

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the :
Application of Columbus :
Southern Power Company for:
Approval of its Electric :
Security Plan; an : Case No. 08-917-EL-SSO
Amendment to its Corporate:
Separation Plan; and the :
Sale or Transfer of :
Certain Generating Assets.:

In the Matter of the :
Application of Ohio Power :
Company for Approval of :
its Electric Security : Case No. 08-918-EL-SSO
Plan; and an Amendment to :
its Corporate Separation :
Plan. :

PROCEEDINGS

before Ms. Kimberly W. Bojko and Ms. Greta See,
Hearing Examiners, at the Public Utilities Commission
of Ohio, 180 East Broad Street, Room 11-C, Columbus,
Ohio, called at 9:00 a.m. on Friday, November 21,
2008.

12/8/08

Transcript

VOLUME V
docketed electronically

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1 APPEARANCES:

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6 Columbus, Ohio 43215-2373

7 Porter, Wright, Morris & Arthur, LLP
8 By Mr. Daniel R. Conway
9 41 South High Street
10 Columbus, Ohio 43215-6194

11 On behalf of Columbus Southern Power
12 and Ohio Power Company.

13 Janine L. Migden-Ostrander
14 Ohio Consumers' Counsel
15 By Ms. Maureen R. Grady
16 Mr. Terry L. Etter
17 Ms. Jacqueline Lake Roberts
18 Mr. Michael E. Idzkowski
19 Mr. Richard C. Reese
20 Assistant Consumers' Counsel
21 Ten West Broad Street, Suite 1800
22 Columbus, Ohio 43215-3485

23 On behalf of the Residential
24 Ratepayers of Columbus Southern Power
25 and Ohio Power Company.

Sherry Maxfield, First Assistant
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Public Utilities Section
By Mr. Werner L. Margard III
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180 East Broad Street, 9th Floor
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On behalf of the staff of the Public
Utilities Commission of Ohio.

COMPANIES 7A

EXHIBIT PJN-1 (REV)

COLUMBUS SOUTHERN POWER COMPANY
FAC BASE PERIOD

Line No.	A	B	C	D	E	F	G
1	EFC Rate Per Transition Plan Case No. 99-1729-EL-ETP			Notes			Cents/Kwh
2							
3	The Unbundled EFC Included:						
4	Account 151 Component of Account 501- Fuel			(3)			
5	Account 555 - Energy						
6	Account 509 - Allowance Consumption Cost						
7	Account 411.8 Gains on Sales of Allowances						
8	Account 411.9 Losses on Sales of Allowances						
9	An RA and SLA component						
10	Frozen EFC Rate						1.373
11							
12	Additional S.B. 221 FAC Accounts at 1999 Level						
13							
14							
15							
16	Account	Description		Additional Fuel and Environmental Accounts in FAC			
17				Internal Load			
18				1999 Amount	Allocation Factor	Allocated Amount	
19	501	Fuel (Ash Handling)		\$ 5,723,429	93%	\$ 5,349,287	
20	501	Fuel - Procurement, Unloading & Handling		\$ 4,791,285	93%	\$ 4,478,078	
21	501	Fuel Handling - No Load (CV4)	(1)	\$ 68,238	93%	\$ 63,777	
22	501	Ash Sales Proceeds	(4)	\$ -	93%	\$ -	
23	501	Gypsum handling/disposal costs	(4)	\$ -	93%	\$ -	
24	507	Depr & Capacity portion-Affili (Lawrenceburg)	(1),(2)	\$ -	93%	\$ -	
25	555	Purch Pwr-NonTrading-Nonassoc (Non-Fuel)		\$ 17,159,879	IPS*	\$ 5,797,649	
26	555	Pool Capacity		\$ 114,794,238	100%	\$ 114,794,238	
27	555	Purchased Power - Pool Energy (152 and 1/2 Maintenance)	(3)	\$ 5,047,340	100%	\$ 5,047,340	
28	555	Purchased Power - Pool Energy (MLR for OSS AR-14)	(3)	\$ 17,880,329	0%	\$ -	
29	555	PJM Emer Energy Purch.	(2)	\$ -	93%	\$ -	
30	555	PurchPwr-O&M & Tax portion-Affiliate (Lawrenceburg)	(1),(2)	\$ -	93%	\$ -	
31	557	Renewable Energy Credits	(2)	\$ -	100%	\$ -	
32	502	Emission Control Chemicals Sub-Accounts	(4)	\$ 8,524,178	93%	\$ 7,966,949	
33	Total			\$ 173,988,915		\$ 143,497,319	
34	Internal Load MWH						
35	Additional FAC Components Rate						0.802
36	Subtotal						2.175
37	RSP Rate Adjustment - 3% per year for 3 years						0.202
38	Power Acquisition Rider Adjustment						0.185
39	FAC presently in rates						2.562
40							
41	(1) Applies to only CSP						
42	(2) Item did not exist in 1999						
43	(3) This account is divided into components to allocate separately						
44	(4) Item existed but this sub-account did not exist in 1999						
				*Interchange Power Statement			

**FUEL AND ENVIRONMENTAL REDUCTIONS TO REQUESTED INCREASES
COMPARED TO REVENUE PRODUCED BY RSP 3% AND 7% INCREASES AND RSP 4% CASES**

	(\$millions)		
	OPCO	CSP	Total
FUEL CREDIT FOR 3% & 7% VALUE			
Load	29,200	23,700	
3% and 7% RSP Adjustment to FAC Base Cents/kwh	0.323	0.201	
Revenue Requirement Value of RSP Adjustment to FAC	\$ 94	\$ 48	\$ 142
ENVIRONMENTAL CAPITAL OFFSET CREDIT VALUE			
Environmental Carrying Cost Calculated w/o Any Offset	\$ 224	\$ 82	\$ 306
Environmental Carrying Cost With Offset for RSP Estimates and 4% Case	\$ 84	\$ 26	\$ 110
Revenue Requirement Value of Credit	\$ 140	\$ 56	\$ 196
Total Value of RSP and RSP 4% Case Adjustment	\$ 234	\$ 104	\$ 338
2008 REVENUE INCREASE FOR 3% AND 7% AND RSP 4% CASE			
RSP 3% & 7% Increase Annual Revenue Produced in 2008	\$ 190	\$ 80	\$ 270
Annual Revenue Produced by Settlement in 4% RSP Case No.07-1278	\$ 5	\$ 39	\$ 44
Annual Revenue Produced by 3% and 7% and 4% Case	\$ 195	\$ 119	\$ 314
Value of Company Credits in Excess of Revenue Produced	\$ 39	\$ (15)	\$ 24

**AEP OHIO'S RESPONSE TO
THE OFFICE OF THE OHIO CONSUMER COUNSEL
REQUESTS FOR PRODUCTION OF DOCUMENTS
NINTH SET
CASE NO. 08-917-EL-SSO & CASE NO. 08-918-EL-SSO**

REQUESTS FOR PRODUCTION OF DOCUMENTS RPD-125

Please provide a copy of all workpapers supporting the Supplemental Information
Filing of October 16, 2008.

RESPONSE:

The Companies object to the request which seeks information that is neither relevant nor likely to lead to the discovery of admissible evidence. Without waiving this objection, the Companies provide the following response.

See OCC RPD 9-125 Attachment 1.

Prepared by: Counsel and P. J. Nelson

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Income Stmt - Summary
Ohio SSB 221 - As filed w/ Dedicated Purchases
(\$000)

OCC RPD 9-125
Attachment 1
Page 1 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
Columbus Southern			
REVENUES			
TOTAL OPERATING REVENUES	2,572,088	2,856,524	3,213,013
<i>Memo: Total Rate Relief by Class (excl. Goal Seek)</i>	<i>113,214</i>	<i>176,932</i>	<i>280,147</i>
FUEL & PURCHASED POWER EXPENSES			
Fuel for Electric Generation, exclud Def Fuel Exp	433,049	447,319	482,094
Fuel - Deferred Expense	(1,940,000)	61,325	48,763
Allowances - Consumption	8,439	10,130	13,035
Emissions Control - Chemicals	34,566	42,482	40,297
Fuel for Electric Generation	365,660	561,256	584,189
Total Purchased Power	779,377	829,879	1,049,392
Total Cost of Sales	1,145,337	1,391,135	1,633,582
GROSS MARGIN	1,426,751	1,465,388	1,579,431
OPERATING EXPENSES			
Total Operational and Maintenance Expenses	500,445	520,468	527,364
Loss/(Gain) of Sale of Property			
Depreciation and Amortization	173,830	186,588	191,474
Taxes Other than Income Taxes	180,849	194,472	203,995
TOTAL OPERATING EXPENSES	854,927	901,528	922,822
OPERATING INCOME	571,824	563,860	656,609
Total Non-Operating Income / (Expenses)	12,190	11,631	8,039
EBIT	584,014	575,490	664,647
Total Interest Expense	83,027	96,387	99,019
INCOME BEFORE INCOME TAXES	500,987	479,104	565,628
INCOME TAXES			
Total Income Taxes	164,796	155,731	183,834
INCOME AFTER INCOME TAXES	336,192	323,453	381,995
Income From Discontinued Ops			
Extraordinary Income / (Expenses)			
NET INCOME (LOSS) before Preferred Stock	336,192	323,453	381,995
Preferred Stock Dividends			
BALANCE FOR COMMON	336,192	323,453	381,995
YTD BALANCE FOR COMMON	336,192	323,453	381,995
Quarterly BALANCE FOR COMMON	336,192	323,453	
Common Shares Outstanding			
Daily Avg Shares Out - Monthly	407,344	410,754	413,866
Daily Avg Shares Out - Quarterly	408,701	410,123	413,285
Daily Avg Shares Out - YTD	405,418	408,866	412,139
Daily Avg Shares Out - Annual	405,418	408,866	412,139
EARNINGS PER SHARE			
Monthly Earnings Per Share	0.06	0.06	0.92
Quarterly Earnings Per Share	0.11	0.13	
YTD Earnings Per Share	0.83	0.79	0.93
Annual Earnings Per Share	0.83	0.79	0.93

