The original documents are located in Box 30, folder "State of the Union Address, 1976 - Congressional Suggestions" of the John Marsh Files at the Gerald R. Ford Presidential Library.

December 30, 1975

Dear Senator:

I have your memo of December 17 and the attached materials relative to your suggestion that the President include "Railroad Electrification" as part of his State of the Union.

I shall certainly see to it that your recommendation and the materials with which you have provided me are carefully considered during the review of the State of the Union address.

With warmest personal regards, I remain,

Sincerely,

John O. Marsh, Jr.
Counsellor to the President

The Honorable Hugh Scott
United States Senate
Washington, D. C.
JOM:RAR:cb

MEMORANDUM

December 17, 1975

TO: John O. Marsh, Jr.
Counsellor to the President

FROM: Senator Hugh Scott

RE: Railroad Electrification

An efficient rail system is vital to our national economy. As such, it would be appropriate for the President to include railroad electrification as part of the Administration's national policy program in the State of the Union Address.

The enclosed material outlines the thrust of this significant development in railroad technology.

Enclosure

Hugh Scott

RAILROAD ELECTRIFICATION

o WHAT IS IT?

Surely, it is one of the most significant improvements in kind in railroad technology This includes major savings in railroad operating costs. Most leading industrialize countries in the world have electrified their railroads except the United States. Electrification would be a very tangible benefit resulting from the Federal government's anticipated $6 billion-plus investment in the railroads.

o WHO SUPPORTS RAILROAD ELECTRIFICATION?

No one has yet directly opposed railroad electrification. Every major lawmaker contacted agrees that it ought to be done. Secretary Coleman and the Vice Presider are equally enthusiastic. Key labor people are also in agreement.

o WHY ELECTRIFY?

Railroads need to electrify their high density routes (22,000 miles within the United States) but their financial condition has not permitted this kind of investment, even though in many cases the return is in excess of 22%. A major benefit other than operating efficiency and cost savings is ENERGY SAVINGS. The Presiden said that he would hope to reduce U. S. oil imports by at least one million barrels per day by 1980. If the 22,000 miles of high density rail lines in this country were electrified by then, the fuel oil savings alone could amount to a 200,000 barrel per day reduction. With an investment of approximately $140,000 per mile, the U. S. could bring its railroads into the modern age. Should we realize the development of the 22,000 high density rail lines, more than 50 million man hours of employmen on the construction alone would be realized.

o REQUEST FOR ACTION

All of the tremendous benefits, real jobs, energy savings, reduced railroad operati costs and greater efficiencies can be realized. The Congress actively supports railroad electrification in both the House and the Senate bills. DOT supports it and Conrail supports it. It is our hope that you could enlist the support of the President by his making railroad electrification a part of the Administration's national policy program as may be outlined in the President's State of the Union Address.

12/16/75

Dr. Thomas A. Vanderslice, Vice President and Group Executive,
Special Systems and Products Group, General Electric Company

Testimony on Railroad Electrification

Testimony before Subcommittee on
Transportation & Commerce,
House Committee on Interstate and Foreign Commerc
Washington, D.C.
September 26, 1975

GENERAL ELECTRIC

Testimony on Railroad Electrification

Dr. Thomas A. Vanderslice
Vice President and Group Executive
Special Systems and Products Group
General Electric Company

Mr. Chairman and members of the committee:

I am Thomas A. Vanderslice, Vice President and Group Executive, Special Systems and Products Group, General Electric Company, Fairfield, Connecticut. At my left is Graham Hamilton and at my right Jack Dwyer, both of whom are Department General Managers from our Transportation Systems Division in Erie, Pennsylvania. We appreciate very much the opportunity to appear before this distinguished committee today. Our purpose is to discuss the subject of railroad electrification and, specifically, the electrification of certain Conrail routes to enhance the financial viability of that system.

As you know, the U.S. railroads have been a major factor in allowing this country to develop the level of prosperity we enjoy today. An efficient rail system is an absolute necessity to our national economy, and yet railroad earnings are among the lowest of any sector of that economy. The liquidity problems of some northeastern railroads are symptomatic of a general condition of the industry – the inability, due to many factors, to earn sufficient income to attract new investment and to enhance the efficiency of their operations.

A number of major U.S. railroads have recently studied or are now studying the possibility of electrifying high density lines as one such major efficiency. The studies usually show a good discounted rate of return but, inevitably, the first cost of the project becomes a deterrent because of the financial position of the carriers.

