

## Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

December 31, 2001

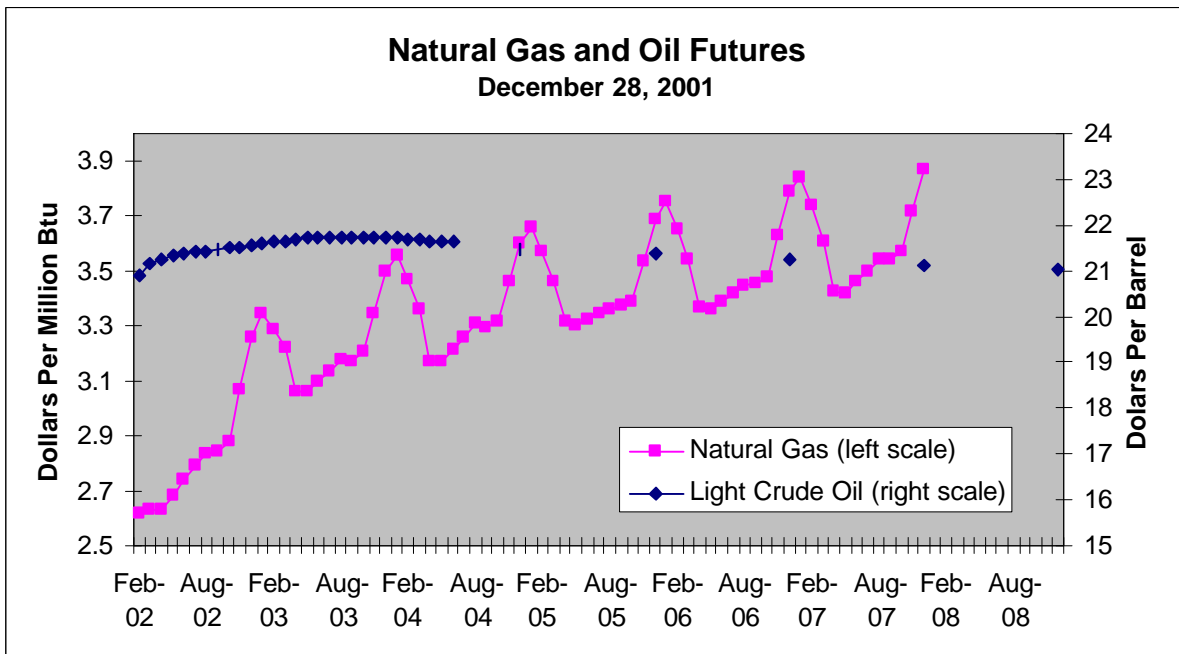
# Loss Aversion in 2002

## Summary and Recommendation

Our most differentiated idea for 2002 is about averting heavy loss. Recommending Strong Sell for **Kinder Morgan Energy Partners, L.P. (KMP)**, we stand at the opposite end of the spectrum from Wall Street analysts who, nearly unanimously, recommend Strong Buy. According to the *First Call* survey, KMP appears in a small group of the most positively recommended of all stocks. As KMP goes, so goes directly linked **Kinder Morgan Management, LLC (KMR)** as well as general partner **Kinder Morgan, Inc. (KMI)**. On the positive side we expect Strong Buy **Marathon Oil (MRO)** to be a winner for investors after receiving its tax ruling late last week to begin 2002 completely free of the steel business. We also positively recommend natural gas producers in each size category of Large Cap, Mid Cap, Small Cap and Micro Cap. We positively recommend two Chinese energy stocks that we expect to gain in recognition with continued global growth now that China has full status as a partner in world trade. For ideas to build a diversified energy portfolio see our valuation ranking of 70 stocks now subdivided in three sets by size (Tables L-1, L-2, M-1, M-2, S-1 and S-2).

## Energy Futures Project Calm Fundamental Outlook

The futures market projects a stable oil price and a rising natural gas price (see Chart). A sense of calm has returned to the markets after the turmoil of a year ago.