Income Stmt - Summary
Ohio SSB 221 - As filed w/ Dedicated Purchases
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OCC RPD 9-125
Attachment 1
Page 2 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
<i>Ohio Power</i>			
REVENUES			
TOTAL OPERATING REVENUES	3,669,160	4,010,636	4,375,713
<i>Memo: Total Rate Relief by Class (excl. Goal Seek)</i>	<i>276,707</i>	<i>374,610</i>	<i>482,819</i>
FUEL & PURCHASED POWER EXPENSES			
Fuel for Electric Generation, exclud Def Fuel Exp	1,417,276	1,416,327	1,365,603
Fuel - Deferred Expense	(398,184)	(218,751)	(109,802)
Allowances - Consumption	16,007	21,228	25,969
Emissions Control - Chemicals	121,881	128,374	126,758
Fuel for Electric Generation	1,252,079	1,362,179	1,408,638
Total Purchased Power	446,449	619,834	884,821
Total Cost of Sales	1,698,528	1,972,012	2,293,459
GROSS MARGIN	1,970,632	2,038,623	2,082,254
OPERATING EXPENSES			
Total Operational and Maintenance Expenses	704,544	731,361	736,526
Loss/(Gain) of Sale of Property			
Depreciation and Amortization	325,502	334,873	341,234
Taxes Other than Income Taxes	203,771	213,940	222,706
TOTAL OPERATING EXPENSES	1,233,817	1,279,974	1,300,466
OPERATING INCOME	736,815	758,650	781,788
Total Non-Operating Income / (Expenses)	18,590	23,693	23,980
EBIT	755,405	782,342	805,768
Total Interest Expense	173,051	195,840	200,767
INCOME BEFORE INCOME TAXES	582,354	586,503	605,000
INCOME TAXES			
Total Income Taxes	191,146	192,547	168,942
INCOME AFTER INCOME TAXES	391,207	393,956	406,059
Income From Discontinued Ops			
Extraordinary Income / (Expenses)			
NET INCOME (LOSS) before Preferred Stock	391,207	393,956	406,059
Preferred Stock Dividends	733	733	733
BALANCE FOR COMMON	390,474	393,223	405,326
YTD BALANCE FOR COMMON	390,474	393,223	405,326
Quarterly BALANCE FOR COMMON	390,474	393,223	
Common Shares Outstanding			
Daily Avg Shares Out - Monthly	407,344	410,754	413,866
Daily Avg Shares Out - Quarterly	406,701	410,123	413,265
Daily Avg Shares Out - YTD	405,418	408,866	412,139
Daily Avg Shares Out - Annual	405,418	408,866	412,139
EARNINGS PER SHARE			
Monthly Earnings Per Share	0.08	0.08	0.98
Quarterly Earnings Per Share	0.17	0.19	
YTD Earnings Per Share	0.96	0.96	0.98
Annual Earnings Per Share	0.96	0.96	

Cash Flow Statement
Ohio SSB 221 - As filed w/ Dedicated Purchases
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OCC RPD 9-125
Attachment 1
Page 3 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
Columbus Southern			
OPERATING ACTIVITIES			
Balance for Common	336,192	323,453	381,995
(Income)/Loss from Discontinued Operations			
Net Income from Continuing Operations	336,192	323,453	381,995
ADJUSTMENTS TO NET INCOME			
Depreciation & Amortization	173,830	186,588	191,474
Deferred Income Tax	39,849	48,248	48,013
Deferred ITC	(1,561)	(2,748)	(1,544)
(Gain) / Loss on Sale of Assets			
Mark-to-Market Energy Contracts			
Over/Under Fuel Rec.	(1,577)	(2,276)	(899)
Deferred Property Taxes	3,271	12,429	8,883
Pension and Postemployment Benefit Reserves			
Regulatory Provision			
Carrying Costs on Stranded Assets (non-cash)			
Accretion Expense	1,448	1,462	1,558
Change in Other Regulatory Assets	(107,276)	61,326	48,753
Change in Other Regulatory Liabilities			
Change in Other Assets	(6,944)	577	1,705
Forecast Net Removal Expenditures	(7,087)	(5,476)	(3,459)
Change in Other Liabilities	332	328	287
Cash Flow before Changes in Working Capital	439,056	624,609	672,436
CHANGES IN WORKING CAPITAL			
Accounts Receivable - Customers			
Accounts Receivable - Misc			
Accounts Receivable - Associated Companies	2,001	3,026	3,246
Accrued Utility Revenues			
Allowance for Uncollectible			
Fuel, Materials & Supplies	3,099	1,118	(1,472)
Prepayments	18	18	(47)
Accounts Payable - General			
Accounts Payable - Associated Companies			
Customer Deposits			
Accrued Taxes	(9)	(9)	(11)
Accrued Interest & Dividends	3,018	2,544	2,403
Obligation Under Capital Leases - Current			
Other Current Assets			
Other Current Liabilities	(9)	(5,481)	(5,461)
Other, Net			
Changes in Working Capital	8,136	1,224	(1,361)
CASH FROM OPERATIONS	438,191	625,833	671,075
INVESTING ACTIVITIES			
Proceeds on Sale of Property & Other Assets			
Capital Expenditures - Property & Construction	(414,104)	(550,332)	(381,472)
Forecast AFUDC Debt	(6,329)	(5,644)	(7,459)
Change in Other/Special Cash Deposits			
Other Investing Activities			
Cash used in Investing	(422,427)	(380,866)	(388,931)
FINANCING ACTIVITIES			
Issuance - Common Stock (AEP)			
Issuance - Hybrid Preferred (Long-term Debt)			
Issuance - Equity Units (Long-term Debt)			
Issuance - Long-term Debt	91,784	275,000	75,000
Change in Short-term Debt	(92,640)	10,338	(6,840)
Capital Lease Obligations - Principle Payment			
Retirement - Long-term Debt		(150,000)	
Retirements - Long-term Debt of Affiliates		(100,000)	
Dividends & Distributions - Consolidating Subs	(25,000)	(275,000)	(350,000)
Net Cash Flow From Financing Activities	(15,862)	(239,662)	(381,840)

Cash Flow Statement
Ohio SSB 221 - As filed w/ Dedicated Purchases
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OCC RPD 9-125
Attachment 1
Page 4 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
Total Change in Cash	(98)	306	301
Beg. Cash & Cash Equivalents	2,018	1,920	2,226
Less: Cash held by Divestitures			
Net Beg. Cash & Cash Equivalents	2,018	1,920	2,226
ENDING CASH BALANCE	1,920	2,226	2,527
Ending Short Term Debt Balance	8,353	18,091	11,848
End. Cash & Cash Equiv, Net of STD	(6,433)	(16,865)	(9,321)
Cash change diff (fst s/b 0)	0	0	(0)

Cash Flow Statement
Ohio SSB 221 - As filed w/ Dedicated Purchases
(\$000)

OCC RPD 9-125
Attachment 1
Page 5 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
Ohio Power			
OPERATING ACTIVITIES			
Balance for Common	390,474	393,223	405,326
(Income)/Loss from Discontinued Operations			
Net Income from Continuing Operations	390,474	393,223	405,326
ADJUSTMENTS TO NET INCOME			
Depreciation & Amortization	326,502	334,673	341,234
Deferred Income Tax	50,995	78,415	82,689
Deferred ITC	(320)	(852)	(106)
(Gain) / Loss on Sale of Assets			
Mark-to-Market Energy Contracts			
Over/Under Fuel Rec.	(1,367)	(11,206)	(10,810)
Deferred Property Taxes	4,686	8,517	7,540
Pension and Postemployment Benefit Reserves			
Regulatory Provision			
Carrying Costs on Stranded Assets (non-cash)			
Accretion Expense	3,942	4,087	4,244
Change in Other Regulatory Assets	(600,084)	(213,751)	(159,292)
Change in Other Regulatory Liabilities			
Change in Other Assets	(25,330)	(16,400)	(23,551)
Forecast Net Removal Expenditures	(13,973)	(11,737)	(11,842)
Change in Other Liabilities	1,430	1,381	1,132
Cash Flow before Changes in Working Capital	430,305	565,749	680,103
CHANGES IN WORKING CAPITAL			
Accounts Receivable - Customers			
Accounts Receivable - Misc			
Accounts Receivable - Associated Companies			
Accrued Utility Revenues			
Allowance for Uncollectible			
Fuel, Materials & Supplies	10,785	13,784	17,914
Prepayments	119	119	(14)
Accounts Payable - General			
Accounts Payable - Associated Companies			
Customer Deposits			
Accrued Taxes	(0)	4	(9)
Accrued Interest & Dividends	8,384	587	0
Obligation Under Capital Leases - Current			
Other Current Assets			
Other Current Liabilities	(0)	(8,329)	(8,329)
Other, Net			
Changes in Working Capital	19,288	6,166	9,562
CASH FROM OPERATIONS	449,593	571,915	689,665
INVESTING ACTIVITIES			
Proceeds on Sale of Property & Other Assets			
Capital Expenditures - Property & Construction	(480,529)	(456,685)	(445,553)
Capital Expenditures - Other			
Forecast AFUDC Debt	(13,797)	(13,541)	(13,267)
Equity Investments			
Change in Other/Special Cash Deposits			
Investment in Subsidiaries			
Cash used in Investing	(494,325)	(472,197)	(458,820)
FINANCING ACTIVITIES			
Issuance - Common Stock (AEP)			
Capital Contribution from Parent	100,000		
Issuance - Hybrid Preferred (Long-term Debt)			
Issuance - Equity Units (Long-term Debt)			
Issuance - Long-term Debt	516,930	350,000	75,000
Change in Short-term Debt	(94,367)	1,314	(3,411)
Retirement - Preferred Stock			
Capital Lease Obligations - Principle Payment			
Retirement - Long-term Debt	(477,500)	(370,469)	
Retirements - Long-term Debt of Affiliates			
Dividends & Distributions - Consolidating Subs		(250,000)	(305,000)
Dividend Paid - Preferred Stock	(733)	(733)	(733)
Other Financing Activities			
Net Cash Flow From Financing Activities	44,300	(99,418)	(229,144)

Cash Flow Statement
Ohio SSB 221 - As filed w/ Dedicated Purchases
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OCC RPD 9-125
Attachment 1
Page 6 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
Total Change in Cash	(432)	(9)	1,701
Beg. Cash & Cash Equivalents	432	(9)	(9)
Less: Cash held by Divestitures			
Net Beg. Cash & Cash Equivalents	432	(9)	(9)
ENDING CASH BALANCE	(9)	(9)	1,701
Ending Short Term Debt Balance	24,046	25,361	21,950
End. Cash & Cash Equiv, Net of STD	(24,046)	(25,361)	(21,950)
Cash change diff (fcst s/b 0)	(9)	0	0