They cannot, within a manageable debt structure, make the investment now that would improve their efficiency and their earnings so dramatically in the future.

We understand that a number of proposals are being considered by the Congress to address the industry-wide problem. Recognizing the benefits to the entire nation through a lesser dependence on petroleum made possible by electrification as well as through the improved efficiency of rail operations, these proposals are worthy of u consideration, for railroads are the only form of tran that can effectively utilize alternate sources of ener abundant coal or nuclear.

As many of you may know, there is a world-wide t toward railroad electrification. The Soviet Union approximately 24 000 miles already electrified continuing at the rate of 1 200 miles per year. Japan 7 500 mile electrified system, and France boasts over 5 miles of electrified routes. The list goes on to inc Germany, Great Britain, Poland and Switzerland. oil-rich Iran has made the clear-cut decision to elec their mainline rail operations.

The reasons for these programs are very basic.

Electrification is the only presently feasible mean reducing the railroads' dependence on petrole Fortunately, it also results in a substantial reductio railroad operating expense, through reduced energy lower maintenance expense, and the use of hi horsepower locomotives. General Electric is one of world's leading manufacturers of both diesel and ele locomotives. There will always be a need for di locomotive operation, since the capital cost electrification can only be justified on heavy density rou Studies show only 10% or 22 000 miles jus electrification, but the 10% is the core route structure carries more than 50% of the gross tonnage of U.S. tra If the 22 000 of high density railroad lines in the Un States were electrified, it would be possible to save fr two to three billion gallons of diesel fuel annua Furthermore, the improved efficiency obtained thro electrified operation would certainly enable the railroad attract additional passenger and freight volume. This wo have a multiplying effect on the reduction in the use of while at the same time dramatically improving the finan viability of the nation's railroads. But as stated earlier, U railroads, with very few exceptions, do not have the cap funds necessary to pay for the initial cost of electrificati

Federally guaranteed loans or some other form of assistance must be developed in order to make railroad electrification a reality in the United States.

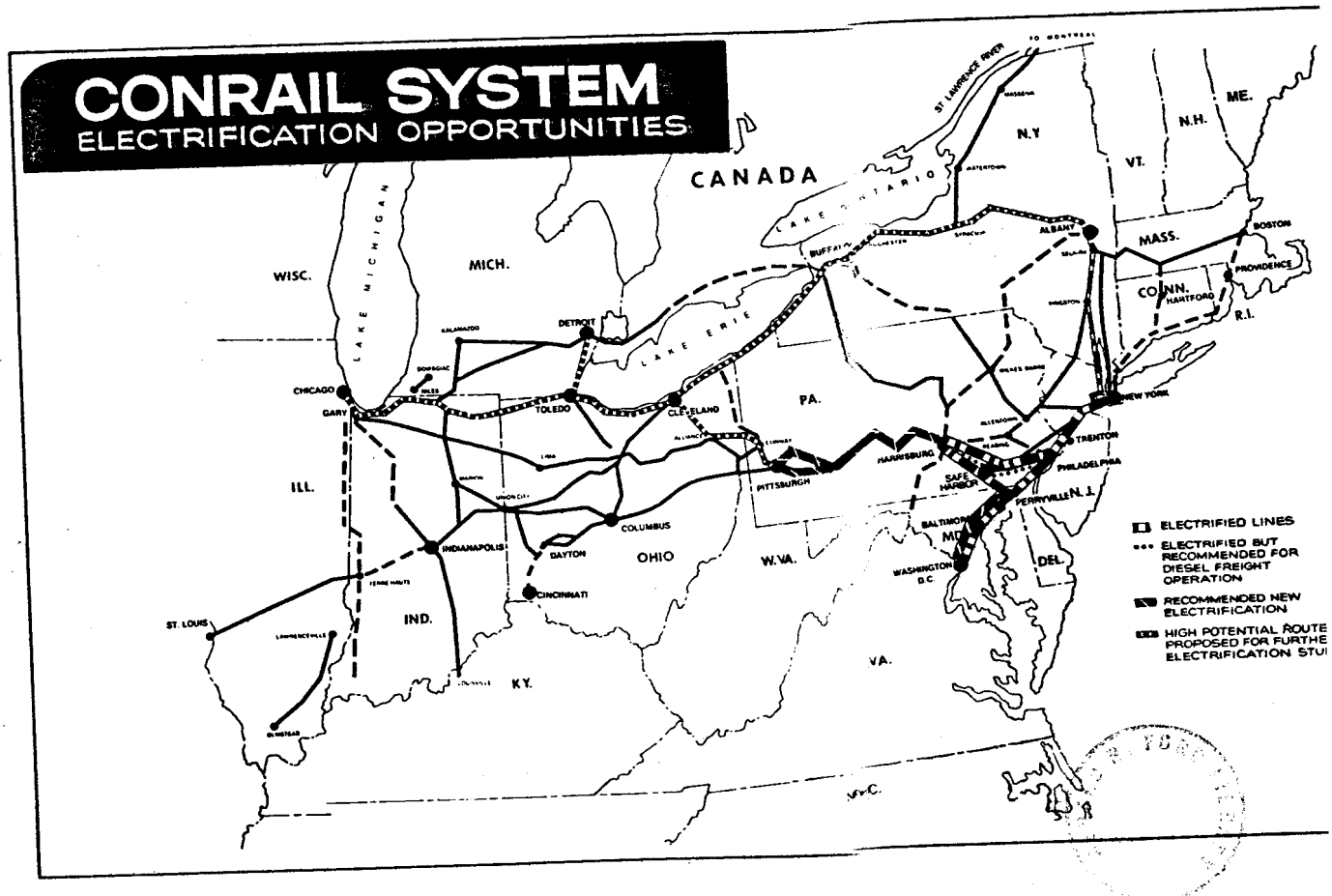
But the most pressing situation today is Conrail. The Penn Central routes to be acquired by Conrail under the final system plan include virtually all of the few electrified lines in the country. With the transfer of the northeast corridor route to Amtrak, the only remaining through-freight lines that are electrified are the lines emanating eastward from Harrisburg to Trenton, Philadelphia and Perryville, Maryland. The final system plan appears to provide for substituting diesel for electric operation on these routes. This decision by the United States Railway Association is understandable because of the relatively short portion of the principal east-west line remaining electrified. However, if additional funding were made available to Conrail to extend this electrification from Harrisburg to Pittsburgh and minor extensions on parallel corridor routes as from Perryville to Washington, the heaviest density freight route in the United States would be electrified. The capital cost of the electrification and required resignaling would be $145 million in 1980 dollars. However, the incremental investment would be only $62 million since the existing Penn Central fleet of electric locomotives would be sufficient to handle the service while diesel operation would require a substantial investment in motive power. This incremental investment would produce a five-year payback and a 36% discounted rate of return. The national interest and the financial viability of Conrail would both be served.

