The original documents are located in Box 56, folder "1976/02/24 - National Association of Regulatory Utility Commissioners" of the James M. Cannon Files at the Gerald R. Ford Presidential Library.

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FEDERAL ENERGY ADMINISTRATION
WASHINGTON, D.C. 20461

OFFICE OF THE ADMINISTRATOR

ADMINISTRATION MEETING WITH NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS
TUESDAY, FEBRUARY 24, 1976
4:00-6:00 p.m.
The Roosevelt Room

AGENDA

- Frank G. Zarb, Administrator of the Federal Energy Administration, will open meeting, briefly describe the Administration's energy goals and objectives and give a status report on where the President's legislative proposals stand in the Congress.

- The remainder of the meeting will be a general discussion among participants of these goals, particularly focusing on issues relative to the electric utility industry.

Attached for your information are the following:

TAB A - Background statement on the National Association of Regulatory Utility Commissioners and their position on various issues.

TAB B - Agenda prepared by NARUC for discussion purposes

TAB C - The Electric Utility Construction Incentives Act of 1975

TAB D - The Energy Facilities Planning and Development Act of 1975

TAB E - The Utilities Act of 1975

TAB F - The Energy Independence Authority

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MEETING AT WHITE HOUSE
February 24, 1976
EXECUTIVE COMMITTEE OF NARUC WITH ADMINISTRATION OFFICIALS

BACKGROUND STATEMENT

NARUC - National Association of Regulatory Utility Commissioners - includes in its membership regulatory bodies at both the State and Federal levels. It is the prime spokesman for the state public utility and public service commissions and presents their general positions on regulatory matters pertaining to electricity, gas, water, transportation and communications. Federal regulatory agencies, such as the FPC and NRC, are also members of NARUC.

POSITION ON ADMINISTRATION INITIATIVES

Generally they are in favor of national energy objectives but have not reached agreement on how these should be specifically implemented.

NARUC has publicly opposed:

- deregulation of oil
- deregulation of natural gas
- the electric utilities incentives act of 1975 (which calls for Federal override of state regulatory practices)
- the Electric Utility Construction Incentives Act of 1975 (the Labor-Management Committee's recommendation for tax incentives which were predicated on two changes in state ratemaking policy).

Environment:

They have not taken any public positions regarding the balancing of environmental objectives with energy objectives nor the potential cost impact of changes in environmental regulations.

EIA:

During NARUC's annual meeting held in November, FEA met with the NARUC Executive Committee to discuss the Administration's position on the Energy Independence Authority. The intention of this meeting was to request NARUC not to take a vote on the EIA at that meeting and delay it to their winter meeting in Washington which is going on at this time. Subsequent discussions requested that they not put it on their agenda at this time either which was agreed to. As of the present time, they are taking no public position on the EIA. If they did, at this time, it would clearly be a negative one.

PREVIOUS MEETINGS WITH NARUC

FEA routinely communicates with the Executive Director of NARUC and other key members of the NARUC Executive Committee both as representatives of NARUC and via the FEA State Regulatory Advisory Committee. Close coordination in this regard is being achieved by having put Paul Rogers, the NARUC Executive Director, on this FEA Advisory Committee.

In September 1974, Secretary Simon and Chairman Nassikas called a meeting in Washington of all State regulators to "discuss" the pressing electricity issues. From the State Commissioners' point of view, the meeting was a disaster, with Chairman Nassikas and Secretary Simon lecturing the Commissioners but not staying to listen to their points of view. It was at that meeting that Secretary Simon recommended a straight 15 percent rate of return for all state jurisdictions. There is still a good deal of resentment toward the Administration because of that meeting.

TAB B

WHITE HOUSE ENERGY MEETING

N.A.R.U.C. Ad Hoc Committee on Energy Policy

FEBRUARY 24, 1976

AGENDA

Statement regarding federal energy task force.

Statements and discussions on following subjects:

1. Recommendation of tax deduction and/or tax credit for utility users.
2. Manner for elimination of monopolistic conflict of utility companies.
3. Federal-State Joint hearing concept.
4. Efficiency studies of utility companies.
5. Coal gasification as an alternate fuel source.
6. Interties of power systems
7. Abandonment of El Paso's natural gas line
8. Transportation

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TASK FORCE:

Any federal energy task force should include input from state regulators. Management and labor participation is obviously needed, but the additional local regulators' viewpoint could provide an important ingredient. The state commissioners are familiar with the day-to-day needs of the citizens.

TAX DEDUCTION OR TAX CREDIT:

Energy is a necessity to the American way of life. Expenditures by residential consumers should be recognized for income tax purposes just as medical expenses. Utility bills should be recognized for the role they play in tax collection. The tax is almost as directly passed on to the consumer as is tax on gasoline, and should be given the same treatment. Since consumers must still pay high monthly bills, conservation patterns will not be altered.

ELIMINATION OF MONOPOLY OF UTILITY COMPANIES:

The Administration should consider anti-trust proceedings against major utilities serving the same area with more than one form of energy. Separation of gas from electric would introduce competition with consequent improvement in technology, source of supply, and pricing.

JOINT HEARINGS:

Most federal energy agencies are making an effort toward joint federal-state participation in hearings. This effort should be developed and expanded. An attempt should be made to combine hearings on rates, construction, financing, and other matters so all interested agencies could participate. Multi-state hearings should be encouraged and partially financed by the federal government.

EFFICIENCY STUDIES OF UTILITY COMPANIES:

Federal agencies should undertake independent efficiency studies of utilities under their jurisdiction, and make funds available for state regulators to do same.

In our urgency to help utilities during crisis times, we have allowed them to overlook their responsibility to assist in the solutions of the problem through more efficient operation. Savings through cancellation of construction programs is not an indication of efficiency.

