

## *Meter Reader*

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

September 16, 2002

# Cheap Energy in Coal

## Summary and Recommendation

Expanding our McDep Ratio coverage from two to seven coal producers we find two that could be buy recommendations, **Fording Coal (FDG)** and **Massey Energy (MEE)**. The three largest by market cap, **Peabody Energy (BTU)**, **Consol Energy (CNX)** and **Arch Coal (ACI)**, have ratios of Debt/Present Value that are too high for us to recommend. The remaining two, **Penn Virginia Resource Partners (PVR)** and **Alliance Resource Partners (ARLP)**, are part of the shadowy underworld of high greed partnerships where only nimble investors are likely to profit in the end. Thus, we stand pat with no changes in the McDep Energy Portfolio, which offered some resistance to the recent market decline. For personal portfolios of U.S. citizens as opposed to institutional portfolios, we see a special opportunity in U.S. Treasury I-Bonds to be purchased before November 1 when the current favorable 30-year rate may be changed.

## New Coverage of Coal Producers

### Rank by McDep Ratio: Market Cap and Debt to Present Value

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 12-Sep 2002</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>
Penn Virginia Res. Part, L.P.	PVR	20.70	15	300	17.00	-	1.23
Consol Energy Inc.	CNX	13.68	79	1,100	5.00	0.88	1.20
Peabody Energy	BTU	25.50	55	1,400	18.00	0.75	1.10
Arch Coal	ACI	17.56	48	800	18.00	0.61	0.99
Alliance Res. Part, L.P.	ARLP	24.36	16	400	29.00	0.36	0.90
Fording Coal (US\$)	FDG	14.38	52	800	23.00	0.04	0.64
Massey Energy	MEE	7.58	75	600	18.00	0.37	0.64
				5,400		0.37	0.99

As we continually talk to clients about energy, we are sometimes encouraged to consider the prospects for coal producers. A year ago, the context was bullish with high power prices. Now the context is depressed value with low power prices. Thus our look at coal producers starts with the price of power.

### *Power Price Has Upside Potential*

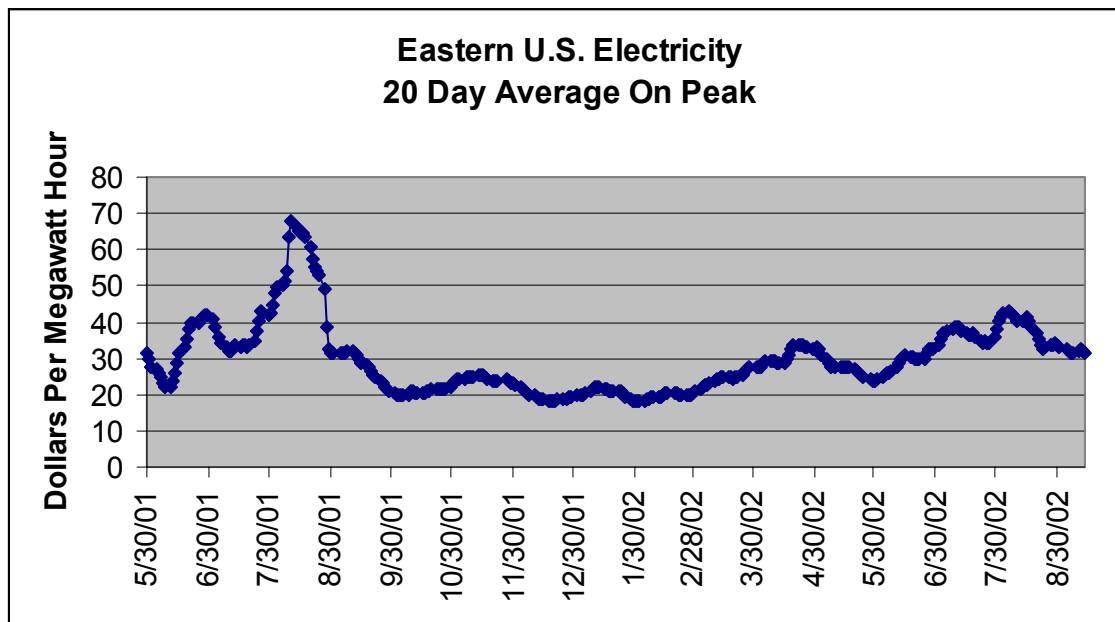
Eastern U.S. power price has been behaving quite well this year from the point of view of consumers (see Chart). Excitement about the high price in the west last year spreading to Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. He and his spouse do not sell short nor act contrary to a buy or sell rating except for tax loss purposes. 1

