

RESOLUTION NO. R 88-40

A RESOLUTION OF THE CITY COUNCIL OF  
THE CITY OF CONWAY, ARKANSAS  
APPROVING A PREAMBLE TO 1988 RATE  
FORMULA AGREEMENT AND 1988 RATE  
FORMULA AGREEMENT IN FEDERAL ENERGY  
REGULATORY DOCKET NUMBER ER82-705-  
002, ET.AL., PROVIDING FOR  
AMENDMENTS TO THE POWER  
COORDINATION, INTERCHANGE AND  
TRANSMISSION AGREEMENT BETWEEN THE  
CITY OF CONWAY AND ARKANSAS POWER  
AND LIGHT COMPANY SUBJECT THERETO;  
AND FOR OTHER PURPOSES.

WHEREAS, the Formula Rates of Arkansas Power and Light Company (AP&L), chargeable to the City of Conway, Arkansas and other co-owners of the White Bluff and Independence Steam Electric Stations were the subject of administrative litigation in Federal Energy Regulatory Commission (FERC) Docket No. ER82-705-002, et al and Docket No. ER88-94-000 for rates payable during the 1987 and 1988 and following contract years; and

WHEREAS, all parties to the referenced FERC proceedings, including the FERC staff, agreed upon a methodology to settle the two (2) pending Dockets for the years 1987 and 1988 and to provide a vehicle for resolution of future disputes; and

WHEREAS, the attached Preamble to 1988 Rate Formula Agreement and 1988 Rate Formula Agreement provides substantial benefits to the City of Conway's Utility System and the Conway Corporation by continuing a moratorium on rate changes for a three year period, separating the various wholesale formula rate customers of AP&L into more appropriate rate classifications, otherwise forestalling the need for further expensive and protracted administrative litigation in Washington, D.C., and maintaining the current formula rate methodology.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Conway, Arkansas:

SECTION 1. The Preamble to 1988 Rate Formula Agreement and 1988 Rate Formula Agreement attached hereto is approved for adoption by the City Council of the City of Conway,

Arkansas.

SECTION 2. This Resolution shall be in full force and effect from and after its passage and approval.

PASSED:

November 8th, 1988

APPROVED:

David V. Jenkins  
Mayor

ATTEST:

Martha Hestwick  
City Clerk

UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION

Arkansas Power & Light Company )

Docket No. ER89-\_\_\_\_\_

PREAMBLE TO 1988 RATE FORMULA AGREEMENT

1. On March 11, 1987, in Docket No. ER82-705-002, et. al., Arkansas Power & Light Company (AP&L or Company) filed redetermined charges derived from formula rates on file for eight customers, including the Cities of Conway, West Memphis, Jonesboro, Osceola and Hope, Arkansas, the Cities of Campbell and Thayer, Missouri, and the Arkansas Electric Cooperative Corporation. These customers (except Jonesboro), together with the Cities of Benton, North Little Rock and Prescott, Arkansas and the Farmers Electric Cooperative Corporation, intervened in the proceeding.

2. By order issued June 26, 1987, the Commission set the formula rates for rehearing. After discovery, the filing of testimony and various conferences among the parties, a settlement was reached in the proceeding, which was approved by the Commission on June 7, 1988. Among other provisions, paragraph 4(d) of the settlement provided that the parties would conduct further negotiations to revise the formula rates "to recognize changes in AP&L's cost structure and otherwise to provide more just and reasonable rates."

3. The parties to the settlement in Docket No. ER82-705-002, et. al., have conducted good faith negotiations during the last several months in an effort to revise the current rate formulas in order to provide more just and reasonable rates. As a result of those negotiations, AP&L and the Cities of Conway, West Memphis, and Osceola,

Arkansas (Customers) have agreed on revised rate formulas as well as changes in certain rate application procedures related to those rate formulas. Their agreement is embodied in this 1988 Rate Formula Agreement (Agreement).

1988 RATE FORMULA AGREEMENT

4. The undersigned parties agree as follows:

- (a) The current rate formulas (as embodied in the settlement in Docket No. ER82-705-002, et. al.) will remain in effect through February 28, 1989.
- (b) The revised Rate Formulas contained in Attachment A to this 1988 Agreement shall become effective March 1, 1989, and remain in effect until modified by subsequent agreement or changed in accordance with other provisions of this 1988 Agreement.
- (c) Commencing March 1, 1989, the transmission loss factor utilized in calculating certain billing units shall be redetermined on or about March 1 of each year based on prior calendar year data and utilizing the procedure described in Attachment B to this 1988 Agreement.

5. On or about March 1 of each year, AP&L shall provide the Commission and the Customers with informational schedules showing the development of each applicable rate, based on data for the prior calendar year, together with supporting workpapers. The resulting charges will take effect as of March 1 of the year in which the informational schedules are submitted. If the Commission Staff or the

Customers, after review of such information schedules, should determine that a hearing is needed to investigate the cost determinations contained therein, such a hearing may be requested by an appropriate written filing with the Commission within 30 days after AP&L files with the Commission its Form 1 for the prior calendar year. The parties agree that such a hearing, if instituted by the Commission, will be for the sole purpose of reviewing, pursuant to Section 205 of the Federal Power Act, the data contained in the informational schedules that form the input components of the formulary rates contained in Attachment A. It is contemplated that in the event the Commission Staff or the Customers request such a hearing, the Commission may issue an order no later than 30 days after such request establishing procedures under Section 205 of the Federal Power Act for a hearing.