COAL GASIFICATION:

Along with solar, hydroelectric, and nuclear, coal gasification should be given immediate priority. Former Secretary of Commerce Dent proposed price parity for synthetic gas. Even if natural gas is deregulated, the spread between the price of natural gas and synthetic gas will make it uneconomic to develop coal gasification without massive federal funding. Indian leaders should be involved.

INTERTIES OF POWER SYSTEM:

Interties of power systems should be coordinated on a federal level. We recommend the federal government undertake a massive study on impact of interties - especially in the Southwest. Federal intertie lines should be built from one public utility to another.

OIL LINE:

Approval of El Paso Natural Gas' request to abandon one of its pipe lines for transport of natural gas is essential. This project would then use the line to transport oil from the West Coast to refineries in Texas, which in turn would distribute to a large number of states through an existing network of pipe lines.

ECONOMIC DISPATCH OF TRANSPORTATION:

Intrastate Basis

Recommend federal funds allocated to states to conduct a study program of state travel patterns of regulated carriers. Purpose is to determine waste of energy in transportation traffic patterns with goals toward rectifying any existing problem possibly by consolidation of certificate of conveniences. Computer evaluation would be helpful in reviewing on an annual basis the needs of the state --- eliminating those parts no longer having a need for regulation.

Research done through federal funds or by federal agency, but each state should determine what to do with the findings and make corrections based on particular needs and within its jurisdiction.

Interstate Basis

Finance study to determine if economic dispatch of transportation for oil and coal delivery to utilities is needed. If findings prove need, develop data bank to include such information as cost of oil, sulphur content, btu, etc.. Deliver to nearest utility. Use bank clearing house approach to debit or credit participating companies.

Item #8

NATIONAL FUEL TRANSPORTATION STUDY

Prepared by

The MITRE Corporation
Westgate Research Park
McLean, Virginia 22101

February 12, 1976

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1.0 INTRODUCTION

Transportation costs are a significant portion of the total fuel costs of public utilities, particularly where overland (road) transportation is the primary mode. The costs of hauling fuel oil from the source to the consuming unit may be as high as 20 percent of the total fuel cost. Obtaining the lowest fuel cost has become more difficult due to the rapid changes in energy prices. Energy shortages have forced utilities to alter long-standing supply relationships formed in periods of price stability. Moreover, shortages of fuels--particularly natural gas-- and long-term sales commitments between many suppliers and customers have forced some utilities to purchase fuel from distant sources, with a commensurate increase in transportation costs.

A total of more than 1500 fossil fuel generating plants are listed in a 1975 Federal Power Commission list of principal electric facilities.* A summary of the figures for the contiguous United States and D.C. is shown in Table I. A program to coordinate fuel shipments to the major generating stations in order to reduce transportation costs would be of value to the nation in pursuing the goals of conserving energy and minimizing associated pollution.

It is proposed that MITRE conduct a program to identify the potential for minimizing fuel transportation costs in the United States. In addition to being of immediate benefit, the results of such a program would facilitate planning for future growth and provide a means for assessing the impact of changes in energy policies and fuel sources.

*Plant and Ownership List, Federal Power Commission, 1975.

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TABLE I

FOSSIL FUEL POWER PLANTS IN
CONTIGUOUS UNITED STATES & DC

STATE	ST	IC	GT
Alabama	17	0	4
Arizona	18	0	11
Arkansas	10	2	3
California	39	1	16
Colorado	17	3	4
Connecticut	10	1	6
Delaware	5	0	5
DC	2	0	1
Florida	54	11	25
Georgia	15	1	8
Idaho	0	0	0
Illinois	43	8	17
Indiana	37	7	9
Iowa	28	5	12
Kansas	27	4	12
Kentucky	23	1	4
Louisiana	42	10	7
Maine	9	1	2
Maryland	14	1	11
Massachusetts	24	3	12
Michigan	36	9	17
Minnesota	25	1	8
Mississippi	14	0	8
Missouri	30	3	11
Montana	4	0	0
Nebraska	11	0	7
Nevada	9	1	3
New Hampshire	4	1	2
New Jersey	10	0	23
New Mexico	17	1	2
New York	43	11	26
North Carolina	17	1	10
North Dakota	7	0	0
Ohio	59	10	18
Oklahoma	17	8	5
Oregon	4	0	3
Pennsylvania	53	18	28
Rhode Island	3	1	0
South Carolina	16	0	13
South Dakota	6	1	0
Tennessee	9	0	2
Texas	108	10	19
Utah	7	0	0
Vermont	1	0	3
Virginia	20	2	6
Washington	7	0	3
West Virginia	21	0	1
Wisconsin	22	3	13
Wyoming	6	1	0

KEY	GENERATOR	TOTAL

2.0 DESCRIPTION OF STUDY

It is proposed to implement the program in two phases:

I. Pilot Study

II. National Study

I. Pilot Study

The pilot study will consist of an overview of fuel oil transportation in the U.S., and a development of methodology for achieving a minimum cost goal. Tasks to be performed in this study are:

1. Identification of Areas for Potential Savings

All electric utilities serving the nation will be identified along with their associated fuel oil sources and distributors. The transportation links between utilities, distributors and sources will be analyzed to estimate the potential for savings in transportation.

Since fuel transport costs by barge or pipeline are generally low enough to make substantial savings unlikely for plants employing these modes, plants on oil pipeline and navigable waters will generally only be identified to determine their fuel demands and sources. Fuel deliveries by both rail and truck will be included in the model.