There are other high density routes in the proposed Conrail system on which electrification is economically sound. Several other major segments such as Chicago-Cleveland; Cleveland-Albany; Pittsburgh-Cleveland; Toledo-Detroit, also show high discounted rates of return and a fast payback on the investment. Based on preliminary analysis, it seems appropriate to authorize detailed analysis of these other routes.

The final system plan very appropriately calls for major expenditures on track to restore the roadbeds of the northeastern railroads. Part of the capital cost associated with any railroad electrification is to make the rails themselves suitable for the type of signal system used on electrified railroads. Certainly on any line with potential for electrification the track upgrading should be done on a basis suitable for this type of signal system.

To summarize, we recommend that:

1. The United States Railway Association and Conrail insure that on all candidate routes for electrification the track upgrading work be done with electrification in mind;
2. The Congress appropriate to Conrail the funding necessary to electrify the routes from Pittsburgh to Harrisburg and Perryville to Washington to enhance the viability of Conrail;
3. The Congress make provision for funding electrification of additional heavy density routes dependent on detailed studies that should be undertaken by Conrail.



While our primary purpose in appearing before you today relates to the proposed Conrail system, we also urge your consideration of appropriate legislation to make feasible the investment in electrification by the nation's other railroads. Both the long range financial soundness of the railroad industry and the nation's energy needs are at stake. In addition, it is significant to note that the electrification of 1 000 miles of track translates into over 2.3 million manhours of employment as the lines are constructed across the country.

We are most encouraged after seeing the supplemental report to the final system plan issued this week. It calls for a new look at electrification for Conrail. In addition, our discussions with Conrail, the United States Railway Association and the U.S. Department of Transportation revealed a strong interest in the subject.

I have a detailed study on the specifics of the savings inherent in electrification of the Conrail routes referred to that I would like to leave with the committee. We thank you for this opportunity to present our views on this vital subject.

My associates and I will be glad to try and answer any questions you might have.

GENERAL ELECTRIC

10-75

PRINTED IN U.S.A.