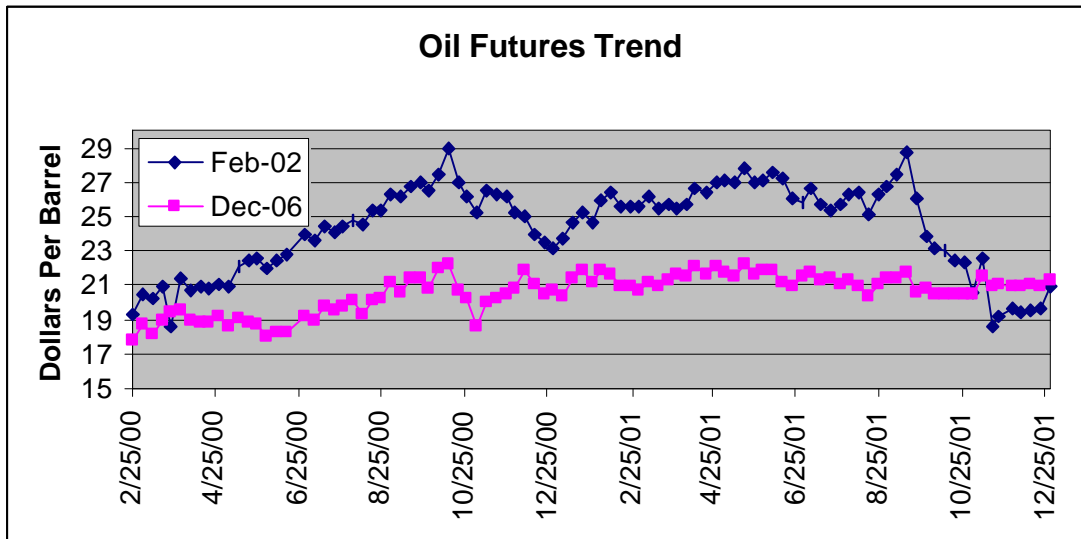
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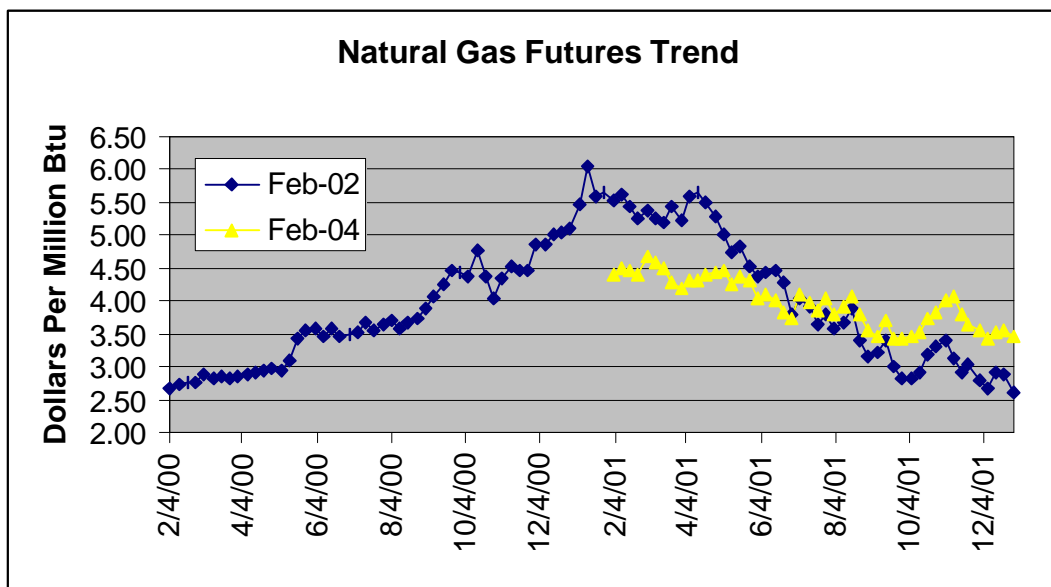
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The futures curve for oil has been swishing like an animal's tale the past two years. The base as represented by 2006, has been stable for more than a year. The tip as represented by February 2002 has waggled to \$29 on the high side and \$19 on the low side (see Chart).



The animal tail analogy cannot be as readily demonstrated in natural gas, as public quotes for out years have been available only since Enron's private quotes dried up. While we like the positive slope of the newly available public curve, we also note that quotes for the early years have been in a downward trend (see Chart). There may be further weakness in the early months, but we expect the further out months to be stable.