2. Selection of Specific Study Areas

The great number of fuel oil suppliers, public utility consumers and diverse transportation links between them make it difficult to optimize national fuel oil transportation patterns simultaneously. The nation can be divided into smaller areas which lend themselves to consideration as units.

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The first level of division is threefold, based on inter-connections between the several reliability councils. Utilities in the eastern and midwestern United States are well connected so that they may shift power between themselves when required. The Western U.S. is in a similar position. Finally, ERCOT (Electric Reliability Council of Texas) is not connected to other reliability councils and therefore can also be considered by itself.

Below this level, the individual reliability councils can be considered as units since they cooperate on many facets, such as planning for future capacity.

If it is determined that a reliability council is too large a division, then the Federal Power Commission Power Supply Areas (FPCPSA) may be used instead. The FPCPSA, which are groups of utilities roughly the size of states (48 in number), would lend itself more conveniently for gathering data.

For the purposes of this study, we will assume that the reliability council represents the best compromise in size and complexity. One council will be selected and the location of each generating station will be determined, along with the fuel requirements, generating capacity and transportation modes available. As this study is primarily concerned with minimizing costs of fuel transport, nuclear, and hydroelectric plants will simply be noted and councils with no fossil fuel generating plants will not be dealt with in this study.

3. Collation of Data

After selection of the area has been made, data will be collected for each power utility, fuel distributor and fuel source.

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- Power Utility

  Information required from fuel consumers, including public utilities as well as other major consumers, will include generating capacity, type of generating system and the identification of primary fuel and backup, annual fuel consumption, peak load characteristics, storage facilities, service area, contract terms with suppliers, costs of fuel and transportation.

- Distributors

  For each fuel distributor serving the utilities, data collected will include capacity of the distributor, price of fuel, mode of transportation used and current commitments.

- Sources

  Current and potential fuel sources will be identified to assure that all possible alternatives are investigated. Fuel sources include the transportation facilities serving them, such as pipeline or rail. Terminals for low cost transport modes, such as pipeline or barge, will be investigated to determine transfer connections with rail and highway. Information on ties with producers and wholesalers would be important to determine commitments and implications of a shift in fuel flow.

The transportation links between major consumers and suppliers will also be examined. To broaden the scope of the study, oil fuel sources in neighboring areas will be examined to determine data such as fuel availability, cost differences, and current consumers.

The above information will be used to form a data base for the other components of the study. The data base will be designed to allow current supply practices to be determined easily.

Data from the inventory will be used to ascertain costs of existing and potential supplier links, capacity of sources, and fuel demands of suppliers. Other constraints such as long-term contracts and franchise agreements identified in the course of the data gathering will be included. This information will be used as input for a transportation cost minimization algorithm.

4. Construction of a Transportation System Model

The solution to transportation problems is a classical algorithm in which optimum route structures are determined between a number of distributors and their customers. Each distributor in turn must determine an optimum route between his source of supplies and his own operation. This hierarchy of distributor-to-customer can be repeated any number of times until the product is removed from its natural environment. Petroleum companies, in particular, have used mathematical modeling to represent their operation from production at the wells to distribution at the local areas. The entire route structure can be optimized in terms of travel time, travel cost, or total product cost required to deliver a product to a customer.

The major effort in building a transportation model is the organization and structuring of data so that it represents an accurate description of the problem. For each customer, a requirement must be tabulated. If there are alternate modes of transporting the product to the customer

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(i.e. - truck, rail, ship, etc.) this must be noted. Limitations on storage facilities must be listed for each customer and distributor. Maximum capacity for each mode of transportation between each node in the delivery network must be noted. All cost data are required for each mode of transportation and between any pair of nodes.

The problem of distributing fuel to utilities in the United States falls within the framework of the transportation model described above. Electric utilities contract independently for fuel oil. The cost of their oil includes a charge for transportation. By viewing the transportation system on a nationwide basis, possible economies will be realized by noting trade-offs that can be made in routes without compromising the requirements of the utilities. The trade-offs will be made so that the total shipment of fuel to each utility remains unchanged, but the total transportation costs are minimized.

5. Development of Minimum Cost Goal

The model built during the aforesaid task will be analyzed to determine potential cost savings. The algorithm, based on available computer programs, will be applied to area's Fuel Oil Transportation System. The result, a minimum cost solution for fuel transportation, will be compared to current practice. Deviations from current practice will be examined to determine the feasibility of a change in supply patterns. Costs and benefits of various changes will be developed. Several iterations of the system may be necessary because some least-cost links may have to be rejected for reasons not incorporated in the original system run.

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A final result, based on the computer output and real-world constraints, will point out alternative fuel sources and shipping routes that would result in savings. In addition, should the lowest cost alternative be rejected for some reason (e.g., long-term contracts), the cost to the utilities of not being able to adopt the alternative will be presented as a guide for possible bargaining and trading with fuel suppliers.

6. Identification and Evaluation of Savings Opportunities

The next task of this study will be to determine which of the shifts in fuel delivery identified by the model can be adopted. The National Fuel Oil Transportation System will identify cases where shifts in fuel delivery patterns will result in savings. However, in these cases, there may be reasons other than cost for the various supplier-consumer relationships that exist.

Before any of the recommended shifts can be undertaken, these non-cost factors must be ascertained. These non-cost factors may be such things as long-term contractual relationships, franchise areas, reliability, service, or simply a preference for dealing with established sources. Whatever the reason, before a particular shift in fuel oil transport can be adopted, the non-cost factors must be considered.

These factors must be judged to see if they outweigh possible cost savings. If the cost savings are important enough to warrant a change, actions necessary to bring about the change will be identified. This process will result in recommendations for shifts in fuel oil delivery patterns that are both economic and practical.