It is further agreed by the parties that any change in charges resulting from the operation of the formulary rates will be subject to refund or surcharge, as appropriate, for the period during which they are effective pending the outcome of such a hearing to determine the justness and reasonableness of such informational schedules, or until it is determined that no such hearing will be instituted, whichever period is shorter. There will be no suspension of such charges if a hearing is ordered.

6. The parties agree that any party may propose changes to the rate formulas contained in Attachment A only in 1992 and every third year thereafter. If any party intends to propose changes in any eligible year, it must give written notice no later than December 1 of the year prior to such eligible year. Nothing contained herein

shall be construed as affecting in any way AP&L's right to make unilaterally an application in 1992 and every third year thereafter to the FERC or any successor agency, for a change in rates, charges, classification, or service, or any rule, regulation or contract relating thereto, under Section 205 of the Federal Power Act, or any amendatory or superseding law, and pursuant to FERC's rules and regulations promulgated thereunder. The parties understand and agree that the foregoing provisions give the right to request a unilateral rate change, and also the right to implement the proposed rates, subject to refund, on the requested effective date or at the end of any suspension which may be imposed pursuant to Section 205 of the Federal Power Act or any amendatory or superseding law, under which the regulatory commission may suspend the operation of such schedule and defer the use of such rate. The parties further understand that nothing contained herein shall be construed as affecting in any way the right of the party receiving service under this rate schedule to make unilaterally in 1992 and every third year thereafter an application to the FERC or any successor agency, for a change in rates, charges, classification, or service, or any rule, regulation or contract relating thereto, under Section 206 of the Federal Power Act, or any amendatory or superseding law, and pursuant to FERC's rules and regulations promulgated thereunder.

In the event that the Middle South System Agreement, as in effect from time to time, is modified after the execution of this Agreement, the parties agree to negotiate in good faith to make whatever revisions may be necessary to the rate formulas contained in Attachment A, so that such formulas will reflect such changes in the Middle

South System Agreement in a manner consistent with the structure of the rate formulas contained in Attachment A. Notwithstanding the limitations contained in this paragraph 6 on the parties' rights to propose changes to the rate formulas contained in Attachment A, AP&L shall have the right to make unilaterally an application to the FERC or any successor agency, for a change in rates, charges, classification, or service, or any rule, regulation or contract relating thereto, under Section 205 of the Federal Power Act, or any amendatory or superseding law, and pursuant to FERC's rules and regulations promulgated thereunder, so as to reflect the modifications to the Middle South System Agreement, as it may be in effect from time to time. The parties understand and agree that the foregoing provision gives AP&L the right to request a unilateral rate change, and also the right to implement the proposed rates, subject to refund, on the requested effective date or at the end of any suspension which may be imposed pursuant to Section 205 of the Federal Power Act or any amendatory or superseding law, under which the regulatory commission may suspend the operation of such schedule and defer the use of such rate; however, such changes in rates shall be restricted solely to those changes necessary to recognize the modifications to the Middle South System Agreement. The parties further understand that nothing contained herein shall be construed as affecting in any way the right of the party receiving service under this rate schedule to make unilaterally an application to the FERC or any successor agency, for a change in rates, charges, classification, or service, or any rule, regulation or contract relating thereto, under Section 206 of the Federal Power Act, or any amendatory or superseding law, and

pursuant to FERC's rules and regulations promulgated thereunder to reflect changes in the rate formulas contained in Appendix A to reflect modifications to the Middle South System Agreement, such changes to be restricted solely to those necessary to recognize the modifications to the Middle South System Agreement. Finally, nothing in this Section 6 concerning the parties' intent with respect to modifications to Middle South System Agreements shall be construed or deemed an admission by Customers of any waiver of their right to intervene in any FERC or other regulatory proceeding involving any modifications to the Middle South System Agreement. In the event AP&L proposes changes to the rate formulas pursuant to this paragraph, AP&L shall treat Customers as a separate customer class.

7. The parties agree that the Staff of the Commission will have the right to request an investigation of the formulary rates only in 1992 and every third calendar year thereafter. If the Staff of the Commission should determine that a hearing is needed to investigate the formulary rate or any component thereof, such a hearing may be requested by an appropriate filing with the Commission prior to May 31 of that year. The parties agree that such a hearing, if instituted by the Commission, will be for the purpose of reviewing, pursuant to Section 205 of the Federal Power Act, the justness and reasonableness of the formulary rates. It is contemplated that in the event the Staff or the Commission requests such a hearing, the Commission may issue an order establishing procedures for such a hearing under Section 205 of the Federal Power Act on or before July 1 of that year. It is further agreed by the parties that, in the event the Commission orders such a hearing, any increase in charges resulting

from the operation of the formulary rates in the calendar year 1992 and every third year thereafter, in the event the Commission orders such a hearing in any of those years, will be subject to refund pending the outcome of such a hearing to determine the justness and reasonableness of the formulary rates. If the Staff of the Commission determines that an investigation of the formulary rates is not necessary and does not request a hearing on the justness and reasonableness of the formulary rates prior to May 31 of any year in which Staff may request an investigation under Section 205, the formulary rates then in effect will operate in accordance with their terms, subject however, to the right to review the informational schedules, as described in paragraph 5 of this Agreement.

