The original documents are located in Box 37, folder "Uranium Enrichment (12)" of the James M. Cannon Files at the Gerald R. Ford Presidential Library.

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ELEMENTS OF A COMPROMISE ON URANIUM ENRICHMENT

- . Sections 1,2 and 3 of the NFAA as submitted by the President and then modified as desired by the JCAE to provide that individual contracts shall be subject to a period of 60 days review by each house of Congress and a concurrent resolution of approval or disapproval.
- Section 4 which authorized design and construction planning could be modified to authorize \$150 to \$200 million for FY 1977 to continue work on a contingency ("hedge") plan which contemplates a Government-owned add-on enrichment facility. This plan would be followed at least until it was clear that a stand-alone diffusion plant could be built. It might also be continued beyond that time if it appeared that additional diffusion plant capacity were necessary before centrifuge technology was available and no private firm proposed to build the additional diffusion capacity.
- . The Administration would send up a supplemental request for \$6 million in FY 1976 and \$4 million in the transition quarter to continue architect-engineering work for the contingency add-on plan.
- The Administration would send up a supplemental request for FY 1977 funding for the add-on plant. The specific amount has not yet been determined by ERDA and OMB but is in the range of \$150 to \$200 million. A Presidential request would remove from the JCAE and the Appropriations Subcommittee the onus of increasing the President's budget request by \$200+ million.
- ERDA and UEA would reach an immediate agreement to work together to assure that planning, additional procurement and other activities undertaken over the next year or so would have as many common elements as possible and not involve unnecessary competition for resources. For example, there should be no need to place duplicate orders for construction equipment and nickel powder which could be used in either a stand alone plant or an add-on plant. No exchange of funds need be involved.
- . The Administration would not accept legislation that would:
 - -- Make the NFAA applicalbe only to centrifuge technology, or
 - -- Force work on a Government-owned add-on plant with the objective of having it on line ahead of a private plant.

THE WHITE HOUSE

WASHINGTON

April 12, 1976

WEEKLY DOMESTIC ACTIVITIES REPORT FOR THE PRESIDENT

Uranium Enrichment

Hearings were completed April 7, and there is some evidence that the Joint Committee on Atomic Energy intends to rewrite the legislation both to permit a commercial diffusion plant and to authorize the government add-on diffusion plant. The JCAE staff believes they have enough information to justify the construction of two diffusion plants.

The House Budget Committee included \$230 million for the add-on in its proposed resolution for FY '77. The Senate Budget Committee did not, and Senator Muskie has indicated he would not add money until Congress acts on this legislation.

It is my understanding that we do not have the technical capability to build two diffusion plants at the same time. If we can start with the commercial plant, we may not ever have to build the diffusion add-on--for the centrifuge process may be ready then.

Jim Connor and I believe that, if the JCAE is going for two diffusion plants, we should ask Representative John Anderson to:

- 1. Encourage the JCAE to give a priority to the commercial diffusion plant--with the add-on continuing to be a back-up plant;
- Persuade the JCAE to get their proposal for design and construction of the add-on as far below the Budget Committee's \$230 million as he can.

7	The state of the s	
Approve	Disapprove	
11661010	DISCEPTIONS	

UEA

THE WHITE HOUSE

WASHINGTON

April 19, 1976

MEMORANDUM FOR:

JIM WINNON

FROM:

GLEAN SCHLEEDE

SUBJECT:

VEA Testimony on Uranium Enrichment before the JCAE

This is long but very fast reading. I recommend it for your personal reading if you can find a few minutes. As a minimum, it demonstrates that private industry can do a better job than government in preparing testimony!

Attachment.

TESTIMONY

OF

URANIUM ENRICHMENT ASSOCIATES LIMITED PARTNERSHIP

IN SUPPORT OF

S. 2035 AND H.R. 8401

BEFORE THE

JOINT COMMITTEE ON ATOMIC ENERGY

ON

THE NUCLEAR FUEL ASSURANCE ACT

APRIL 6, 1976

UEA Testimony April 6, 1976

Mr. Chairman, Members of the Joint Committee:

My name is Jerome Komes. I am Chairman of the Board of Uranium Enrichment Associates (UEA), a limited partnership. Accompanying me today are Mr. Richard A. Jay, Vice Chairman of the Board of The Goodyear Tire and Rubber Company, and Mr. Harvey R. Fifer, Senior Vice President of The Williams Companies. Their companies are associated with Bechtel Power Corporation in the present ownership of UEA. Also present is the General Manager of UEA, Mr. A. J. O'Donnell, and our Washington Counsel, William F. Ragan of Ragan and Mason.

We are pleased to be here today and we hope that, with your permission, we will be able to add information of value to aid the Joint Committee in favorable consideration of the Nuclear Fuel Assurance Act (S. 2035 and H.R. 8401). However, I am sure you will recognize there are some constraints on us since we are in negotiation with ER DA on a Cooperative Working Agreement in anticipation of the passage of the Nuclear Fuel Assurance Act (NFAA).

We support the Nuclear Fuel Assurance Act and recommend it for acceptance by the Joint Committee. We also support the proposed amendments requiring the Cooperative Working Agreement to be placed before the Committee and, ultimately, before the Congress. We do not know the final form that such amendments may take but we believe the concept to be in the best interest of the United States.

In our submitted statement of March 23, we endeavored to express the reasons why we feel private industry now should be entrusted with and involved in the enrichment of uranium. There is little that we can add to these general statements nor do we think it would be to the advantage of the Joint Committee to have us attempt to dwell on the technicalities of the Bill. These technicalities have been well ventilated before this Committee by testimony from Government witnesses and from others. We do think it is of value to point out that the prime purpose of the NFAA is to provide interim support which will permit the construction financing of the proposed new enrichment plants.

Since 1972. UEA has been very actively involved in the development of a position for the first private enrichment facility in the United States. We have given successive testimony on this to the Joint Committee on Atomic Energy at Hearings since An active and intelligent group, October 1973. devoted to consideration of any subject for nearly four years, cannot help but develop considerable information and background. We believe we may safely say that we have given uranium enrichment an unusual amount of talent, dedication and creative thought. We have investigated the major points in considerable depth. From these efforts we have proposed a workable program which we are confident can be effectively executed under the authority of the Nuclear Fuel Assurance Act if Congress sees fit to pass the required legislation.

Your call to testify today has caused us to review and again think through the positions and situations which had to be covered in our proposal to ER DA. We believe a description of the major points which underlie our proposal, covered as briefly as we can, will be helpful to the Joint Committee. To conserve time, we will describe each point as it is now and try to limit backtracking of each development.

With your indulgence, we will offer some visual aids in order to give a better picture to the Joint Committee and to focus attention on key points. We will certainly try to answer any questions which are evoked by these visual aids as they are presented since we believe it is desirable to clarify each issue as it appears.

In reviewing uranium enrichment as an industry of possible interest to us, and as expressed in a workable proposal, we have gone through many considerations. The most important follow:

The position and attitude of the United States Government, as represented by both the Administration and Congress, is a fundamental and most serious point. Our review of this was extensive and has led us to these conclusions:

Within the Government there are strong feelings that the time has arrived to shift uranium enrichment to private industry. There are also many who feel the Government can do anything better.



Uranium enrichment operations represent a somewhat uncomfortable position for the Government whose procedures and controls are not designed to cover the role of owner-operator. Experience with the existing three large gaseous diffusion plants tends to confirm this. According to the testimony of OMB before this Joint Committee, these plants operate with a return to the Government equivalent at best to the cost of money.

The enrichment processes which have been developed for these plants are an asset from which returns can be secured to the benefit of the Government if the processes can be sold for use by others.

The Government has consistently made all other major aspects of the nuclear fuel cycle and nuclear power available to the private sector but has tended to withhold enrichment because the market for additional capacity was not sufficiently mature—and control of enriching was deemed to be a security against proliferation.