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The recommended shifts will be analyzed to provide information such as suppliers and consuming power companies involved, potential savings, resulatory jurisdiction and non-cost factors involved. The non-cost factors will be analyzed to identify what sort of action is required to initiate the shift, such as inter-utility negotiation, change in allocations by regulatory agency or simply pointing out the opportunity to the utilities concerned.

II. National Study

The results of the pilot study will provide a formal approach to the analysis on a national scale. The pilot study will be set up so that the size of the model will be variable and will include a number of utilities which far exceed the size of the pilot study. The complete national study would be run by performing an analysis of each reliability council separately. For each council the study would involve:

1. Data Gathering
2. Implementation of a Transportation System Model
3. Determination of Minimum Cost System
4. Selection of Best Routing System

1. Data Gathering

Gathering data for each council will basically involve a repetition of the job performed in the pilot study. It must be recognized however that each reliability council will have characteristics which may warrant special attention. That is, the type of records used to obtain for the pilot study may not be available for data extraction in other councils.

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2. Implementation of a Transportation System Model

Construction of the basic model will have been performed in the pilot study. The problem of implementing the model for each council will involve determination of the specific parameter values and verification of the model.

3. Determination of Minimum Cost System

Each reliability council will be mathematically analyzed to determine the fuel oil routing which will lead to the minimum transportation costs. The length of time required for this aspect of the study will be dependent on the efficiency of the algorithm used and the speed of operation of the computer.

4. Selection of Best Routing System

The minimum cost system for each council determined above will be analyzed to determine that, in fact, it can be implemented. It is recognized that manual modifications to the minimum cost system may be required for practical considerations. These modifications should lead to the best routing system for each council.

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3.0 OUTLINE OF STUDY

The fuel transportation will be performed in two phases consisting of six tasks for the first phase and one task to analyze each remaining reliability councils.

Phase I - Pilot Study

Task 1. Identification of Areas for Potential Savings

Task 2. Selection of Specific Study Areas

Task 3. Collation of Data.

Task 4. Construction of a Transportation System Model

Task 5. Development of a Minimum Cost Goal

Task 6. Identification and Evaluation of Savings Opportunities

Phase II - National Study

The remainder of the reliability councils will be analyzed following completion of Phase I. Each reliability council analyzed will require reiteration of Tasks 3 through 6.

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TASK 1 IDENTIFICATION OF AREAS FOR POTENTIAL SAVINGS

The MITRE Corporation shall identify all power generating plants in the U.S. which consume fuel oil and sell their power. Each utility shall be identified as follows:

- Name
- Ownership Code
- Type of Generating System
- Types of Fuel Used
- Annual Fuel Requirements
- Capacity (Megawatts)
- Area Served
- Annual Transportation Costs
- Annual Fuel Cost
- Load Characteristics
- FPCPSA
- Reliability Council

Each distributor shall be identified as follows:

- Name
- Capacity (Barrels/Day)
- Mode of Transportation
- Delivery Area

Fuel sources shall be listed describing:

- Capacity (Barrels/Day)
- Mode of Delivery
- Maximum Delivery Rate
- Delivery Area

The information shall be recorded and processed for handling on data processing equipment.

TASK 2 SELECTION OF SPECIFIC STUDY AREAS

MITRE shall analyze the system characteristics to estimate the potential for transportation savings in each reliability council in the U.S. Using this information as a guide, an area of the U.S. shall selected for detailed study.

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TASK 3 COLLATION OF DATA

For each power utility in the selected area, data shall be collected pertaining to:

Power Generation Profile
Fuel Requirements Profile (by season)
Fuel Distributors
- Name, Amount (Barrels/Day) & Mode
Fuel Transportation Cost by Distributor & Mode
Restrictions in Fuel Distributors
Limitations on Fuel Receipts

For each distributor in the area, data shall be collected pertaining to:

Name of Customers
Mode of Delivery
Delivery Profile (by season)
Fuel Delivery Cost Reationale
Maximum Number of Shipments per Day by Mode
Limitations on Fuel Delivery
Limitations on Fuel Receipt

For each source in the area, data shall be collected pertaining to:

Name of Customers
Mode of Delivery
Delivery Profile (by season)
Maximum Number of Shipments
Limitations on Fuel Delivery

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TASK 4 CONSTRUCTION OF A TRANSPORTATION MODEL

A generalized mathematical model of an area fuel transportation system shall be built. Variables in the model will include flow rates of fuel oil between source and distributor and between distributor and electric utility.

The model will be suitable for updating so that, as conditions change, the ideal transportation pattern can be easily identified. In addition, capability for handling projections of future energy and fuel needs, supplies and costs should be incorporated into the model to reveal future bottlenecks and facilitate planning to keep transportation costs at a minimum.

The model shall include:

(1) Inventory Centers, and

(2) Delivery System.

1. Inventory Centers

Inventory centers are sites where the product is either gathered or prepared. In this model, an inventory center can be either the fuel source, the distributor or the customer. Table II describes some of the required data pertaining to each inventory center in the model.

2. Delivery System

The delivery system is defined by a deliverer, a receiver and a means of fuel transfer. Information describing the fuel transfer between each inventory center shall include:

(a) Method of Shipment

(b) Delivery Limitations, and

(c) Transportation Costs.

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The model which will result from this task shall be a deliverable item.

TABLE II

Nodal Characteristics

	Source	Distributor	Customer
Requirements			X
Maximum Supply Rate	X	X	
Maximum Receipt Rate		X	X
Storage Capacity		X	X

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TASK 5 DEVELOPMENT OF MINIMUM COST GOAL

The generalized transportation model developed under Task 4 shall be applied to the area selected for study, using the data collected under Task 3.