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the east has largely dissipated and along with it coal price. Since the price of coal may account for perhaps \$10 a megawatt hour, the producers visualize big profit potential when power prices go past \$30, \$40 and \$50. The generators might claim most of the increment, but there would be some left for the miners.



### *Present Value Assessed as Multiple of Cash Flow*

We assess present value, the most subjective element of our analysis, as a multiple of cash flow at the second quarter 2002 rate. Our first assessments for the whole group use the same multiple of about 9 times for each of the stocks except that we raise it for the royalty characteristics of PVR and reduce it for the less promising potential for the high sulfur coal produced by ARLP (see Table M-2). Of course there are many subjective considerations any of which could be worth long discussion. For example, we essentially hold coal price at the second quarter level though we would prefer to have a futures market to help with projections as it does in natural gas, oil and refining margin. Nor would we pretend that our first assessment is the last word. The most important reference point might be that our present value for Mega Cap energy companies is also about 9 times cash flow.

### **Fording Coal Serves Metallurgical Market**

The McDep Ratio appears to be near lowest for the Canadian producer now trading as an independent company for just a year. Previously when Forging was part of Canadian

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Pacific we visited the company's mines and the port facilities through which it exports primarily to Japan. In addition to favorable valuation, financial risk is lowest. Fording has almost no debt in contrast to the U.S. producers that are mostly highly leveraged. Yet, though Fording also produces coal for the energy market, the most important determinant of its profits may be the outlook for steel production. Because of the diminished importance of energy pricing to Fording, we decline to recommend the stock as an energy investment. Coincidentally, **Encana (ECA)**, the successor to a former sister company of Fording, is one of our favorite energy recommendations.

## McDep Energy Portfolio Combines Recommendations

Three weeks ago we detailed how we might combine recommended stocks in a portfolio normalized for financial risk and diversified for industry and company risk (see Table). The goal of the portfolio is to produce a reasonable return while incurring low risk. If we were to pick a benchmark it would be the debt-normalized total return of all the energy stocks in our coverage. That benchmark requires a tedious calculation we are not keeping up to date currently. Mostly we just hope to make intelligent choices. We believe that well-chosen energy investments offer attractive return and risk characteristics in a further diversified portfolio aiming for growth with inflation protection and resistance to deflation.

McDep Energy Portfolio									
Security	Symbol	Wt.	Shares	Price 8/22/02	Value 8/22/02	Price 9/12/02	Value 9/12/02	Change (%)	Percent of Portfolio Change
Royal Dutch/Shell	RD	12%	0.246	46.95	11.5	43	10.6	-8.4	-42
ChevronTexaco Corporation	CVX	11%	0.139	78.72	11.0	73.12	10.2	-7.1	-34
Canadian Oil Sands Trust (US\$)	COS_u.T	6%	0.147	39.45	5.8	36.6	5.4	-7.2	-18
Energy Partners Ltd.(30%)	EPL	4%	0.485	8.35	4.1	7.57	3.7	-9.3	-17
Encana Corporation	ECA	10%	0.320	30.78	9.8	29.61	9.5	-3.8	-16
Burlington Resources	BR	9%	0.245	38.25	9.4	37.53	9.2	-1.9	-8
CNOOC Limited (19%)	CEO	7%	0.235	27.80	6.5	27.17	6.4	-2.3	-6
PetroChina Company Ltd (10%)	PTR	5%	0.261	20.86	5.4	20.3	5.3	-2.7	-6
Marathon Oil Corporation	MRO	8%	0.337	24.85	8.4	24.49	8.2	-1.4	-5
ConocoPhillips	COP	9%	0.168	52.79	8.9	52.14	8.8	-1.2	-5
XTO Energy Inc.	XTO	10%	0.498	20.32	10.1	20.15	10.0	-0.8	-4
Kinder Morgan Management, LLC	KMR	-2%	-0.053	31.55	-1.7	32.46	-1.7	-2.9	-2
Kinder Morgan Energy Partners, LP	KMP	-2%	-0.051	32.63	-1.7	33.4	-1.7	-2.4	-2
Kinder Morgan, Inc.	KMI	-1%	-0.020	43.21	-0.8	40.5	-0.8	6.3	2
El Paso Energy Partners	EPN	-2%	-0.066	35.80	-2.4	33.73	-2.2	5.8	6
San Juan Basin Royalty Trust	SJT	13%	1.129	11.60	13.1	11.8	13.3	1.7	10
El Paso Corporation	EP	-2%	-0.125	17.94	-2.2	15.61	-1.9	13.0	13
Petroleo Brasileiro S. A.	PBR	5%	0.328	14.49	4.8	16.93	5.6	16.8	35
Portfolio					100.0		97.7	-2.3	
S&P 500				963		887		-7.9	

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The stocks are ranked by contribution to the change in portfolio value for the past three weeks. By far, the worst performers were the two Mega Caps. That does not make us feel too badly because we know those companies are solid and the stocks are likely to do better on another day. The sell recommendations, our most controversial positions, actually helped the portfolio resist decline, ironically.

Finally, we have temporarily ignored distributions. We will make that adjustment in future comparisons.

### **Buy I-Bonds before November 1**

Our involvement in energy valuation caused us to seize on the information value of trading in U.S. Treasury Inflation Protection Securities (TIPS). Along the way we developed an increasing belief that the securities were also attractive investments besides providing price transparency. In fact, the issues have done so well recently that one must question whether the positive trend has much further to go. With those considerations in mind we have uncovered a small-scale way for individuals to lock in any further positive gains from a declining real return while at the same time having little to lose if the real return shows strong increases. That opportunity is I-Bonds.

TIPS are marketable securities initially sold at Treasury auctions. Individuals can buy amounts ranging from \$1000 to millions of dollars for the payment of no fees or low fees. I-Bonds are non-marketable securities designed to encourage savings by individuals of any monetary means. Because I-Bonds have features that favor the buyers, the Treasury limits purchases to \$30,000 per year per person. Marketable securities give rise to possible capital gains (losses) as interest rates fluctuate. Non-marketable securities are merely redeemable for original principal and interest. Both TIPS and I-Bonds have an interest rate that is fixed at the time of issue and in addition include an adjustment for inflation. The details are explained on the website for the Bureau of Public Debt.

The government is committed to pay the fixed rate on I-Bonds for 30 years. Yet, individuals can redeem at any time. Thus the buyers have the reverse of the call feature so often retained by issuers of municipal bonds, for example. There is a small penalty of three months interest for redemptions before five years.

The fixed rate for I-Bonds is set every six months and applies for 30 years to purchases initiated in the six-month period. A year ago on November 1, 2001, the fixed rate was cut from 3.0% to 2.0% per year. That seemed somewhat drastic and ahead of the TIPS market. It remained at 2.0% on May 1, 2002. The market rate for TIPS has dropped more. Ten-year TIPS are currently yielding about 2.3% real. Meanwhile I-Bonds also have a tax deferral feature that TIPS do not offer. Thus, a 2.0% rate on I-Bonds may be better after tax than 2.3% on TIPS. The current I-Bond rate is good for purchases up to November 1, 2002, after which the fixed rate may be cut.

