dakota Minnesota Minneapolis	1,042	707	67.85	MT04
6010	High Bridge	Ramsey Minnesota St. Paul	886	755	85.21	MT04
6005	King	Washington Minnesota Stillwater	1,668	519	31.12	MT04
6011	Riverside	Hennepin Minnesota Minneapolis	952	952	100.00	MT04
6025	Hoot Lake	Otter Tail Minnesota Fergus Falls	679	679	100.00	ND02
7014	Blue Valley	Jackson Missouri Independence	194	70 5 2	36.08 2.58 1.03	WY03 C001 UT01
7013	Grand Avenue (retired-1980)	Jackson Missouri Kansas City	173	4	2.31	WY03
7001	Hawthorne	Jackson Missouri Kansas City	1,032	807	78.20	WY03
5022	Pulliam	Brown Wisconsin Green Bay	881	105	11.92	MT04
9007	Dave Johnston	Converse Wyoming Glenrock	3,218	3,218	100.00	WY03

Continued

Appendix table 6--Power plants with no expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant name	County, state, & town	Total coal needed	Western coal needed		Source
			1,000 tons		Pct.	
5018	Wood River	Madison Illinois East Alton	1,064	14 33 10 10	1.32 3.10 0.94 0.94	WY03 MT04 C001 UT01
5028	Venice 2 (retired-1980)	Madison Illinois Venice	340	212	62.35	WY03
3029	State Line	Lake Indiana Hammond	2,159	903 819	41.82 37.93	WY03 MT04
3056	Breed	Sullivan Indiana Sullivan	1,018	30	2.95	WY02
3023	Tanners Creek	Dearborn Indiana Lawrenceburg	2,164	130	6.01	UT01
3015	Clifty Creek	Jefferson Indiana Madison	4,204	231	5.49	WY02
3050	Mitchell	Lake Indiana Gary	1,706	1,668	97.77	WY03
3100	Edwardsport (retired-1980)	Knox Indiana Edwardsport	243	2	0.83	C001
3027	Cayuga	Vermilion Indiana Cayuga	2,629	10	0.38	WY02
7004	Montrose	Henry Missouri Clinton	1,799	10	0.56	WY03
5012	Meramec	St. Louis Missouri St. Louis	1,936	7	0.36	WY02
5001	Labadie	Franklin Missouri Labadie	5,804	101	1.74	WY03

Continued

Appendix table 6--Power plants with no expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant name	County, state, & town	Total coal needed	Western coal needed		Source
			1,000 tons		Pct.	
9020	Corette	Yellowstone Montana Billings	700	700	100.00	MT04
6029	Kramer	Sarpy Nebraska Bellevue	239	87 18 134	36.40 7.53 56.07	WY03 WY04 C001
6017	Sheldon	Lancaster Nebraska Hallam	254	148 2	58.27 0.79	WY03 UT01
9016	Arapahoe	Denver Colorado Denver	575	195 112 268	34.01 19.44 46.55	WY03 C007 C001
9019	Valmont	Boulder Colorado Boulder	231	200 31	86.62 13.38	WY03 C007

Source: Appendix tables 2 and 5.

Appendix table 7--New power plants and power plants with expansion plans supplied by western coal, 1985

ICAM code	Plant	County, state, and town	Total coal needed 1/	Western coal needed		Source CPA
				1,000 tons	Pct.	
3002	Gavin	Gallia Ohio Galliopolis	2/ 5,433	1,000	18.41	WY02
3020	Cardinal	Jefferson Ohio Brilliant	3/ 4,810	500	10.40	UT01
3045	Bailly	Porter Indiana Chesterton	2/ 2,590	1,300	50.19	C004
3104	Schahfer	Jasper Indiana Wheatfield	2/ 2,400	1,250	52.08	C004
3107	Sullivan	Sullivan Indiana Sullivan	2/ 6,000	6,000	100.00	WY02
4057	Jackson Co.	Jackson Mississippi Moss Point	2/ 1,970	1,000	50.76	UT01
5002	Baldwin	Randolph Illinois Baldwin	3/ 5,878	100	1.70	WY03
5013	Edwards	Peoria Illinois Bartonville	3/ 3,090	450	14.56	MT04
5017	Columbia	Columbia Wisconsin Madison	3/ 3,645	3,645	100.00	MT04
5035	Weston	Marathon Wisconsin Rothchild	3/ 1,297	1,297	100.00	MT04
5043	Pleasant Prairie	Kenosha Wisconsin Pleasant Prairie	4/ 3,000	3,000	100.00	MT04

See footnotes at end of table.