The parameters shall be varied to determine the impact of various routing patterns, and alternative sources of supply, on the total fuel transportation cost within the selected area.

The fuel delivery patterns derived from the model will be compared with the delivery system used at present, and the difference in total cost shall be determined. A minimum cost solution shall be prepared. This will represent the maximum savings that can be realized by converting to a new delivery system.

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TASK 6 IDENTIFICATION AND EVALUATION OF SAVINGS OPPORTUNITIES

It is recognized that conditions exist which will not generally permit implementation of the minimum cost solution. This task of the study will be to determine which of the shifts in fuel oil delivery identified by the model is feasible. Each aspect of the minimum cost solution (Task 5) will be analyzed to determine if it represents a realistic scheme. The solution will be viewed in light of such non-cost factors as long-term contractual relationships, franchise areas, reliability and service to see if the value of such factors outweigh the potential savings.

The result of this task will be a recommendation for changes in the fuel oil delivery system and an estimate of the savings to be realized by such changes.

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PHASE II

NATIONAL STUDY

A review of the information gathered during Task 1 will be made to estimate the potential savings to be realized by analyzing the fuel oil transportation system for each reliability council. In this way, priorities will be determined and the order in which the reliability councils are to be evaluated will be designated.

For each reliability council evaluated, an evaluation program will consist of:

- Data gathering as in Task 3,
- Adaptation of the transportation system model developed as Task 4,
- Determination of a minimum cost system as in Task 5,
- Selection of best routing system as in Task 6.

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4.0 SCHEDULE AND DELIVERABLES

The work in Phase I is scheduled to cover a six-month period as shown in Figure 1. The following products will be delivered:

- five monthly letter progress reports;
- an interim report four months after start of study; and
- a final report six months after start of study.

Ten copies of the interim report and 40 copies of the final report will be prepared.

The interim report will include, but will not be limited to, a computerized model of a reliability council and a description of the results of operating the model. The operating results of the model will consist of a description of both the data base used and the minimum cost solution, including changes in existing transportation patterns necessary to achieve the minimum cost solution.

The final report will include an analysis of alternative transportation, strategies, a description of the methodology used in the study, and documentation of the cost minimization programs.

The work for the remaining reliability councils will proceed at the rate of four months per reliability council. No estimate for time is made presently until it is determined after Task 1, how much potential savings can be made in each reliability council.

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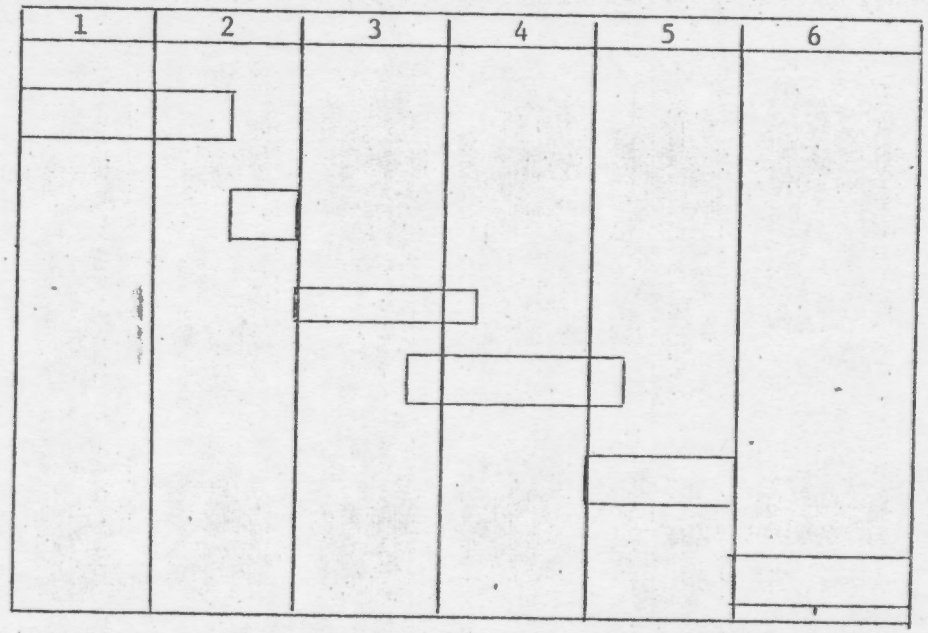
TASK	TITLE
1	Identification of Areas for Potential Savings
2	Selection of Specific Study Area
3	Collation of Data
4	Construction of a Transportation System Model
5	Development of a Minimum Cost Model
6	Identification and Evaluation of Savings Opportunities
7	National Study

SCHEDULE

MONTHS AFTER START



A study for each remaining reliability council will require four months, identical in schedule to Task 3 through Task 6.

FIGURE 1

NATIONAL FUEL TRANSPORTATION STUDY
IMPLEMENTATION SCHEDULE

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5.0 ORGANIZATION AND ADMINISTRATION OR PROJECT

The program will be carried out by the Transportation Systems Planning Department of The MITRE Corporation, Washington Operations, with Mr. Reed H. Winslow, Department Head, as Project Leader. Virgil S. Thurlow, Group Leader, Management Systems Group, will be responsible for the technical and administrative management of the program.

Brief biographies of key members of MITRE Technical Staff who would work on this program are attached. Other technical staff with equivalent qualifications and background will also be employed as required on the study.

The Federal Energy Administration will be requested to nominate a Technical Representative, who will be the primary contact between MITRE and the Administration and who will coordinate contacts with other relevant parties in the State. Channels of communications between the MITRE Project Leader and the Administration Technical Representative will be active and both informal and formal in nature.

