McDep Associates
Stock Idea
May 7, 2001

Buy/Sell Rating: 2 - Buy

American Electric Power
Generation Deregulation

Symbol	*Price ($/sh) 4-May 2001*	*Shares (mm)*	*Market Cap ($mm)*	*Net Present Value ($/sh)*	*Debt/ Present Value*	*McDep Ratio*	*EV/ Sales NTM*	*EV/ Ebitda NTM*	*P/E NTM*	*Div'd NTM (%)*	*PV/ Ebitda NTM*
AEP	48.54	324	15,740	25.90	0.73	1.23	0.7	8.6	13.5	4.9	7.0

McDep Ratio = **M**arket **c**ap and **De**bt to **p**resent value of oil and gas and other businesses		
EV = Enterprise Value = Market Cap and Debt:	$mm	38,700
Ebitda = Earnings before interest, tax, depreciation and amortization:	$mm	4,490
NTM = Next Twelve Months Ended March 31, 2002; P/E = Stock Price to Earnings		
PV = Present Value of energy businesses:	$mm	31,410

Summary and Recommendation

We recommend current purchase of the shares of American Electric Power as one of the largest and lowest cost producers with a once-in-a-lifetime opportunity in the deregulation of electric generation. The second largest electricity producer with about 5% of U.S. supply, the company has costs among the lowest in part because it operates the largest amount of coal-fired capacity. Free market values of AEP’s generating plants in 2005 may be five times what AEP's current stock price implies. Add the impact of a leveraged balance sheet and we see a possible ten-bagger in AEP stock. The upside potential is great enough to put up with political, economic, financial and business risk. Income-oriented investors will appreciate a near 5% annual dividend yield.

Large Cap Power Play

In the past, an oil and gas analyst would have no interest in the power business because it was regulated. Now with deregulation, the natural gas and power businesses look like the oil business must have looked to John D. Rockefeller. The electric generating plants are akin to oil refineries, a transforming step along the way from wellhead to energy consumer. Moreover ownership is fragmented. It seems only a matter of time before we see just a few highly efficient producers, transporters, generators and marketers. As a result we believe it will be rewarding to add electric generation ideas to the diversified energy portfolio that we recommend.

While our analysis of American Electric Power from a stock market point of view is new, we have long appreciated the company's leading position in the industry. Owning almost 40,000 megawatts of generating capacity, AEP is second only to **Southern Company** among peers.

At the same time AEP has capitalized on its generating strength to back a trading operation. The company is second only to **Enron** in trading wholesale electricity. Generation and trading are beginning to accelerate corporate earnings growth.

Even the wires business has scale. The Company states it has "the nation's largest electric transmission and distribution grid".

Low-Cost Coal Fired Generator

Being the second largest in the industry is not a virtue by itself. AEP is also practically the lowest cost producer. It owes that enviable rank mostly to its position as the largest generator of electricity from coal. In the past we would have said "dirty coal". Now much of the acid rain and particulate emissions have been cleaned up. Carbon dioxide and oxides of nitrogen may still be problems. Yet, clean electricity has become so important that there is ample scope to justify further cleaning up of the solid carbon energy source.

Once confined to coal country in and near Appalachia, AEP has diversified with the acquisition of Central and Southwest, the utility company serving parts of Texas and neighboring states. Mostly because of that acquisition the company's fuel mix also includes natural gas, oil and nuclear sources.

Once-in-a-Lifetime Deregulation Irreversible

We first met AEP's vice president of investor relations when he was at Texas Gas Transmission and we were covering that company. One wouldn't recognize the deregulated natural gas pipeline industry from the structure of decades ago. A few large cap companies, some just added to our current research coverage, Enron, **El Paso**, **Williams** and **Duke Energy**, own what were once a dozen or more regional companies. The Federal Energy Regulatory Commission (FERC) oversaw the deregulation of that industry mainly during the 1980's. Investors have been rewarded by the survivors and in the takeover targets. Consumers have benefited from more efficient natural gas transmission.

During the mid 1990's, FERC deregulated the sale of electricity among utilities in different states. The states themselves are slowly deregulating the generation of electricity while retaining controls on transmission and distribution. Half of AEP's generating capacity will be deregulated by the end of the year. AEP has underway a corporate separation that will segregate the management, accounting and reporting to shareholders for the generation and trading activity in one entity and the transmission and distribution activity in another.

$100 a Megawatt-Hour in 2005?