Continued

Appendix table 7--New power plants and power plants with expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant	County, state, and town	Total coal needed 1/	Western coal needed		Source CPA
			1,000 tons		Pct.	
6001	George Neal	Woodbury Iowa Salix	2/3/ 4,476	4,469	99.84	WY03
6002	Sherburne Co.	Sherburne Minnesota Becker	3/ 9,647	9,647	100.00	MT04
6007	Boswell	Itasca Minnesota Cohasset	2/ 3,971	1,900	47.85	MT04
6009	Big Stone	Grant South Dakota Big Stone	3/ 4,109	4,109	100.00	ND03
6013	Colstrip	Rosebud Montana Colstrip	3/ 4,931	4,931	100.00	MT04
6022	Alma	Buffalo Wisconsin Alma	3/ 1,945	300	15.42	WY02
6026	Council Bluffs	Pottawatamie Iowa Council Bluffs	3/ 2,302	2,302	100.00	WY03
6035	Square Butte	Oliver North Dakota Center	4/ 2,500 (Trucks)	2,500	100.00	ND02
6037	Sioux Falls	Minnehaha South Dakota Sioux Falls	4/ 600	600	100.00	MT04
6038	Gentleman	Lincoln Nebraska Sutherland	2/ 4,000	4,000	100.00	WY02
6039	Coal Creek	McLean North Dakota Falkirk	2/ 5,500	5,500	100.00	ND01

See footnotes at end of table.

Continued

Appendix table 7--New power plants and power plants with expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant	County, state, and town	Total coal needed 1/	Western coal needed		Source CPA
			1,000 tons		Pct.	
6040	Nebraska City	Otoe Nebraska Nebraska City	4/ 2,500	2,500	100.00	WY02
6041	Heartland	Union South Dakota Elk Point	4/ 600	600	100.00	WY02
6043	Basin	Brule South Dakota Chamberlain	4/ 500	500	100.00	MT04
6045	Brookston	St. Louis Minnesota Brookston	4/ 3,200	3,200	100.00	MT04
6046	Antelope Valley	Mercer North Dakota Beulah	4/ 5,500	5,500	100.00	ND02
7016	Harrington	Potter Texas Amarillo	2/ 3,000	3,000	100.00	WY02
7017	Muskogee	Muskogee Oklahoma Muskogee	2/ 3,300	3,300	100.00	WY02
7018	Welsh	Morris Texas Cason	4/ 3,501	3,501	100.00	WY02
7019	Flint Creek	Benton Arkansas Siloam Sprgs	4/ 1,700	1,700	100.00	WY02
7022	Jeffrey	Pottawatomie Kansas Westmoreland	2/ 8,400	4,000	47.62	WY02
7023	White Bluff	Jefferson Arkansas Redfield	4/10,600	10,600	100.00	WY02

See footnotes at end of table.

Continued

Appendix table 7--New power plants and power plants with expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant	County, state, and town	Total coal needed 1/	Western coal needed		Source CPA
				1,000 tons	Pct.	
7025	Big Cajun	Point Coupee Louisiana New Roads	2/ 6,000	1,000 4,000	16.67 66.67	MT04 WY02
7026	Sooner	Noble Oklahoma Ponca City	2/ 3,300	3,300	100.00	WY02
7027	Northeastern	Rogers Oklahoma Oolagah	4/ 2,900	2,900	100.00	WY01
7028	Rodemacher	Rapides Louisiana Boyce	4/ 3,500	3,500	100.00	WY02
7031	Unsited	Okmulgee Oklahoma Okmulgee	4/ 2,250	2,250	100.00	WY02
7033	Unsited	Tulsa Oklahoma Tulsa	4/ 2,250	2,250	100.00	WY02
7034	CRS Joint	Creek Oklahoma Bristow	4/ 800	800	100.00	WY02
7037	Unsited	Faulkner Arkansas Conway	4/ 2,500	2,500	100.00	WY02
7039	Unsited	Pulaski Arkansas Olmstead	4/ 2,500	2,500	100.00	WY02
7040	Nelson	Calacasie Louisiana Westlake	4/ 5,000	5,000	100.00	WY02
8004	J. T. Deely	Bexar Texas San Antonio	2/ 2,900	1,000	34.48	WY02

See footnotes at end of table.