Project coordination will be facilitated through monthly letter progress reports; by oral briefings at appropriate times throughout the program; and by submission of reports for review and comment prior to submission.

An organization chart of this project is attached.

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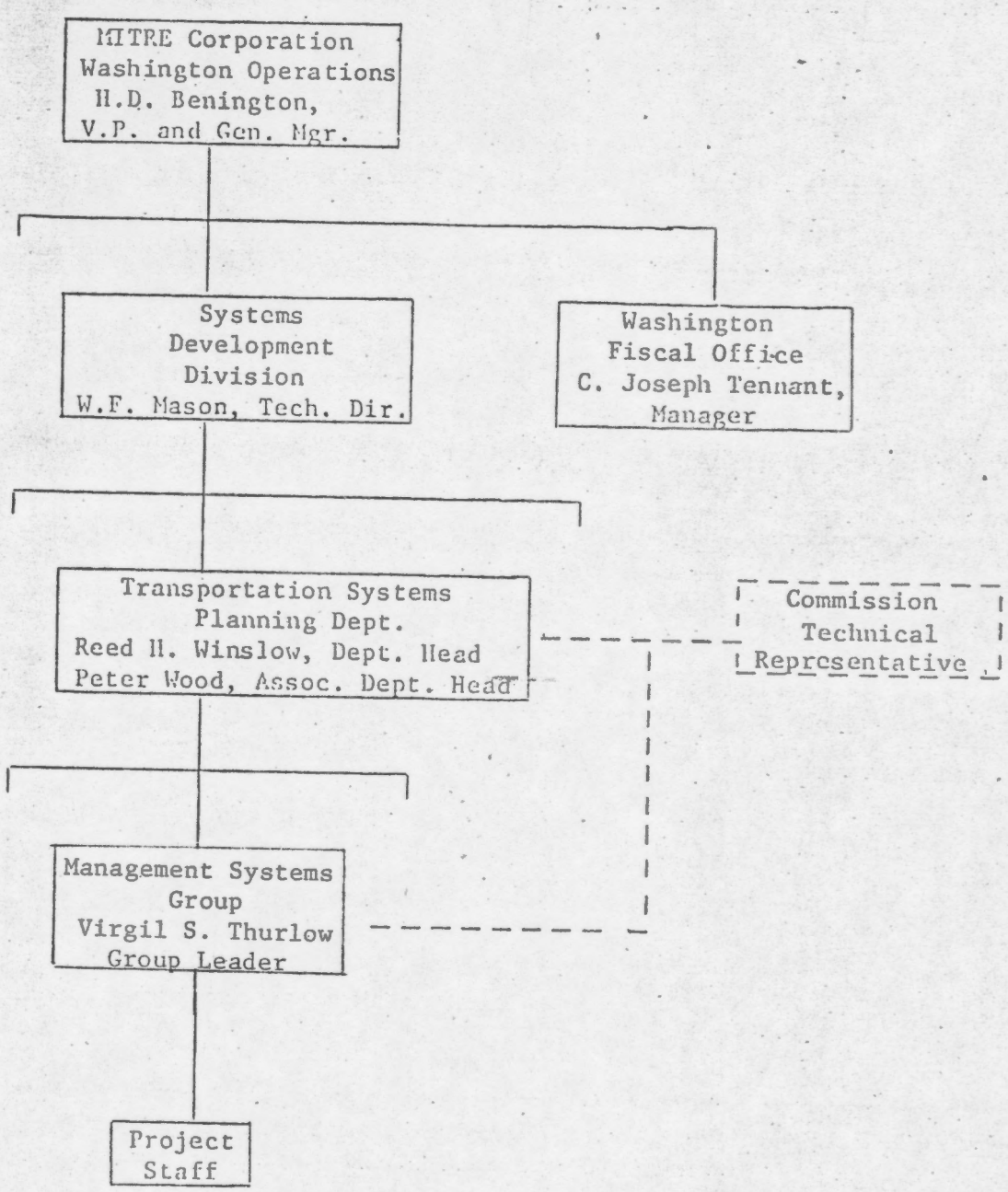
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W.F. Mason, Tech. Dir.
Washington
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Manager
Transportation Systems
Planning Dept.
Reed H. Winslow, Dept. Head
Peter Wood, Assoc. Dept. Head
Commission
Technical
Representative
Management Systems
Group
Virgil S. Thurlow
Group Leader
Project
Staff

6.0 FACILITIES

MITRE is a Federal Contract Research Center incorporated in 1958. MITRE's first assignment was to assist the U.S. Air Force in the modernization of North America's Air Defense through the design of the SAGE (Semi-Automatic Ground Environment) System. Subsequently the Corporation expanded its services to include support of nonmilitary programs, notably those of the Federal Aviation Agency (now the Federal Aviation Administration). Several years ago, MITRE began extending its support to other government departments, and, today, we are serving numerous civilian agencies, state and municipal governments, and other organizations working in the public interest.

The Corporation's Washington Operations at Westgate Research Park, McLean, Virginia, is housed in a modern, fully equipped complex containing extensive computer facilities, offices, laboratories, libraries, and conference rooms. The MITRE/Washington staff of approximately 500 professionals, together with some 200 support personnel constitutes an amalgam of skills and capabilities representing almost 100 disciplines.

MITRE's role in support of public interest programs is enhanced by its not-for-profit status. Free of the pressure to show a profit and with no vested interest in product or system components, we bring to our clients objectivity as well as technical competence.

MITRE has a total staff of over 2,000 people, over 1,000 of whom are professional scientists and engineers representing a broad mixture of mangerial and technical skills.