California tested the long-term power market and could not get more than one contract for about $60 a megawatt-hour ($/MWh). Even that contract included little or no volume near term when the price is still more than $300. Assessments for all of next year apparently remain above $100 in the forward market. Even in Central U.S., where AEP has most of its plants, on-peak delivery for all of next year appears to be quoted above $50.

If we are in a multi-year upward adjustment in energy price as we sense we are, $100/MWh in 2005 seems a plausible level for the economic value of electrical energy. California's experience with long-term contracts tell us it is highly unlikely to be as low as half that. In any event it is a round number and one can make mental adjustments up or down with ease.

In a multi-trillion dollar economy, $100 electricity is not that big a deal. In New England our latest retail bill was $119/MWh of which $50 was the generation charge. Retail natural gas was $105/Mmbtu, equivalent to about $105/MWh.

Incremental electricity supply over the next four years will be priced in line with natural gas. In natural gas terms $100/MWh is $10 a million Btu or about 2 and a half times the current wellhead level, but no higher than for the first month of this year. We used to wonder why more electrical generators did not enter long-term contracts for natural gas. Apparently the answer is that the electric guys figure they will just pay whatever it takes to get gas. Electricity is the highest end use value for natural gas.

Raw material producers that use natural gas to make ammonia for fertilizer or hydro electricity to smelt aluminum, for example, will find domestic energy less economic. Raw material will increasingly be made in producing countries that have otherwise unmarketable energy reserves. It is cheaper to transport aluminum and fertilizer than natural gas or electricity. In that way the mix of natural gas use will be upgraded rather than the volume of North American gas expanding to meet all demand.

Should $100 become the going rate for wholesale electricity, it would make the low cost power plants of AEP enormously valuable. AEP's coal plants probably justify the whole company's enterprise value at $20 electricity. As a result, the economic value of the company could expand five fold. At the same time AEP's high debt ratio is like a mortgage on a house. If the value of the house goes up five times, the value of the equity portion may go up fifteen times depending on the size of the mortgage. The same would apply to AEP stock.

Will the Regulators Allow the Stockholders to Profit?

Do the ratepayers or the stockholders own AEP's plants? There is room for accommodation. Expect that AEP will be required to deliver some electricity at low rates for some time. Moreover deregulation implies that competitors could sell to AEP's customers. Some suppliers will undoubtedly offer long term arrangements that allow users to protect against sharp price increases.

The payoff is in a more efficient market than would otherwise be the case. If the whole energy price structure is moving up, deregulated prices may be higher, too. Moreover markets can spike. By definition, a price spike does not last.

Will the Economy Grow, Deflate or Inflate?

Growth is good for AEP as demand for electricity would be strong. Deflation would not be good, but we note that AEP paid a dividend every quarter in the 1930s. Inflation is not good for regulated businesses, but could be a boon to increasing value in unregulated energy businesses. Inflation would also devalue AEP's debt to the benefit of its equity holders.

Can Management Handle the Business?

We hope so. We are impressed that the company has always been strong. It is no small achievement for a presumably stodgy old utility to be the second largest trader of electricity.

Does AEP Have Too Much Debt?

It has more than we would like to see. Accordingly we recommend that investors temper the size of their commitment to bring financial risk more in line with that of most large cap energy companies.

Need We Worry About a Disaster Like Pacific Gas and Electric?

Events in California have caused thoughtful persons to pay closer attention to the course of deregulation in other states. It has become well recognized that California's mistake was to deregulate only halfway. Inadequate political leadership now compounds the problem.

The popular movie, "Erin Brockovich", probably did not help PG&E. Who wouldn't sympathize with actress Julia Roberts? The heroine wins a rich legal settlement for everyday persons against an evil corporation unmistakably identified as PG&E.

While Hollywood, deliberately or accidentally, fans the flames of self-destruction, the political leaders add fuel to the fire. The governor calls the generators "snakes", according to press reports. A legislator calls for prison terms for energy executives!

There is only one California. AEP is regulated by eleven states. Ohio, Texas and Virginia are proceeding to deregulate in measured course. All states are learning from California's example.

Mirant/Southern Company Illustrate Valuation Opportunity

Among large cap power companies, AEP appears to have a lower McDep Ratio (see first table that follows). Deliberately, the ranking parallels the ranking by ratio of enterprise value to ebitda (see second table that follows). We calculated the denominator of the McDep Ratio by assessing a ratio of present value to ebitda. We were unwilling to assess a higher multiple to the lowest ranked power company than that we assess to mega cap international oil companies. We conceded higher multiples to other power companies, but still not as much as the stock market accords them.