8. In the event the parties are unable to resolve through negotiation any differences that may arise regarding the rate formulas or their application as a result of changes proposed pursuant to paragraph 6 above and AP&L makes a general rate filing to resolve such differences, the parties agree to support a waiver of Period II requirements for the filing contemplated in 1992.

9. Nothing in this Agreement shall constitute an admission by any party of the correctness or applicability of any claim, defense, rule or interpretation of law, allegation of fact, principle or method of ratemaking or cost of service determination; except the rate formulas reflect that all post-1980 property has been fully normalized by the Company, bringing this property within the ambit of Section 168 of the Internal Revenue Code adopted as part of the Economic Recovery Tax Act of 1981. This Agreement is made upon the explicit understanding that it constitutes a negotiated settlement with respect to rates,

terms and conditions contained in the proposed agreements in this proceeding. It is also agreed that the parties shall not be considered as necessarily agreeing with or conceding the applicability of any principle, or any method of ratemaking or cost of service determination, or design or rate schedule, or terms and conditions of service, or the application of any rule or interpretation of law that may underlie, or be thought to underlie this Agreement; except that the parties agree that the rate formulas reflect that all post-1980 property has been fully normalized by the Company. It is further agreed that in any future negotiation of proceedings whatsoever (other than any proceeding involving the honoring, enforcement or construction of this Agreement or the revision to any rate schedules to be filed with the Commission pursuant to this Agreement), the parties shall not be bound or prejudiced by this Agreement.

10. The Power Coordination, Interchange and Transmission Service Agreements filed in Docket Nos. ER82-705, ER83-297, ER87-139, ER87-186 and ER87-202, as modified by prior settlement agreements, shall remain in effect, except as modified or superseded by the provisions of this 1988 Agreement, including all attachments.

11. This Agreement is expressly contingent upon its approval by the Federal Energy Regulatory Commission without modification, unless such modifications as the Federal Energy Regulatory Commission may require are agreed to by the parties. All parties to this Agreement will cooperate in seeking its acceptance and approval by the Federal Energy Regulatory Commission. If this Agreement is not accepted and approved by the Federal Energy Regulatory Commission without modification, then: (i) it shall not be binding on any party; (ii) all

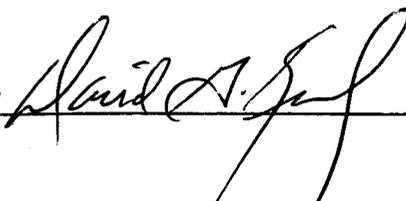
parties shall in that event be deemed to have reserved all their respective rights and remedies in this proceeding; (iii) this Agreement shall not be part of the record in such proceeding, and all discussions and negotiations thereon shall be privileged; and (iv) the parties shall not be obliged to negotiate further, other than to discuss in good faith whether the modifications required by the Federal Energy Regulatory Commission are acceptable to them.

Agreed to this \_\_\_\_ day of \_\_\_\_\_, 1988.

ARKANSAS POWER & LIGHT COMPANY

By \_\_\_\_\_

CITY OF CONWAY, ARKANSAS

By  \_\_\_\_\_

CITY OF OSCEOLA, ARKANSAS

By \_\_\_\_\_

CITY OF WEST MEMPHIS, ARKANSAS

By \_\_\_\_\_

RATE FORMULAS

GENERAL NOTES

1. THE TEST YEAR SHALL BE THE CALENDAR YEAR USED TO DETERMINE THE VALUE OF THE VARIOUS PARAMETERS IN THE FOLLOWING RATE FORMULAS.
2. ALL BALANCE SHEET ITEMS UNLESS OTHERWISE SPECIFIED REFLECT ENDING BALANCES FOR THE TEST YEAR.
3. MATERIALS AND SUPPLIES, FUEL INVENTORY, AND PREPAID TAXES AND INSURANCE SHALL BE INCLUDED ON THE BASIS OF A 13 MONTH AVERAGE ENDING WITH DECEMBER OF THE TEST YEAR.
4. ALL EXPENSE ITEMS UNLESS OTHERWISE SPECIFIED REFLECT ACTUAL AMOUNTS FOR THE TEST YEAR. HOWEVER, IF A NEW GENERATING UNIT IS ADDED DURING THE TEST YEAR, THE RELATED EXPENSE MAY BE INCLUDED ON AN ESTIMATED ANNUAL BASIS.
5. THE TERM "ANNUALIZED" SHALL MEAN THE RESULT OF MULTIPLYING EXPENSE AMOUNTS FOR DECEMBER OF THE TEST YEAR BY TWELVE (12).
6. ALL DEMAND AND ENERGY CONCEPTS REFLECT TEST YEAR ACTUAL AMOUNTS UNLESS OTHERWISE SPECIFIED.