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APPENDIX

BIOGRAPHIES

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REED H. WINSLOW, Department Head, Transportation Systems Planning Department, will act as Project Officer for the Arizona Fuel Oil Transportation Study. He has been responsible the last four years for the direction of programs for the Urban Mass Transportation Administration, the State of Michigan, and other sponsors. Previously he was engaged upon the North East Corridor project. Previous experience includes Director of the Indiana Highway Needs and Finance Study, and the Director of the Highway Planning and Economics Section of Wilbur Smith and Associates.

Mr. Winslow is a Registered Professional Engineer in Alabama, Florida, Illinois, Indiana, Maryland, New York, South Carolina, and in the District of Columbia. He holds a B.S.C.E. from the Massachusetts Institute of Technology and an M.E. from the University of California, Institute of Transportation and Traffic Engineering.

PETER WOOD, Associate Department Head, Transportation Systems Planning Department, assists Mr. Winslow in the direction of specific projects in transportation systems and planning. He has had extensive experience in the development of systems for transit management and operations. His previous experience includes Senior Systems Engineer with the Radio Corporation of America, and head of the Engineering Development Group of the Plessey Company.

Mr. Wood is a Chartered Engineer in the U.K., and qualified as an Electrical Engineer at the Stafford College of Technology and University of Southampton, England.

VIRGIL THURLOW, Group Leader, Management Systems Group, will be responsible for the general technical direction and administration of the Technical Staff for the Arizona Fuel Oil Transportation Study. He has extensive experience in systems analysis, planning and management of programs in military transportation, urban transportation, and state government.

Mr. Thurlow holds a B.A. in Physics from the University of Wichita and an M.S. in Physics from the University of Colorado.

DENIS F. O'SULLIVAN, Department Staff, Transportation Systems Planning Department, has been working in the field of transportation planning for more than six years. His experience includes digital simulation and engineering for transportation systems, tire plants, and the chemical and atomic energy industries. He has a B.S. in Chemical Engineering from New York University and an M.S. in Mechanical Engineering from the University of Akron.

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CADY C. CHUNG, Technical Staff, has been working in the areas of Intercity Freight Demand Forecasting, Transportation Demand and Supply Modeling, and Urban Goods Movement. He was previously a Transportation and Traffic Engineer with Alan M. Voorhees and Associates. Mr. Chung holds a B.S. in Civil Engineering from the National Cheng-Kung Univerity, Taiwan; an M.S. in Traffic and Transportation Engineering from the University of California, Berkeley; and a Master of Science and Civil Engineering Degree in Transportation System Analysis from M.I.T.

DR. LEMOINE V. DICKINSON, Technical Staff, has been working in the areas of transportation planning and traffic engineering for several years. He holds a B.S. in Civil Engineering, an M.S.C.E. in Transportation Planning, and a Ph.D. in Transportation Planning and Traffic Engineering, all from the University of Maryland.

ROBERT E. MARTIN, a member of the Technical Staff, has worked for the U.S. Department of Transportation and the National Capitol Planning Commission on various socioeconomic studies and analyses of the impact of Federal expenditures on industry. He holds a B.S. in Economics from Lehigh University, an M.A. in Economics from the University of Maryland, and is a candidate for a Ph.D. in Economics, also from the University of Maryland.

DR. GEORGE ELY MOUCHAHOIR, Technical Staff, is currently working on transportation planning programs requiring multi-modal analysis and the development of quantitative methods to analyze transportation needs. He has previously been engaged in applying operations research and statistics to urban and transportation problems and to planning programs for the City of Atlanta Planning Department.

Dr. Mouchahoir's professional memberships include the American Institute of Planners, the American Society of Planning Officials, the Institute of Traffic Engineers, and the Urban and Regional Information Societies Association. He holds a B.E. from the American University of Beirut and an M.S.C.E. (Master of City Planning) and Ph.D. from the Georgia Institute of Technology.

ERNEST NUSSBAUM, Technical Staff, has had extensive experience in the application of computers to transportation planning. He is a Registered Professional Engineer in the District of Columbia, Maryland, New York, and Virginia. He holds a B.C.E. from The Cooper Union and an M.E.A. from George Washington University.

BARBARA A. ZUMWALT, Associate Technical Staff, has been working on data acquisition and analyses on programs for the National Science Foundation, the National Aeronautics and Space Administration, and the Department of Transportation. She holds a B.S. in English from the George Mason University, and is currently working toward an M.A. in Economics.

JACK GOLDEN, Department Head, Environmental Assessment Department, will serve as a consultant to this project. He has been involved in several transportation environmental impact studies for the Interstate Commerce Commission. These studies have related rate structures with truck and rail networks and network modifications. His knowledge and experience will enhance the results of the Arizona Fuel Oil Transportation Study. Mr. Golden holds a B.S. from the City College of New York and an M.S. from New York University.

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FACT SHEET

TAB C

Labor-Management Advisory Committee's Tax Proposal

The "Electric Power Facility Construction Incentives Act of 1975"

The President's Labor-Management Advisory Committee presented a series of recommendations to accelerate the construction of needed electric power generating facilities. Those recommendations included four tax incentives, endorsement of Federal nuclear indemnification (Price-Anderson"), and the establishment of a task force to define and resolve construction delay problems.

The proposed Act contains five titles:

TITLE I - Would increase the investment tax credit from 10 to 12 percent for investment by electric public utilities in generating facilities powered by fuels other than petroleum or natural gas, and would eliminate the existing requirement to phase-in qualified progress expenditures over 5 years.

TITLE II - Would extend the period during which pollution control facilities may qualify for 5-year amortization from January 1, 1976 to January 1, 1981; and provide a 5-year amortization period for investment to convert or replace petroleum or natural gas fueled generating facilities into facilities using different fuels.