Continued

Appendix table 7--New power plants and power plants with expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant	County, state, and town	Total coal needed 1/	Western coal needed		Source CPA
			1,000 tons		Pct.	
8005	Parish	Fort Bend Texas Richmond	2/ 9,859	4,100	41.59	WY02
8006	Coleto Creek	Victoria Texas Victoria	2/ 3,250	1,500	46.15	C001
8007	Fayette	Fayette Texas Muldoon	2/ 2,000	2,000	100.00	MT04
8013	South Plains	Yoakum Texas Plains	4/ 2,260	2,260	100.00	WY02
8014	Sandow	Johnson Texas Cleburne	4/ 3,000	3,000	100.00	NM01
8016	Unsited	Hunt Texas Greenville	4/ 2,500	2,500	100.00	NM01
8017	Unsited	Collin Texas McKinney	4/ 2,500	2,500	100.00	NM01
8018	Unnamed	Ft. Bend Texas Richmond	4/ 2,775	2,775	100.00	WY02
8019	Unsited	Hill Texas Hillsboro	4/ 2,500	2,500	100.00	NM01
8020	Unsited	Parker Texas Poolville	4/ 2,500	2,500	100.00	NM01
8021	Unnamed	Williamson Texas Georgetown	4/ 500	500	100.00	MT04
8022	Unnamed	Milan Texas Rockdale	4/ 500	500	100.00	MT04

See footnotes at end of table.

Continued

Appendix table 7--New power plants and power plants with expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant	County, state, and town	Total coal needed 1/	Western coal needed		Source CPA
			1,000 tons		Pct.	
9002	Navajo	Coconino Arizona Page	2/ 3,377	1,877 1,500	55.58 44.42	AZ01 AZ01
9005	Jim Bridger	Sweetwater Wyoming Rock Springs	3/ 7,263	7,263	100.00	WY04
9008	Naughton	Lincoln Wyoming Kemmerer	3/ 4,519	4,519	100.00	WY04
9009	Hayden	Routt Colorado Hayden	2/ 1,445	1,445	100.00	CO01
9010	Huntington Canyon	Emery Utah Huntington	3/ 2,314	2,314	100.00	UT01
9012	San Juan	San Juan New Mexico Waterflow	3/ 7,042	7,042	100.00	NM01
9014	Cholla	Navajo Arizona Joseph City	3/ 3,977	3,977	100.00	NM02
9017	Gardner	Clark Nevada Moapa	3/ 1,021	1,021	100.00	UT01
9021	Snowflake	Navajo Arizona Snowflake	4/ 400	400	100.00	NM02
9022	Emery	Emery Utah Castle Dale	2/ 2,600	2,600	100.00	UT01
9023	Wyodak	Campbell Wyoming Gillette	4/ 1,100	1,100	100.00	WY02

See footnotes at end of table.

Continued

Appendix table 7--New power plants and power plants with expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant	County, state, and town	Total coal needed 1/	Western coal needed		Source CPA
			1,000 tons		Pct.	
9024	Craig	Moffat Colorado Craig	4/ 4,900	4,900	100.00	C001
9025	Apache	Cochise Arizona Cochise	2/ 1,100	1,100	100.00	NM02
9026	Coronado	Apache Arizona St. John's	2/ 4,500	1,000 3,000 500	22.22 66.67 11.11	UT01 NM02 NM03
9027	Nixon	El Paso Colorado Colorado Sprgs	4/ 3,051	3,051	100.00	C001
9028	Pawnee	Morgan Colorado Brush	2/ 3,200	3,200	100.00	WY02
9029	North Valmy	Humboldt Nevada Valmy	4/ 1,000	1,000	100.00	UT01
9030	Boardman	Morrow Oregon Boardman	2/ 1,600	1,200	75.00	WY02
9031	Laramie River	Platte Wyoming Wheatland	2/ 4,800	4,800	100.00	WY02
9032	Warner Valley	Washington Utah St. George	2/ 1,600	400	25.00	UT02
9033	Allen	Clark Nevada Las Vegas	4/ 9,100	9,100	100.00	UT01
9034	Garfield	Garfield Utah Escalante	4/ 6,500	6,500	100.00	UT02

See footnotes at end of table.