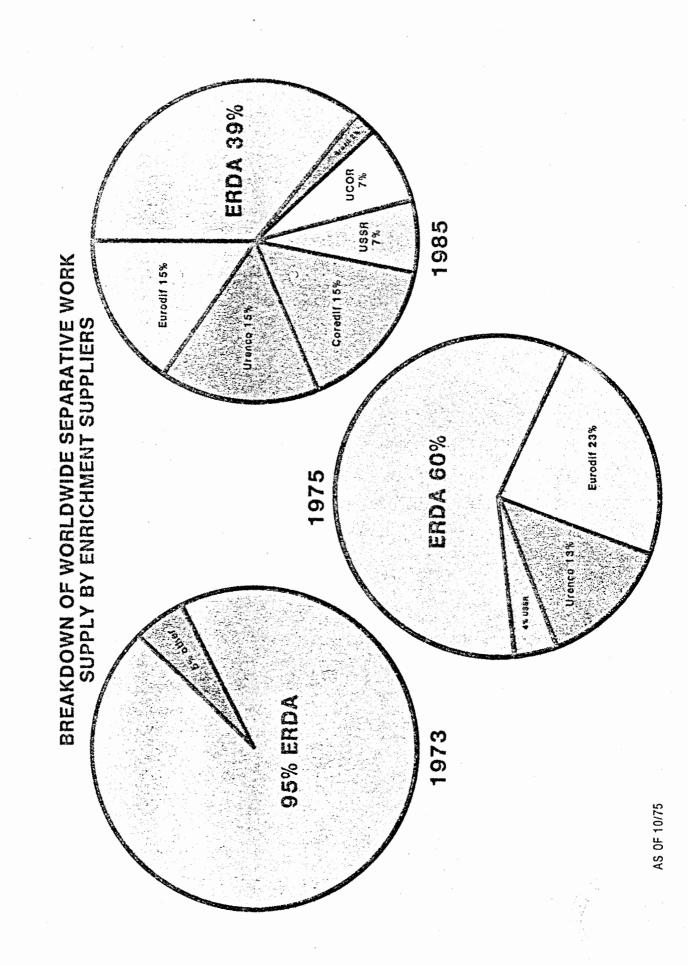
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Slide #1 ''Worldwide Separative Work Supply''

But uranium enrichment has ceased to be a monopoly of the United States Government and nuclear growth is compounding. Other processes not controlled by the United States are available. Investment in competing plants and processes is already under way and enrichment plants are under construction in Europe. This slide graphically illustrates the trend. It is evident that the United States must now exercise control by active market participation rather than sitting behind now useless fences.

The United States Government operates at a deficit and there would be serious budget effects if the United States Government were to continue to finance, construct and own enrichment plants. The growth curves indicate in future years about 6 million SWU's of capacity must come on line per year. Even at 1975 price levels this would equal a cash outlay of over \$3 billion per year for at least 15 to 20 years.

In contrast, transfer of new plants to private industry will create a large, new tax base from which the Government can benefit without risk or effort.



The record of the Government in transferring nuclear elements to private industry has been clear, and the Government's call soliciting the interest of private business in enrichment has been straightforward.

In considering all these factors, to us it seemed reasonable that the Government should wish to transfer enrichment to the private sector and there is sufficient benefit to the Government to conclude that this attitude should be consistently applied.

In the course of our investigation of Government positions, an important point emerged clearly. The United States Government has made firm promises that those who bought U.S.-designed and -developed light water nuclear power plants could always safely look to the United States as a reliable source of supply for uranium enrichment. These promises have strongly advanced the development of the successful U.S. light water reactor industry and have been relied upon by both our domestic utilities and overseas purchasers of reactors. Such statements have been a consistent part of the United States' foreign policy.

This point has weighed upon us, perhaps because we have seen at home, and particularly abroad, how much this commitment means and how closely the credibility of the United States is involved. We strongly feel that the existence of these promises cannot be overlooked by the private investor in enrichment. This is particularly true in the case of the next new plant or two because each will be a large fraction of total U.S. capability.

Customers for the plant would seem to be the next appropriate subject. Overseas nuclear power use now shows it will grow faster than our domestic requirements and that substantially all of this would be in light water reactors. Consequently, there will continue the natural gravitation towards U.S. supply of enrichment services. We believe the United States should target to supply between 50% to 75% of such foreign requirements. We have discussed the program with U.S. utilities and with foreign customers at length. We advised them that we were prepared to develop a position with respect to the first privately-owned enrichment plant in the United States. We proposed to finance this against the assurance of long-term contracts from our customers Many agreed this was not vastly different from long-term contracts often used by the utilities for natural gas supply and increasingly for fuel oil supply and for coal.

However, while our U.S. utilities supported the concept of transfer of enriching services to the private sector, they were uneasy because the project is large, there will be eight years or more between commitment and first delivery and there was an understandable lack of knowledge concerning the Government enrichment process. This led to concern over their position if, after the best efforts of everybody, the process failed to work and, as was said, the customers would be left with a "dead horse" on their hands. In addition, U.S. utilities face long standing and stringent restraints, both regulatory and financial, on guaranteeing the security of a third party.

We have determined that the U.S. utilities do desire to support the transfer of enriching services to the private sector. If the plant can be constructed and operation demonstrated, they are prepared to live with long-term take-or-pay contracts and they realize these contracts would be the ultimate security for the long-term debt. Conversely, they realize the contracts are also their assurance of long-term supply. We advised them the "dead horse" matter is essentially a guarantee of the Government process and we would seek short-term Government backup to bridge the transfer to the private sector.

We developed and described to the utilities a proposal whereby we would ask the Government to stand back of the process and knowhow it would sell to us. This obligation would end one year after the commercial operation of the plant Thereafter, for protection of the customers is demonstrated. during operation, we would institute a program of a cash reserve (akin to a sinking fund) which would be held in trust to satisfy emergencies in operations which were uninsurable or, if not used otherwise, to pay off debt. An extensive insurance program would be provided and include insurance against business interruptions as well as the normal hazards of fire and extended loss. The program in general principle is acceptable to the U.S. utilities and we are even now in detailed contract negotiations with individual utilities in anticipation of the passage of the Nuclear Fuel Assurance Act and approval of a Cooperative Agreement between ER DA and UEA.

Slide #2 "Insurance"

The chart shown on the screen gives, I think, a very good idea of the status of our present situation with regard to both U.S. and overseas customers.

Slide #3
"Enrichment
Services
Market"

March 1976

CEA INSURANCE COVERAGE PLAN.

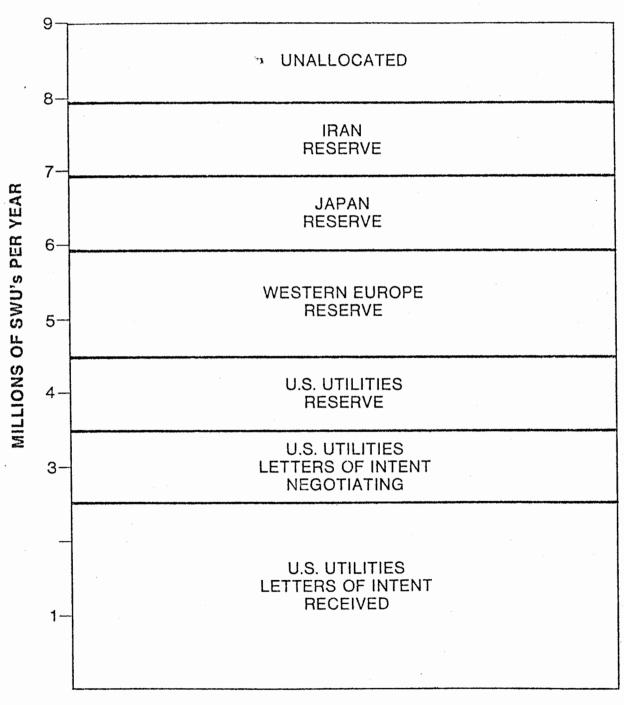
PROPERTY DAWAGE
BUSINESS INTERRUPTION

\$2,520,000,000 \$1,000,000,000

WORKMENS COMPENSATION
BLANKET PAPERS AND RECORDS
BLANKET OFFICE CONTENTS
COMMERCIAL BOND AND
DEPOSITORS FORGERY
COMPREHENSIVE LIABILITY
FIDUCIARY LIABILITY

COVERAGE APPROPRIATE TO OPERATION AND RISK

UEA ENRICHMENT SERVICES MARKET



We feel that satisfactory progress is being made and I think you will note that we already have in hand commitments which show solid interest in subscribing to the UEA project. We must frankly say that the major remaining obstacle we face is the means of assuring our prospective customers of the firm commitment of Washington to an enrichment project in the private sector. With the passage of the Nuclear Fuel Assurance Act and approval of the Cooperative Agreement between ER DA and UEA, and its acceptance by Congress, we are entirely confident that firm contracts for the enriching services will rapidly be negotiated.