EEl Earnings Report
Ohio SSB 221 - As filed w/ Dedicated Purchases
(\$MM)

OCC RPD 9-125
Attachment 1
Page 7 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
<i>Columbus Southern</i>			
Utility GWH Sales			
Regulated Integrated Utilities - East Gwh			
Ohio Companies GWh	23,065	23,251	23,375
Regulated Integrated Utilities - West Gwh			
Texas Wires GWh			
System Sales GWh	5,646	5,831	5,714
UTILITY OPERATIONS:			
Gross Margin (\$Millions):			
Regulated Integrated Utilities - East			
Ohio Companies	1,238	1,307	1,406
Regulated Integrated Utilities - West			
Texas Wires			
Off-System Sales	137	105	118
Transmission Revenue - 3rd Party	20	20	21
Other Operating Revenue	31	34	35
Utility Gross Margin	1,427	1,465	1,579
Operations and Maintenance	(500)	(520)	(527)
Depreciation & Amortization	(174)	(187)	(191)
Taxes Other than Income Taxes	(181)	(194)	(204)
Interest Exp & Preferred Dividend	(83)	(96)	(99)
Other Income & Deductions	12	12	8
Income Taxes	(165)	(155)	(184)
Utility Operations On-Going Earnings	336	323	382
Transmission Operations On-Going Earnings			
NON-UTILITY OPERATIONS:			
MEMCO			
Generation & Marketing			
Parent & Other			
Adjustments for On-going Earnings			
ON-GOING EARNINGS	336	323	382
EPS - Monthly	0.83	0.79	0.92
Avg. Shares Outstanding - Monthly	407	411	414
EPS - Annual	0.83	0.79	0.93
Avg. Shares Outstanding - Annual	405	409	412
Memo: After Tax Gain on Sale of Asset			
Effective Federal Tax Rate			
Net Income Check (s/b 0)			
Total System Sales - by Region	137	105	118
OSS Marg Check			

EEl Earnings Report
Ohio SSB 221 - As filed w/ Dedicated Purchases
(\$MM)

OCC RPD 9-125
Attachment 1
Page 8 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
Ohio Power			
Utility GWH Sales			
Regulated Integrated Utilities - East Gwh			
Ohio Companies GWh	28,282	29,518	28,342
Regulated Integrated Utilities - West Gwh			
Texas Wires GWh			
System Sales GWh	6,706	6,886	6,712
UTILITY OPERATIONS:			
Gross Margin (\$Millions):			
Regulated Integrated Utilities - East			
Ohio Companies	1,709	1,818	1,855
Regulated Integrated Utilities - West			
Texas Wires			
Off-System Sales	185	128	138
Transmission Revenue - 3rd Party	21	20	21
Other Operating Revenue	76	74	68
Utility Gross Margin	1,971	2,039	2,082
Operations and Maintenance	(795)	(731)	(737)
Depreciation & Amortization	(328)	(335)	(341)
Taxes Other than Income Taxes	(204)	(214)	(223)
Interest Exp & Preferred Dividend	(174)	(197)	(202)
Other Income & Deductions	19	24	24
Income Taxes	(191)	(193)	(199)
Utility Operations On-Going Earnings	390	393	405
Transmission Operations On-Going Earnings			
NON-UTILITY OPERATIONS:			
MEMCO			
Generation & Marketing			
Parent & Other			
Adjustments for On-going Earnings			
ON-GOING EARNINGS	390	393	405
EPS - Monthly	0.96	0.96	0.98
Avg. Shares Outstanding - Monthly	407	411	414
EPS - Annual	0.96	0.96	0.98
Avg. Shares Outstanding - Annual	405	409	412
Memo: After Tax Gain on Sale of Asset			
Effective Federal Tax Rate			
Net Income Check (s/b 0)			
Total System Sales - by Region	165	128	138
OSS Marg Check			

FERC Balance Sheet
Ohio SSB 221 - As filed w/ Dedicated Purchases
(\$000)

OCC RPD 9-125
Attachment 1
Page 9 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
Columbus Southern			
UTILITY PLANT			
Utility Plant (101-106, 114)	5,394,662	5,691,287	5,994,659
Constr Work in Progress (107)	119,128	170,747	220,103
TOTAL Utility Plant	5,513,791	5,862,034	6,214,762
(Less) Accum. Prov. for Depr. Amort. Depl (108, 111, 1	2,042,808	2,180,967	2,326,823
Net Utility Plant Before Nucl Fuel	3,471,182	3,681,067	3,887,939
Nuclear Fuel (120.1-120.4, 120.6)			
(Less) Accum. Prov. for Amort. of Nucl. Fuel (120.5)			
Net Nuclear Fuel			
Net Utility Plant	3,471,182	3,681,067	3,887,939
OTHER PROPERTY & INVESTMENTS			
Nonutility Property (121)	13,463	13,463	13,463
(Less) Accum. Prov. for Depr. & Amort (122)	3,021	3,021	3,021
Invest in Assoc. Cos. (123)	430	430	430
Invest in Subsidiary Cos. (123.1)			
Other Investments (124)	12,487	12,487	12,487
Allowances - Long Term Portion (158)	35,617	30,828	24,166
Special Funds (125-129)	59,887	59,887	59,887
Long-Term Portion of Derivative Assets (175)	48,429	48,429	48,429
Long-Term Portion of Derivative Assets - Hedges (17	320	320	320
TOTAL Other Property & Investments	167,593	162,803	166,141
CURRENT & ACCRUED ASSETS			
Cash (131, 135, 136.0)	1,920	2,226	2,527
Special Deposits (132-134)	62,751	62,751	62,751
Notes Receivable (141)			
Customer Accts Receivable (142)	43,870	43,870	43,870
Other Accts Receivable (143)	40,055	40,055	40,055
(Less) Accum. Prov. for Uncollectible Acct - Credit (14	2,631	2,631	2,631
Notes Receiv from Assoc Companies (145)			
Accts Receiv from Assoc Companies (146)	17,214	14,188	10,942
Fuel Stock (151)	32,154	32,154	32,154
Fuel Stock - Oil (151.0002)	1,671	1,671	1,671
Fuel Stock Undistributed (152)	678	678	678
Residuals - Fuel (153)			
Plant Materials & Operating Supplies (154)	37,151	37,151	37,151
Other Materials & Supplies (156)	0	0	0
Allowances - Current Portion (158)	4,275	4,359	7,030
Stores Exp Undistributed (163)	0	0	0
Prepayments - Total (165)	6,096	6,077	6,124
Interest & Dividends Receivable (171)	236	236	236
Rents Receivable (172)	1,021	1,021	1,021
Accrued Revenues (173)	12,643	12,643	12,643
Misc Current & Accrued Assets (174)			
Derivative Instr. Assets, Current (175)	89,176	89,176	89,176
Derivative Instr. Assets - Hedges, Current (176)	1,455	1,455	1,455
TOTAL Current & Accrued Assets	349,733	347,079	346,852
DEFERRED DEBITS			
Unamort Debt Expense (181)	8,148	7,451	6,898
Extraordinary Property Losses (182.1)			
Other Regulatory Assets (182.3)	257,149	194,896	146,259
Prelim. Survey & Investg Chgs (183)	1	1	1
Clearing Accts (184)	22	22	22
Temporary Facilities (185)			
Misc Deferred Debits (186)	67,820	69,804	70,570
Research & Devel & Demonstration Expend (188)			
Unamort Loss on Reacquired Debt (189)	10,051	10,051	10,051
Accum Deferred Income Taxes - Static (190)	106,585	106,585	106,585
TOTAL Deferred Debits	449,776	388,609	340,386
TOTAL Assets	4,438,284	4,579,568	4,731,316
PROPRIETARY CAPITAL			
Preferred Stock Issued (204)			
Total Common Equity - Excluding 219	1,581,476	1,630,086	1,662,236
Accum Other Comprehensive Income (219)	(24,720)	(24,913)	(25,616)
TOTAL Proprietary Capital	1,556,716	1,605,168	1,637,163
LONG-TERM DEBT			
Bonds (221)	(92,245)	(92,245)	(92,245)
Advances from Assoc. Companies (223)	100,000		
Other Long-Term Debt (224)	1,534,900	1,659,990	1,734,990

FERC Balance Sheet
Ohio SSB 221 - As filed w/ Dedicated Purchases
(\$000)

OCC RPD 9-125
Attachment 1
Page 10 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
Unamort Premium on Long-Term Debt (225)	6,621	6,293	6,006
(Less) Unamort Disc on Long-Term Debt (226)			
Total Long-Term Debt	1,536,124	1,561,452	1,636,739
OTHER NONCURRENT LIABILITIES			
Obligations Under Capital Leases - NonCurr (227)	4,201	4,201	4,201
Accum Provision for Property Insurance (228.1)			
Accum Provision for Injuries & Damages (228.2)	154	154	154
Accum Provision for Pensions & Benefits (228.3)	37,948	37,948	37,948
Accum Misc Operating Provisions (228.4)	1,382	1,382	1,382
Accum Provision for Rate Refunds (229)			
Derivative Instr. Liabs, Long-Term (244)	36,080	36,080	36,080
Derivative Instr. Liabs, Long-Term - Hedges (245)	100	100	100
Asset Retirement Obligation (230)	21,788	21,788	21,788
TOTAL OTHER Noncurrent Liabilities	101,653	101,653	101,653
CURRENT & ACCRUED LIABILITIES			
Notes Payable (231)			
Accounts Payable (232)	147,118	147,118	147,118
Notes Payable to Assoc. Companies (233)	8,353	18,691	11,848
Accounts Payable to Assoc. Companies (234)	50,408	50,408	50,408
Customer Deposits (235)	42,514	42,514	42,514
Taxes Accrued (236)	167,773	170,202	178,874
Interest Accrued (237)	28,283	28,328	31,231
Dividends Declared (238)			
Tax Collections Payable (241)	58	58	58
Misc Current & Accrued Liabilities (242)	39,301	33,820	28,340
Obligations Under Capital Leases-Current (243)	3,054	3,054	3,054
Derivative Instr. Liabs, Current (244)	78,619	78,619	78,619
Derivative Instr. Liabs, Current - Hedges (245)	12,815	12,815	12,815
TOTAL Current & Accrued Liabilities	586,285	586,127	584,879
DEFERRED CREDITS			
Customer Advances for Construction (252)	293	293	293
Accum Deferred Investment Tax Credits (255)	16,819	14,773	12,929
Other Deferred Credits (253)	39,396	40,857	42,415
Other Regulatory Liabilities (254)	9,391	9,391	9,391
Unamortized Gain on Reacquired Debt (257)			
Accumulated Deferred Income Taxes (281-283)	611,597	659,843	705,856
TOTAL Deferred Credits	677,496	725,158	770,885
TOTAL Liab and Other Credits	4,438,284	4,579,538	4,731,318