7. THE MONTHLY PRODUCTION DEMAND RATE IS TO BE REDETERMINED EACH MONTH TO REFLECT THE MONTH TO MONTH CHANGES IN NET PRODUCTION CAPACITY PAYMENTS OR RECEIPTS (VARIABLE CAPEQ) UNDER THE MIDDLE SOUTH SYSTEM AGREEMENT AND THE NET PURCHASE OR SALE OF CAPACITY UNDER THE MIDDLE SOUTH SYSTEM AGREEMENT THAT IS INCLUDED IN AP&L'S NET CAPABILITY. HOWEVER, ALL OTHER PARAMETERS SHALL BE BASED ON PRIOR YEAR DATA AND SHALL REMAIN UNCHANGED UNTIL THE NEXT ANNUAL FORMULA RATE REDETERMINATION.

EACH MONTH, THE FINAL BILLING SHALL REFLECT A MONTHLY PRODUCTION DEMAND RATE MODIFIED TO INCLUDE THE ACTUAL CAPACITY PAYMENTS OR RECEIPTS AND THE ACTUAL NET PURCHASE OR SALE OF CAPACITY FOR THE MONTH BEING BILLED. THE BILLINGS FOR EACH MONTH SHALL HAVE THE FOLLOWING ITEMS ATTACHED TO ALLOW THE CUSTOMER TO VERIFY THE MONTHLY PRODUCTION DEMAND RATE FOR THE BILLING MONTH:

- (1) COPY OF ATTACHMENTS 5 AND 6 FROM THE MIDDLE SOUTH SYSTEM BILLING FOR THE MONTH.
- (2) COPY OF GRAND GULF BILL AND COST OF SERVICE SUMMARY PAGE FOR THE BILLING MONTH
- (3) COPY OF THE REDETERMINATION OF THE MONTHLY PRODUCTION DEMAND RATE FOR THE BILLING MONTH.

8. IN THE EVENT EITHER THE STATUTORY STATE OR FEDERAL CORPORATE INCOME TAX RATES CHANGE AFTER THE ANNUAL RATE REDETERMINATION IS SUBMITTED IN ANY YEAR, THEN THE RATES SHALL BE REDETERMINED ON AN INTERIM BASIS TO REFLECT SUCH TAX RATE CHANGE. ALL OTHER PARAMETERS SHALL REMAIN

UNCHANGED. THE REDETERMINED RATES SHALL BECOME EFFECTIVE COMMENCING WITH THE BILLING MONTH IN WHICH THE TAX RATE(S) CHANGE. ANY SUCH REDETERMINATION SHALL BE SUBMITTED TO THE FERC AND THE CUSTOMER(S) AND SHALL CONSIST OF THE FOLLOWING:

- (1) TRANSMITTAL LETTER SETTING OUT BASIS FOR THE CHANGE
- (2) COPY OF DOCUMENTATION SUPPORTING THE CHANGE IN STATUTORY TAX RATE(S)
- (3) RATE COMPARISON SHOWING EFFECT OF THE RATE CHANGE ON EFFECTED CUSTOMERS
- (4) REDETERMINATION OF THE RATES REFLECTING THE REVISED TAX RATE(S)

COMMON PARAMETERS

COST OF CAPITAL

CC = BEFORE TAX COST OF CAPITAL

$$CC = D * DR + \frac{PF * PR + CE * CR}{TX}$$

WHERE:

D = EMBEDDED COST RATE OF LONG-TERM DEBT CONSISTING OF FIRST MORTGAGE BONDS, POLLUTION CONTROL BONDS, AND AP&L'S LIABILITY TO THE DEPARTMENT OF ENERGY FOR SPENT NUCLEAR FUEL

DR = DEBT CAPITALIZATION RATIO

PF = EMBEDDED COST RATE OF PREFERRED STOCK

PR = PREFERRED STOCK CAPITALIZATION RATIO

CE = RATE OF RETURN ON COMMON EQUITY AS DETERMINED BY THE ARKANSAS PUBLIC SERVICE COMMISSION IN AP&L'S MOST RECENT RETAIL RATE PROCEEDING IN WHICH A FINAL NON-APPEALABLE ORDER, INCLUDING ANY ORDER APPROVING A SETTLEMENT AGREEMENT, HAS BEEN ISSUED WHICH ADDRESSES THAT ISSUE

CR = COMMON EQUITY CAPITALIZATION RATIO

TX = COMPOSITE CORPORATE AFTER TAX RATE

$$TX = (1 - S)(1 - F)$$

WHERE:

S = STATUTORY STATE CORPORATE INCOME TAX RATE

F = STATUTORY FEDERAL CORPORATE INCOME TAX RATE

ACCUMULATED DEFERRED INCOME TAXES

ADIT = ACCUMULATED DEFERRED INCOME TAXES

$$ADIT = ADTL + ITC$$

WHERE:

ADTL = THE BALANCE IN ACCOUNT 282 LESS ANY AMOUNTS ASSOCIATED WITH THE PHASE-IN OF GRAND GULF UNIT 1 AND ANY AMOUNT ASSOCIATED WITH AN EXCESS CAPACITY ADJUSTMENT.