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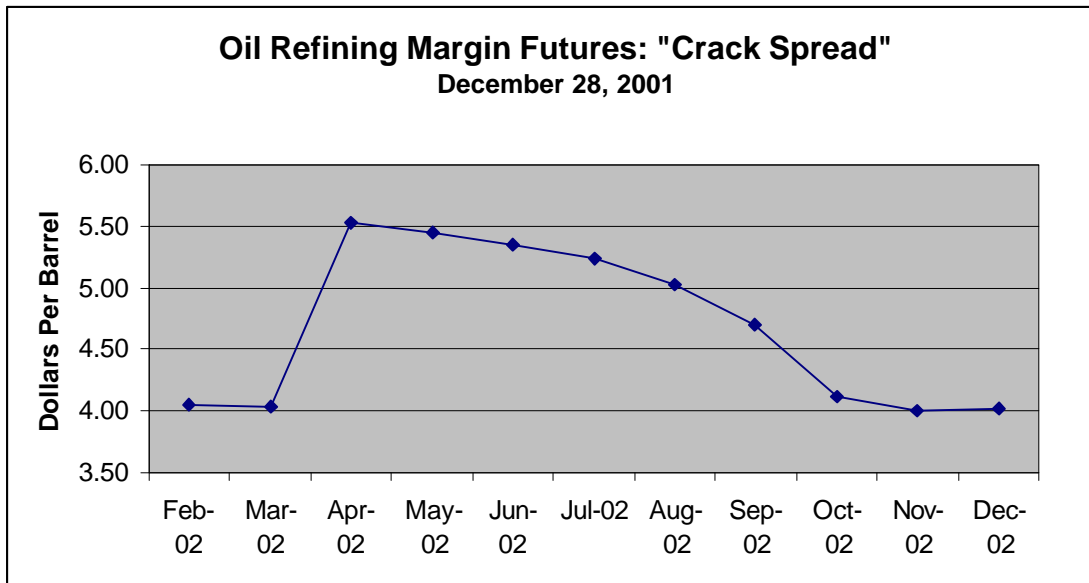
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We present futures prices as a widely representative reference point. We make our cash flow estimates consistent with futures prices. Just because we use futures doesn't mean we agree with them. We are more bullish long term than the futures market and hopeful near term that reality does not turn out to be worse than the futures market implies.

### **Seasonal Strength in Refining Good For Marathon Among Others**

Investors who like to concentrate their buying in the off-season might look upon the refining business with greater interest again. Coming off great profits in the first half of last year, the refiners have had tough times in December. Futures imply margin strength, though not a lot, in April and beyond (see Chart). The margin is derived from New York Mercantile Exchange quotes by subtracting prices for one barrel of heating oil and two barrels of gasoline from three barrels of light sweet crude oil.



Investors who have been holding back acting on our Strong Buy recommendation of Marathon Oil might be more comfortable acting ahead of refining margin improvement. MRO is about a third natural gas, a third oil production and about a third refiner/marketer in concentration of value. On another score, the timing to buy Marathon may be the best in two decades because on January 1 the company will be a standalone integrated oil company as it was until 1981.

### **Seasonal Strength in Electricity Good for Natural Gas Producers**

Electricity futures point to price strength in the hot summer months of July and August. A positive spread between the price of electricity and the price of natural gas implies profitable operations for companies that generate electricity from natural gas (see Chart). It implies even more profitability in an unregulated environment for companies that

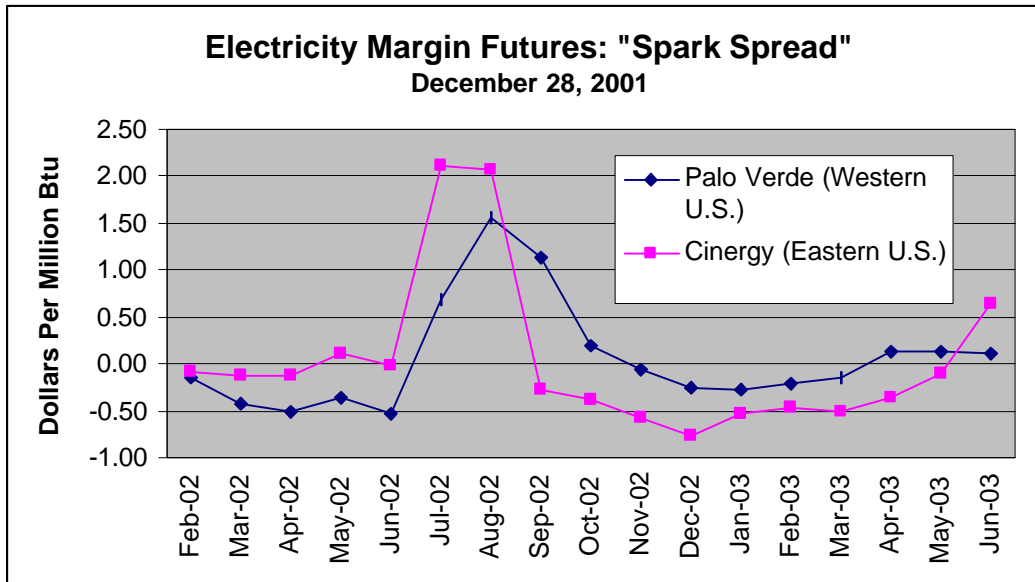
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generate electricity from low cost coal and nuclear plants such as those owned by recommended **American Electric Power (AEP)** and **Exelon (EXC)**.