STATEMENT OF DR. THOMAS A VANDERSLICE, VICE PRESIDENT AND GROUP EXECUTIVE, SPECIAL SYSTEMS AND PRODUCTS GROUP, GENERAL ELECTRIC COMPANY, FAIRFIELD, CONNECTICUT, BEFORE THE HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE REGARDING RAILROAD ELECTRIFICATION AND ITS RELATIONSHIP TO THE FINANCIAL VIABILITY OF CONRAIL AND RAILROADS IN GENERAL, SEPTEMBER 25, 1975.

Mr. Chairman and Members of the Committee:

I am Dr. Thomas A. Vanderslice, Vice President and Group Executive, Special Systems and Products Group, General Electric Company, Fairfield, Connecticut. At my left is Graham Hamilton, and at my right Jack Dwyer, both of whom are Department General Managers from our Transportation Systems Division in Erie, Pennsylvania. We appreciate very much the opportunity to appear before this distinguished Committee today. Our purpose is to discuss the subject of railroad electrification and, specifically, the electrification of certain Conrail routes to enhance the financial viability of that system.

As you know, the U.S. railroads have been a major factor in allo ing this country to develop the level of prosperity we enjoy today. A efficient rail system is an absolute necessity to our national economy and yet railroad earnings are among the lowest of any sector of that economy. The insolvencies of the northeastern railroads are symptoma of a general condition of the industry--the inability due to many fac to earn sufficient income to attract new investment and to enhance th efficiency of their operations.

A number of major U.S. railroads have recently studied or are now studying the possibility of electrifying high density lines as on such major efficiency. The studies usually show a fine discounted ra of return, but inevitably, the first cost of the project becomes a deterrent because of the financial position of the carriers.

They cannot, within a manageable debt structure, make the investment now that would improve their efficiency and their earnings so dramatic ly in the future.

We understand that a number of proposals are being considered by the Congress to address this industry-wide problem. Recognizing th benefits to the entire nation through a lesser dependence on petroleur made possible by electrification as well as through the improved efficiency of rail operations, these proposals are worthy of urgent consideration, for railroads are the only form of transport that can effectively utilize alternate sources of energy--abundant coal or nuclear.

As many of you may know, there is a world-wide thrust toward railroad electrification. The Soviet Union has approximately 24,000 miles already electrified while continuing at the rate of 1,200 miles per year. Japan has a 7,500 mile electrified system, and France boas over 5,000 miles of electrified routes. The list goes on to include Germany, Great Britain, Poland and Switzerland. Even oil-rich Iran h made the clear cut decision to electrify their mainline rail operatic

The reasons for these programs are very basic.

Electrification is the only presently feasible means of reducing the railroads' dependence on petroleum and permit the use o coal for moving passengers and freight. Fortunately, it also result in a substantial reduction in railroad operating expense, through reduced energy cost, lower maintenance expense, and the use of highe horsepower locomotives. General Electric is one of the world's lead manufacturers of <u>both</u> diesel and electric locomotives. There will always be a need for diesel locomotive operation since the capital cost of electrification can only be justified on heavy density route

and minor extensions on parallel corridor routes as from Perryville to Washington, the heaviest density freight route in the United States would be electrified. The capital cost of the electrification and required resignaling would be $145 million in 1980 dollars. However, the incremental investment would be only $62 million since the existin Penn Central fleet of electric locomotives would be sufficient to handle the service while diesel operation would require a substantial investment in motive power. This incremental investment would produce a 5 year payback and a 36% discounted rate of return. The national interest and the financial viability of Conrail would both be served.

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While our primary purpose in appearing before you today relates to the proposed Conrail System, we also urge your consideration of appropriate legislation to make feasible the investment in electrificat by the nation's other railroads. Both the long range financial soundness of the railroad industry and the nation's energy needs are at stake. In addition, it is significant to note that the electrification of 1,000 miles of track translates into over 2.3 million man hours of employment as the lines are constructed across the country.

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I have a detailed study on the specifics of the savings inherent in electrification of the Conrail routes referred to that I would like to leave with the Committee. We thank you for this opportunity to pres our views on this vital subject.

I will be glad to answer any questions you might have.

NORTHEAST ELECTRIFICATION

EXECUTIVE SUMMARY

The existing electrified territory in the northeast, excluding the New Haven portion north of New York City, consists of three segments: 225 route miles between New York and Washington, D.C., 108 route miles from Philadelphia to Harrisburg, and 67 route miles between Harrisburg and Perryville, which is the southern connection to the Northeast Corridor. Freight is currently moved on all these lines.