Our surveys of the foreign scene continue to indicate that around 60% of the product from the first plant could be sold overseas. There was concern in the United States that this project would unduly drain U.S. capital resources. There was also concern on how we protected against the possibility that foreign customers might, within the period of construction or early operation, turn aside from their obligations leaving the U.S. customers, investors and bankers with a plant with insufficient sales to meet the debt obligations.

To solve this we have proposed to our foreign customers that each of them, through banking arrangements to be mutually established, supply firm commitments which would cover all of the capitalization required to support the individual portion of the plant capacity taken by each. We have found this is an acceptable proposal and constract including this provision are in the hands of our overseas customers.

Financing for the project is a matter we are certain will engage your interest. With our financial advisors, we have developed a great number of financial plans—seeking the best balance between financial cost,—equity interest—and the interest of our customers. Ultimately,—we have been able to describe to the financial houses a program which,—in summary covers:

First: Project capitalization will consist of equity risk capital plus construction financing from U.S. commercial banks and foreign sources and replaced by long-term debt as described in the two sections following.

Second: The U.S. portion of the debt would be provided by private sources in the U.S. and the basic financial security to U.S. lenders and equity investors will be assured cash flows from long-term take-or-pay contracts from U.S. customers.

Third: Non-U.S. customers would provide financing from non-U.S. sources in the same proportion as their purchases of SWU's are to UEA's total SWU production.

Fourth: SWU prices will be determined periodically to provide revenue sufficient to cover all current operating and power costs and to pay for the capital employed, including an appropriate return to the equity holders.

Fifth: A reserve fund for unforeseen circumstances or, ultimately, for debt service will be provided and a comprehensive insurance program will be provided.

The financial houses were uneasy about accepting a large venture in a market where the basic credit, that of the U.S. utilities, was impaired. They were also concerned over the fact that the U.S. Government process, on which our plant would be founded, has been shrouded in secrecy and not easily checked by normal banker practices. This was amplified in their minds because, as planned, UEA would be the first uranium enricher in the private sector and there was no pattern of historical precedent for reference.

After much discussion and analysis, we determined that a viable position for the bankers would result if the "dead horse" problem which was raised by the utilities could be resolved and thus the bankers would be assured that the plant would be completed and the process would work as expected. The value of the contracts, the asset value of the plant and the equity would thus all be available to secure the debt thereafter. On this basis they were prepared to accept on an entirely commercial plane the operating risks for the life of the debt.

The Investor Position has been brought into focus in the light of all these elements.

We agreed among ourselves that this first uranium enrichment plant would be a challenging opportunity and it should engage our interest and efforts in the light of our belief in the validity and practicality of private industry. We also agreed:

We wanted the program to be truly in the private sector.

We wanted to operate it as a private company.

To preserve the private business concept, we would ask for no Government subsidy nor guarantee of return nor for any special tax benefits and we would be prepared to pay our way as we went.

We determined that we would need to invest funds which otherwise might be used for investment or to support or expand our basic businesses. In protection of such businesses we would have to have an expressed limit on investment.

Active investor interest would require a return to the equity holders which:

is commensurate with investor commitment to the project,

takes into account the eight years of construction during which no cash return is earned,

is commensurate with the entrepreneurial risks involved in committing the time, talent, dedication, management and money required to successfully carry out the program,

is consistent with the future need for adequate return to support public investor interests if and as the project becomes sufficiently secure to allow stock to be offered to the public, and, finally,

is consistent with a future which we in the United States must now assume includes a continuing inflation rate higher than we have experienced in the past. In serious discussions among ourselves—we agreed that the price for the opportunity for private industry is—that our contributions to equity would be at risk,—the returns from the investment would not be guaranteed,—and,—in order to resolve the "dead horse" issue,—we would be called upon to pledge to the Government—our equity,—the return to equity investors, our interest in the developing asset—and our future returns from that asset.—We also realized that cash return from this venture would be earned only from the commercial contracts with the utilities—and our other customers.

The Proposal. Considering these major factors without burdening the Committee with discussions of their numerous nuances and the less important factors, the UEA proposal has been developed as follows.

 In consideration of the opportunity to enter into the enrichment business as offered by the Government:

UEA will provide the equity and the equity will be at risk for faults or failures of UEA.

UEA will provide the financing from non-Government sources.

UEA will provide the talent, knowhow, dedication and management required to successfully carry out so large a project.

UEA, by payment of a royalty, will purchase from the United States Government the rights to use the process.

UEA will enter into a contract with the Government whereby the transfer of process knowhow is accomplished and UEA will pay the Government for its costs as incurred in the transfer of the technology and its installation in the new plant.

UEA will purchase, at the cost set by ER DA in accordance with its prescribed methods, equipment and materials for the plant where such equipment and materials are supplied by the Government as a sole source of availability.

2. In consideration of the sale of its process and knowhow, the U.S. Government will:

Guarantee that its process will work as specified. Any corrective work required will be at UEA's expense.

Supply, at UEA's expense, technicians to effect the transfer of knowhow and to review and monitor the installation in order that the design and construction of the new plant will be of the quality and character necessary to assure the Government that its process guarantee is honored and the resulting plant is of good quality.

3. In consideration of the fact that the new plant will represent 25% of the then United States capacity for enrichment services and; in consideration of the United States' policy and commitment that the United States will be a continuing and reliable source of supply for enriching services:

UEA will be expected to agree to place its U.S. equity and its U.S. interest in the facilities at risk of transfer to the United States Government to be completed by the Government in the event that UEA is not able to carry out the program or complete the plant or, in the opinion of the United States Government, is unreasonably behind schedule and over budget.

4. In consideration of the fact that Government assurances are not intended to extend beyond its obligations to demonstrate that the process is practical and operable;

the obligations of the United States Government to respond to the call of UEA will end one year after demonstrated, full commercial operation of the plant,

there would be no Government guarantee of return to the investors, and

plant operation would be subject to the risks of the market place and the operations of its contracts.

That is the opportunity for UEA, for the convenience of its customers, to have access to the National enriched uranium stockpile. This is designed to permit this first private plant to commence operations with access to and from an inventory so the variable needs of its customers may be satisfied. Transactions may be exchanges in kind or cash. UEA proposes, and the utilities expect, that these transactions be on a cost basis, that is, UEA will not realize a profit on SWU's sold to the Government stockpile nor will there be a profit markup on SWU's received from the Government stockpile and delivered to UEA's customers.

Essentially, the proposal states that the financing will be supplied from the private sector and UEA will supply equity as called upon and will do all those things necessary to develop, construct and operate the plant. <u>UEA expects to succeed in this venture</u> and we believe our work to date has convinced the utilities, financial institutions and others with whom we have been associated that we will succeed and the U.S. Government will be called upon only to sell its knowhow and its equipment and supplies

However, the period between start of design and full completion of the plant is about eight years and many things could occur in that time. This long span worried the utilities and the bankers.

Therefore, if UEA is unsuccessful, it can call upon the Government for assistance but the price of that call is the probable loss of its equity position which means loss of money, the loss of the efforts put into the project up to that time, as well as the loss of opportunities for the future. Additionally, there will be loss of pride and reputation. So a cry for help will bear a high price tag. If UEA is incapable or negligent, the contract will provide machinery whereby the Administrator of ER DA can demand responsive action and, if it is denied, demand the right to have the ownership of the U.S. equity transferred to ERDA and UEA will lose all its equity and efforts.