FERC Balance Sheet
Ohio SSB 221 - As filed w/ Dedicated Purchases
(\$000)

OCC RPD 9-125
Attachment 1
Page 11 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
Ohio Power			
UTILITY PLANT			
Utility Plant (101-106, 114)	9,973,181	10,343,694	10,727,978
Constr Work in Progress (107)	90,602	118,368	121,443
TOTAL Utility Plant	10,063,783	10,462,062	10,849,422
(Less) Accum. Prov. for Depr. Amort. Depl (108, 111, 1	3,455,427	3,702,653	3,956,385
Net Utility Plant Before Nucl Fuel	6,608,356	6,759,409	6,893,037
Nuclear Fuel (120.1-120.4, 120.6)			
(Less) Accum. Prov. for Amort. of Nucl. Fuel (120.5)			
Net Nuclear Fuel			
Net Utility Plant	6,608,356	6,759,409	6,893,037
OTHER PROPERTY & INVESTMENTS			
Nonutility Property (121)	53,264	53,264	53,264
(Less) Accum. Prov. for Depr. & Amort (122)	8,895	8,895	8,895
Invest in Assoc. Cos. (123)			
Invest in Subsidiary Cos. (123.1)	734	734	734
Other Investments (124)	69,280	72,230	73,136
Allowances - Long Term Portion (158)	57,278	52,542	55,203
Special Funds (125-129)	88,129	88,129	88,129
Long-Term Portion of Derivative Assets (175)	65,003	65,003	65,003
Long-Term Portion of Derivative Assets - Hedges (17	373	373	373
TOTAL Other Property & Investments	325,166	323,380	326,947
CURRENT & ACCRUED ASSETS			
Cash (131, 135, 136.0)			
Special Deposits (132-134)	14,009	14,009	14,009
Notes Receivable (141)	20,000	20,000	20,000
Customer Accts Receivable (142)	73,292	73,292	73,292
Other Accts Receivable (143)	37,639	37,639	37,639
(Less) Accum. Prov. for Uncollectible Acct - Credit (14	3,478	3,478	3,478
Notes Receiv from Assoc Companies (145)			1,701
Accts Receiv from Assoc Companies (146)	106,376	106,376	106,376
Fuel Stock (151)	102,207	102,207	102,207
Fuel Stock - Oil (151.0002)	7,681	7,681	7,681
Fuel Stock Undistributed (152)	2,681	2,681	2,681
Residuals - Fuel (153)			
Plant Materials & Operating Supplies (154)	94,827	94,827	94,827
Other Materials & Supplies (156)			
Allowances - Current Portion (158)	11,568	17,783	18,770
Stores Exp Undistributed (163)	(0)	(0)	(0)
Prepayments - Total (165)	5,528	5,409	5,423
Interest & Dividends Receivable (171)			
Rents Receivable (172)	1,105	1,105	1,105
Accrued Revenues (173)	18,781	18,781	18,781
Misc Current & Accrued Assets (174)	500	500	500
Derivative Instr. Assets, Current (175)	130,127	130,127	130,127
Derivative Instr. Assets - Hedges, Current (176)	2,041	2,041	2,041
TOTAL Current & Accrued Assets	624,883	630,979	633,678
DEFERRED DEBITS			
Unamort Debt Expense (181)	19,205	17,525	18,084
Extraordinary Property Losses (182.1)			
Other Regulatory Assets (182.3)	584,799	818,700	943,160
Prelim. Survey & Investg Chgs (183)	37,464	37,464	37,484
Clearing Accts (184)	(133)	(133)	(133)
Temporary Facilities (185)			
Misc Deferred Debits (186)	76,635	76,635	76,635
Research & Devel & Demonstration Expend (188)			
Unamort Loss on Reacquired Debt (189)	8,226	8,226	8,226
Accum Deferred Income Taxes - Static (190)	218,666	218,666	218,666
TOTAL Deferred Debits	954,861	1,177,083	1,300,081
TOTAL Assets	8,513,265	8,890,850	9,153,744
PROPRIETARY CAPITAL			
Preferred Stock Issued (204)	16,627	16,627	16,627
Total Common Equity - Excluding 219	3,108,267	3,251,491	3,356,817
Accum Other Comprehensive Income (219)	(44,234)	(44,234)	(44,234)
TOTAL Proprietary Capital	3,080,661	3,223,884	3,329,210
LONG-TERM DEBT			
Bonds (221)	(250,000)	(250,000)	(250,000)
Advances from Assoc. Companies (223)	200,000	200,000	200,000
Other Long-Term Debt (224)	3,107,130	3,257,130	3,332,130
Unamort Premium on Long-Term Debt (225)			

For Planning Purposes only.

Not to be construed as management's forecast of actual results.

FERC Balance Sheet
Ohio SSB 221 - As filed w/ Dedicated Purchases
(\$000)

OCC RPD 9-125
Attachment 1
Page 12 of 12

Ohio SSB 221 - As filed w/ Dedicated Purchases	2009 Year	2010 Year	2011 Year
(Less) Unamort Disc on Long-Term Debt (226)	3,769	3,121	2,722
Total Long-Term Debt	3,053,361	3,204,009	3,279,408
OTHER NONCURRENT LIABILITIES			
Obligations Under Capital Leases - NonCurr (227)	20,055	20,055	20,055
Accum Provision for Property Insurance (228.1)			
Accum Provision for Injuries & Damages (228.2)	5,398	5,398	5,398
Accum Provision for Pensions & Benefits (228.3)	73,635	73,635	73,635
Accum Misc Operating Provisions (228.4)	7,068	7,068	7,068
Accum Provision for Rate Refunds (229)			
Derivative Instr. Liabs, Long-Term (244)	46,508	46,508	46,508
Derivative Instr. Liabs, Long-Term - Hedges (245)	117	117	117
Asset Retirement Obligation (230)	77,651	77,651	77,651
TOTAL OTHER Noncurrent Liabilities	230,431	230,431	230,431
CURRENT & ACCRUED LIABILITIES			
Notes Payable (231)	15,970	19,798	21,950
Accounts Payable (232)	172,087	172,087	172,087
Notes Payable to Assoc. Companies (233)	8,078	5,563	
Accounts Payable to Assoc. Companies (234)	101,705	101,705	101,705
Customer Deposits (235)	30,481	30,481	30,481
Taxes Accrued (236)	159,635	168,157	175,898
Interest Accrued (237)	64,823	65,411	65,411
Dividends Declared (238)	(0)	(0)	(0)
Tax Collections Payable (241)	162	162	162
Misc Current & Accrued Liabilities (242)	118,642	110,313	101,985
Obligations Under Capital Leases-Current (243)	7,002	7,002	7,002
Derivative Instr. Liabs, Current (244)	117,064	117,064	117,064
Derivative Instr. Liabs, Current - Hedges (245)	17,674	17,674	17,674
TOTAL Current & Accrued Liabilities	813,321	815,415	811,206
DEFERRED CREDITS			
Customer Advances for Construction (252)			
Accum Deferred Investment Tax Credits (255)	1,987	1,105	569
Other Deferred Credits (253)	62,934	67,020	71,264
Other Regulatory Liabilities (254)	12,452	12,452	12,452
Unamortized Gain on Reacquired Debt (257)			
Accumulated Deferred Income Taxes (281-283)	1,258,119	1,336,534	1,419,203
TOTAL Deferred Credits	1,335,491	1,417,111	1,503,488
TOTAL Liab and Other Credits	8,513,265	8,890,860	9,153,744

**AEP OHIO'S RESPONSE TO
THE OFFICE OF THE OHIO CONSUMER COUNSEL
INTERROGATORY REQUESTS
NINTH SET
CASE NO. 08-917-EL-SSO & CASE NO. 08-918-EL-SSO**

INTERROGATORY REQUEST NO. 9-270

Referring to the "Assumptions Used in the Projected Financial Statements", page 1 of 10 of the Supplemental Information filing of October 16, 2008:

- a. Please identify, on a yearly basis for 2009-2011 the specific assumptions that "Utility Operations sell generation beyond the system internal load requirements into the wholesale market." Include the kws assumed sold, the revenues assumed (net and gross) from such sales, and the proposed treatment of the revenues—are the revenues flowed back in any portion to retail customers of AEP under the ESP proposed in this case, and if so, how much revenue is flowed back and how? Also indicate on page 2 of 10 "Projected Financial Statements Prepared Consistent with Filing" which line item reflects off system sales revenue;
- b. Is the Gwh listed as 2009, the usage that is reflected on DMR-1? If not, why not? And if not, what usage is in fact reflected on DMR-1?
- c. Please identify the "financially significant components" of the companies ESP filings that are included in these projections.

RESPONSE:

The Companies object to the request which seeks information that is neither relevant nor likely to lead to the discovery of admissible evidence. Without waiving this objection, the Companies provide the following response.

- a. The sales on a yearly basis are as follows:

	Combined AEP Ohio		
	2009	2010	2011
Cost	365,121	416,316	488,743
Margin	302,298	232,335	256,322
Revenues	667,418	648,651	745,065
<hr/>			
GWH	12,352	12,717	12,426

OSS sales are included in line 3 – "Sales of Electricity" of the Income Statement. Credits for OSS margins are a component of the current SSO and are therefore reflected in the ESP. The Companies have not determined the amount of credits that will flow back through the ESP. Refer to the prefled testimony of witness Baker for his discussion on OSS and the significantly excessive earnings test.