Continued

Appendix table 7--New power plants and power plants with expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant	County, state, and town	Total coal needed 1/	Western coal needed		Source CPA
			1,000 tons		Pct.	
9035	Plains	Santa Fe New Mexico Santa Fe	4/ 1,035	1,305	100.00	NM02
9036	Intermountain	Wayne Utah Caineville	4/ 9,500	9,500	100.00	UT02
9037	Unsited	Solano California Fairfield	2/ 2,600	1,000	38.46	UT01
9038	Future	Pueblo Colorado Pueblo	4/ 3,200	3,200	100.00	C001
9039	Pioneer	Ada Idaho Orchard	4/ 1,600	1,600	100.00	UT01
9040	Springville	Pima Arizona Marana	2/ 1,000	1,000	100.00	NM04
6047	Coyote	Mercer North Dakota Beulah	2/ 2,200	2,200	100.00	ND02
9042	Unsited	Yellowstone Montana Billings	4/ 1,100	1,100	100.00	MT04
9043	Gillette	Campbell Wyoming Gillette	4/ 1,100	1,100	100.00	WY02
9044	Hatch Flats	Rio Blanco Colorado Rangely	4/ 1,000	1,000	100.00	C001
9045	Energy Park	Valley Montana Glascow AFB	4/ 2,900	2,900	100.00	MT02

See footnotes at end of table.

Continued

Appendix table 7--New power plants and power plants with expansion plans supplied by western coal, 1985--Continued

ICAM code	Plant	County, state, and town		Total coal needed 1/	Western coal needed		Source CPA
				1,000 tons		Pct.	
9046	Unnamed	Gregory South Dakota Fairfax	4/	800	800	100.00	WY02
9047	Sheridan Project	Sheridan Wyoming Sheridan	4/	1,600	1,600	100.00	WY01
3116	Belle River	St. Clair Missouri St. Clair	2/	2,500	800	32.00	MT04
7021	Nearman Creek	Wyandotte Kansas Kansas City	2/	1,700	1,000	58.82	WY02

1/ This column is calculated by adding the total amount of coal used in 1975 plus the total amount of coal needed for expansion. The estimated amount of coal needed for expansion was reported in (3) and(4).

2/ These plants have made contractual arrangements for western coal. It is assumed that their western coal need will be the amount called for in the contract. As further data becomes available it will be incorporated into the analysis.

3/ These plants existed in 1975, used some western coal in 1975, and have plans for expansion. Their western coal need is determined by calculating the percentage of western coal used in 1975 and applying this percentage to the total amount of coal needed in 1985. (Analysis of 1976-1985 FERC Form 423 data may necessitate changing this assumption for individual plants.)

4/ These plants are all new plants which plan to use some western coal. Considerations used in determining their western coal need include: 1) geographical location (all new plants in western states and those in western Wisconsin, western Minnesota, western Iowa, and western Missouri are assumed to use 100 percent western coal), 2) past use of western coal by plants in the same power system, and 3) reported planned use of western coal but no formal contractual details are available. (Analysis of 1976-1985 FERC Form 423 data may necessitate changing this assumption for individual plants.)

Sources: (3), (4), (20), (21)

Appendix table 8--Standard Metropolitan Statistical Areas appearing in the residential demand analysis

State and SMSA	Utility
Alabama	
Birmingham	Alabama Power Company
Alaska	None
Arizona	
Phoenix	Salt River Power District
Tucson	Tucson Gas and Electric Co.
Arkansas	
None	
California	
Anaheim	City of Anaheim L and P
Los Angeles	L.A. Dept. of W and P
San Diego	San Diego Gas and Electric Co.
San Francisco	Pacific Gas and Electric Co.
San Jose	Pacific Gas and Electric Co.
Colorado	
Colorado Springs	Colo. Springs Dept. of Pub. Uts.
Denver	Public Service of Colorado
Connecticut	
Bridgeport	The United Illuminating Co.
Hartford	The Hartford Elec. Light Co.
Waterbury	The Conn. Light and Power Co.
Delaware	
Wilmington	Delmarva Power and Light Co.
District of Columbia	
Washington	Potomac Electric Power Co.
Florida	
Fort Lauderdale	Florida Power and Light Co.
Orlando	Orlando Utilities Commission
Georgia	
Atlanta	Georgia Power Co.
Idaho	
Boise City	Idaho Power Co.
Illinois	
Chicago	Commonwealth Edison Co.
Decatur	Illinois Power Co.
Peoria Central	Illinois Light Co.