USRA has recommended in their final system plan that freight be removed from the Northeast Corridor - the New York to Washington portion - in order to improve passenger service, and that AMTRAK assume operating responsibility for this line. That action, however, displaces electric freight locomotives that cannot economically be absorbed on the remaining PC electrified system. Furthermore, in the September 1975 supplemental report to the Final System Plan, it is recommended that freight between Philadelphia and Harrisburg be moved by diesel locomotives over the Safe Harbor route.

With the assumption that Northeast Corridor freight is removed as USRA recommends, the economics of retaining electrified freight service on the remaining system plus the electrification of additional trackage in the Northeast are reviewed in this evaluation.

It is concluded that a viable electrified operation can only be retained with the electrification of 84 route miles of B&O track between Perryville and Washington. Furthermore, new electrification between Pittsburg and Harrisburg would allow utilization of displaced electric locomotives from the Northeast Corridor thereby increasing the efficiency of the existing system and eliminating a motive power change point at Harrisburg.

The electrification of the Harrisburg to Pittsburg and Perryville to Washington lines can be accomplished with an initial net investment of $62 million. Over a 30-year period, this investment should yield $2 billion of operating cash savings. Assuming an implementation year of 1980, a cashflow projection shows that operating savings in the first year would be $12 million and by the fifth year would increase to $18 million annually. In terms of discounted rate of return on investment, this project would yield about 36%.

MOTIVE POWER

Forecasted freight traffic tonnage has been supplied by USRA which indicates 102 million annual tons for the Pittsburgh to Harrisburg section, 27 million for Harrisburg to Philadelphia, and 41 million for Harrisburg to Washington.

General Electric has analyzed the motive power requirements with the use of train simulation computer programs for handling the freight traffic forecasted by USRA on the existing electrified territory, and on the unelectrified territory between Harrisburg and Pittsburgh. The number of electric locomotives requires has been compared to the numbe of diesel locomotives required. Units used for comparison are six-axle electrics, and six-axle, 3,000 HP diesels. Results are as follow

	1980 Motive Power Required	
	Electric Operation	Diesel Operation
Pittsburgh - Harrisburg	48	104
Harrisburg - Philadelphia	10	18
Harrisburg - Washington	18	35
	76	157

The existing fleet of electric locomotives including 66 E44's and 10 E33's can be used and consequently no new electric motive power is required initially.

For a diesel operation, however, new locomotives would have to be purchased for at least the existing electrified sections. Additionall it must be considered that locomotives currently being used on the Harrisburg-Pittsburgh section would be displaced by electrification and therefore make them available for use elsewhere on the Conrail system. This would reduce the new diesel purchase requirements projected by Conrail. For this reason, in the economic evaluations the diesel operation is charged with the purchase of a new fleet.

The economic life of an electric has been demonstrated to be twice that of a diesel which nominally is expected to have an economic life of 15 years. The average age of the E44 fleet is about thirteen year which means they would require replacement in 1992. They are current under lease which can be extended through 1987 after which they may be purchased or continued in use under some other financial arrangeme The lease charge between 1980 and 1987 would be $5,000 per unit per y To make the E44's compatible for 60 Hz operation, an investment of $170,000 per unit is required for a locomotive not converted to solid state operation, whereas $100,000 would be required for a locomotive already converted. These costs are all taken into consideration in

MOTIVE POWER CONTINUED . . .

the economic analysis and prices are all escalated at 7% per unit for 1980 dollars.

On the diesel side, the 1975 estimating price used for a six-axle, 3,000 horsepower unit is $442,000.

The initial investment in motive power then, is as follows:

	1980 ($ Million) MOTIVE POWER INVESTMENT	
	Electric	Diesel
28 E44's + 8 E33's Solid State and 60Hz Conversion @ $236,000	8.5	
40 Electrics: 60 Hz Conversion @ $140,000	5.6	
157 Diesels @ $620,000		97
Total	14.1	97

As time goes on, additional motive power must be purchased to accommodate for traffic growth estimated to be 2% per year. Also, as the economic life of locomotives expires, these must also be replaced. This additional investment is also projected in the economic evaluation. New electrics are estimated to cost $2,460,000 in 1992, and diesels are estimated to cost $1,656,000 per locomotive in 1995, which is the current price escalated at 7% per year.

FINANCIAL ANALYSIS

Conrail's two alternative types of freight operation - electrified or diesel - can be compared with respect to investment and operating costs. General Electric has a computer program which was written for the purpose of comparing the economics of railroad electrification to of a diesel operation.