Southern Company recently completed a successful spinoff of **Mirant,** an unregulated generating and trading operation it established. Among other assets, the new company owns generation in California that has become much more valuable in the past year. Trading separately, Mirant has achieved a high multiple of ebitda compared to its former owner.

AEP is quite comparable operationally to the combination of Mirant and Southern Company although it is not a generator in California. All of AEP seems to have the lower valuation of Southern Company and little of the higher valuation of Mirant.

Recognizing that investors are unsure of where AEP’s future profits will come from, management is proceeding with AEP’s own version of highlighting unregulated businesses. The corporate separation mentioned earlier is a step in that direction. The ultimate potential appears exciting and not much recognized yet in AEP’s stock price.

Kurt H. Wulff, CFA

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Rank by McDep Ratio	Symbol/ Rating		Price ($/sh) 4-May 2001	Shares (mm)	Market Cap ($mm)	Net Present Value ($/sh)	Debt/ Present Value	McDep Ratio
Mega Cap								
Exxon Mobil Corporation	XOM		87.55	3,520	308,000	72.10	0.16	1.18
BP PLC	BP		51.90	3,720	193,000	48.90	0.17	1.05
TOTAL Fina Elf S.A.	TOT		72.25	1,400	101,000	72.00	0.16	1.00
Royal Dutch/Shell	RD		58.75	3,580	210,000	60.80	0.09	0.97
Total or Median					*812,000*		*0.16*	*1.03*
Large Cap Natural Gas and Oil								
Chevron (incl. Texaco)	CHV		93.35	1,060	99,000	103.40	0.15	0.92
Burlington Resources, Inc	BR		44.28	216	9,600	60.50	0.17	0.78
ENI S.p.A.	E		66.60	800	53,300	91.90	0.10	0.75
Anadarko Petroleum Corp.	APC		62.06	249	15,400	90.90	0.17	0.73
Conoco Inc.	COC.B		30.38	623	18,900	48.00	0.21	0.71
Phillips (incl. Tosco)	P		57.46	379	21,800	102.10	0.27	0.68
Total or Median					*218,000*		*0.17*	*0.74*
Large Cap Power								
Enron Corp.	ENE		59.48	795	47,300	14.50	0.70	1.93
Calpine Corporation	CPN		54.10	313	16,900	21.80	0.47	1.78
Mirant Corporation	MIR		39.08	353	13,800	9.70	0.78	1.67
Williams Companies	WMB		41.67	485	20,200	16.60	0.69	1.46
Duke Energy Corporation	DUK		45.84	752	34,500	20.90	0.62	1.46
El Paso Corporation	EPG		67.55	521	35,200	40.00	0.50	1.34
American Electric Power Co. Inc.	AEP	2	48.54	324	15,700	25.90	0.73	1.23
Southern Company	SO		22.46	683	15,300	16.90	0.54	1.15
Total or Median					*199,000*		*0.66*	*1.46*
Mid Cap								
Barrett Resources Corporation	BRR		67.30	34	2,300	53.80	0.21	1.20
PanCanadian Pete Ltd. (15%)	PCP.TO		44.26	38	1,700	49.10	0.07	0.91
Occidental Petroleum	OXY		28.97	370	10,700	35.60	0.46	0.90
PetroChina Company Ltd (10%)	PTR		21.55	176	3,800	28.40	0.24	0.82
Unocal Corporation	UCL		36.50	256	9,300	51.90	0.27	0.78
Valero Energy Corp.	VLO		45.47	64	2,900	65.00	0.25	0.77
USX-Marathon Group	MRO	1	30.69	360	11,100	47.00	0.30	0.76
Petro-Canada	PCZ		25.70	272	7,000	38.70	0.08	0.69
Norsk Hydro ASA	NHY		41.66	262	10,900	65.90	0.15	0.69
Devon Energy Corporation	DVN		56.00	135	7,600	89.70	0.15	0.68
Total or Median					*63,300*		*0.22*	*0.78*
Small Cap								
Cross Timbers Royalty Tr*	CRT		20.99	6.0	126	18.90	-	1.11
Dorchester Hugoton, Ltd.*	DHULZ		14.00	10.7	150	13.40	-	1.04
San Juan Basin Royalty Tr*	SJT		17.42	46.6	810	17.70	-	0.98
Hugoton RoyaltyTrust*	HGT		15.74	40.0	630	18.70	-	0.84
Encore Acquisition Corporation	EAC		13.47	30.0	400	16.70	0.12	0.83
Energy Partners Ltd.*	EPL	1	10.41	27.1	280	18.90	0.04	0.57
Total or Median					*2,400*		-	*0.91*

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy
McDep Ratio = **M**arket **c**ap and **De**bt to **p**resent value of oil and gas and other businesses
* For small cap stocks marked with asterisk, estimated present value recalculated weekly.