We would like to give a view of what all this discussion of financing and capitalization means under the UEA proposal. The basic numbers in 1975 dollars are:

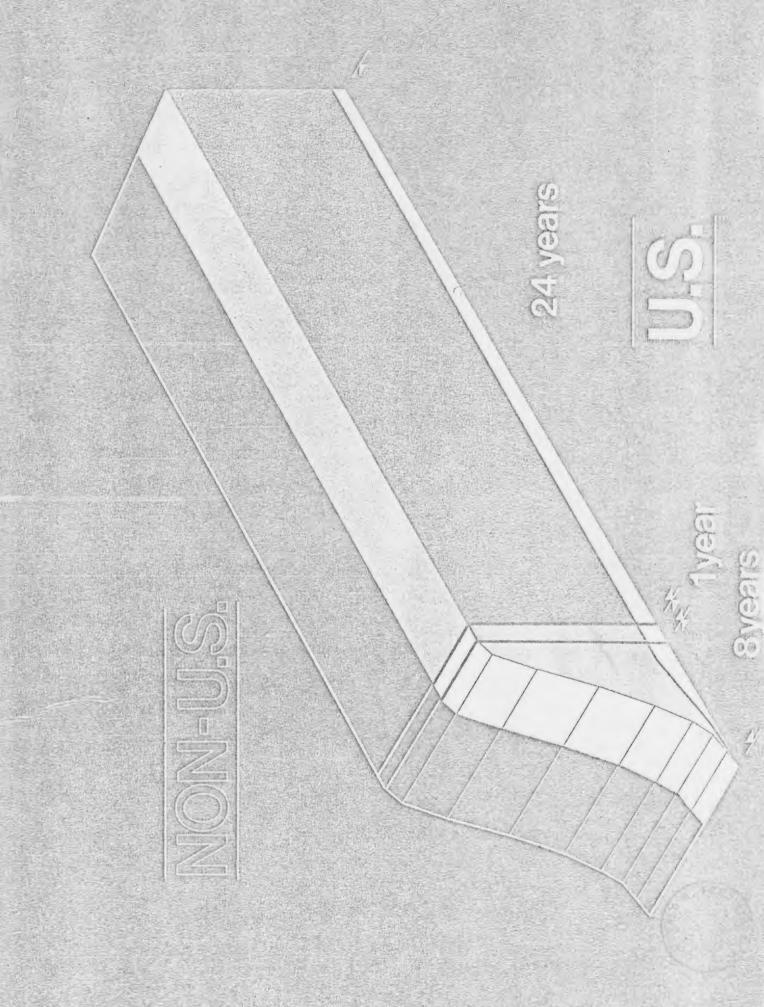
EQUITY \$ 495,000,000

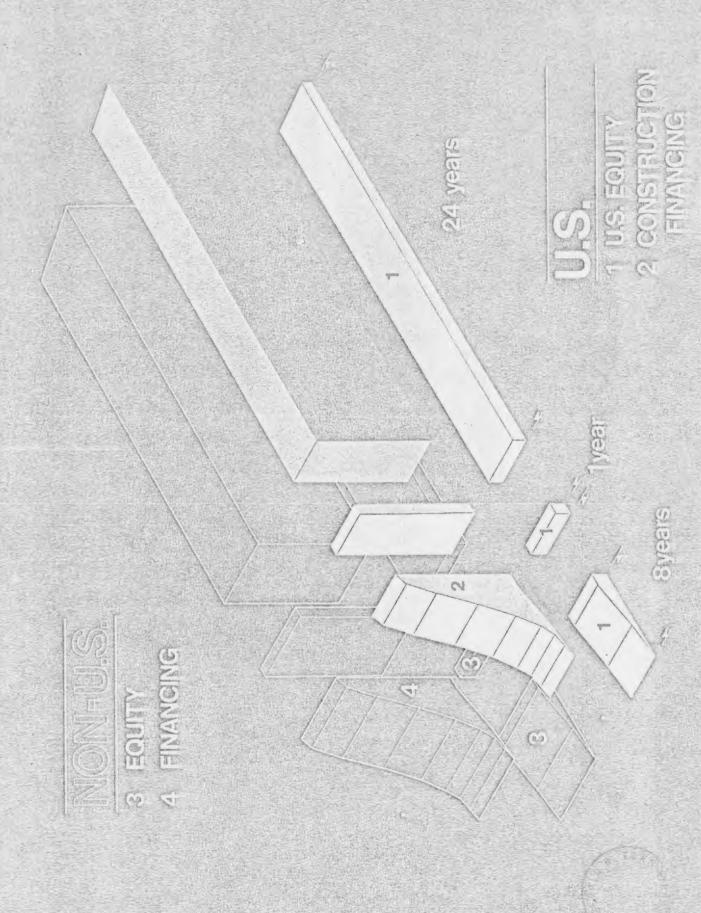
DEBT 2,805,000,000

Total Capitalization \$3,300,000,000

Slide #4 ''Financial Model'' This is intended to give a picture of the concept of the total project in terms of capitalization, time and fiscal responsibilities. The lower axis represents a period of eight years of construction, one year of full operation in which the Government assurances of the technology applies and, thereafter, 24 years of fully commercial operation under contracts with our customers with the capitalization made up of debt and equity from private sources. The vertical scale represents total capitalization of \$3.3 billion in 1975 dollars. The lateral scale represents the total project divided into 60% foreign and 40% United States.

Slide #5 ''Expanded Model'' Now let us look at an exploded view of this concept. We hope by this to bring into focus for you the relationship of the extent of the Government assurances with the total project in both size and duration. First, all of the background 60% of the project capitalization is from foreign sources and guaranteed only by the obligation of the project to deliver enriching services for a period of 25 years.





The foreground is the United States section of the project.

This upper wedge with the curved face represents the short-term borrowings which will be used to finance the construction. This will come from commercial banks.

This lower wedge represents the U.S. equity in the project.

This slice represents the one year during which the Government obligation to warrant its technology exists.

The balance represents 24 years of total capitalization entirely from the private sector without any Government involvement.

If the Government should be called upon whether through the failure of UEA, or the failure of the Government, or for other reasons, to complete the plant UEA would sacrifice its U.S. equity. That equity, as shown here, would be bought by the Government under the option provided in the contract provisions. The U.S. Government would become the controlling interest in a plant designed and built to its process and its standards with financing already arranged and with markets assured by long-term contracts. The maximum it can cost the Government is this wedge representing the U.S. equity.

Slide #6
"Artists
Concept"

Site and physical development - UEA has come a long way with regard to site considerations. We have increased the amount of land area which we have under option. We are pleased to show you this visualization of how the plant will look in its location at Dothan, Alabama.

Slide #7 " Project Accomplishment" We are also pleased to give you this abbreviated view of some of the accomplishments to date in order that you may see the advances made by UEA to date.

Environmental impact studies are well advanced and a considerable amount of data has been collected. Design contracts for compressors and converters are under way. We are prepared to move very strongly to button up all of these and other matters as soon as the ERDA/UEA contract is approved and in force.

Essentially, we are at the point where we have advanced as far as we can and the obstacles to our further prudent progress lie in Washington. The people of Dothan and the people of Alabama have proven to be interested in UEA and warm and friendly in their reception.



CURPARY PROJECT ACCOMPLISTMENTS

- 2400 ACRE SITE SOME SOIL TESTS
- © ENVIRONMENTAL REPORT COMPLETED PROGRAMS
- METEOROLOGICAL
- TERRESTRIAL BIOLOGY
- ARCHEOLOGY
- AERIAL SURVEY
- AWARDED THE DESIGN CONTRACT FOR THE COMPRESSORS
- AWARDED DESIGN OF CONVERTERS
- ESTABLISHED THE DESIGN PARAMETERS FOR THE PLANT
- COMPLETED CRITICAL PORTIONS OF PRELIMINARY ENGINEERING
- COMPLETED THE PRELIMINARY PROJECT BASELINE PLAN

We are grateful for this opportunity to publicly express our profound appreciation for their support, understanding and hospitality.