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INTERROGATORY REQUEST NO. 9-270 CONTINUED

b. There is no usage shown on DMR-1. Please refer to DMR-5 for usage. The forecast in the projected financial statements is a more recent forecast.

c. In addition to the assumptions used in the Projected Financial Statements on page 1 of 10 the following components were included in the projections:

- Contributions to AEP Ohio's \$75 million "Partnership With Ohio" fund as described by witness Hanrock were included.
- Non-FAC revenue increases are based upon the information presented by witness Roush in Exhibit DMR-1.
- FAC revenue increases are based upon the information presented by witnesses Roush and Nelson in Exhibits DMR-1, PJN-2 and PJN-5. Consistent with the testimony of witness Roush, to the extent that the forecasted FAC expenses and deferred balances did not require that rates be increased by the maximum phase-in FAC rates, lower revenues were reflected.
- Market purchases to serve 5%/10%/15% of retail load in 2009/2010/2011 were directly assigned to CSP and OPCo and included in the FAC.
- Deferred FAC expenses were included using the methodology described in the testimony of witness Roush.
- Carrying charges on the deferred FAC expense balances were included based upon the testimony of witness Assante and the forecasted FAC expense balances.
- Incremental distribution reliability capital and O&M spending as detailed by witness Roush in Exhibit DMR-4 were included. GridSmart capital and O&M expenditures as detailed by witness Roush in Exhibit DMR-4 were included.

Prepared by: P. J. Nelson

**AEP OHIO'S RESPONSE TO
THE OFFICE OF THE OHIO CONSUMER COUNSEL
INTERROGATORY REQUESTS
THIRD SET
CASE NO. 08-917-EL-SSO & CASE NO. 08-918-EL-SSO**

INTERROGATORY REQUEST NO. 3-50.

To the extent the Company has not followed its vegetation management plan as filed with the PUCO, what are the reasons for deviation from the vegetation management plan and how has each deviation been communicated to the PUCO?

RESPONSE:

The Company has not deviated from the vegetation management plan because the plan is intended to change as circumstances warrant.

Prepared by: K. G. Boyd

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3Q08 Earnings Release Presentation

October 31, 2008

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"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995

This presentation contains forward-looking statements, which are subject to risks and uncertainties. These factors include electric load and customer growth; weather conditions, including storms; available sources and costs of, and transportation for, fuels and performance of fuel suppliers and transporters; availability of generating capacity and performance of generating plants; the ability to recover regulatory assets and stranded costs in connection with deregulation; the ability to recover increases in fuel and other energy costs through regulated or competitive electric rates; the ability to build or acquire generating capacity (including our ability to obtain any necessary regulatory approvals and permits) when needed at acceptable prices and terms and to recover those costs (including the costs of projects that are cancelled) through applicable rate cases or competitive rates; new legislation, litigation and government regulation, including requirements for reduced emissions of sulfur, nitrogen, mercury, carbon, soot or particulate matter and other substances; timing and resolution of pending and future rate cases, negotiations and other regulatory decisions (including rate or other recovery of new investments in generation, distribution and transmission service and environmental compliance); resolution of litigation (including disputes arising from the bankruptcy of Enron Corp. and related matters); our ability to constrain operation and maintenance costs; the economic climate and growth or contraction in our service territory and changes in market demand and demographic patterns; inflationary and interest rate trends; volatility in the financial markets, particularly development affecting the availability of capital on reasonable terms and developments impacting our ability to refinance existing debt at attractive rates; our ability to develop and execute a strategy based on a view regarding prices of electricity, natural gas coal, nuclear fuel and other energy related commodities; changes in the creditworthiness of the counterparties with whom we have contractual arrangements, including participants in the energy trading market; actions of rating agencies, including changes in the ratings of debt; volatility and changes in markets for electricity, natural gas and other energy-related commodities; changes in utility regulation, including the implementation of the recently-passed utility law in Ohio and the allocation of costs within regional transmission organizations; accounting pronouncements periodically issued by accounting standard-setting bodies; the impact of volatility in the capital markets on the value of the investments held by our pension, other postretirement benefit plans and nuclear decommissioning trust and the impact on future funding requirements; prices for power we generate and sell at wholesale; changes in technology, particularly with respect to new, developing or alternative sources of generation; other risks and unforeseen events, including wars, the effects of terrorism (including increased security costs), embargoes and other catastrophic events; and other factors discussed in the reports, including Forms 10-K and 10-Q, filed from time to time by the company with the SEC.

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Third Quarter 2008 Highlights

- Economic Conditions/Outlook
- Current State of Credit Markets/AEP Liquidity
- DC Cook Plant Unit 1 Update
- Regulatory Updates - all \$518MM of 2008 rate relief secured
 - Ohio ESP
 - Virginia Rate Case Settlement
 - Pending Rate Cases in Indiana and Oklahoma
 - Generation and Transmission
- Earnings:
 - 3Q08 GAAP/Ongoing Earnings \$0.93 per share
 - 2008 YTD GAAP Earnings \$3.06 per share
 - 2008 YTD Ongoing \$2.65 per share
- Tightening 2008 Ongoing Earnings Guidance Range to \$3.15 to \$3.25



3Q08 Performance

American Electric Power

Financial Results for 3rd Quarter 2008 Actual vs 3rd Quarter 2007 Actual

	2007 Actual	2008 Actual
(\$ millions)	EPS	EPS

UTILITY OPERATIONS:

Gross Margin:

1	East Regulated Integrated Utilities	534	498
2	Ohio Companies	629	577
3	West Regulated Integrated Utilities	336	341
4	Texas Wires	152	153
5	Off-System Sales	329	322
6	Transmission Revenue - 3rd Party	81	85
7	Other Operating Revenue	126	150
8	Utility Gross Margin	2,187	2,127

9	Operations & Maintenance	(771)	(846)
10	Depreciation & Amortization	(374)	(379)
11	Taxes Other than Income Taxes	(189)	(187)
12	Interest Exp & Preferred Dividend	(213)	(226)
13	Other Income & Deductions	27	45
14	Income Taxes	(224)	(179)
15	Utility Operations On-Going Earnings	443	356

3Q08 Earnings Release

NON-UTILITY OPERATIONS:

16	Transmission Operations On-Going Earnings	0	0.00
17	AEP River Operations	18	0.05
18	Generation & Marketing	3	0.01
19	Other Non-Utility Operations	1	0.00
20	ON-GOING EARNINGS	462	1.16

Note: For analysis purposes, certain amounts have been reclassified for this effect on earnings presentation.

3Q08 Performance Drivers:

Retail Sales (lines 1-4):

- \$78MM higher fuel costs in Ohio, including consumables
- Unfavorable weather impact of \$42MM (\$0.07) versus prior year and a \$0.03 unfavorable impact versus normal; additionally, Hurricane Ike caused outages in SWEPco and the Ohio Companies, resulting in \$10MM in lost revenues
- Offset by rate relief \$90MM (APCo, I&M, KPCo, Ohio RSPs, PSO, SWEPco & TCC)

Off-System Sales (line 5):

- Lower margins in the west due to a favorable fuel reconciliation recorded in the prior year quarter, somewhat offset by higher power prices & lower internal load in the east

Other Operating Revenue (line 7):

- Higher miscellaneous operating revenues including rents and pole attachments and 2007 TCC provision for bonded rates

Operations & Maintenance (line 9):

- Higher expenditures in all categories due to maintenance outages, reliability and storm restoration, some of which have revenue offsets

Interest Expense & Preferred Dividend (line 12):

- Higher due to increased long-term debt outstanding and higher interest rates on variable-rate debt

Other Income & Deductions (line 13):

- Higher due to increased interest income and carrying charges

Income Taxes (line 14):

- Effective tax rate for utility operations was 33.5% in 2008 and 33.6% in 2007

- River Operations decreased due primarily to weather related issues including hurricanes and flooding and an oil spill in New Orleans harbor, which limited ship arrivals and departures.

- Generation & Marketing increased due to higher gross margins from the marketing business and from the optimization of Oklahoma

- Parent decreased due to higher interest expense and lower interest income



YTD Performance

American Electric Power

Financial Results for YTD September 2008 Actual vs YTD September 2007 Actual

	2007 Actual (\$ millions)	2008 Actual (\$ millions)	EPS
UTILITY OPERATIONS:			
Gross Margin:			
1 East Regulated Integrated Utilities	1,592	1,621	
2 Ohio Companies	1,842	1,823	
3 West Regulated Integrated Utilities	765	820	
4 Texas Wires	386	410	
5 Off-System Sales	713	786	
6 Transmission Revenue - 3rd Party	225	247	
7 Other Operating Revenue	413	440	
8 Utility Gross Margin	5,946	6,147	
9 Operations & Maintenance	(2,369)	(2,433)	
10 Depreciation & Amortization	(1,122)	(1,099)	
11 Taxes Other than Income Taxes	(560)	(569)	
12 Interest Exp & Preferred Dividend	(598)	(653)	
13 Other Income & Deductions	93	135	
14 Income Taxes	(455)	(500)	
15 Utility Operations On-Going Earnings	934	1,028	2.58
16 Transmission Operations On-Going Earnings	0	2	0.00
NON-UTILITY OPERATIONS:			
17 AEP River Operations	40	21	0.05
18 Generation & Marketing	17	43	0.11
19 Parent & Other On-Going Earnings	57	66	0.15
20 ON-GOING EARNINGS	990	1,094	2.89

Note: For analysis purposes, certain amounts have been reclassified for this effect on earnings presentation.