There is remarkable operating leverage in electricity for natural gas producers as evident by price swings on the chart above compared to the chart for natural gas. In the off-season there is enough cheap coal and nuclear capacity that we don't need much gas to be converted to electricity. In the peak season we need natural gas. Moreover, generators can afford to pay a lot. As electricity demand grows, cheap capacity will remain fixed while natural gas fueled generators meet incremental demand. The peaks we see on the price curve will spread increasingly across the year.

### **Kinder Morgan Entities Overpriced, Overleveraged and Unsoundly Structured**

While we see profits ahead for investors in most energy companies, we think the profits have been made, at least temporarily, in the Kinder Morgan companies. The three KM stocks have a combined market capitalization of \$13 billion and enterprise value of \$24 billion. KMP is widely recommended as an income stock for retirees. KMR and KMI are widely held by leading institutional investors. Rich Kinder is one of the most widely admired entrepreneurs in the energy industry, the newest energy billionaire in the *Forbes 400*.

Investors familiar with the McDep Ratio will recognize that 2.04 for KMP/KMR and 1.55 for KMI are likely unsustainably high. In more generic terms, unlevered cash flow multiples, enterprise value to ebitda, at 16.0 and 14.0 times are high for a business that trades at 9.0 times. A more reasonable enterprise value would be one third lower. That means a more reasonable market value would be two thirds or more lower.

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The risk of owning KM stocks is multiplied by high debt. KMP/KMR have a ratio of debt to present value of 0.54 while KMI measures 0.87, the highest of 31 large cap stocks in our coverage. Debt normally just magnifies in linear fashion how fast a stock may go up or down with a change in the value of its business. Too much debt introduces non-linear risk where adverse change would threaten not only stock price decline, but also corporate survival.

The complicated structure of the KM entities rests on a master limited partnership that acquires energy infrastructure. The stock of KMP represents public limited partners, generally taxable individual investors. The stock of KMR, essentially a derivative linked to the KMP price is owned by institutional investors who are betting on individual investors continuing to pay a high price for KMP. KMI owns the balance of the limited partnership interests and, more important, KMI owns the general partner interest. Our problem with the structure is first that KMP appears to be marketed as an income vehicle to investors who most likely do not understand the high risks involved. Second there is a feature of the structure that allocates practically half the value of new acquisitions to the general partner at no cost. That conflict of interest is likely to drive the general partner to make increasingly unsound acquisitions financed in an increasingly risky manner.

The immediate challenge to the company is to market about \$450 million of new KMR stock to finance a recent acquisition. That event may lead some investors to ask new questions in the wake of other energy infrastructure investments now more reasonably priced since the initial billion dollar KMI underwriting last spring. If the underwriting can't be done, it is all over, in our opinion. It appears to us that the only way the partnership can support the dilution of the general partner burden is to sell new units far in excess of their fundamental value. In our opinion, KM keeps going because the proceeds of new financing are effectively used to repay existing investors.

### **Energy Infrastructure Partnership Suspends Distribution**

A smaller partnership that owns oil pipelines like Kinder Morgan and gathers oil at the wellhead just suspended its distribution to unitholders. Investors paid about \$20 a unit about five years ago in an underwriting of Genesis Energy Limited (GEL). For a couple years the partnership paid \$0.50 quarterly. About a year ago the distribution was cut to \$0.20 quarterly. Now there is no quarterly payment and the stock trades at a fraction of its initial price.

GEL also had an arrangement where the general partner would receive half the value of new acquisitions if the distribution could be increased somewhat above the initial level. Ironically, the weakness of the structure was exposed well before the 50% compensation bomb was detonated.

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We are not pointing a finger because an investment performed poorly. Not all our recommendations have been winners either. We do believe that the risks in some limited partnerships are not well understood by the retirees to whom they are sold.