A key factor for the success of a gaseous Power diffusion plant is the availability of an adequate power source. The UEA power supply concept has advanced to a planned program with Alabama Power Company with the initial electrical supply to UEA from Alabama Power Company and interconnected grids of the Southern Company's system and with the first UEA dedicated units on line by mid-1983. Current work by UEA and Alabama Power Company on replication licensing with the Nuclear Regulatory Commission on studies of system reliability and alternate power sources and on development of the power contract will permit final decision on power configuration immediately. Contract negotiations between UEA and APCO are scheduled to begin in April, 1976 and to be conditional on execution of the ERDA/UEA Cooperative Agreement.

We intend that before the final power contract is signed, we will review the terms with ERDA. the appropriate regulatory agencies, and with our customers in order to assure them that an effective, responsible arrangement is contemplated. We have, in effect, carried this program as far forward as is possible at this time with The next step involved the full assurances of success. commitment to an expenditure of \$6 to \$10 million for detailed system studies evaluations and initial engineering. We are prepared to take this step as soon as the Nuclear Fuel Assurance Act is approved and a cooperative agreement between UEA and ERDA becomes effective. The power program is strong, developing, and further progress at this time depends on Washington.

Let us now try to answer some of the questions which seem to be frequently discussed.

What does Government assurance cost the Government?

If UEA succeeds, and we believe this is by far the it costs the Government nothing. most likely case. If it becomes necessary to transfer the ownership to the Government, the Government would own control of this new plant designed and built to its requirements at a maximum cash outlay in 1976 dollars of about \$200 million. This cash would be paid back from the contracts with the customers for enrichment services, which contracts would already be in effect and the Government would The sales merely succeed to the UEA position. contract provides that the price per separative work unit will reflect the actual capital cost to the project and the actual operating costs and, therefore, the Government would be repaid from operation of the plant by succeeding to the UEA investors' position.

Slide #8
Benefits to
Government

What does the transfer of uranium enrichment to the private sector mean in return to the Government as contrasted with a Government-owned and operated plant?

SINDHING OF SILENOW VID

- REDUCE FEDERAL BUDGET EXPENDITURES \$5 BILLION
- PROVIDE FEDERAL TAX REVENUES \$2.7 BILLION
- PROVIDE FEDERAL GOVERNMENT WITH ROYALTY PAYMENTS — \$400 MILLION 0
- PAY ERDA FOR BARRIER, SEALS AND TECHNICAL SERVICES - \$280 MILLION 0
- PAY STATE AND LOCAL TAXES \$460 MILLION
- ESTABLISH NEW COMPETITIVE INDUSTRY IN ENERGY ()
- IMPROVE BALANCE OF PAYMENTS

Expressed in 1976 dollars, the Government realized benefits as shown:

Federal budget expenditures will be \$5 billion less.

The Federal Government would receive taxes from UEA. (As a wry note, Federal income taxes will give the Government greater earnings than are realized by the investors.) Over the proposed 25-year contracts which support the UEA project, Federal taxes would total some \$2.7 billion.

The Government would receive, in royalties, some \$400 million.

The Federal Government would be paid as the plant is built for all of its services in connection with the plant in transferring technology and the like. It would also be paid as deliveries are made for Government sole-source supplied equipment and materials.

Therefore, the Government would receive, as revenue on a current basis, some \$280 million. In contrast, for a Government-owned plant, this would be a cash outlay by the Government and carried on the books until repaid as a part of receipts from the sale of separative work units.

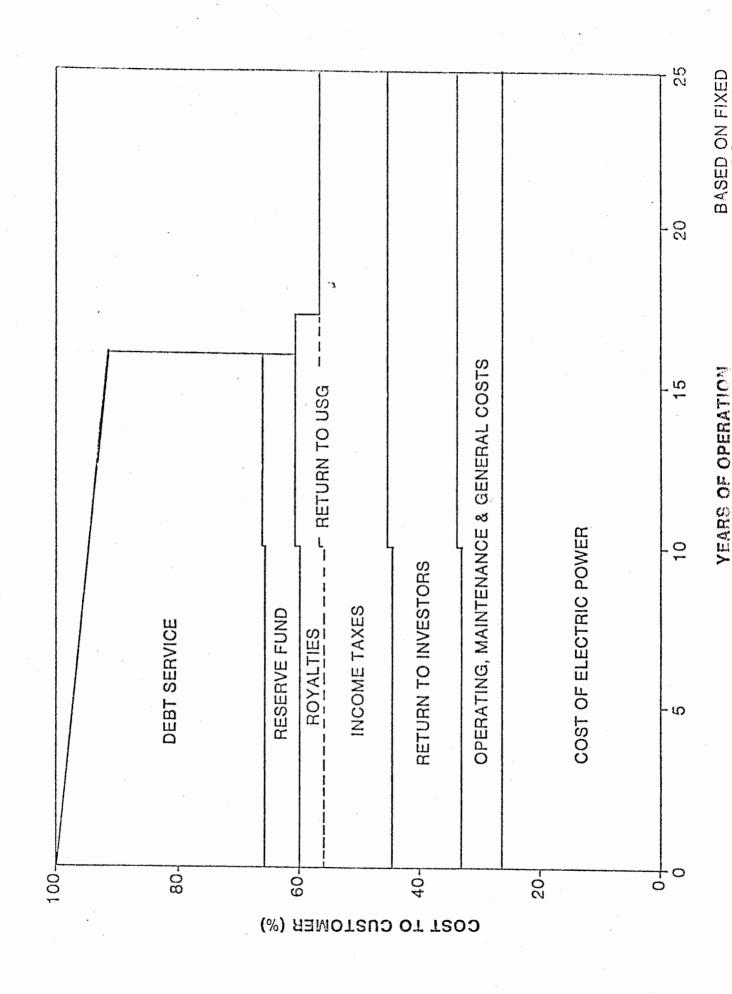
The Government would also receive in income taxes from dividends paid by UEA to its investors and future stockholders additional amounts which are not possible to now estimate, but could be in the order of \$250 to \$300 million.

State and local governments would receive from ad valorem taxes, sales taxes and other returns some \$460 million.

In addition, general benefits accrue to the Government from the establishment of a new competitive industry with high favorable balance of payments potential. How will the separative work units be priced to the Customer of UEA?

Consideration of all the elements of the relationship with the customers of UEA has led us to suggest a pricing policy based upon a modification of the cost of service concept. This cost pass-through concept takes care of the need of the new venture for early income to provide for debt payments, gives more stability in the pricing and allows the customers to receive the benefits of the decrease in costs as the debt is paid off. Perhaps the easiest way to visualize this is to examine the simplified schematic chart All of the cost which we now show on the screen. elements, for convenience, are expressed in constant You can see that in the early years of operation values. the charges per SWU to U.S. utilities will be the sum of the cost of power, operating costs, and annual return to the investors. taxes, royalties paid to the Government, allowance for reserve fund, and the payment of principal As the principal of the debt is paid off, the and interest. amount of annual payment reduces and the cost to the customer per SWU reduces.

Slide #9
"Pricing
Concept"



After 17 years, royalty payments cease and there is no further charge passed through to the customers. As the reserve fund accumulates, and to the extent it is not used to offset uninsured losses, it will grow to the point where its accumulated value will be equal to the remaining debt. At this point, this reserve fund will be used to pay the debt service and result in a reduction in cost of SWU's to the customers. As can be seen from this, UEA, which will start out at a pricing level which will be competitive with any new enriching facility which it is possible to build at this time, will gain with the years an increasing pricing advantage for its customers.

What will the risks be for the investors?

The position of an investor in UEA may be viewed in the terms of the reactions of the present equity investors in UEA and of other investors who have been invited to join in UEA.