YTD Performance Drivers:

- Retail Sales (lines 1-4):
 - Rate relief \$247MM (APCo, Ohio RSPs, I&M, KPCo, Texas, SWEPCo & PSO)
 - Positive load growth including new customers; \$74MM
 - Positive impact due to 2007 unfavorable true-up of VA order; \$37MM
 - Offset by \$135MM higher fuel costs in Ohio, including consumables, and \$29MM increased OSS sharing
 - Unfavorable weather impact of \$65MM (\$0.10) versus prior year and unfavorable \$0.03 (\$18MM) versus normal; additionally, Hurricane Ike caused outages in SWEPCo and the Ohio Companies, resulting in \$10MM in lost revenues
- Off-System Sales (line 5):
 - Favorable due to higher prices and volumes, higher plant availability & lower internal load
- Operations & Maintenance (line 9):
 - Increase primarily due to storm restoration, maintenance, reliability, Red Rock write off & employee benefits, partially offset by a deferral of 2007 PSO ice storms in 1Q2008
- Interest Expense & Preferred Dividend (line 12):
 - Higher due to increased long-term debt outstanding and higher interest rates on variable-rate debt
- Other Income & Deductions (line 13):
 - Higher due to increased interest income and carrying charges
- Income Taxes (line 14):
 - Effective tax rate for utility operations was 32.7% in 2008 and 32.8% in 2007
- River Operations decreased due primarily to weather related issues including hurricanes and flooding and an oil spill in New Orleans harbor, which limited ship arrivals and departures.
- Generation & Marketing increased due to higher gross margins from the marketing business and from the optimization of Oklahoma
- Parent decreased due to higher interest expense and lower interest income



YTD 2008 Cash Flow

(\$ millions)

Operating Activities

Net Income -- Reported

Discontinued Operations

Continuing Earnings

Depreciation, Amortization & Deferred Taxes

Changes in Components of Working Capital

Extraordinary Loss

Over/(Under) Fuel Recovery, Net

Other Assets & Liabilities

Cash Flows From Operating Activities

Investing Activities

Capital Expenditures

Proceeds on Sale of Assets

Change in Other Temporary Cash Investments, net

Acquisition of Assets

Other Investing, net

Cash Flows Used for Investing Activities

Financing Activities

Common Shares Issued, net

Long-term Debt Issuances, net

Short-term Debt Increase, net

Other Financing

Dividends Paid

Cash Flows From Financing Activities

Cash From Continuing Operations

Beginning Cash & Cash Equivalent Balances

Ending Cash & Cash Equivalent Balances

	2007	2008
\$	\$ 858	\$ 1,228
	(2)	(1)
	<u>856</u>	<u>1,227</u>
	1,336	1,714
	(462)	(288)
	79	-
	(133)	(284)
	(45)	(316)
	<u>1,631</u>	<u>2,053</u>
	(2,595)	(2,576)
	78	83
	151	(368)
	(512)	(97)
	(57)	(103)
	<u>(2,935)</u>	<u>(3,061)</u>
	116	106
	1,054	979
	589	642
	(74)	(65)
	(466)	(494)
	<u>1,199</u>	<u>1,168</u>
\$	\$ (105)	\$ 160
	301	178
\$	\$ 196	\$ 338

2008 Cash Flow Drivers:

Operating Activities

- Changes in working capital largely driven by G & A type items
- Changes in other assets and liabilities largely driven by changes in securitized transition assets, regulatory assets related to the PSO storm and Red Rock cancellation and other employee-related non-current assets.

Investing Activities

- Cash outlay of \$2.6B for 2008 YTD capital investment.
- 2008 asset sale proceeds relate to miscellaneous utility property sales; 2007 asset sale proceeds primarily relate to Centrica sharing \$20MM and TCC's sale of its share of Oklaunion \$46MM.

- Change in Other Temporary Cash Investments, net in 2008 relates to the purchase of variable rate securities, primarily with funds received from our draw down on our credit facilities
- Change in 2008 Other Investing primarily relates to the purchase of nuclear fuel of \$99MM.

Financing Activities

- 2008 common share issuances of \$106MM primarily due to issuances through the dividend reinvestment program.
- Changes in long and short term debt driven by capital funding requirements.



AEP Liquidity

as of October 28, 2008

Liquidity Summary (unaudited)		Actual 10/28/08	
(\$ in millions)		Amount	Maturity
Revolving Credit Facility		\$1,500	Mar-11
Revolving Credit Facility		1,454	Apr-12
Revolving Credit Facility		627	Apr-11
Revolving Credit Facility		338	Apr-09
Total Credit Facilities		3,919	
Plus			
AEP, Inc. Cash and Investments		1,366	
Less			
Draw on Credit Facilities		(1,969)	
Commercial Paper Outstanding		(178)	
Letters of Credit Issued		(439)	
Net Available Liquidity		\$2,699	

Accessing the credit lines provides AEP with added flexibility to bridge our cash needs over the next several months while maintaining a strong liquidity position.



Capitalization

Capital Structure	Actual 12/31/2007			Actual 9/30/2008		
	Debt	Equity	Total	Debt	Equity	Total
Balance Sheet Capitalization						
Long-term Debt	14,994	-	14,994	16,007	-	16,007
Short-term Debt	660	-	660	1,302	-	1,302
Preferred Stock Not Subject to Mandatory Redemption	-	61	61	-	61	61
Common Equity	-	10,079	10,079	-	10,917	10,917
Total Capitalization per Balance Sheet	15,654	10,140	25,794	17,309	10,978	28,287
% of Capitalization per Balance Sheet	60.7%	39.3%	100.0%	61.2%	38.8%	100.0%
Adjustments						
Defeased First Mortgage Bonds	(19)	-	(19)	-	-	-
Cash and Marketable Securities	(178)	-	(178)	(781)	-	(781)
Capital and Operating Leases	1,522	-	1,522	1,470	-	1,470
Securitization Bonds	(2,257)	-	(2,257)	(2,132)	-	(2,132)
Receivables Securitization	507	-	507	555	-	555
Spent Nuclear Fuel Disposal Liability	(259)	-	(259)	(263)	-	(263)
Equity Portion of Hybrid Issuances	-	-	-	(158)	158	-
Total Adjusted Capitalization	14,970	10,140	25,110	16,000	11,136	27,136
% of Adjusted Capitalization	59.6%	40.4%	100.0%	59.0%	41.0%	100.0%

Adjusted debt-to-cap of 59.0% at 9/30/08



Questions



3Q08 Earnings

	\$ millions			Earnings Per Share		
	3rd Qtr 2007	3rd Qtr 2008	Change	2007	2008	Change
Utility Operations	443	356	(87)	1.11	0.89	(0.22)
Transmission Operations	0	1	1	0.00	0.00	0.00
Non-Utility Operations	21	27	6	0.06	0.07	0.01
Parent & Other	(2)	(1)	1	(0.01)	(0.01)	0.00
AEP On-Going Earnings	462	374	(88)	1.16	0.93	(0.23)
Special Items	(55)	0	55	(0.14)	0.00	0.14
Reported Earnings (GAAP)	407	374	(33)	1.02	0.93	(0.09)



Quarterly Performance Comparison

American Electric Power
Financial Results for 3rd Quarter 2008 Actual vs 3rd Quarter 2007 Actual

		2007 Actual		2008 Actual	
		Performance Driver	(\$ millions) EPS	Performance Driver	(\$ millions) EPS
UTILITY OPERATIONS:					
Gross Margin:					
1	East Regulated Integrated Utilities	18,677 GWh @ \$ 28.6 /MWhr =	534	18,060 GWh @ \$ 27.6 /MWhr =	499
2	Ohio Companies	13,464 GWh @ \$ 46.8 /MWhr =	629	13,127 GWh @ \$ 43.9 /MWhr =	577
3	West Regulated Integrated Utilities	12,469 GWh @ \$ 26.9 /MWhr =	336	12,070 GWh @ \$ 28.2 /MWhr =	341
4	Texas Wires	7,721 GWh @ \$ 19.6 /MWhr =	152	7,961 GWh @ \$ 19.3 /MWhr =	153
5	Off-System Sales	10,164 GWh @ \$ 32.4 /MWhr =	329	9,777 GWh @ \$ 33.0 /MWhr =	322
6	Transmission Revenue - 3rd Party		81		85
7	Other Operating Revenue		126		150
8	Utility Gross Margin		2,187		2,127
9	Operations & Maintenance		(771)		(846)
10	Depreciation & Amortization		(374)		(379)
11	Taxes Other than Income Taxes		(189)		(187)
12	Interest Exp & Preferred Dividend		(213)		(225)
13	Other Income & Deductions		27		45
14	Income Taxes		(224)		(179)
15	Utility Operations On-Going Earnings		443		356
			1.11		0.89
16	Transmission Operations On-Going Earnings		0		1
			0.00		0.00
NON-UTILITY OPERATIONS:					
17	AEP River Operations		18		11
			0.05		0.03
18	Generation & Marketing		3		16
			0.01		0.04
19	Parent & Other On-Going Earnings		3		16
			0.01		0.04
20	ON-GOING EARNINGS		462		374
			1.16		0.93

Note: For analysis purposes, certain financial statement amounts have been reclassified for this effect on earnings presentation.



September YTD Earnings

	Sept YTD 2007	Sept YTD 2008	Change	Sept YTD 2007	Sept YTD 2008	Change
Utility Operations	934	1,028	94	2.35	2.56	0.21
Transmission Operations	0	2	2	0.00	0.00	0.00
Non-Utility Operations	57	64	7	0.13	0.16	0.03
Parent & Other	(1)	(30)	(29)	0.00	(0.03)	(0.03)
AEP On-Going Earnings	990	1,064	74	2.48	2.65	0.17
Special Items	(132)	164	296	(0.33)	0.41	0.74
Reported Earnings (GAAP)	858	1,228	370	2.15	3.06	0.91



September YTD Performance Comparison

American Electric Power
Financial Results for YTD September 2008 Actual vs YTD September 2007 Actual

	Performance Driver	2007 Actual (\$ millions)	EPS	Performance Driver	2008 Actual (\$ millions)	EPS
UTILITY OPERATIONS:						
Gross Margin:						
1	East Regulated Integrated Utilities	54,734	GWh @ \$ 29.1 /MWhr = 1,592	54,483	GWh @ \$ 29.8 /MWhr = 1,621	
2	Ohio Companies	38,079	GWh @ \$ 48.4 /MWhr = 1,842	39,634	GWh @ \$ 46.0 /MWhr = 1,823	
3	West Regulated Integrated Utilities	32,294	GWh @ \$ 23.7 /MWhr = 765	32,278	GWh @ \$ 25.4 /MWhr = 820	
4	Texas Wires	20,297	GWh @ \$ 19.5 /MWhr = 398	20,916	GWh @ \$ 19.6 /MWhr = 410	
5	Off-System Sales	22,996	GWh @ \$ 31.0 /MWhr = 713	25,436	GWh @ \$ 30.9 /MWhr = 786	
6	Transmission Revenue - 3rd Party		225		247	
7	Other Operating Revenue		413		440	
8	Utility Gross Margin	5,946			6,147	
9	Operations & Maintenance	(2,369)			(2,433)	
10	Depreciation & Amortization	(1,122)			(1,099)	
11	Taxes Other than Income Taxes	(560)			(569)	
12	Interest Exp & Preferred Dividend	(599)			(653)	
13	Other Income & Deductions	93			135	
14	Income Taxes	(455)			(500)	
15	Utility Operations On-Going Earnings	934	2.35		1,028	2.56
16	Transmission Operations On-Going Earnings	0	0.00		2	0.00
NON-UTILITY OPERATIONS:						
17	AEP River Operations	40	0.09		21	0.05
18	Generation & Marketing	17	0.04		43	0.11
19	Parent & Other On-Going Earnings				(39)	(0.07)
20	ON-GOING EARNINGS	991	2.48		1,064	2.65

Note: For analysis purposes, certain financial statement amounts have been reclassified for this effect on earnings presentation.