Kurt H. Wulff, CFA

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**Table L-1**  
**Mega Cap and Large Cap Energy Companies**  
**Rank by McDep Ratio: Market Cap and Debt to Present Value**

	Symbol/ Rating	Price (\$/sh) 28-Dec 2001	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio	
<b>Mega Cap</b>								
Exxon Mobil Corporation	XOM	39.78	6,924	275,000	36.00	0.09	1.10	
BP plc	BP	46.70	3,738	175,000	47.00	0.16	0.99	
Royal Dutch/Shell	RD	3	49.79	3,520	175,000	55.00	0.04	0.91
TotalFinaElf S.A.	TOT	70.34	1,382	97,000	80.00	0.15	0.90	
ChevronTexaco Corporation	CVX	90.44	1,062	96,100	110.00	0.14	0.85	
	<i>Total or Median</i>			<i>818,000</i>		<i>0.14</i>	<i>0.91</i>	
<b>Energy Infrastructure</b>								
Kinder Morgan Management, LLC	KMR	5	37.60	30	1,100	11.50	0.54	2.04
Kinder Morgan Energy Partners, L.P.	KMP	5	37.50	135	5,100	11.50	0.54	2.04
Kinder Morgan, Inc.	KMI	5	56.52	121	6,800	10.90	0.87	1.55
AES Corporation	AES		16.62	543	9,000	8.80	0.83	1.15
Dynegy Inc.	DYN		25.64	338	8,700	20.30	0.58	1.11
Calpine Corporation	CPN	3	16.39	377	6,200	12.50	0.66	1.11
Duke Energy Corporation	DUK		39.69	773	30,700	35.80	0.43	1.06
El Paso Corporation	EPG		45.72	532	24,300	44.80	0.49	1.01
American Electric Power Co. Inc.	AEP	2	43.28	322	13,900	43.40	0.63	1.00
Southern Company	SO		25.40	683	17,300	27.40	0.42	0.96
Mirant Corporation	MIR		15.35	353	5,400	18.60	0.65	0.94
Williams Companies	WMB		25.69	515	13,200	32.30	0.47	0.89
Dominion Resources	D		59.60	247	14,700	79.40	0.45	0.86
Exelon Corporation	EXC	2	47.55	323	15,400	84.00	0.40	0.74
	<i>Total or Median</i>				<i>166,000</i>		<i>0.53</i>	<i>1.00</i>
<b>Natural Gas and Oil</b>								
Occidental Petroleum Corp.	OXY		26.93	372	10,000	28.50	0.50	0.97
Unocal Corporation	UCL		35.79	257	9,200	38.90	0.35	0.95
Anadarko Petroleum Corp.	APC		57.43	250	14,400	64.10	0.24	0.92
ConocoPhillips	P		60.49	680	41,200	71.20	0.34	0.90
ENI S.p.A.	E		62.18	789	49,000	71.40	0.19	0.90
Devon Energy (incl MND,AXN)	DVN		39.20	165	6,500	54.60	0.48	0.85
Burlington Resources (incl HTR)	BR	1	37.88	205	7,800	53.00	0.30	0.80
Marathon Oil Corporation	MRO	1	30.11	310	9,300	42.00	0.27	0.79
OAo Lukoil	LUKOY		48.50	299	14,500	69.10	0.09	0.73
	<i>Total or Median</i>				<i>152,000</i>		<i>0.28</i>	<i>0.88</i>
<b>Service</b>								
Baker Hughes Inc.	BHI		36.94	338	12,500	24.50	0.13	1.44
Schlumberger Ltd.	SLB		54.98	581	31,900	44.00	0.12	1.22
Halliburton Company	HAL		13.19	429	5,700	24.90	0.12	0.59

Buy/Sell rating after symbol: 1-Strong Buy, 2-Buy, 3-Neutral, 4-Sell, 5-Strong Sell

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**Table L-2**  
**Mega Cap and Large Cap Energy Companies**  
**Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.**