These reveal that the value of UEA as an investment cannot be considered solely in the light of a future return of 15%.

Cash return to the investor commences only some seven to eight years after commitment of his funds to the project. This, alone, when used in the computations currently applied by sophisticated investors who evaluate opportunities shows that there are many alternative investments which give a better profitability. Investing corporations favor investments which give early cash return. "Getting your money out early" is a long-term tried and true criteria of a good investment.

Under the program which UEA has suggested, the return to the equity holders is actually a fixed amount per year. This has been suggested because it seemed to the benefit of our customers to offer them a more stable price for enriching services. However, it is not possible in today's world to think of a long-range commitment without also facing the fact that the U.S. is seemingly committed to a long-term inflationary rate considerably greater than our historical precedents. If, for example, we are exposed to inflation in the range of 5% per year, the value of the fixed annual earnings by UEA will have depreciated 50% in 16 years. Receiving a fifty-cent piece in lieu of a dollar is not an exciting prospect.

Consideration must also be given to the fact that UEA is a single plant operation—and the return to the investor must be adequate to cover the cost of the use of the money, investors' incentive,—a position competitive with alternate investments,—compensation for risks incurred,—and allowance for the effect of the eight year early commitment when no cash return is received.

In the face of a rising market, UEA has endeavored to maintain the concept of 15% return and not be forced to increase this return. Discussions with our utility customers who will pay the return to the UEA investors reveal no strong disagreement and we anticipate that these negotiations will be concluded on a mutually satisfactory basis. We wish to reiterate to the Joint Committee that UEA seeks no Government guarantee of return to the equity investor.

How will UEA operate a jointly-owned U.S. and non-U.S. company and remain within the U.S. restrictions with regard to classified information?

UEA will operate in almost exactly the same manner in which the present Government-owned gaseous diffusion plants operate. These plants are operated by private industry under contract from the Government. Employees who have access to classified information must be carefully screened and operate under the provisions of the law and must possess clearances issued by the Government. The pattern of security control of confidential information is already well established and UEA expects to adopt these procedures essentially in total.

Slide #10 "Limited Partnership" The organization of UEA is patterned to compartmentalize the access to and use of classified information. This slide shows a general view of the organization as we have it now structured. Two corporations have been formed who will serve as the General Partners in the organization. The Board of Directors of each will be drawn from the Limited Partners who are providing the investment capital for the operation.

March 1976

CRANUM ENFICENT ASSOCIATION

GENERAL PARTNERS

U. E. SERVICES CORPORATION (owned by U.S. and non-U.S. Investors)

U. E. TECHNOLOGY, INC. (Technical & Security)

(owned by U.S. investors only)

LIMITED PARTNERS

U. S. LTD. PARTNERS

Bechtel Southern Corporation Goodyear Nuclear Investment Company Williams Nuclear Corporation

(2 to 4 additional pariners)

NON-U.S. LTD. PARTNERS

(from purchasers of SWU Services for up to 60% of plant production) Slide #11
"UETI"

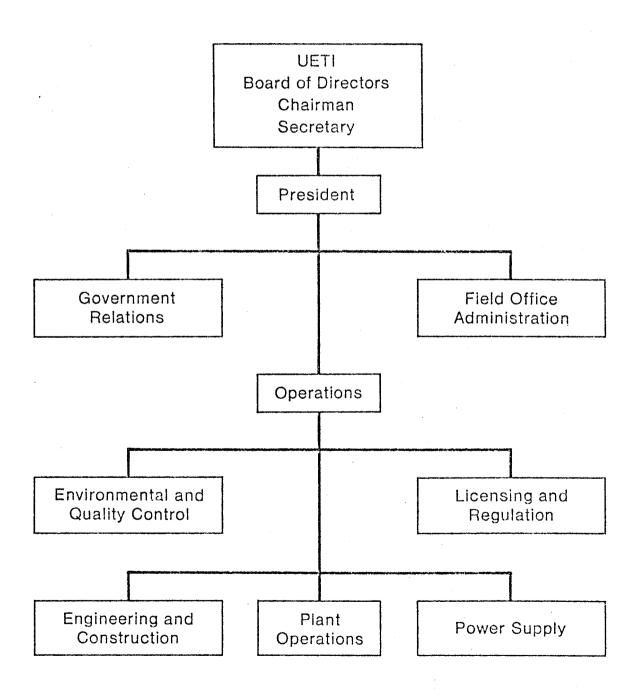
One corporation as shown, that is, Uranium Enrichment Technology Inc. (UETI), will be owned solely by the United States investors. As you can see, its function is to handle all of those matters involving technical information or classified information and the security of such information. No foreign participants will be a part of UETI unless the United States' law changes.

Slide #12
"UESCO"

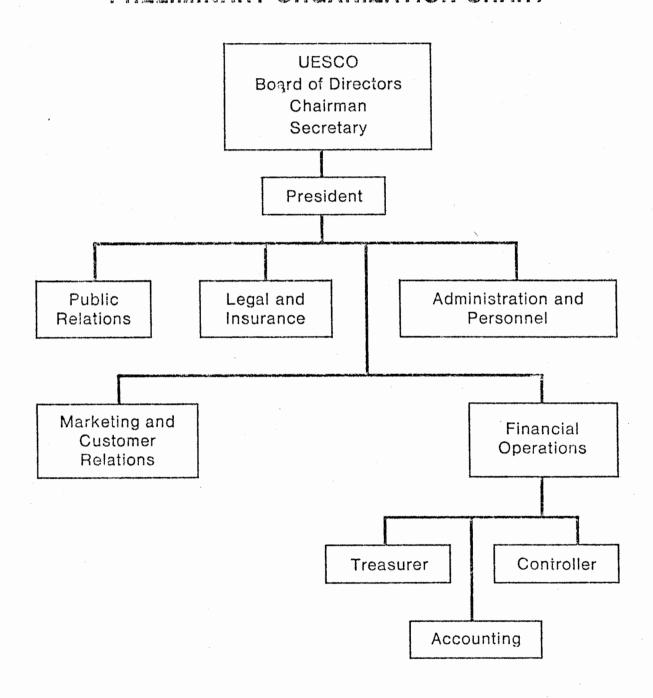
This slide shows the composition of the other corporation,
Uranium Enrichment Services Corporation (UESCO),
which will be owned jointly by the United States and
non-United States investors. Its function is to handle,
as is shown, all of the commercial aspects of the UEA
program. It will do all those things which are normal
to business operations, such as, financing, handling
of funds, maintenance of general accounts, non-classified
procurement and contracts, legal work, personnel
matters, etc.

As between the two General Partners, the U.S. interests will have 55% of the voting rights in UEA.

UETI ORGANIZATION PRELIMINARY ORGANIZATION CHART



UESCO ORGANIZATION PRELIMINARY ORGANIZATION CHART



Later on, perhaps six years or more from now, we feel that the plant will have advanced sufficiently so it will represent a very real "bricks and mortar" asset and the period of long waiting for return for an investor will be ending. At that point, we believe it will be prudent to consider the advantages of changing our organization into a corporation with stock offered to the general public. Security provisions would continue unchanged.

Why would it not be better to defer the decision to go to the private sector until another time?

We believe we are at a time when the conditions are right to effect the transfer to the private sector.

Increasing the size of the Government ownership of enrichment facilities will not make future decisions easier. Several years have already been spent in considering, developing and working over the question of transfer. It is unlikely any future situation would be more productive of information than what is available today.

As expressed in the testimony of Dr. Seamans to the Joint Committee there is not substantial cost difference between the investment in a Government-owned diffusion plant and a private sector plant.

Dr. Seamans also testified there is no assured power supply for a Government facility and the probability is that the power costs from coal-fired plants will be much higher than from nuclear power sources.

The SWU price will track this expense. It would seem that the practical answer at this time is to put the situation to test and create the opportunity for private business to demonstrate its capability.

Is the gaseous diffusion process obsolete?

We don't think so. Only three plants using this process have been built and while they have been operated for a total of some 75 years, all of the operation has been under one control and there have been no competitive spurs except from in-house exposure.