The financial analysis is based upon two (2) fundamental assumptions:

1. The B & O track between Perryville and Washington will be electrified at 12.5 kV, 60 Hz. (With provision to convert it to 25 kV in the future)

2. The PC track between Harrisburg to Pittsburgh will be electrified to utilize the electric locomotives displaced by removal of freight traffic on electrified PC track between New York and Washington. This track (Pittsburgh - Harrisburg) will be electrified at 12.5 kV, 60 Hz (with provision to convert it to 25 kV in the future) to make it compatible with the existing electrified freight system. No new electric motive power will be required initially.

The electrification investment required is summarized as follows:

($ Million, 1980)

	Perryville-Washington	Harrisburg-Pittsburgh
Existing Motive Power Converted to 60 Hz capability	$ 3.9*	$ 10.2
Catenary	18.0	62.7
Substations	8.5	28.2
Signal and Communications	6.1	21.2
Subtotal	$ 36.5	$ 122.3
System Total	$159 Million (rounded)	

This electrification investment of $159 million compares with an initial investment of $97 million for a diesel operation. So in fact, electrification represents a net investment of $62 million.

The investment data plus other relevant expense and energy cost data, which are detailed in the next section of this report, are factored into the econometric computer program which calculates annual cash savings along with return on investment and total investment.

A copy of the computer printout follows; some of the pertinent information is summarized below:

	($ Millions)		
	Diesel Operation	Electric Operation	Difference
Initial Investment	$ 97	$159	$ 62
Investment over a 30 year period	768	572	(196)

The computer printout shows that an initial net investment in electrification of $62 million results in $2 billion operating savings and $196 million investment savings over a 30 year period.

Also it will be noted that the initial net investment is paid back in approximately four years.

The $2 billion cash operating savings translates into a 36% discount rate of return on the net investment in electrification.

More specifically, the investment in electrification would result in a 7% discounted rate of return after five years, a 30% discounted rate of return after 10 years, and a 36% discounted rate of return after 30 years.

RATE OF RETURN = 0.36

11570.	136043.	158022.	766940.	1330046.	2194122.	.00
4114.	91831.	103285.	379335.	570561.	800438.	.05
-2025.	61077.	67486.	197955.	266541.	331871.	.10
-7136.	39112.	42940.	106959.	132610.	152523.	.15
-11432.	23038.	25459.	57954.	68148.	74431.	.20
-15077.	11012.	12615.	29624.	33813.	35918.	.25
-18195.	1829.	2929.	12086.	13873.	14612.	.30
-20882.	-5317.	-4540.	517.	1307.	1578.	.35
-23215.	-10973.	-10413.	-7553.	-7192.	-7089.	.40
0.	0.	0.	0.	0.	0.	.45

YEAR	ANNUAL OPERATING SAVINGS	CUMULATIVE OPERATING SAVINGS	NET ELECT OP INVESTMENT REQUIRED	A ELECT OP INVESTMENT REQUIRED	B DIESEL OP INVESTMENT REQUIRED
1980	11.58	11.58	61.53	159.00	97.47
1981	12.91	24.49	61.88	2.34	1.99
1982	14.41	38.90	61.00	1.25	2.13
1983	16.08	54.99	60.64	2.68	3.04
1984	17.87	72.85	59.63	1.43	2.44
1985	19.78	92.63	60.08	3.07	2.61
1986	21.95	114.58	59.64	3.28	3.73
1987	24.27	138.85	61.70	5.06	2.99
1988	26.85	165.70	61.20	3.76	4.27
1989	29.67	195.37	60.65	4.02	4.57
1990	32.61	227.99	61.29	4.30	3.66
1991	36.01	264.00	58.36	2.30	5.23
1992	39.65	303.65	232.93	187.16	9.59
1993	43.60	347.25	239.21	5.27	5.98
1994	47.90	395.15	238.45	5.64	6.40
1995	52.58	447.73	-21.54	6.03	266.02
1996	57.85	505.58	-29.54	6.46	14.46
1997	63.38	568.96	-36.15	6.91	13.51
1998	69.23	638.24	-41.54	11.09	16.48
1999	76.03	714.27	-51.35	7.91	17.72
2000	83.12	797.39	-59.44	8.46	16.56
2001	91.08	888.46	-73.15	9.05	22.76
2002	99.72	988.18	-85.17	9.69	21.70
2003	108.96	1097.14	-95.68	15.55	26.06
2004	119.14	1216.28	-112.47	11.09	27.68
2005	130.02	1346.30	-121.25	17.60	26.59
2006	142.00	1488.29	-140.48	12.70	31.9
2007	154.80	1643.09	-154.25	20.38	34.1
2008	168.89	1811.97	-176.26	14.54	36.5
2009	184.38	1996.35	-196.45	23.34	43.5
				571.56	768.0

SUMMARY OF INPUT DATA

On the computer printout is noted an initial net investment of approximately $62 million which results in $2 billion operating savings over a 30-year period.