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment research by Kurt Wulff is accessible at http://www.mcdep.com. Owning shares in about 16 energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating. Mr. Wulff is not paid by covered companies.

Rank by EV/Ebitda	*Symbol*		*Price ($/sh) 4-May 2001*	*EV/ Sales 2001E*	*EV/ Ebitda NTM*	*P/E NTM*	*Dividend or Distribution NTM (%)*	*PV/ Ebitda NTM*
Mega Cap								
Exxon Mobil Corporation	XOM		87.55	1.5	8.3	18	2.0	7.0
BP PLC	BP		51.90	1.3	7.4	12	2.7	7.0
TOTAL Fina Elf S.A.	TOT		72.25	1.1	7.0	17	1.6	7.0
Royal Dutch/Shell	RD		58.75	1.4	6.8	15	2.4	7.0
Median				*1.4*	*7.2*	*16*	*2.2*	*7.0*
Large Cap Natural Gas and Oil								
Chevron (incl. Texaco)	CHV		93.35	1.1	5.5	11	2.8	6.0
Burlington Resources, Inc	BR		44.28	3.2	4.7	8	1.2	6.0
Anadarko Petroleum Corp.	APC		62.06	2.1	4.4	9	0.3	6.0
Conoco Inc.	COC.B		30.38	0.6	4.2	8	2.5	6.0
Phillips (incl. Tosco)	P		57.46	0.7	4.1	7	2.4	6.0
ENI S.p.A.	E		66.60	1.2	3.8	7	2.4	5.0
Median				*1.1*	*4.3*	*8*	*2.4*	*6.0*
Large Cap Power								
Enron Corp.	ENE		59.48	0.4	19.3	33	0.8	10.0
Calpine Corporation	CPN		54.10	4.7	17.8	30	-	10.0
Mirant Corporation	MIR		39.08	0.8	13.4	21	-	8.0
Williams Companies	WMB		41.67	3.7	11.7	18	1.4	8.0
Duke Energy Corporation	DUK		45.84	1.0	11.6	18	2.4	8.0
El Paso Corporation	EPG		67.55	0.8	10.7	20	1.3	8.0
American Electric Power Co. Inc.	AEP	2	48.54	0.7	8.6	13	4.9	7.0
Southern Company	SO		22.46	2.7	8.0	14	6.0	7.0
Median				*0.9*	*11.7*	*19*	*1.3*	*8.0*
Mid Cap								
Barrett Resources Corporation	BRR		67.30	5.2	7.2	15	-	6.0
PanCanadian Pete Ltd. (15%)	PCP.TO		44.26	1.8	5.4	13	0.6	6.0
Occidental Petroleum	OXY		28.97	1.3	5.4	8	3.5	6.0
PetroChina Company Ltd (10%)	PTR		21.55	2.0	4.9	7	6.6	6.0
Unocal Corporation	UCL		36.50	1.7	4.7	13	2.2	6.0
Valero Energy Corp.	VLO		45.47	0.3	4.6	6	0.7	6.0
USX-Marathon Group	MRO	1	30.69	0.4	4.5	6	3.0	6.0
Petro-Canada	PCZ		25.70	1.1	4.1	9	1.1	6.0
Devon Energy Corporation	DVN		56.00	2.8	3.7	8	0.4	5.5
Norsk Hydro ASA	NHY		41.66	0.8	2.7	7	2.5	4.0
Median				*1.5*	*4.7*	*8*	*1.6*	*6.0*
Small Cap								
Cross Timbers Royalty Tr*	CRT		20.99	5.9	9.0	9	10.5	8.1
San Juan Basin Royalty Tr*	SJT		17.42	6.1	7.5	10	9.9	7.6
Dorchester Hugoton, Ltd.*	DHULZ		14.00	5.4	6.7	7	7.7	6.4
Hugoton RoyaltyTrust*	HGT		15.74	4.7	6.4	9	11.7	7.6
Encore Acquisition Corporation	EAC		13.47	3.7	5.0		-	6.0
Energy Partners Ltd.*	EPL	1	10.41	1.7	2.4	8	-	4.3
Median				*5.1*	*6.6*	*9*	*8.8*	*7.0*

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2002; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses