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GDP TURNOVER CONTINGENCY PLANNING POWER CONTRACT TERMINATION PROVISIONS AND CONSEQUENCES

JULY 1995

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Prepared for the
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by
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ACRONYMS

D&D	Decontamination and Decommissioning
DOE	Department of Energy
EEI	Electric Energy, Inc.
MOA	Memorandum of Agreement
Mw	megawatt
Mw-h(s)	megawatt hour(s)
O&M	Operations and Maintenance
OVEC	Ohio Valley Electric Corporation
PGDP	Paducah Gaseous Diffusion Plant
PORTS	Portsmouth Gaseous Diffusion Plant
TVA	Tennessee Valley Authority
USEC	United States Enrichment Corporation

1. INTRODUCTION

The Department of Energy (DOE) currently holds power contracts with Electric Energy, Inc., (EEI) for the supply of power to the Paducah Gaseous Diffusion Plant (PGDP) and with Ohio Valley Electric Corporation (OVEC) for the supply of power to the Portsmouth Gaseous Diffusion Plant (PORTS). Power is procured under these contracts for the United States Enrichment Corporation (USEC), which leases uranium enrichment facilities at PGDP and PORTS from DOE. USEC reimburses DOE for the cost of the power. However, because DOE holds the contracts, DOE is contractually liable under the provisions of the contracts. The relationship between DOE and USEC concerning power, including USEC's obligations to reimburse DOE for power related expenses, is described in the DOE/USEC Lease Agreement,[1] specifically Exhibit E, "Memorandum of Agreement between United States Department of Energy and United States Enrichment Corporation for Electric Power."[2]

This report enumerates the termination provisions of each power contract, including the rights, obligations, and options available. Because of past purchases of power, DOE has obligations for a number of expenses (such as power plant Decontamination and Decommissioning [D&D]) that will come due when one of the power contracts is terminated. This report also describes the power contract termination obligations between USEC and DOE outlined in the Memorandum of Agreement (MOA).[2]

Many of the termination provisions allow DOE to request that the power suppliers attempt to minimize termination costs by disposing of assets on the open market It is not possible to predict with certainty the extent to which these efforts will be successful. In addition, the value of many assets will change with time. In these cases, this report offers informed opinion as to the possible success these efforts will meet.

Finally, estimates for expected costs of termination provisions are given. Exact values will not be known until actual expenses are incurred.

2. BACKGROUND

The enabling legislation forming USEC foresaw the possibility that it might not be possible to transfer the power contracts from DOE to USEC. It provided for this by allowing DOE to hold the power contracts and supply power to USEC. When USEC assumed operation of the gaseous diffusion plants, the Secretary of Energy issued the determination that it was not possible to transfer

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[1] *Lease Agreement Between the United States Department of Energy and United States Enrichment Corporation,* July 1, 1993.

[2] *Memorandum of Agreement Between the United States Department of Energy and United States Enrichment Corporation,* dated as of July 1, 1993.

the EEI or OVEC power contracts from DOE to USEC. Consequently DOE continues to contract for power to supply PORTS and PGDP. Power is obtained from essentially dedicated utilities that were formed in the early 1950s for the express purpose of providing power to the Atomic Energy Commission for uranium enrichment.

OVEC supplies PORTS from its two generating facilities, Clifty Creek and Kyger Creek. EEI supplies PGDP from its Joppa plant and also provides nonfirm power that EEI obtains from the bulk power market. Both OVEC and EEI were formed by a collection of utility sponsors. OVEC has 15 sponsors, and EEI has 4 sponsors.

Because of the large quantities of power needed, the fact that major facilities had to be financed and built, and the federal government's desire to have private enterprise perform this function, the Atomic Energy Act granted special powers to the Atomic Energy Commission. No private enterprise would undertake the expense of building power plants without payment in advance or the assurance of long-term contracts. The Atomic Energy Act included provisions to address this concern by allowing obligation of non-appropriated funds for as long as 25 years for procurement of power. The current power contracts, the financing of OVEC and EEI, and the current favorable power rates rely on this special authority.

The authority granted under the Atomic Energy Act did not transfer to the USEC. Consequently, the power suppliers were not willing to have the power contracts transfer to an entity that does not have this backing. In many ways, this is basically a banking problem. This authority was intended, and is used, as a vehicle to secure favorable financing for the construction of and improvements to these power-generating facilities, using the United States Government as collateral.

3. DISCUSSION

3.1 CONTRACT AMOUNT, DURATION, AND FINANCING

3.1.1 OVEC CONTRACT

The OVEC contract for PORTS is a cost-sharing contract. The most recent extension became effective October 15, 1992, and extends through December 31, 2005. Contract demand varies from year to year as the demonstrated capability of the generating plants varies but is about 1950 megawatts (Mw).

OVEC financing and bond ratings (both for routine operation and for the acid rain compliance capital modifications) rely heavily on the Atomic Energy Act. Provision was made specifically to allow obligation of non-appropriated funds for as much as 25 years in the future when contracting for power. This is especially important for financing the cost of additional facilities, spare parts, and replacements. DOE must pay for these items as soon as the costs are incurred. However, the contract obligates OVEC to use its best efforts to obtain financing for these expenses if so requested by DOE. It is this special authority granted by the Atomic Energy Act that is the backing for the

financing, not OVEC or the value of the facilities. This special authority results in favorable financing costs. To facilitate compliance with the Clean Air Act, $259 million in capital modifications to the two OVEC plants are planned between now and the year 2000. To date, DOE (at the request of USEC) has made commitments for about $80 million of this total. In a sense, this is a USEC obligation for which DOE has co-signed.

3.1.2 EEI CONTRACT

The EEI contract for PGDP is a cost-sharing contract. The most recent extension became effective December 1, 1987, and extends through December 31, 2005. The contract grants DOE a 60% share of the output of the Joppa plant, or about 540 Mw-years/year.

EEI schedules the weekly output of Joppa power to DOE such that DOE's annual share of the Joppa plant is satisfied. EEI has also agreed to obtain power from the bulk power market for usage at PGDP.

In addition to the power supplied by EEI from its Joppa plant, other sources of power are available through EEI. These other sources include the four sponsors of EEI (Union Electric, Illinois Power, Central Illinois Public Service, and Kentucky Utilities); Tennessee Valley Authority (TVA)[3] to the south; and a large number of utilities primarily north and west of Paducah. USEC obtains much of the nonfirm power used at PGDP from these other sources.

EEI financing and bond ratings also rely on the Atomic Energy Act but not as heavily as do OVEC's financing and bond ratings, because the EEI sponsors use and pay for a significant portion of the Joppa output. Capital modifications to facilitate compliance with the Clean Air Act have been completed and cost about $70 million. These modifications were financed with the backing of DOE as well as the contractual arrangements with the sponsoring companies.

3.1.3 TVA CONTRACT

USEC has a contract directly with TVA for the supply of power to PGDP. However, DOE still has contractual obligations through the EEI contract to maintain the interconnection between TVA, PGDP, and EEI.

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[3]USEC has a contract directly with TVA, but it also has the option to purchase TVA power through the EEI/DOE contract if there is ever a reason to do this. At times in the past TVA has been willing or able to sell power to EEI at a lower price on the wholesale market than they have been willing or able to sell it directly to PGDP.

3.2 INCOME TAX CONSEQUENCES

Contract termination obligations are specified as due upon termination of the contracts. However, IRS income tax regulations can have a significant impact on the amount of money DOE must pay to satisfy contract termination obligations. This is especially true when these obligations relate to paying for equipment or facilities that were procured by the utility. Payments received by a utility are taxed as income for the year in which they are received. However, IRS requires that utilities depreciate most equipment expenses over the life of the equipment. Consequently the payment is taxed at the current corporate tax rate with no corresponding expense. IRS treats this payment as profit for that year. Any additional payment made to compensate for the loss to the IRS is also taxed as profit. This means that it is necessary to transfer about 152% of the amount of a bond obligation in order to retire the bonds early. This is especially important with OVEC, because OVEC's contract states that obligations are "after tax" obligations.

DOE should investigate the possibility of negotiating alternative payment schemes. One possibility would be for DOE to pay monthly during the life of the bonds. Another possibility would be for DOE to make a lump sum payment to a trustee who would then make monthly payments. In any event, this type of payment is not currently allowed under either power contract, and it would be necessary to negotiate a contract modification with the utility.

3.3 DOE CONTRACT TRANSFER AND POWER DISPOSAL RIGHTS

3.3.1 OVEC CONTRACT

DOE has the unilateral right to assign the contract to a successor except where the assignment would relieve the United States of America of any of its obligations or responsibilities. It appears that this provision would apply to USEC, because the federal government will not be liable for the debts of USEC as it is currently liable for the debts of DOE. OVEC has expressed its strong opinion that the contract cannot be transferred to the USEC, and the Secretary of Energy determined that the contract would not transfer.

DOE has the unilateral right to reduce the contract demand by up to 300 Mw every 6 months with a 5-year notice or to terminate the entire contract with a 3-year notice. DOE has the right to request transfer of power to PGDP if the power is no longer needed at PORTS or to request that OVEC use its best efforts to dispose of power that is no longer needed by DOE. An interesting peculiarity of the OVEC contract is that if DOE does request transfer of the power to PGDP, the OVEC sponsors have three options: they can agree to transfer the power for an agreed upon price, they can refuse to transfer the power, or they can relieve DOE of obligations and rights associated with this power.

At this time, it is not possible to state with certainty whether OVEC and the OVEC sponsors would be willing to either transfer power to PGDP or to dispose of the capacity not needed during the termination period (thus relieving DOE and USEC of the demand charge). This willingness will depend upon the market conditions at the time of the request. At this time, and for the rest of the

decade, capacity is plentiful in the region. Also, American Electric Power has not been at the forefront of those utilities advocating deregulation or low-cost wheeling. This makes it seem unlikely that it will be possible to obtain either demand relief or low-cost wheeling to PGDP.

3.3.2 EEI CONTRACT

DOE has the unilateral right to assign the contract to "any successor agency who ... assumes all of the duties and obligations of DOE hereunder" if acceptable to EEI. Although this is less restrictive than the language in the OVEC contract, EEI has expressed concern that USEC's ability to fulfill its obligations is less certain than that of DOE, and the Secretary of Energy determined that the contract would not transfer. It seems likely that they may require significant compensation for the perceived increased risk due to transferring the contract.

Either party has the right to reduce the contract demand by up to 10% per year or to terminate any portions of or the entire contract with 5 years' notice. DOE has the right to request that EEI use its best efforts to dispose of power if DOE no longer needs the power. DOE also has the right to transfer power and energy to other DOE uranium enrichment installations after obtaining written approval from EEI.

At this time, it is not possible to state with certainty whether EEI and the EEI sponsors would be willing to dispose of the capacity not needed during the termination period (thus relieving DOE and USEC of the demand charge). This willingness will depend upon the market conditions at the time of the request. At this time, and for the rest of the decade, capacity is plentiful in the region. On the other hand, EEI and the EEI sponsors have been much more aggressive in the wholesale market, giving them increased options for disposing of unneeded capacity. It is still not likely that significant demand relief will be forthcoming in this decade.

3.4 POWER SUPPLIER CONTRACT REDUCTION AND TERMINATION RIGHTS

3.4.1 OVEC CONTRACT

OVEC has no unilateral right to reduce or terminate the contract. However, the contract language is fairly strict, and actions such as late payment, payment without legal authority to pay, or transferring the contract to an agency (which has the effect of relieving the United States of America of any of its obligations or responsibilities) may be treated by OVEC as "delivery by DOE ... of a notice of termination."

3.4.2 EEI CONTRACT

Either party has the right to reduce the contract demand by up to 10% per year or to terminate any portion of or the entire contract with 5 years' notice.

3.5 RECENT POWER PRICES

3.5.1 OVEC CONTRACT

Power costs for FY 1994 were $17.98/megawatt hour (Mw-h) for an average of 1629 Mw.

3.5.2 EEI CONTRACT

Joppa power costs for FY 1994 were $22.29/Mw-h for an average of 503 Mw.

In FY 1994 DOE purchased an average of 889 Mw of nonfirm power at PGDP for an average cost of $17.70/Mw-h.

3.6 COSTS DUE AT CONTRACT TERMINATION

A number of obligations are due if either the EEI or OVEC contract is terminated. Some of the obligations, such as the outstanding bonds, are for a readily determinable amount. The amount of other obligations, such as the D&D obligation, will need to be determined at the time. Most of the obligations are to be split between DOE and the power supplier based upon use of the power plants. There is a further split of the DOE portion between DOE and USEC such that DOE can recover some of the expenses from USEC. However, the obligation to the power suppliers is contractually a DOE concern.

3.6.1 POST-RETIREMENT BENEFITS

In some sense the post-retirement benefits obligations have already been addressed. Although the contractual details are complex, the basic framework that is in place for EEI and is nearly in place for OVEC has moved payment for the post-retirement benefits obligations into the "regular" power bill. Funds are contributed to accounts as power is consumed so that this is not a contract termination issue. There are opportunities to "true up" the accounts to compensate for actuarial changes.

One exception to this concerns DOE's prior obligations. DOE recognizes its obligation of about $24 million for post-retirement benefits earned prior to June 30, 1993, but has arranged to pay this obligation during the remaining life of the OVEC contract. If the OVEC contract is terminated before 2005, DOE will have to pay the outstanding obligation at contract termination.

3.6.2 D&D

DOE has D&D obligations with both OVEC and EEI. D&D costs at Joppa, Clifty Creek, and Kyger Creek are estimated at about $30 million each.

3.6.2.1 OVEC

DOE has an obligation to pay for a share of the actual or estimated cost (less salvage) to D&D OVEC's Clifty Creek and Kyger Creek generating stations. This obligation is due as the expenses are incurred or, if not yet incurred, not later than the effective date of the termination of the OVEC power contract. An independent engineer will be appointed to estimate the costs if actual costs are not available.

DOE will share the D&D expenses with OVEC based upon the ratio of *Mw-hs produced for sale to DOE* to *the total number of Mw-hs produced since October 15, 1992*. The total DOE contractual obligation to OVEC will change depending upon the year of contract termination and how long the generating plants are used (by the sponsors or others) after termination of the contract with DOE. Because both plants have been well maintained, are in excellent condition, and have low energy costs, it is likely that the plants will be essentially fully used for quite some time. For this analysis it has been assumed that the plants will remain useful until 2030.

USEC is obligated to reimburse DOE for a portion of the D&D expenses that DOE will owe OVEC. The formula splitting the DOE and USEC obligations also uses a ratio of the number of Mw-hs taken by each party. These assumptions provide an estimated $1.11 million DOE share of D&D expenses regardless of when the contract is terminated. USEC's obligation will vary depending upon the contract termination date. Estimates of the D&D liability are in Table 1.

Table 1. Estimated OVEC D&D Liability

Year Contract Ends	Years of Liability	Total Liability ($ Millions)	DOE Liability ($ Millions)	USEC Liability ($ Millions)
1997	5	8.24	1.11	7.12
1998	6	9.80	1.11	8.69
1999	7	11.37	1.11	10.26
2000	8	12.94	1.11	11.83
2001	9	14.51	1.11	13.40
2002	10	16.08	1.11	14.97
2003	11	17.65	1.11	16.54
2004	12	19.22	1.11	18.10
2005	13	20.78	1.11	19.67

3.6.2.2 EEI

DOE has an obligation to pay for a share of the actual cost (less salvage) to D&D EEI's Joppa generating stations. This obligation is due as the expenses are incurred.

DOE will share the D&D expenses with EEI based upon the ratio of *Mw-hs produced for sale to DOE* to the *total number of Mw-hs produced for sale to all customers since the beginning of the project.* The total DOE contractual obligation to EEI will change depending upon the year of contract termination and how long the generating plants are used (by the sponsors or others) after termination of the contract with DOE. Because the Joppa plant has been well maintained, is in excellent condition, and has low energy costs, it is likely that it will be essentially fully used for quite some time. For this analysis it has been assumed that the plant will remain useful until 2030.

USEC is obligated to reimburse DOE for a portion of the D&D expenses that DOE will owe to EEI. The formula splitting the DOE and USEC obligations also uses a ratio of the number of Mw-hs taken by each party. These assumptions result in an estimated $11.97 million DOE share of D&D expenses regardless of when the contract is terminated. USEC's obligation will vary depending upon the contract termination date. Estimates of the D&D liability are presented in Table 2.