Over the past two years or so UEA has been working with the ERDA technical staff in order to test the UEA approach to design concepts against the knowledge and experience of ERDA and its contractors who provide technical support. A good, compatible and cooperative work relationship has evolved with professional respect on both sides.

Slide #13
"Technical
Innovations"

It is noteworthy however that this relationship has already produced some twenty or thirty improvements to the gaseous diffusion plant, ranging from minor variations to several major concepts which will have a significant effect on the output, efficiency or cost of the next new plant. We do not claim unusual merit for UEA. It is simply that a different and fresh point of view will frequently encourage innovation.

It is our conclusion that gaseous diffusion remains a good, reliable process which has not yet reached the limit of its growth potential. We are confident it will survive any competition we see on the scene.

The gaseous diffusion technology is not dead but, rather is a mainstay of uranium enrichment.

Gaseous diffusion is competitive, if for no other reason, because it is here -- and can deliver.

We concluded that our business could compete with any known alternative.

ON THOUSE TO SOLVE AND

- DOUBLE-CELL WIDE BUILDING 2 EQUIPMENT SIZES
- ONE GAS COOLER PER FREON CONDENSER
- IMPROVED THE ERDA/UCCND CASCADE DESIGN CODE
- © NEW BYPASS VALVING 50% REDUCTION IN LARGE VALVES
- IMPROVED START-UP STRATEGY TO MAXIMIZE EARLY REVENUE
- SIMPLE ENRICHER-STRIPPER CELL SWITCHING
- IMPROVED NICKEL PIPING JOINT AUTOMATIC WELDING
- INNOVATIONS IN HEAT REMOVAL SYSTEM
- PREFABRICATED PIPE MODULES
- © EARLY INCORPORATION OF CONSTRUCTION REQUIREMENTS IN DESIGN

After the first plant is assured, others will certainly follow but under the UEA pricing plan we can meet any competition we can reasonably foresee.

We also are satisfied we will match or beat foreign competition unless it is politically subsidized.

In conclusion -

Obviously, our words to the Joint Committee must be weighed in the light of our self-interest. However, we are responsible businessmen, each of us representing a proud organization with an outstanding record of success and each of us feeling a responsibility as a citizen of the United States. We have done all we can to forthrightly develop a program for the entry of private industry into uranium enrichment in response to our Government's invitation. We have spent a great deal of our own money to develop our proposal which we believe calls upon the Government to the very minimum amount and the most limited time that is necessary.

We have not asked for a guaranteed return, but we expect a job well done will be adequately compensated.

We sincerely believe we have arrived at a time when action must be taken on uranium enrichment. Without doubt, uranium enrichment is going to be a large business in the United States. It will be the direct source of many jobs and these jobs will be completely new additions to our economy. The product is ideal for support of a favorable U.S. balance of trade since uranium enrichment does not consume materials from our natural reserves but merely adds value to the raw materials furnished by our overseas customers. The added value comes entirely from investment of American labor, technology and capital.

We believe the United States must always be a major factor in the world supply of enriching services and that an aggressive U. S. posture in nuclear energy and nuclear fuels is an essential to the continued strength and prosperity of our country.

with that as an introduction and perhaps as an excuse for our temerity, we would like — from our experience in uranium enrichment — to offer the suggestion that the Nuclear Fuel Assurance Act should be passed. Action is needed in the areas of nuclear fuels and this Act when passed will provide for early and effective entry of private enterprise into the uranium enrichment industry.

We sincerely believe that we, in UEA, can successfully carry out a private venture project for uranium enrichment and we are ready to proceed as soon as released by means of a Congress-approved Cooperative Agreement between ERDA and UEA.

With some pride, we believe that UEA is

the furthest advanced,
can be on line soonest,
offers overall the lowest SWU price
to its customers,

involves the least drain on the U.S. financial community,

is the only one requiring foreign customers to supply financing equal to their contracts for production from the plant,

requires the least Government support,

is in the Government's interest,

is consistent with the U.S. Government's policy and tradition, and

is consistent with private industry ideals.

It seems to us the hard-headed view of the matter is:

The Government has a better deal where it has no cash investment in a venture but shares in over 50% of the return by way of taxes, royalties, etc. while the risk and effort are carried by others than where the Government has 100% sole ownership accompanied by 100% of the risk and effort. Particularly, this seems so when the Government will make less by being the sole owner.

It is hard for us to see it any other way.

Gentlemen, this concludes our prepared testimony.

GGVERNOR JAMES A. RHODES

office of

MISS EMMA SCHOLZ, Adm. Ass't.

CC: Chillede McCinahey

Dear Jim:

The Governor asked me to send this to you.

He wants to keep all he can in OHIO.

Best wishes,

Emma

Waverly Plant like Power C

LXD3NSION OF

years of nonprofit uranium enrichment by a government monopoly, the Ford administration is promoting a private enrichment venture requiring so much federal support that nuclear fuel costs would rise some 34 percent WASHINGTON (AP) - After 30 - \$700 million a year.

Electricity consumers would pay

ADMINISTRATION officials say a tive, a new government plant at Waverly, Ohio, and would "pave the Ala, would avoid some \$2.8 billion of way" for private enterprise and comprivate plant, planned for Dothan. taxpayer investment for the alternapetition.

operation; and that the project alone have to invest up to \$1 billion to launch ties would pay 34 percent more for atomic fuel to support the private would bring neither private enterprise government official conceded that the taxpayers would the private project; that electric utilinor competition into uranium enrich-But a key

The investigation also shows that a plant, and yet at the same time charge new government plant could bring the U.S. Treasury more money than the taxes and royalties from a private consumers less.

Development Administration (ERDA) ment plants at Oak Ridge, Tenn., THE U.S. ENERGY Research and is expanding the three existing govern-Paducah, Ky., and Waverly.

ment whether it should be a Waverly-There is general agreement that a "add-on," or the private plant pro-Bechtel Corp., Goodyear Tire and Rubber Co. and The Williams Compafourth plant is needed, but disagreeposed by the Uranium Enrichment Associates (UEA) a partnership of nies, an oil-fertilizers-and-steel conglomerate.

ERDA, which concluded a year ago that the UEA proposal "does not achieve most goals of private enrichment" now is pushing it. THE UEA PLANT WOULD use time-tested government technology and produce the same amount of uranium enrichment as a government "add-on," at roughly the same production cost, says ERDA.

But there the resemblance stops.

ERDA OFFICIALS ADMIT the UEA

- Require government guarantees that the plant would work. project would:
- Require the government to buy and stockpile a large chunk of UEA's early production to keep the plant operating at full capacity.
- Charge higher prices and require the gov rnment to raise its own prices to persuade cusomers to deal with

- equity investment, providing little after-tax profits of 15 percent on Collect production costs plus incentive to restrain costs in a project whose chief contractors would be UEA partners Bechtel and Goodyear.
 - Drain 60 percent of UEA's profits Require close government superand interest payments out of the U.S. vision of UEA cost-control to protect both the taxpayer and the consumer.
 - Expose the government to the ing, half-finished project if UEA can't economy to anticipated foreign invesrisk of having to take over a floundertors and lenders. complete it.

"Nuclear Fuel Assurance Act," to administration bill, the proposed ERDA STRONGLY supported make all this possible.

The congressional Joint Committee hearings on it and received a report by government construction of the next on Atomic Energy recently completed the General Accounting Office urging uranium enrichment plant.

"The proposal of Uranium Enrichment Associates," said the GAO, "is not acceptable."

James T. Lynn a year ago. After EKDA agement and Budget, the Federal Energy Administration, UEA and the ERDA ADMINISTRATOR Robert C. Seamans Jr., expressed the same view officials met with the Office of Man-White House, however, Seamans to President Ford and Budget Director changed his mind.

Two of former President Richard M. Nixon's budget directors, George P. Shultz and Caspar W. Weinberger, an now directors of Bechtel Corp., a large owned only by the Bechtel family and construction firm whose stock the corporate officers.