ITC = ACCUMULATED DEFERRED INVESTMENT TAX CREDIT - 3% PORTION ONLY

COMMON PARAMETERS (Cont'd)

PLANT RATIOS

PPR = PRODUCTION PLANT RATIO

TPR = TRANSMISSION PLANT RATIO

DPR = DISTRIBUTION PLANT RATIO

$$PPR = \frac{PPLT}{PPLT + TPLT + DPLT}$$

$$TPR = \frac{TPLT}{PPLT + TPLT + DPLT}$$

$$DPR = \frac{DPLT}{PPLT + TPLT + DPLT}$$

WHERE:

PPLT = PRODUCTION PLANT IN SERVICE

TPLT = TRANSMISSION PLANT IN SERVICE

DPLT = DISTRIBUTION PLANT IN SERVICE

LABOR RATIOS

PLR = PRODUCTION LABOR RATIO

TLR = TRANSMISSION LABOR RATIO

DLR = DISTRIBUTION LABOR RATIO

$$PLR = \frac{PL}{PL + TL + DL}$$

$$TLR = \frac{TL}{PL + TL + DL}$$

$$DLR = \frac{DL}{PL + TL + DL}$$

WHERE:

PL = PRODUCTION LABOR

TL = TRANSMISSION LABOR

DL = DISTRIBUTION LABOR

COMMON PARAMETERS (Cont'd)

A&G EXPENSE

AG = A&G EXPENSE

AG = 0.8566 \* AGXP

WHERE:

AGXP = TOTAL A&G EXPENSE CONSISTING OF ACCOUNTS (920 - 935)

OTHER TAX RATE

OTR = OTHER TAX RATE

OTR =  $\frac{\text{CSFXP} + \text{RPTXP} + \text{FICA} * (1 - \text{CSLR})}{\text{PLT}}$

WHERE:

CSFXP = ANNUALIZED CAPITAL STOCK FRANCHISE TAX EXPENSE

RPTXP = ANNUALIZED REAL AND PERSONAL PROPERTY TAX EXPENSE

FICA = ANNUALIZED FICA TAX EXPENSE

CSLR = RATIO OF CUSTOMER SERVICES/CUSTOMER ACCOUNTING PAYROLL TO  
TOTAL PAYROLL CHARGED TO O&M EXPENSE

PLT = SUM OF PRODUCTION, TRANSMISSION AND DISTRIBUTION PLANT

ENERGY RATE

ER = ENERGY RATE (\$/KWH)

$$ER = \frac{NEC}{NKWH} + EADD$$

WHERE:

NEC = NET ENERGY COST DURING THE CURRENT BILLING MONTH

NEC = FE + PE + RDIF - DPE - MSER - SSER

WHERE:

FE = FUEL EXPENSE (ACCOUNTS 501, 518, AND 547)

PE = PURCHASED ENERGY EXPENSE CHARGED TO ACCOUNT 555

RDIF = AP&L'S GRAND GULF RETAINED SHARE ENERGY AS REDUCED BY ANY SALES OUTSIDE OF AP&L'S NET AREA MULTIPLIED BY THE DIFFERENTIAL (\$/KWH) BETWEEN AP&L'S AVOIDED COST AND AP&L'S GRAND GULF FUEL CHARGE

DPE = ENERGY EXPENSE DIRECTLY ASSIGNED TO SPECIFIC CUSTOMERS

MSER = REVENUES FROM SALE OF ENERGY TO MIDDLE SOUTH POWER POOL

SSER = REVENUES FROM SALE OF ENERGY TO UTILITIES OUTSIDE THE MIDDLE SOUTH SYSTEM AS ADJUSTED TO ELIMINATE ANY RETAIL GRAND GULF PHASE-IN EFFECTS AND AS REDUCED BY ANY MARGIN ON SALES FROM AP&L'S GRAND GULF RETAINED SHARE

NKWH = NET ENERGY ASSOCIATED WITH NET ENERGY COST (NEC)

NKWH = NAR + CG - (DE - COP) - 1.09 \* CU

WHERE:

NAR = AP&L NET AREA ENERGY REQUIREMENT

CG = CO-GENERATION ENERGY NOT INCLUDED IN "NAR"

DE = ENERGY INCLUDED IN "NAR" THAT IS DIRECTLY ASSIGNED TO SPECIFIC CUSTOMERS INCLUDING ENERGY FROM CUSTOMER RESOURCES CO-OWNED WITH AP&L

COP = DEDICATED ENERGY INCLUDED IN "DE" THAT IS PURCHASED BY AP&L FROM CUSTOMERS

CU = COMPANY USE ENERGY

ENERGY RATE (Cont'd)

EADD = ENERGY ADDER RATE (\$/KWH)

EADD =  $\frac{\text{ERB} * \text{CC} + \text{POME}}{\text{KWHT}}$

WHERE:

ERB = ENERGY RATE BASE

ERB = CME - CMEDR + FINV

WHERE:

CME = GENERAL PLANT - AP&L'S OWNERSHIP SHARE OF COAL MINING EQUIPMENT

CMEDR = GENERAL PLANT - COAL MINING EQUIPMENT DEPRECIATION RESERVE (AP&L SHARE)