The operating savings result from:

(1) Difference in maintenance costs

(2) Difference in energy costs

To facilitate the understanding of what variables have been used in arriving at the cash savings resulting from railroad electrification, a summary of input data is tabulated on the following pages.

ELECTRIC ENERGY COST

Based on available reported electric energy costs incurred by Penn Central Railroad, it has been estimated that the average electric energy cost would be 23 mils per KWH for the electrified territory under consideration.

FUEL PRICE

Based on recent fuel costs incurred by Penn Central Railroad, it has been estimated that a fuel price of 40¢ per gallon would be a conservative price to use in 1980.

LUBE OIL

Based upon average railroad usage in North America, the lube oil expense can be estimated on a percentage of diesel fuel cost. This estimate averages about 6.6% of the diesel fuel cost.

DIESEL LOCOMOTIVE MAINTENANCE COST

According to supporting data supplied by Penn Central, 1971 diesel locomotive maintenance cost averaged approximately $35,000 per unit. Using 7% inflation to 1980 escales the per unit cost to $64,400.

ELECTRIC LOCOMOTIVE MAINTENANCE COST

Penn Central Railroad experience with the E44's indicates that the per unit cost was $15,000 in 1975. Escalating this cost at 7% inflation per year gives $21,000 per E44 in 1980. However, in previous work with USRA it was agreed to use 50% of the diesel locomotive maintenance cost, or $32,200 per E44.

DIESEL FUEL CONSUMPTION

The initial amount of diesel fuel consumed by the 157 diesel locomotives is estimated to be 58 million gallons. This usage is based upon simulated train performance runs made on G.E.'s train simulation computer program.

ELECTRIC ENERGY CONSUMPTION

The initial amount of KWH's used by the electric locomotive freight operation is estimated to be 813 million KWH. This energy usage was determined by G.E.'s train simulation computer program. It was used to simulate the trains under study.

CATENARY AND SUBSTATION MAINTENANCE

Penn Central records indicate that their catenary and substation maintenance cost was $1,290 per track mile in 1971. Using 7% inflation escalates this cost to $2,366 per mile in 1980.

OTHER INPUT VARIABLES

ANNUAL TRAFFIC GROWTH

It has been estimated that rail freight traffic would increase at an average rate of about 2% per year over the 30-year period under study. This estimate is within the limits projected by other main-line railroads that have participated in previous electrification studies.

ANNUAL INFLATION

General railroad labor and material costs have been estimated to inflate at 7% annually over the 30-year period under study.

DIESEL FUEL INFLATION

Over the 30-year period, diesel fuel prices have been forecasted to inflate at an annual rate of 5%.

ELECTRIC ENERGY INFLATION

It has been estimated that electric energy would inflate at a slower rate than diesel fuel prices by two (2) percentage points. It has been assumed that coal and nuclear energy would be the major source of electric power generation in the future. Thus, the assumption is made that these sources of energy will not be subject to foreign vagaries and will not be subject to inflationary pressures of limited supply as will diesel fuel oil. Consequently, the inflation rate of electrical energy used is 3% per year.

DEC 30 1975

THE WHITE HOUSE

WASHINGTON

December 30, 1975

MEMORANDUM FOR: BOB HARTMANN
DICK CHENEY

FROM: MAX FRIEDERSDORF M.G.

SUBJECT: John Rhodes/SOTU

Mr. Rhodes requested today that his views on the SOTU be relayed with regard to an adjustment in Social Security.

Rhodes believes the President would be well advised to include a plan for enlarging the Keogh Plan.

Rhodes says the President should embrace this principle as enunciated in the House GOP Legislative proposals offered recently.

cc: Jack Marsh
Vern Loen

SOTU

January 10, 1976

Dear Richard:

I have already seen to it that your follow-up letter on "Railroad Electrification" has been placed in the hands of those people who are putting together the SOTU speech.

I sincerely hope that this item can be included in this address.