Continued

Appendix table 8--Standard Metropolitan Statistical Areas appearing in the residential demand analysis--Continued

State and SMSA	Utility
Indiana	
Evansville	Southern Indiana G. and E. Co.
Fort Wayne	Indiana and Michigan Elec. Co.
Indianapolis	Indianapolis Power and Lt. Co.
Lafayette	Public Service Co. of Indiana, Inc.
Muncie	Indiana and Michigan Elec. Co.
Iowa	
Des Moines	Iowa Power and Light Co.
Sioux City	Iowa Public Service Co.
Kansas	
Topeka	The Kansas Power and Light Co.
Kentucky	
Lexington	Kentucky Utilities Co.
Louisville	Louisville Gas and Elec. Co.
Owensboro	Owensboro Mun. Utilities
Louisiana	
Lafayette	Lafayette Utilities System
Lake Charles	Gulf States Utilities Co.
New Orleans	New Orleans Public Service, Inc.
Maine	
Portland	Central Maine Power Co.
Maryland	
Baltimore	Baltimore Gas and Electric Co.
Massachusetts	
Boston	Boston Edison Co.
Fall River	Fall River Electric Light Co.
Pittsfield	Western Mass. Electric Co.
Springfield	Western Mass. Electric Co.
Michigan	
Flint	Consumers Power Co.
Minnesota	
Duluth	Minnesota Power and Light Co.
Minneapolis	Northern States Power Co. Minn.
Rochester	Rochester Dept. of Pub. Uts.
Mississippi	
Jackson	Mississippi Power and Light Co.

Continued

Appendix table 8--Standard Metropolitan Statistical Areas appearing in the residential demand analysis--Continued

State and SMSA	Utility
Missouri	
Columbia	Columbia Water and Light Dept.
Kansas City	Kansas City Power and Light Co.
St. Louis	Union Electric Co.
Montana	
Billings	The Montana Power Co.
Great Falls	The Montana Power Co.
Nebraska	
Lincoln	Lincoln Electric System
Omaha	Omaha Public Power District
Nevada	
None	
New Hampshire	
Manchester	Public Service of New Hampshire
Nashua	Public Service Co. of New Hampshire
New Jersey	
Atlantic City	Atlantic City Electric Co.
Newark	Public Service Elec. and Gas Co.
New Mexico	
Albuquerque	Public Service Co. of New Mexico
New York	
Binghamton	New York State E. and G. Corp.
Buffalo	Niagara Mohawk Power Corp.
New York City	Consol. Edison Co. of N.Y., Inc.
Rochester	Rochester Gas and Elec. Corp.
North Carolina	
Charlotte	Duke Power Co.
Fayetteville	Fayetteville Pub. Wks. Comm.
Raleigh	Carolina Power and Light Co.
North Dakota	
Fargo	Northern States Power Co.
Ohio	
Cincinnati	The Cincinnati Gas and Elec. Co.
Cleveland	The Cleveland Elec. Illum. Co.
Columbus	Columbus and S. Ohio Elec. Co.
Dayton	The Dayton Power and Light Co.

Continued

Appendix table 8--Standard Metropolitan Statistical Areas appearing in the residential demand analysis--Continued

State and SMSA	Utility
Oklahoma	
Oklahoma City	Oklahoma Gas and Electric Co.
Oregon	
Portland	Portland General Electric Co.
Pennsylvania	
Erie	Pennsylvania Electric Co.
Harrisburg	Pennsylvania Power and Lt. Co.
Philadelphia	Philadelphia Electric Co.
Pittsburg	Duquesne Light Co.
Scranton	Pennsylvania Power and Lt. Co.
Rhode Island	
Providence	The Narragansett Electric Co.
South Carolina	
Columbia	So. Carolina Elec. and Gas Co.
Greenville	Duke Power Co.
South Dakota	
Sioux Falls	Northern States Power Co.
Tennessee	
Knoxville	Knoxville Utilities Board
Memphis	Memphis Lt. Gas and Wtr. Division
Nashville	Nashville Electric Service
Texas	
Dallas	Dallas Power and Light Co.
El Paso	El Paso Electric Co.
Fort Worth	Texas Electric Service Co.
Galveston	Houston Lighting and Power Co.
Houston	Houston Lighting and Power Co.
Lubbock	Southwestern Public Service Co.
San Antonio	San Antonio Public Service Board
Utah	
Salt Lake City	Utah Power and Light Co.
Vermont	
None	
Virginia	
Norfolk	Virg. Elec. and Power Co.
Richmond	Virg. Elec. and Power Co.
Roanoke	Appalachian Power Co.

Continued

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Appendix table A--Standard Metropolitan Statistical Areas appearing in the residential demand analysis--Continued

State and SMSA	Utility
Washington	
Seattle	Seattle Dept. of Lighting
West Virginia	
Charleston	Appalachian Power Co.
Wisconsin	
Appleton	Wisconsin Michigan Power Co.
Green Bay	Wisconsin Public Service Corp.
Milwaukee	Wisconsin Electric Power Co.
Racine	Wisconsin Electric Power Co.
Wyoming	
None	

Source: (11)

END