FINV = FUEL INVENTORY

CC = BEFORE TAX COST OF CAPITAL

POME = ENERGY RELATED PRODUCTION O&M EXPENSE CONSISTING OF ACCOUNTS 510, 512, 513, 528, 530, 531, 544, 551, AND 553

KWHT = NET ENERGY

KWHT = NAR + CG - (DE - COP) - 1.09 \* CU

WHERE:

NAR = AP&L NET AREA ENERGY REQUIREMENT

CG = CO-GENERATION ENERGY NOT INCLUDED IN "NAR"

DE = ENERGY INCLUDED IN "NAR" THAT IS DIRECTLY ASSIGNED TO SPECIFIC CUSTOMERS INCLUDING ENERGY FROM CUSTOMER RESOURCES CO-OWNED WITH AP&L

COP = DEDICATED ENERGY INCLUDED IN "DE" THAT IS PURCHASED BY AP&L FROM CUSTOMERS

CU = COMPANY USE ENERGY

MONTHLY PRODUCTION DEMAND RATE

MPDR = MONTHLY PRODUCTION DEMAND RATE (\$/KW/MONTH)

$$\text{MPDR} = \frac{\text{PRB} * \text{CC} + \text{PXP} + \text{ITCWO} * \text{PPR}/\text{TX}}{12 * \text{NCAP}}$$

WHERE:

PRB = PRODUCTION RATE BASE

PRB = PPLT - PDR + (GPLT-GDR) \* PLR + INPLT - INDR + (MS+PPT+ADIT) \* PPR

WHERE:

PPLT = PRODUCTION PLANT IN SERVICE

PDR = PRODUCTION PLANT DEPRECIATION RESERVE EXCLUDING NUCLEAR  
DECOMMISSIONING RESERVE

GPLT = GENERAL PLANT EXCLUDING COAL MINING EQUIPMENT

GDR = GENERAL PLANT DEPRECIATION RESERVES EXCLUDING COAL  
MINING EQUIPMENT

PLR = PRODUCTION LABOR RATIO

INPLT = INTANGIBLE PLANT

INDR = ACCUMULATED AMORTIZATION OF INTANGIBLE PLANT

MS = MATERIALS & SUPPLIES

PPT = PREPAYMENTS EXCLUDING MISCELLANEOUS PREPAYMENTS

ADIT = ACCUMULATED DEFERRED INCOME TAXES

PPR = PRODUCTION PLANT RATIO

CC = BEFORE TAX COST OF CAPITAL

MONTHLY PRODUCTION DEMAND RATE (Cont'd)

PXP = PRODUCTION RELATED EXPENSES

$PXP = POMD + CAPEQ + FPUR + AG * PLR + PDX + DEC + GDX * PLR + INDX + OTR * PPLT$

WHERE:

POMD = DEMAND RELATED PRODUCTION O&M EXPENSE CONSISTING OF ACCOUNTS 500, 502-507, 511, 514, 517, 519-525, 529, 532, 535-543, 545, 546, 548-550, 552, 554 AND 556

CAPEQ = AP&L'S GRAND GULF DEMAND CHARGES IN ACCOUNT 555 AS REDUCED BY AP&L'S GRAND GULF RETAINED SHARE PLUS THE NET TOTAL OF PRODUCTION CAPACITY PAYMENTS (+) AND RECEIPTS (-) UNDER THE MIDDLE SOUTH SYSTEM AGREEMENT AS REDUCED BY AP&L'S GRAND GULF RETAINED SHARE PORTION OF INCREMENTAL SCHEDULE MSS-1 EFFECTS ASSOCIATED WITH AP&L'S ALLOCATED SHARE OF GRAND GULF

FPUR = TOTAL CHARGES TO ACCOUNT 555 LESS AP&L'S GRAND GULF DEMAND CHARGES LESS ANY AMOUNTS DIRECTLY ASSIGNED TO SPECIFIC CUSTOMERS LESS ANY AMOUNTS INCLUDED IN THE ENERGY RATE

AG = A&G EXPENSE

PDX = ANNUALIZED PRODUCTION DEPRECIATION EXPENSE EXCLUDING NUCLEAR DECOMMISSIONING AMORTIZATION

DEC = AP&L'S TOTAL COMPANY NUCLEAR DECOMMISSIONING REVENUE REQUIREMENT MOST RECENTLY APPROVED BY THE ARKANSAS PUBLIC SERVICE COMMISSION FOR THE CALENDAR YEAR IN WHICH THE RATE REDETERMINATION IS SUBMITTED

GDX = ANNUALIZED GENERAL DEPRECIATION EXPENSE EXCLUDING COAL MINING EQUIPMENT

INDX = ANNUALIZED INTANGIBLE PLANT AMORTIZATION EXPENSE

OTR = OTHER TAX RATE

ITCWO = INVESTMENT TAX CREDIT WRITE-OFF

TX = COMPOSITE CORPORATE AFTER TAX RATE

NCAP = AP&L'S NET CAPABILITY (KW) IN DECEMBER OF THE TEST YEAR INCLUDING OWNED GENERATING CAPABILITY AND FIRM PURCHASED CAPABILITY AS REDUCED BY 1) CAPABILITY DEDICATED TO SPECIFIC CUSTOMERS, AND 2) BY AP&L'S GRAND GULF RETAINED SHARE, AND AS FURTHER ADJUSTED BY THE NET PURCHASE (+) OR SALE (-) OF CAPABILITY UNDER THE MIDDLE SOUTH UTILITIES SYSTEM AGREEMENT

MONTHLY TRANSMISSION DEMAND RATE

MTDR = MONTHLY TRANSMISSION DEMAND RATE (\$/KW/MONTH)

$$\text{MTDR} = \frac{\text{TRB} * \text{CC} - \text{TFR} + \text{TXP} + \text{ITCWO} * \text{TPR}/\text{TX}}{12 * \text{TKW}}$$

WHERE:

TRB = TRANSMISSION RATE BASE

TRB = TPLT - TDR + (GPLT - GDR) \* TLR + (MS + PPT + ADIT) \* TPR

WHERE:

TPLT = TOTAL TRANSMISSION PLANT

TDR = TRANSMISSION DEPRECIATION RESERVE

GPLT = TOTAL GENERAL PLANT - EXCLUDING COAL MINING EQUIPMENT

GDR = GENERAL PLANT DEPRECIATION RESERVES - EXCLUDING COAL  
MINING EQUIPMENT

TLR = TRANSMISSION LABOR RATIO

MS = MATERIALS & SUPPLIES

PPT = PREPAYMENTS EXCLUDING MISCELLANEOUS PREPAYMENTS

ADIT = ACCUMULATED DEFERRED INCOME TAXES

TPR = TRANSMISSION PLANT RATIO

CC = BEFORE TAX COST OF CAPITAL

MONTHLY TRANSMISSION DEMAND RATE (Cont'd)

TFR = TRANSMISSION RELATED REVENUE IN ACCOUNT 456

TFR = TEQ + TR

WHERE:

TEQ = TRANSMISSION EQUALIZATION REVENUE RECEIVED UNDER  
SCHEDULE MSS-2 OF THE MIDDLE SOUTH SYSTEM AGREEMENT

TR = OTHER TRANSMISSION RELATED REVENUE IN ACCOUNT 456

TXP = TOTAL TRANSMISSION EXPENSE

TXP = TOM + AG \* TLR + TDX + GDX \* TLR + TPLT \* OTR

WHERE:

TOM = TRANSMISSION O&M EXPENSE

AG = A&G EXPENSE

TDX = ANNUALIZED TRANSMISSION DEPRECIATION EXPENSE

GDX = ANNUALIZED GENERAL PLANT DEPRECIATION EXPENSE - EXCLUDING  
COAL MINING EQUIPMENT

OTR = OTHER TAX RATE

ITCWO = INVESTMENT TAX CREDIT WRITE-OFF

TX = COMPOSITE CORPORATE AFTER TAX RATE

TKW = AP&L'S NET AREA SYSTEM PEAK DEMAND AS INCREASED BY SCHEDULED  
TRANSMISSION DELIVERIES AT THE TIME OF THE SYSTEM PEAK WHICH  
ARE NOT INCLUDED IN THE NET AREA PEAK DEMAND

MONTHLY DISTRIBUTION DEMAND RATE

MDDR = MONTHLY DISTRIBUTION DEMAND RATE (\$/KW/MONTH)

$$MDDR = \frac{DRB * CC + DXP + (CDAD/DPLT) * DPR * ITCWO/TX}{12 * DKW}$$

WHERE:

DRB = DISTRIBUTION RATE BASE

$$DRB = CDAD - DADEPR + CDAD/DPLT * ((GPLT-GDR) * DLR + (MS + PPT + ADIT) * DPR)$$

WHERE:

CDAD = CUSTOMER'S DIRECTLY ASSIGNED DISTRIBUTION PLANT

DADEPR = ACCUMULATED DEPRECIATION ON DIRECTLY ASSIGNED  
DISTRIBUTION PLANT

DPLT = TOTAL DISTRIBUTION PLANT

GPLT = GENERAL PLANT - EXCLUDING COAL MINING EQUIPMENT

GDR = GENERAL PLANT DEPRECIATION RESERVE - EXCLUDING COAL  
MINING EQUIPMENT

DLR = DISTRIBUTION LABOR RATIO

MS = MATERIALS AND SUPPLIES

PPT = PREPAYMENTS EXCLUDING MISCELLANEOUS PREPAYMENTS

ADIT = ACCUMULATED DEFERRED INCOME TAXES

DPR = DISTRIBUTION PLANT RATIO

CC = BEFORE TAX COST OF CAPITAL

MONTHLY DISTRIBUTION DEMAND RATE (Cont'd)

DXP = DISTRIBUTION EXPENSES

DXP = CDAD/DPLT \* (DOM + AG \* DLR + DDX + GDY \* DLR + DPLT \* OTR)

WHERE:

DOM = DISTRIBUTION O&M EXPENSE

AG = A&G EXPENSE

DDX = ANNUALIZED DISTRIBUTION DEPRECIATION EXPENSE

GDY = ANNUALIZED GENERAL DEPRECIATION EXPENSE - EXCLUDING COAL  
MINING EQUIPMENT

OTR = OTHER TAX RATE

ITCWO = INVESTMENT TAX CREDIT WRITE-OFF

TX = COMPOSITE CORPORATE AFTER TAX RATE

DKW = MAXIMUM ONE HOUR SIMULTANEOUS DEMAND (KW) FOR ALL DELIVERY  
POINTS COMBINED ADJUSTED FOR CONTRACT LOSSES

TRANSMISSION LOSS FACTOR  
REDETERMINATION METHODOLOGY

TLF = TRANSMISSION LOSS FACTOR (1)

$$TLF = \frac{TDLF + TELF}{2}$$

WHERE,

TDLF = TRANSMISSION DEMAND LOSS FACTOR (2)

$$TDLF = \frac{GEN + NI - TIL - 1.01*SIL}{TIL + 1.01*SIL + NPI + MFT + SPAS + ASO}$$

WHERE,

GEN = NET ENERGY PRODUCED BY ALL GENERATING UNITS IN AP&L'S LOAD CONTROL AREA

NI = NET ENERGY FLOWING INTO (+) OR OUT OF (-) AP&L'S LOAD CONTROL AREA AS METERED AT ALL POINTS OF INTERCONNECTION WITH OTHER SYSTEMS

TIL = TOTAL ENERGY DELIVERED TO AP&L'S CUSTOMER LOADS SERVED AND METERED AT TRANSMISSION VOLTAGE

SIL = TOTAL ENERGY DELIVERED TO AP&L CUSTOMER LOADS SERVED BELOW TRANSMISSION VOLTAGE AS METERED ON THE SECONDARY SIDE OF THE SUBSTATION TRANSFORMERS SUPPLYING SUCH LOADS

NPI = NET MIDDLE SOUTH UTILITIES (MSU) POOL ENERGY INTERCHANGE REPRESENTING THE NET ENERGY DELIVERED TO THE MSU POOL BY AP&L FROM ALL RESOURCES

NPI = MEO - MEI + APC (3)

WHERE,

MEO = TOTAL ENERGY DELIVERED BY AP&L TO THE MSU POOL INCLUDING ANY ENERGY FROM GENERATION UNITS OR OTHER RESOURCES THAT ARE ALLOCATED TO OR OWNED BY OTHER MSU OPERATING COMPANIES

MEI = TOTAL ENERGY DELIVERED TO AP&L FROM THE MSU POOL INCLUDING ANY ENERGY FROM GENERATING UNITS OR OTHER RESOURCES OUTSIDE OF AP&L'S LOAD CONTROL AREA WHICH ARE ALLOCATED TO OR OWNED BY AP&L

APC = TOTAL ENERGY FROM AP&L RESOURCES WHICH IS SOLD OUTSIDE THE MSU SYSTEM

MFT = GROSS ENERGY SCHEDULED INTO AP&L'S LOAD CONTROL AREA AS A RESULT OF MSU FLOW-THRU TRANSACTIONS (ENERGY WHICH MSU SIMULTANEOUSLY PURCHASES FROM ONE INTERCONNECTED UTILITY AND SELLS TO ANOTHER INTERCONNECTED UTILITY)

SWPAS = NET ENERGY SCHEDULED OUT OF (+) OR INTO (-) AP&L'S LOAD CONTROL AREA AS A RESULT OF ALL TRANSACTIONS BETWEEN AP&L AND THE SOUTHWESTERN POWER ADMINISTRATION (3)

ASO = GROSS ENERGY SCHEDULED OUT (NOT REDUCED BY ENERGY SCHEDULED IN) OF AP&L'S LOAD CONTROL AREA ASSOCIATED WITH ALL TRANSACTIONS INVOLVING THE ARKANSAS ELECTRIC COOPERATIVE CORPORATION (AECC) EXCEPT THOSE INVOLVING THE SPA

TELF = TRANSMISSION ENERGY LOSS FACTOR

$$TELF = \frac{\sum (GEN + NI - TIL - 1.01*SIL)}{\sum (TIL + 1.01*SIL + NPI + MFT + SPAS + ASO)} \quad (4)$$

NOTES:

- 1) TRANSMISSION LOSS FACTOR IS TO BE CALCULATED AS A DECIMAL FRACTION AND ROUNDED TO FOUR DECIMAL PLACES.
- 2) THE VALUE OF ALL VARIABLES UTILIZED IN CALCULATING TELF SHALL BE THE VALUE FOR THE CLOCK HOUR DURING WHICH AP&L'S MAXIMUM NET AREA LOAD OCCURRED FOR THE CALENDAR YEAR FOR WHICH THE CALCULATIONS ARE BEING MADE.
- 3) THE VALUE OF THIS VARIABLE SHALL BE ZERO IF CALCULATED TO LESS THAN ZERO.
- 4) THE VALUES FOR EACH VARIABLE FOR EACH HOUR OF THE YEAR ARE TO BE SUMMED TO DETERMINE THE TOTAL YEAR VALUE. THE VALUE OF EACH VARIABLE FOR EACH HOUR SHALL BE DETERMINED INDEPENDENTLY USING THE ABOVE DEFINITIONS.