Table 2. Estimated EEI D&D Liability

Year Contract Ends	Years of Liability	Total Liability ($ Millions)	DOE Liability ($ Millions)	USEC Liability ($ Millions)
1997	45	12.98	11.97	1.01
1998	46	13.27	11.97	1.30
1999	47	13.56	11.97	1.59
2000	48	13.85	11.97	1.88
2001	49	14.13	11.97	2.16
2002	50	14.42	11.97	2.45
2003	51	14.71	11.97	2.74
2004	52	15.00	11.97	3.03
2005	53	15.29	11.97	3.32

3.6.3 DEMAND CHARGES

If notice to terminate one of the power contracts is given, it will be necessary to pay demand charges during the power contract termination period. To the extent that power is still being consumed during this period, these expenses are not termination charges.

Payment of demand charges after USEC returns one GDP to DOE are not explicitly covered in the Lease. However, Article III Section 3 of the MOA states that "USEC will be responsible for providing the budgetary resources for any and all costs associated with the Power Purchase Agreements except the following:". It then lists four expenses not to be paid by USEC, none of which is demand charges after July 1, 1993. The MOA states that "This Section 3 of this Article III shall survive any expiration, conclusion or termination of the MOA." This seems to make it clear that USEC is obligated to reimburse DOE for any demand charges incurred, even if incurred after the lease termination.

As stated above, it may be possible to get some relief from these demand charges. This will depend upon the need for generating capacity in the wholesale market at the time. Although it is somewhat more likely that EEI could offer demand relief than OVEC, it is still unlikely that either would be able to offer demand relief during this decade.

3.6.3.1 OVEC

The OVEC contract requires only 3 years' notice for termination of the contract. It also provides for a reduced demand charge of one-half the Operations and Maintenance (O&M) charges if no power is being consumed during the termination period. For this analysis it was assumed that no power would be needed under this contract during the termination period. OVEC demand charges are currently estimated to be about $55 million per year for 3, or $165 million.

3.6.3.2 EEI

EEI demand charges are currently estimated to be about $52 million per year for 5 years, or $260 million.

3.6.4 OUTSTANDING BONDS

When major modifications at either EEI or OVEC plants are necessary, the utilities generally finance these improvements by issuing bonds.

3.6.4.1 OVEC

The OVEC contract is very explicit that the bonds are the obligation of DOE. The contract actually requires DOE to pay for improvements as expenses are incurred. Financing is done as a service to DOE both to ease DOE funding requirements and to mitigate income tax consequences. Outstanding bonds become due and payable if the contract is terminated. These bonds are being paid down and will be fully paid at the negotiated contract termination date of 2005. The outstanding bond balance is currently about $80 million.

3.6.4.2 EEI

The EEI contract is not explicit concerning DOE's obligation associated with the bonds. In general the term of the bonds is tied to the life of the equipment being financed and is not tied to the term of the contract. It is DOE's opinion that there is no DOE obligation after contract termination; the future users of the plant will pay for the bonds as part of the price of power.

4. SUMMARY

Significant obligations will come due if either the EEI or OVEC power contract is terminated. Both power contracts are held by DOE, and DOE is legally obligated for any contract-related costs. USEC is obligated to reimburse DOE for many of these expenses as outlined in the MOA between DOE and USEC for electric power.

Although the power contracts do not currently provide for termination payments to be distributed over time, for this table it is assumed that such arrangements can be negotiated to eliminate a potential 152% income tax penalty on bond retirements. The power contracts are not explicitly clear in a number of areas. The power suppliers may have a different interpretation concerning DOE's contract termination obligations. Power contract termination provisions and estimated costs are summarized in Table 3.

Table 3. Power Contract Termination Provisions and Estimated Costs

Notice Type	Notice Provisions			
	OVEC		EEI	
Termination Notice	3 Years		5 Years	
Reduction Notice	300 Mw/6 Months with 5-year Notice		10%/Year with 5-Year Notice	
Expense	Cost ($ millions)			
	DOE	USEC	DOE	USEC
Post-Retirement Benefits	24			
D&D	1[a]	Variable	12[a]	Variable
Demand Charges		165[b]		260
Bond Retirement		80		

[a]Assumes power plants continue operating until 2030.
[b]Assumes no power costs required through this contract after notice is given and consequent reduction in Operations and Maintenance (O&M) charges.