	Symbol/ Rating	Price (\$/sh) 28-Dec 2001	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM
<b>Mega Cap</b>							
Exxon Mobil Corporation	XOM	39.78	1.5	12.1	28	2.3	11.1
BP plc	BP	46.70	1.2	10.8	20	2.8	10.8
Royal Dutch/Shell	RD	3	49.79	1.1	9.9	25	10.9
TotalFinaElf S.A.	TOT	70.34	1.3	9.8	21	2.6	10.9
ChevronTexaco Corporation	CVX	90.44	1.3	9.3	21	3.1	11.0
	<i>Median</i>		<i>1.3</i>	<i>9.9</i>	<i>21</i>	<i>2.8</i>	<i>10.9</i>
<b>Energy Infrastructure</b>							
Kinder Morgan Management, LLC	KMR	5	37.60	5.1	16.4	27	8.0
Kinder Morgan Energy Partners, L.P.	KMP	5	37.50	5.2	16.3	27	8.0
Kinder Morgan, Inc.	KMI	5	56.52	7.3	14.3	29	9.2
AES Corporation	AES		16.62	3.6	10.4	13	9.0
Dynegy Inc.	DYN		25.64	0.5	10.0	12	9.0
Calpine Corporation	CPN	3	16.39	2.0	10.0	10	9.0
Duke Energy Corporation	DUK		39.69	0.8	9.6	15	9.0
El Paso Corporation	EPG		45.72	0.9	9.1	14	9.0
American Electric Power Co. Inc.	AEP	2	43.28	0.5	9.0	12	9.0
Southern Company	SO		25.40	2.8	8.6	16	9.0
Mirant Corporation	MIR		15.35	0.5	8.4	7	9.0
Williams Companies	WMB		25.69	2.4	8.0	11	9.0
Dominion Resources	D		59.60	3.4	7.8	14	9.0
Exelon Corporation	EXC	2	47.55	2.2	6.7	10	9.0
	<i>Median</i>			<i>2.3</i>	<i>9.3</i>	<i>13</i>	<i>9.0</i>
<b>Natural Gas and Oil</b>							
Occidental Petroleum Corp.	OXY		26.93	1.5	9.7	24	10.0
Anadarko Petroleum Corp.	APC		57.43	3.0	8.8	26	9.5
Unocal Corporation	UCL		17.11	2.7	8.1	66	8.5
ConocoPhillips	P		60.49	0.8	7.7	20	8.5
ENI S.p.A.	E		62.18	1.6	7.2	16	8.0
Burlington Resources (incl HTR)	BR	1	37.88	4.3	6.5	29	8.1
Devon Energy (incl MND,AXN)	DVN		39.20	3.3	6.0	19	7.0
Marathon Oil Corporation	MRO	1	30.11	0.4	5.2	11	6.5
OAOLukoil	LUKOY		48.50	1.3	4.4	10	6.0
	<i>Median</i>			<i>1.6</i>	<i>7.2</i>	<i>20</i>	<i>8.1</i>
<b>Service</b>							
Baker Hughes Inc.	BHI		36.94	2.3	11.5	26	9.0
Schlumberger Ltd.	SLB		54.98	2.8	9.7	27	9.0
Halliburton Company	HAL		13.19	0.5	4.7	10	9.0

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

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**Table M-1**  
**Mid Cap Energy Companies**  
**Rank by McDep Ratio: Market Cap and Debt to Present Value**

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 28-Dec 2001</i>	<i>Shares (mm)</i>	<i>Market Cap (\$mm)</i>	<i>Net Present Value (\$/sh)</i>	<i>Debt/ Present Value</i>	<i>McDep Ratio</i>	
<b>Energy Infrastructure</b>								
Enterprise Products Part.	EPD	46.91	87	4,100	31.70	0.23	1.37	
Consol Energy Inc.	CNX	24.64	79	2,000	35.90	0.51	0.85	
CMS Energy Corporation	CMS	23.95	128	3,100	48.30	0.62	0.81	
Sempra Energy	SRE	24.61	203	5,000	41.70	0.50	0.80	
Valero Energy Corp.(with UDS)	VLO	37.81	110	4,200	60.00	0.47	0.80	
Constellation Energy Group	CEG	26.72	152	4,100	56.50	0.35	0.66	
<i>Total or Median</i>				<i>18,400</i>		<i>0.50</i>	<i>0.81</i>	
<b>Natural Gas and Oil</b>								
Murphy Oil Corporation	MUR	84.46	46	3,900	82.00	0.18	1.02	
Ocean Energy, Inc.	OEI	19.29	178	3,400	20.00	0.30	0.98	
Imperial Oil Limited (30%)	IMO	28.09	119	3,400	30.00	0.11	0.94	
Norsk Hydro ASA (49%)	NHY	42.00	127	5,300	54.00	0.18	0.82	
PanCanadian Energy	PCX	2	25.59	256	6,560	33.00	0.14	0.81
Petro-Canada	PCZ		24.96	267	6,700	33.00	0.08	0.78
PetroChina Company Ltd (10%)	PTR	2	17.99	176	3,200	28.00	0.16	0.70
<i>Total or Median</i>				<i>32,500</i>		<i>0.16</i>	<i>0.82</i>	

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses

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**Table M-2**  
**Mid Cap Energy Companies**  
**Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.**

		<i>Price</i> <i>(\$/sh)</i>	<i>EV/</i>	<i>EV/</i>		<i>Dividend or</i>	<i>PV/</i>	
	<i>Symbol/</i>	<i>28-Dec</i>	<i>Sales</i>	<i>Ebitda</i>	<i>P/E</i>	<i>Distribution</i>	<i>Ebitda</i>	
	<i>Rating</i>	<i>2001</i>	<i>NTM</i>	<i>NTM</i>	<i>NTM</i>	<i>(%)</i>	<i>NTM</i>	
<b>Energy Infrastructure</b>								
Enterprise Products Part.	EPD	46.91	1.7	12.3	14	5.3	9.0	
Consol Energy Inc.	CNX	24.64	2.1	7.6	8	4.5	9.0	
CMS Energy Corporation	CMS	23.95	0.9	7.3	9	6.1	9.0	
Sempra Energy	SRE	24.61	1.1	7.2	10	4.1	9.0	
Constellation Energy Group	CEG	26.72	1.7	5.9	8	1.8	9.0	
Valero Energy Corp.(with UDS)	VLO	37.81	0.3	5.3	6	1.1	6.7	
	<i>Median</i>		<i>1.4</i>	<i>7.2</i>	<i>8</i>	<i>4.3</i>	<i>9.0</i>	
<b>Natural Gas and Oil</b>								
Imperial Oil Limited (30%)	IMO	28.09	1.1	10.4	27	1.9	11.1	
Murphy Oil Corporation	MUR	84.46	1.0	8.2	40	1.8	8.0	
Ocean Energy, Inc.	OEI	19.29	4.5	7.6	33	0.8	7.8	
PanCanadian Energy	PCX	2	25.59	1.3	6.7	16	1.0	8.3
Petro-Canada	PCZ		24.96	1.4	5.4	12	1.0	6.9
Norsk Hydro ASA (49%)	NHY		42.00	0.8	4.9	15	2.5	6.0
PetroChina Company Ltd (10%)	PTR	2	17.99	1.7	3.7	9	10.2	5.4
	<i>Median</i>		<i>1.3</i>	<i>6.7</i>	<i>16</i>	<i>1.8</i>	<i>7.8</i>	

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

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**Table S-1**  
**Small Cap Energy Companies**  
**Rank by McDep Ratio: Market Cap and Debt to Present Value**

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<b>Energy Infrastructure</b>								
El Paso Energy Partners	EPN	36.99	34.0	1,260	6.40	0.71	2.38	
Penn Virginia Res. Part, L.P.(48%)	PVR	25.74	7.5	190	15.10	-	1.70	
Enbridge Energy Partners,	EEP	42.15	31.0	1,310	16.60	0.58	1.65	
Plains All Amer. Pipeline	PAA	25.85	38.0	980	14.30	0.47	1.43	
TEPPCO Partners, L.P.	TPP	30.30	39	1,170	15.60	0.69	1.29	
Northern Border Partners	NBP	39.00	42.0	1,640	30.00	0.41	1.18	
AmeriGas Partners, L.P.	APU	22.29	44.0	980	19.50	0.54	1.07	
Penn Virginia Corporation	PVA	34.50	9.0	310	35.00	0.10	0.99	
<i>Total or Median</i>				<i>7,800</i>		<i>0.50</i>	<i>1.36</i>	
<b>Natural Gas and Oil</b>								
Quicksilver Resources Inc.	KWK	19.00	19.3	370	10.00	0.60	1.35	
Dorchester Hugoton, Ltd.	DHULZ	14.45	10.7	155	11.30	-	1.28	
Spinnaker Exploration Company	SKE	42.16	28.3	1,200	40.00	-	1.05	
Stone Energy Company	SGY	40.04	26.4	1,060	42.00	0.11	0.96	
Newfield Exploration Company	NFX	35.52	49.3	1,750	39.00	0.21	0.93	
XTO Energy Inc.	XTO	16.94	124.0	2,100	19.00	0.28	0.92	
Swift Energy Company	SFY	21.23	24.8	530	25.00	0.29	0.89	
Encore Acquisition Corp. (25%)	EAC	13.00	7.5	98	16.00	0.22	0.86	
Southwestern Energy Company	SWN	10.90	25.6	280	15.00	0.47	0.86	
Magnum Hunter Resources, Inc.	MHR	8.28	36.8	310	11.00	0.35	0.84	
Forest Oil Corporation	FST	2	28.49	48.5	1,380	37.00	0.28	0.83
CNOOC Limited (19%)	CEO	2	19.15	78	1,490	30.00	-	0.64
<i>Total or Median</i>				<i>10,700</i>		<i>0.25</i>	<i>0.91</i>	
<b>Natural Gas Royalty Trusts</b>								
Cross Timbers Royalty Trust	CRT	18.45	6.0	111	18.00	-	1.03	
Hugoton RoyaltyTrust	HGT	10.39	40.0	420	14.30	-	0.73	
San Juan Basin Royalty Trust	SJT	2	9.54	46.6	450	14.10	-	0.68
<b>Micro Cap</b>								
Abraxas Petroleum Corporation	ABP	1.30	23.6	31	0.50	0.96	1.06	
Energy Partners Ltd.(30%)	EPL	2	7.70	8.1	62	10.00	0.34	0.85
Purcell Energy, Ltd. (US\$)	PEL.TO	2	2.11	27.4	58	3.50	0.09	0.64