Detailed Ongoing Earnings Guidance

2007 Actual: \$3.00

2008E: \$3.15 - \$3.25


American Electric Power
2007 Actual vs 2008 Guidance


		2007 Actual (\$ millions)	Performance Driver	2008 Guidance (\$ millions)
UTILITY OPERATIONS:				
Gross Margin:				
1	East Regulated Integrated Utilities	72,535 GWh @ \$ 28.7 /MWhr =	74,434 GWh @ \$ 31.3 /MWhr =	2,332
2	Ohio Companies	51,040 GWh @ \$ 47.2 /MWhr =	51,816 GWh @ \$ 48.3 /MWhr =	2,503
3	West Regulated Integrated Utilities	41,904 GWh @ \$ 23.7 /MWhr =	42,046 GWh @ \$ 26.2 /MWhr =	1,102
4	Texas Wires	26,682 GWh @ \$ 19.8 /MWhr =	27,134 GWh @ \$ 19.8 /MWhr =	537
5	Off-System Sales	30,895 GWh @ \$ 23.1 /MWhr =	35,907 GWh @ \$ 22.5 /MWhr =	807
6	Transmission Revenue - 3rd Party			346
7	Other Operating Revenue	536		519
8	Utility Gross Margin	7,817		8,146
9	Operations & Maintenance	(3,326)		(3,337)
10	Depreciation & Amortization	(1,483)		(1,451)
11	Taxes Other than Income Taxes	(748)		(779)
12	Interest Exp & Preferred Dividend	(780)		(839)
13	Other Income & Deductions	124		128
14	Income Taxes	(508)		(602)
15	Utility Operations On-Going Earnings	1,086		1,266
16	Transmission Operations On-Going Earnings	0		2
NON-UTILITY OPERATIONS:				
17	AEP River Operations	61		57
18	Generation & Marketing	37		20
19	Non Utility On-Going Earnings	98		77
20	Parent Company & Other On-Going Earnings	15		15
21	ON-GOING EARNINGS	1,199		1,286


Note: For analysis purposes, certain financial statement amounts have been reclassified for this effect on earnings presentation.



3Q08 Retail Performance


	Load Growth (weather normalized)
	3Q08 vs. 3Q07
East Regulated Integrated Utilities	-1.1%
Ohio Companies	0.4%
West Regulated Integrated Utilities	0.1%
Texas Wires	4.7%
Impact on EPS	


	Weather Impact
	3Q08 vs. 3Q07
East Regulated Integrated Utilities	(\$0.03)
Ohio Companies	(\$0.02)
West Regulated Integrated Utilities	(\$0.02)
Texas Wires	\$0.00
Impact on EPS	

	Major Storms *
	3Q08 vs. 3Q07
East Regulated Integrated Utilities	\$0.00
Ohio Companies	(\$0.02)
West Regulated Integrated Utilities	(\$0.00)
Texas Wires	\$0.00
Impact on EPS	




YTD Retail Performance


	Load Growth (weather normalized)
	YTD 2008 vs. YTD 2007
East Regulated Integrated Utilities	0.8%
Ohio Companies	3.3%
West Regulated Integrated Utilities	0.7%
Texas Wires	2.2%
Impact on EPS	 \$0.12

	Weather Impact
	YTD 2008 vs. YTD 2007
East Regulated Integrated Utilities	(\$0.06)
Ohio Companies	(\$0.04)
West Regulated Integrated Utilities	(\$0.01)
Texas Wires	\$0.01
Impact on EPS	 (\$0.10)



Retail Performance

	Rate Relief (in millions)
	3Q08 vs. 2Q07
East Regulated Integrated Utilities	\$16
Ohio Companies	\$61
West Regulated Integrated Utilities	\$8
Texas Wires	\$5
AEP System Total	\$90
Impact on EPS	 \$0.15

	Rate Relief (in millions)
	YTD 2008 vs. YTD 2007
East Regulated Integrated Utilities	\$60
Ohio Companies	\$148
West Regulated Integrated Utilities	\$22
Texas Wires	\$17
AEP System Total	\$247
Impact on EPS	 \$0.40

**AEP OHIO'S RESPONSE TO
OHIO HOSPITAL ASSOCIATION'S
INTERROGATORY REQUESTS
SECOND SET
CASE NO. 08-917-EL-SSO & CASE NO. 08-918-EL-SSO**

INTERROGATORY REQUEST NO. 2-3

Please provide the standards for residential underground distribution design for both CSP and Ohio Power. Specifically highlight if those standards provide for "looping" or switching capability (within the padmount or within a switching enclosure or otherwise) to redirect flow to serve some customers during cable repairs.

RESPONSE:

Please see OHA DR2-3 Attachment 1. These are planning criteria that serve as a guideline for the design of primary underground distribution systems. These guidelines are used in addition to the knowledge and experience of the employee, as well as site-specific considerations, in designing primary underground distribution systems.

Prepared by: K. G. Boyd

OHA 1

AMERICAN ELECTRIC POWER
UNDERGROUND
DISTRIBUTION PLANNING CRITERIA

APPLICATION

It is the purpose of these criteria, in conjunction with the AEP Distribution System Planning Criteria, to serve as a guideline for the design of primary underground distribution systems.

These criteria have been established with the intent of providing a uniform approach towards an efficient underground system among all Operating Companies. All statements refer to 34.5kV and 12kV wye systems unless otherwise noted. All statements applicable to 12kV shall also apply to 13.2kV wye systems.

There are two basic classifications of underground systems referred to in the criteria: General Underground Distribution and Special Underground Distribution. General Underground Distribution provides for area supply to urban and suburban communities, residential and commercial developments and single loads which require underground service. Special Underground Distribution includes service to loads and load areas which warrant special reliability such as with network and dual feeder schemes.

There are several terms which are used in these criteria which might mean different things to different readers. For the purpose of this report the following definitions hold: See Figure 1.

- Main feeder - A section of primary cable which does not have transformers directly connected on it.
- Lateral - A section of primary cable, tapped from the main which is used to directly supply load transformers.
- Radial - Line section with only one source of supply and no physical or electrical connections to a second source.
- Radial-loop - Line section with a source of supply at each end and a normally open tie, usually near the center of the line section.

I. GOALS

It is the ultimate goal to provide a radial-loop system with feeder-to-feeder backup and the laterals normally open with two different circuits as sources. The timing of additions to meet the ultimate will be based on current distribution authorization for such additions.

II. RATING AND LOADINGS

The basic switchgear classes of 600 and 200 amperes determine the feeder and lateral ratings respectively. The feeder should normally be 750 Kcmil Al and the laterals 4/0, 1/0 or #2 (12kV only) Al depending on the cable configuration and resulting ampacity. Refer to Underground Systems Engineering Manual, Section 2.3.1a for specific ampacities.

Normal maximum feeder loading should be 6000kVA at 12kV and 12000kVA at 34.5kV. These and all other loadings in the criteria are the ultimate anticipated maximum coincident demands. Three-phase laterals should have normal maximum loads of 2000kVA at 12kV and 5000kVA at 34.5kV. For single-phase laterals the normal loadings are 667kVA at 7.2kV and 1800kVA at 19.9kV. The emergency loading is twice that of the normal value.

III. CIRCUIT DESIGN AND LAYOUT - LATERALS FROM OVERHEAD LINES

Whenever possible, loads that are to be served underground should be fed via underground lateral taps from overhead lines as the most economical solution.

A. Radial

Laterals that supply less than twenty (20) single phase customers should be radial. Single phase loads should be served radially when the product of the number of customers times length of primary lateral cable does not exceed seventy-five thousand (75,000) customer-feet. For example, if a subdivision of 30 homes is to be built such that all 30 customers are served with a total of 2000 feet of primary cable, the supply should be a radial lateral. The product, 60 customer-kft, falls short of the minimum of 75 customer-kft required to establish a radialy-loop. Similarly, a multiple occupancy dwelling with 100 apartments should be served radially unless the cable run exceeds 750 feet. Load balance among phases at the tap point must also be considered when planning single phase laterals. Three-phase loads of up to 1500kVA, 12kV and 2500kVA, 34.5kV should be served radially.

Sectionalizing should be provided at the riser with an over-current protective device capable of loadbreak operation. Loadbreak elbows should be used with all single-phase transformers and 12kV three phase transformers when feeding through to another transformer in the lateral. Three-phase oil switches are required for 34.5kV three-phase transformers switching.

Surge protection is furnished by 9/10kV surge arrester(s) at the riser termination in 12kV systems and by riser pole type 27kV surge arrester(s) at the riser pole and 24kV Metal Oxide surge arrester at the cable end in 34.5kV systems.

B. Radial-loop Between Two Overhead Lines

For single-phase loads, if the lateral exposure exceeds 75 customer-kft and the number of customers is 20 or more, a radial-loop should be provided. For improved reliability, the overhead supply points should be from different circuits if the second circuit is readily available. Conductor tapering should be considered—i.e., in a direct buried 7.6kV or 7.2kV system when total loop exceeds 1000kVA use 1/0 cable to serve up to the first 167kVA in each half loop with #2 in the remainder. This will save in conductor costs and still maintain full looping capability. Note that load balancing among phases may be critical with the shift of full loop load to a single phase. Three-phase loads from 1500kVA to 4000kVA, 12kV and 2500kVA to 10,000kVA, 34.5kV should be served via radial-loop.