With kindest personal regards, I remain,

Sincerely,

Russell A. Rourke
Deputy to Presidential
Counsellor, John O. Marsh, Jr.

Mr. Richard G. Quick
Administrative Assistant to
The Honorable Hugh Scott
United States Senate
Washington, D. C.
RAR:cb
sent to Doug Smith - FYI

HUGH SCOTT
PENNSYLVANIA

JAN 8 1976

RICHARD G. QUICK
ADMINISTRATIVE ASSISTANT

United States Senate
WASHINGTON, D.C. 20510

January 7, 1976

Mr. Russell Rourke
Staff Assistant
The White House
Washington, D. C.

Dear Russ:

Pursuant to our conversation of yesterday, enclosed is further information on the potential to be derived from railroad electrification.

Your assistance is appreciated.

Sincerely,

Richard G. Quick
Administrative Assistant
to Senator Hugh Scott

RQ/es
Enclosure

t. D. Smith - FYI - 1/9

POTENTIAL PETROLEUM SAVINGS ANTICIPATED
IF RAILROAD ELECTRIFICATION OCCURS

If the 22,000 miles of the highest density rail lines in the U. S. were electrified today, a daily savings of 130,000 barrels of oil could be realized. In ten years, with a projected rail traffic growth rate of 4%, this savings could go to 200,000 barrels per day.

Because 35% of the electricity generated in this country in 1975 was generated by using gas and oil, a net fuel oil savings should be analyzed.

Based upon current figures, 44% of the electricity generated in the U. S. is derived from coal; 35% from gas and oil, 14% from water and 7% from nuclear sources. Therefore, we can assume that a minimum net savings of 85,000 barrels of oil per day (or 65% of today's potential of 130,000 barrels per day) would be realized through this electrification. Ten years out, these figures increase to 130,000 and 200,000 barrels per day respectively.

Because more and more coal burning and nuclear power plants will be coming on line, it is estimated that by 1995 better than 90% of the electricity generated in the United States will be from non-petroleum sources. If we see this electrification in that time frame, and assuming continued rail traffic growth of 4% annually, we can expect a net savings of more than 250,000 barrels of oil per day by 1995.

1/7/76

THE WHITE HOUSE
WASHINGTON

Dick Quick
Rail Electri-

folks at OE have
a one page white paper
on this -

- is sending 1½
page paper -

Check w/ Rail
Elec in DOTU -

THE WHITE HOUSE
WASHINGTON

January 6, 1976

RUSS:

Re Senator Scott's letter in connection with SOTU input, Doug Smith (who is apparently accumulating all the possible material used) said that their office did receive it, but it was indefinite as to how much emphasis would be placed on the railroads anyway. Since the Railroad bill is still being "negotiated", he said he'd rather not say at this point, whether anything at all would be used. The Senior Staff is going to review all the materials for the SOTU.

connie

~~Alg~~ State of the Union

December 30, 1975

Dear Senator:

I have your memo of December 17 and the attached materials relative to your suggestion that the President include "Railroad Electrification" as part of his State of the Union.

I shall certainly see to it that your recommendation and the materials with which you have provided me are carefully considered during the review of the State of the Union address.

With warmest personal regards, I remain,

Sincerely,

John O. Marsh, Jr.
Counsellor to the President

The Honorable Hugh Scott
United States Senate
Washington, D. C.
JOM:RAR:cb

THE WHITE HOUSE

WASHINGTON

January 12, 1976

MEMORANDUM FOR: GENERAL SCOWCROFT
BOB HARTMANN

THROUGH: JACK MARSH

FROM: BOB WOLTHUIS RKW

SUBJECT: Telephone Call from Sonny Montgomery re MIA's and SOTU

Congressman Montgomery called this afternoon and expressed his view that it would be helpful to the President if some reference were made in the SOTU message to the MIA problem. Sonny also thinks this would be helpful in dealing with the Vietnamese on the MIA issue. He suggests the following points:

1. The President should reiterate that he stands by his December 7 speech in Honolulu as he deals with the nations of South East Asia.

2. He should state again that he will look to the future and not the past.

3. The President would match gesture with gesture.

4. If the South East Asian countries will speed up the information process on MIA's, the U.S. could reciprocate gestures which might lead to normal relations.

Congressman Montgomery is satisfied that the Vietnamese have done everything his committee ask of them. I told Sonny that I would pass this on to Scowcroft and Hartmann for their information and use. I made no commitment and did indicate to the Chairman that the President also made no commitments in his meeting with them prior to their visit to Hanoi and Vietiane.