These Bechtel stockholders stand to reap some \$26 million a year in profits from the UEA project if no additional UEA plans to award Bechtel the contract, worth an estimated \$250 U.S. partners are brought into the deal, and perhaps even more since million, to build the plant.

Portsmouth plant under contract, also ANOTHER UEA PARTNER Goodyear, which operates the government's is slated to operate the proposed UEA plant.

bidding that would select contractors Thus, Bechtel and Goodyear would assure the aselves of lucrative construction and operating contracts for the plant, without the competitive for a government plant.

Sen. John O. Pastore, D-R.I., chairman of the joint committtee, said during its hearings that the proposal seemed to guarantee UEA a profit and might amount to "another big giveaway program." FORD ADMINISTRATION witnessthe UEA project and said it would save taxpayers some \$2.8 billion, the cost of tor Frank G. Zarb, Economic Adviser Paul W. MacAvoy, and Asst. Atty. Gen. Thomas S. Kauper — argued in favor of es - Seamans, Lynn, FEA Administraa new government plant. But Jarvis L. Schwennesen, ERDA's



assistant director for uranium enrichment and head of a government task force on the UEA proposal, admitted in a recent interview that the "saving" may be a billion dollars le.

Schwennesen than advertised.

In the enrichment program, the government does not sell uranium to atomic power utilities; they have to bring their own. The government

charges them for making their uranium suitable for atomic fuel by "enriching" it: concentrating one kind of uranium, U-235, and separating out its

near-twin, U-238.

UEA'S PROPOSAL REQUESTS "a commitment that USG (the U.S. government) will purchase from UEA enriching service up to six million SWUs (enrichment units)," to help the private plant get started.

Schwennesen said the U.S. Treasury would have to lay out up to \$1 billion for these support purchases and stockpile this enriched uranium up to

10 years.

Interest lost by the Treasury on that

outlay could total \$358 million or more, which ERDA would have to charge its own customers, he said.

MEANWHILE, URANIUM enrichment could not remain nonprofit as it is now.

Administration documents estimate that UEA would pay some \$70 million a year in taxes and royalties and collect another \$79 million as its 15 percent profit, thus charging customers some \$149 million more than an alternative nonprofit government

To do this, UEA estimates, it would charge \$85 per enrichment unit, compared with the government's average price of \$54 at its three existing, lower-

cost plants.

Because the government plants now are fully committed and could not take on potential UEA customers, there would be no competition between them, said Schwennesen. As UEA chairman Jerome W. Komes testified, "You are sold out, and we are the only store open in town."

BUT CONTINUATION OF the government's low, nonprofit rices, Schwennesen said, would make atomic utilities balk at paying UEA's higher price. So ERDA has asked Congress to abandon nonprofit operation and to authorize "commercial" pricing which, the bill specifies, "will not discourage" private enrichment plants.

ERDA proposed a \$76 support price which would cost the government's enrichment customers and, eventually, their electricity consumers an additional \$510 million a year.

If necessary, ERDA would raise its

support procession higher to drive tow customers to UEA, the GAO reported And UEA may raise its own profit margin, dragging government supportprices to still higher plateaus.

KOMES TESTIFIED, "WE are going to have difficulty with .. our investors . in keeping as low as that 15 percent" rate of return.

Adding up UEA's taxes and profits, government support prices, and the cost of investing \$1 billion to buy and stockpile UEA's early production, electric utilities and their consumers would pay some \$700 million a year more under the UEA proposal than under continued all-government, nonprofit uranium enrichment.

Furthermore, Schwennesen admitted, the UEA project would open a new "dollar drain," siphoning some \$126 million a year to foreign interests providing 60 percent of UEA's financ-

U.S. COMPTROLLER General Elmer B. Staats testified that UEA's cost. plus-profit pricing fails to provide 'incentives to reduce cost."

In effect, UEA would be assigned to cut the costs claimed by two of its own major partners - Bechtel as builder and Goodyear as plant operator.

"We (ERDA) are going to have to watch very, very carefully what goes on in the project," to control costs, said Schwennesen.

"WE WILL, I HATE TO use the term, exercise a veto power -- because that seems too harsh a term at this point - but if necessary, why, we wall step in and stop the project," Schwennesen added.

With so much government support and supervision, he was asked, how could the UEA project be considered 'private enterprise?'

"It isn't," Schwennesen answered. "There is a great deal of misunderstanding that somehow what we are proposing is a private industry in the classical sense, and it itsn't, or course.'

INSTEAD, HE SAID, IT was meant as a government-industry transition to real private enterprise in later enrichment plants, which would probably use a newer, cheaper process.

Compared with the massive problems of helping UEA make a go of it. Schwennesen admitted that "if you went the government route it would be much simpler. No question at all.'

But that, he added, "would interrupt the momentum" toward the distant, theoretical benefits of a competitive private uranium enrichment industry.

THE WHITE HOUSE

April 30, 1976

MEMORANDUM FOR:

JIM CANNON
JIM CONNOR
BILL KENDALL
CHARLIE LEPPERT
JIM MITCHELL

FROM:

SUBJECT:

GLENN SCHLEEDE

TALKING PAPER /

UDANIUM ENRICHMENT

Attached is the revised talking paper requested by Charlie and Bill during last Tuesday's meeting. I sent the earlier version of it to Bob Fri and he indicated that he saw no problems with it. I understand that Jim Lynn, Jim Mitchell or OMB staff have discussed with Bob Seamans and others at ERDA the following:

- The FY 1976 and TQ supplemental. The Appropriations Committees were adamant against reprogramming without a supplemental request. ERDA and OMB are preparing a supplemental that requests the reprogramming for the President's signature. Total is \$13 million and all is for A-E work except the cost of a temporary building at Oak Ridge to house people working on uranium enrichment (costing about \$1 million). Some additional staff for ERDA are involved (about 25), and OMB is making clear that these people are for work ERDA must do in connection with private ventures and for work on the contingency plan.
- The amounts for FY 1977 for work on the contingency plan. The current ERDA-OMB best estimates are \$170 million in BA and \$70 million in outlays.
- ERDA-UEA agreement to avoid competition for resources and unnecessary duplication of effort. (Point 5 in attachment.) Among other reasons, this is needed to prevent work on the contingency plan from interfering with the mainline effort of allowing the private ventures a clear chance to succeed. I understand that ERDA has assured OMB that this step will be taken.

Attachment

ELEMENTS OF A COMPROMISE ON URANIUM ENRICHMENT

- 1. Sections 1, 2 and 3 of the NFAA as submitted by the President and then modified as desired by the JCAE to provide that individual contracts shall be subject to a period of 60 days review by each house of Congress and a concurrent resolution of approval or disapproval.
- 2. Section 4 which authorized design and construction planning could be modified to authorize \$170 million for FY 1977 to continue work on a contingency ("hedge") plan which contemplates a Government-owned add-on enrichment facility. This plan would be followed at least until it was clear that a stand-alone diffusion plant could be built. It might also be continued beyond that time if it appeared that additional diffusion plant capacity were necessary before centrifuge technology was available and no private firm proposed to build the additional diffusion capacity.
- 3. The President would send up a supplemental request calling for reprogramming of \$6 million in FY 1976 and \$7 million in the Transition Quarter to continue architect-engineering work for the contingency add-on plan.
- 4. If the authorization for the contingency plan (2 above) is provided in the NFAA, the Administration would send up a supplemental request for FY 1977 funding for the add-on plant. The latest estimate is \$170 million in BA and \$70 in outlays. A Presidential request would remove from the JCAE and the Appropriations Subcommittee the onus of increasing the President's budget request by \$170 million.
- 5. ERDA and UEA would reach an immediate agreement to work together to assure that planning, additional procurement and other activities undertaken over the next year or so would have as many common elements as possible and not involve competition for resources or unnecessary duplication of effort. For example, there should be no need to place duplicate orders for construction equipment and nickel powder which could be used in either a stand alone plant or an add-on plant. No exchange of funds need be involved.