TITLE III - Would permit depreciation deductions on construction expenditures beginning with the year the expenditures are made. At present, depreciation is allowed when the power plant begins operation. This would apply to electric generating facilities other than those powered by petroleum or natural gas, and to transmission and distribution facilities.

TITLE IV - Permits stockholders of electric utilities who elect to reinvest their dividends in stock of those utilities to defer taxability of such dividends until such stock is disposed of.

TITLE V - Limits the tax benefits provided by the first three titles to utilities permitted by their regulatory agencies to include construction work in progress in their rate bases. In addition, these tax benefits must be normalized.

Status: Current hearings before House Budget Committee Tax Expenditure Task Force.

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TAB D

FACT SHEET

Title VIII of Energy Independence Act of 1975

Short Title: Energy Facilities Planning and Development Act of 1975

What Bill Would Do

Section 803 National Energy Site and Facility Report

Authorizes and requires FEA to prepare within one year after enactment a National Energy Site and Facility Report (NEFR).

- o Catalogue existing facilities and pending applications.
- o Project future energy demand and facility needs considering conservation and retirements.
- o Project site availability and regional location.
- o Evaluate social, economic and environmental effects plus financial and public service requirements.

Section 804 State Energy Facility Management Programs

Requires that each State, within 1 year from issuance of the NEFR, submit to FEA for approval a State Energy Facility Management Program to:

- Expedite review and approval process
- Adequately consider national and regional needs
- Insure that State decisions are final, and
- Coordinate State siting process and land use program.

Authorizes FEA to promulgate an energy facility management program for any State failing to submit an acceptable program.

Section 805 Development and Administrative Grants

Establishes a $1 hundred million 5-year matching grant program
FEA will provide technical assistance to States

Section 806 Federal Approval Process

Authorizes FEA to designate Federal lead agency to expedite Federal processing of energy facilities applications.
Establishes composite Federal application and consolidated environmental impact statement.
Establishes 18-month deadline for final Federal decision.
Prohibits construction (other than nuclear facilities) until all Federal approvals.

Status:

No action in Congress

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FACT SHEET

Title VII, Utilities Act of 1975

The Utilities Act of 1975 sets minimum standards for certain regulatory practices and procedures governing electric utilities. While many state regulatory jurisdictions already incorporate several of the provisions of the Act, passage of the Act would make such provisions standard throughout the country. The provisions of the Act and their basic intent are summarized below.

1. Suspension of Rate Applications: Provides for a five month limitation for hearings on proposed rate changes. Unless denied, the proposed rate would automatically go into effect at the end of this period. If, after the rate is approved, it is found to be excessive, the utility would pay back the excess to the consumers with interest.

2. Fuel Adjustment Clause: Provides for a direct pass-through of fuel costs, on a dollar for dollar basis each month. Even the five-month regulatory delay provided for in the first section of the Act would result in significant financial damage to utilities.

3. Removal of Prohibitions Against Off-Peak Pricing: Will prohibit regulatory authorities from banning sales of electricity off-peak at lower prices than on-peak. The intent of this section is to promote the implementation of peak load pricing. This rate structure is designed to increase the utilities load factor, and hence reduce the demand for capital, while supplying the same quantity of total kilowatt hours of energy.

4. Construction Work in Progress (CWIP): Associated with "prudent" capital expenditures could not be excluded from a utilities rate base. The minimum included each year would be the lesser of (a) 15 percent of the total rate base, or (b) the value of the work-in-progress.

   These funds would increase internally generated cash, thereby reducing the need for external financing and increasing the ease with which external funds could be obtained. The increased quantity and quality of earnings would raise stock prices above book value permitting equity placements on a non-dilutive basis, and the added cash would raise coverage ratios to permit more favorable placements of debt.

5. Normalization Method of Accounting: Permits the utility to retain funds derived from Federal tax incentives. Under current accounting treatment these benefits are often "flowed-through" to consumers by reduced rates.

Status: Hearings held last spring befor the Senate Government Operations Committee

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FACT SHEET

Energy Independence Authority

The EIA will be a new government corporation to help achieve energy independence for the United States by providing loans, loan guarantees, price guarantees, or other financial assistance to private sector energy projects.

It will have a limited life (ten years); its financial outlays and commitments are intended to be recovered by the government, and will be used in conjunction with private sector financing to the maximum possible extent. It will not have authority, except for very limited periods, to own operating facilities related to energy production, transportation, or transmission.

EIA will supplement and encourage private capital investment to meet the energy needs of the nation. Its scope will range across a broad spectrum of energy supply, conservation, and energy-related environmental projects.

The Authority will have financial resources of $100 billion, consisting of $25 billion of equity and $75 billion of debt. The $100 billion for energy projects could help assure that the equivalent of up to 10-15 million barrels of oil per day of new energy production is realized by 1985.

EIA financial assistance will require as a condition of assistance to a regulated utility, sound and expedited regulatory response from regulatory rate commissions, including the regulatory commission's agreement to a rate covenant with EIA and the regulated firm that assures adequate earnings to protect EIA's investment.

The covenant is designed to require automatic adjustment of utility rates on a quarterly basis to establish an earnings floor of 2.75 times interest coverage calculated historically. Since conventional coverages are calculated to include future debt on a proforma basis, the historical formula in the bill will be an equivalent of a conventional 2.25 - 2.50 interest coverage.

The 3 party covenant, with the regulatory commission as a party, fully protects EIA's investment from unsound rate-making. Further, by requiring the state commission to share regulatory authority as a condition for financing assistance, there will be no political incentive for regulatory commissions to allow the financial health of its utilities to deteriorate in order to qualify for EIA financial assistance.

Status: No hearings have been held.