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses

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 analysis by Kurt Wulff doing business as McDep Associates is accessible at [www.mcdep.com](http://www.mcdep.com). Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating. Mr. Wulff is not paid by covered companies.

## Meter Reader

### A Weekly Analysis of Energy Stocks Using the McDep Ratio

December 31, 2001

**Table S-2**  
**Small Cap Energy Companies**  
**Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.**

			Price (\$/sh)	EV/ Sales	EV/ Ebitda	Dividend or Distribution	PV/ Ebitda
Symbol/ Rating		28-Dec 2001	NTM	NTM	P/E NTM	NTM (%)	NTM
<b>Energy Infrastructure</b>							
El Paso Energy Partners	EPN		36.99	10.5	21.4	103	9.0
Penn Virginia Res. Part, L.P.(48%)	PVR		25.74	11.5	15.3	18	9.0
Enbridge Energy Partners,	EEP		42.15	6.7	14.9	81	9.0
Plains All Amer. Pipeline	PAA		25.85	0.2	12.9	17	9.0
TEPPCO Partners, L.P.	TPP		30.30	0.7	11.6	14	9.0
Northern Border Partners	NBP		39.00	7.2	11.2	15	9.0
AmeriGas Partners, L.P.	APU		22.29	1.4	9.6	19	9.0
Penn Virginia Corporation	PVA		34.50	4.7	8.7	41	8.8
	<i>Median</i>			<i>5.7</i>	<i>12.2</i>	<i>18</i>	<i>9.0</i>
<b>Natural Gas and Oil</b>							
Quicksilver Resources Inc.	KWK		19.00	6.3	17.2	-	12.7
Dorchester Hugoton, Ltd.	DHULZ		14.45	9.8	15.0	20	11.7
XTO Energy Inc.	XTO		16.94	5.9	9.1	27	9.9
Encore Acquisition Corp. (25%)	EAC		13.00	4.8	8.9	33	10.3
Spinnaker Exploration Company	SKE		42.16	7.5	8.8	40	8.4
Swift Energy Company	SFY		21.23	5.7	8.4	39	9.4
Forest Oil Corporation	FST	2	28.49	3.0	7.0	258	8.4
Magnum Hunter Resources, Inc.	MHR		8.28	3.8	6.5	-	7.8
Southwestern Energy Company	SWN		10.90	2.7	6.2	22	7.3
Stone Energy Company	SGY		40.04	4.3	5.8	29	6.0
CNOOC Limited (19%)	CEO	2	19.15	3.7	5.0	11	7.9
Newfield Exploration Company	NFX		35.52	3.8	4.8	16	5.2
	<i>Median</i>			<i>4.5</i>	<i>7.7</i>	<i>28</i>	<i>8.4</i>
<b>Natural Gas Royalty Trusts</b>							
Cross Timbers Royalty Trust	CRT		18.45	7.4	13.3	14	12.9
Hugoton RoyaltyTrust	HGT		10.39	5.2	8.3	13	11.4
San Juan Basin Royalty Trust	SJT	2	9.54	5.9	7.9	12	11.6
<b>Micro Cap</b>							
Abraxas Petroleum Corporation	ABP		1.30	6.5	12.5	-	11.8
Energy Partners Ltd.(30%)	EPL	2	7.70	2.7	6.0	-	7.1
Purcell Energy, Ltd. (US\$)	PEL.TO	2	2.11	3.3	4.7	14	7.3

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

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 analysis by Kurt Wulff doing business as McDep Associates is accessible at [www.mcdep.com](http://www.mcdep.com). Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating. Mr. Wulff is not paid by covered companies.