A three-phase sectionalizing device or a fused cutout should be provided at each riser for the installations rated 12kV and 34.5kV as shown below in Item V. An overcurrent protective device, usually a fused cutout, capable of loadbreak operation should be provided for single-phase and three-phase operation at 12kV. Loadbreak elbows should be used with all single-phase transformers and 12kV three-phase transformers. Three-phase oil switches are required for 34.5kV three-phase transformer switching. In 12kV and 34.5kV systems, the center transformer should have its elbow(s) on stand-off bushings to establish the normally open point in the radial-loop.

Surge protection is provided in 12kV systems by 9/10kV surge arrester(s) at each riser. In 34.5kV systems, riser pole type 27kV arrester(s) should be installed at the riser on the cable side and 24kV plug-in type surge arrester(s) should be installed on both sides of the normally open point.

IV. CIRCUIT DESIGN AND LAYOUT - LATERALS FROM UNDERGROUND MAINS

A main feeder is classified as underground if either it is entirely underground or just the segment under consideration is underground. The basic concept is to supply all underground loads through switching devices with no transformers connected directly to the main. The devices shall have 600 ampere main capacity and 200 ampere tap capacity. Loadbreak two-way (loop) switches with switched-fused taps provide sectionalizing for 12kV laterals and three-phase loadbreak devices provide for 34.5kV lateral sectionalizing.

Laterals should be either radial or radial-loop based on the loading criteria as stated in Item III, Circuit Design and Layout-Laterals from Overhead Lines. Note that the second source for a radial-loop is not required to be underground because the first source is underground.

Surge protection is not required on 12kV laterals from underground mains. On 34.5kV systems, 24kV Metal Oxide surge arrester(s) (M&E 61-0425) should be provided at the open end of the cable on a radial lateral, on both sides of the normally open point when it is in the center of the loop. Riser pole type arresters Ref. 1835 should be applied at both risers.

V. PROTECTION OF THREE-PHASE UNDERGROUND INSTALLATIONS

In order to eliminate the possibility of overvoltage during switching or single-phase fuse operation on three-phase underground installations, the following should be adhered to:

A. 12kV System - Loop-Feed Transformers

The overcurrent protection at the riser pole for three-phase, 12kV underground installations, using 12kV loop-feed transformers, should be provided by fused cutouts or a three-phase loadbreak (with voltage restraint) device depending on the relationship between transformer(s) kVA and total cable length. Table 1, Section V-E indicates the maximum lengths of cable which can be protected by a fused cutout. Lengths beyond these values require three-phase protection and switching.

Operating procedures shall be established to prevent simultaneous opening of the cable and transformer by a single-phase device at the riser pole. It is recommended that the transformer be de-energized first by switching elbows at the transformer, then de-energizing the cables at the riser pole. A reverse order should be used in energizing; first the cables are energized, then the transformer energized by operating elbows.

B. 12kV System - Radial-Feed Transformers

For an installation serving one padmounted transformer beyond the riser, install fused cutouts. If the total length of the three-phase cable run and the kVA of the transformer served by the cables exceed values as shown in Table 1, Section V-E, an economic evaluation should be made to determine the necessity for three-phase switching at the riser. If the analysis indicates justification based upon the protection system cost not exceeding 10% of the total installation costs, three-phase switching may be used.

C. 34.5kV System - Loop-Feed Transformers

The AEP Specification T2-3, since 1980, specifies a deadfront loop-feed design for three-phase padmounted transformers. This design includes a loadbreak four-way three-phase switch, 200A, 150kVBIL, along with internal fusing. Use of these transformers in the system loop will eliminate overvoltages caused by single-phase switching within the loop, provided proper operations procedures are followed at the riser pole as stated below. The

overcurrent protection at the riser for three-phase, 34.5kV underground installations should be provided by fused cutouts or a three-phase loadbreak (with voltage restraint) device depending on the relationship between transformer(s) kVA and total cable length located beyond the riser, as shown in the Table 1, Section V-E. Operating procedures shall be established to prevent the simultaneous opening of the cable and transformer by the single-phase device at the riser pole. It is recommended that the transformer be de-energized first by its internal switch, then disconnect the cable at the riser pole. A reverse order should be used in energizing; first the cables are energized, then the transformer energized by operating its internal switch.

- C.1 For loop-feed transformers without internal fusing or switching, the riser pole protection should be selected according to the Table 1. Selection of whether to provide fused cutouts or three-phase interrupting devices at the riser must follow the values associated in Table 1. Establish operating procedures as identified in Item V-E.

D. 34.5kV System - Radial-Feed Transformers

For an installation serving one padmounted transformer beyond the riser, install fused cutouts. If the total length of the three-phase cable run and the kVA of the transformer served by the cables exceed values as shown in the Table 1, Section V-E, an economic evaluation should be made to determine the necessity for three-phase switching. If the analysis indicates justification based upon the protection system cost not exceeding 10% of the total installation cost, three-phase switching shall be used.

E. Table 1 - Usage of Single-Phase Protective Devices at Risers

Maximum Cable length and transformer kVA, for which Single-Phase Switching or Fusing may be applied at 12kV and 34.5kV.

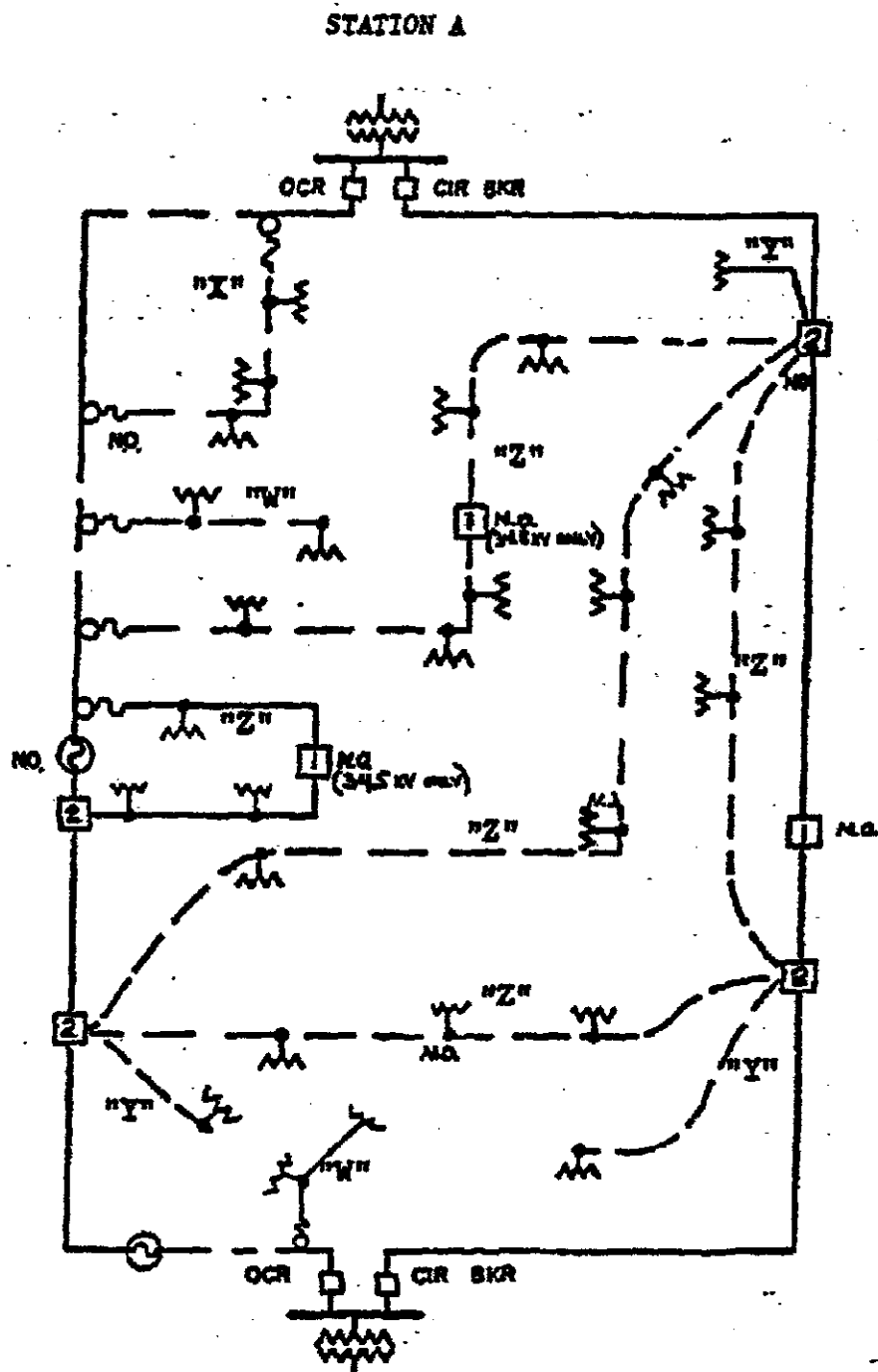
Transformer kVA	Maximum Length of the * Three-Phase Cable Runs in Feet		
	12kV	34.5kV	1 ft/6 kVA
300	315	50	
500	525	84	
750	788	126	
1,000	1050	168	
1,500	1575	252	

* The values above were extracted from IEEE Transaction on Power Apparatus and System, Vol. PAS-94 No. 5 Sept./Oct. 1975.

- F. The overcurrent protective devices, located on the main overhead line extending from the station's circuit recloser to the three-phase riser serving the load may be three-phase reclosers.

FIGURE 1

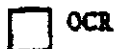
Possible Circuit Configurations



UG1.1.1
February 10, 1988

Legend to Circuit Diagram

----- 3Ø Overhead
———— 3Ø Underground
----- 1Ø Underground



OCR

Oil Circuit Recloser



CIR BKR

Non-reclosing Circuit Breaker



Riser Pole



Fuse



3Ø riser with fuses or overcurrent sectionalizing device



Padmount switching device

1

One Way switch to be used normally open on 34.5kv systems. When applied on a lateral or extension of an overhead line, a 27kv arrester is required on side of switch towards overhead section.



2

12kv - two way (loop) switch with switched, fused taps



34.5kv - device with non-loadbreak, but disconnectable while energized main, and switched, fused taps. 27kv arrester on load side of tap



Transformer with loadbreak elbows



N.O.

Normally open

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