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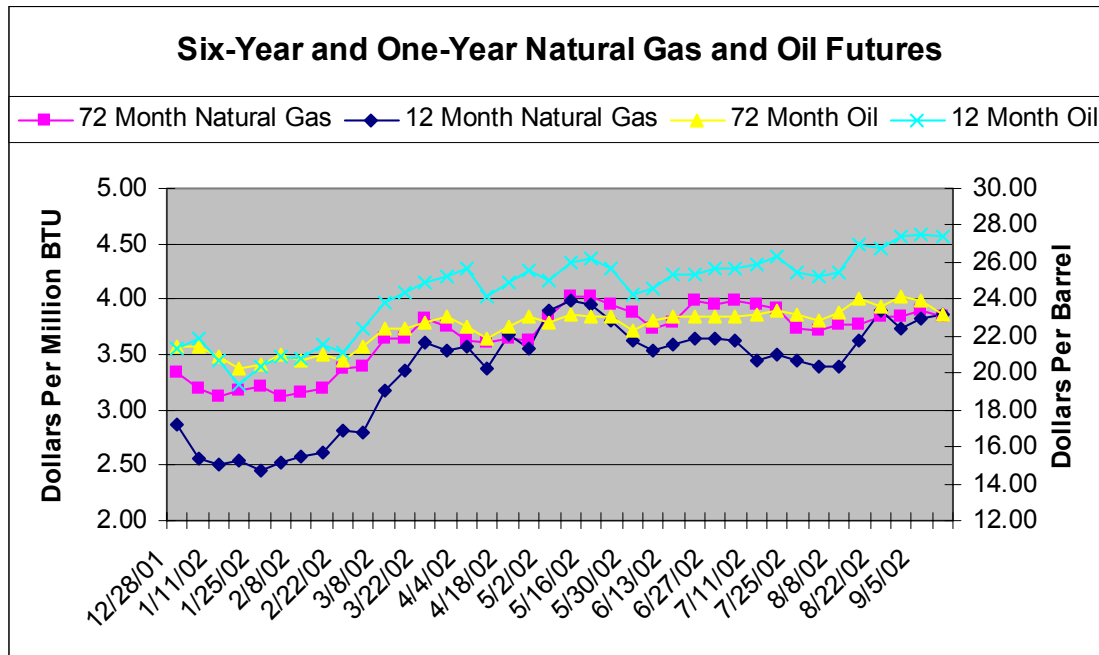
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Conservative investors who may buy, for example, the 5 year Treasury Note at a yield of 3.0% per year could come out ahead in the I-Bond at 2.0% plus 1.3% per year inflation and no tax due until redemption. While no one knows the inflation rate, 1.5% is the yield spread between the 5-year Note and the TIPS maturing in 2007. Similarly I-Bonds would break even with the 6-month Treasury Bill even with forfeiture of 3 months interest.

What if there is no inflation? In that case there will be no diminution of any original principal and no giveback of interest previously earned, as we understand it. Thus, the buyer gets downside protection with no limit on the upside with respect to inflation.

Thus, we suggest that individuals who maintain ready cash buy up to their annual limit of I-Bonds now. All it takes is filling out a short form available from your bank or the Treasury and the transfer of the purchase funds to your checking account at the bank that will handle your purchase. For those who may not have any personal interest, the I-Bonds could be gifts to family members or deserving others. Subject to some conditions, taxes may be completely eliminated for I-Bonds redeemed to cover educational expenses, for example.

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) 12-Sep 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
<b>Mega Cap</b>							
Exxon Mobil Corporation	XOM	33.59	6,858	230,000	36.00	0.09	0.94
BP plc	BP	43.21	3,738	162,000	50.00	0.15	0.88
TotalFinaElf S.A.	TOT	69.41	1,346	93,400	90.00	0.14	0.80
Royal Dutch/Shell	RD B	43.00	3,498	150,000	60.00	0.15	0.76
ChevronTexaco Corporation	CVX B	73.12	1,062	77,700	110.00	0.16	0.72
	<i>Total or Median</i>			<i>713,000</i>		<i>0.15</i>	<i>0.80</i>
<b>Energy Infrastructure</b>							
Southern Company	SO	26.85	701	18,800	23.90	0.47	1.06
El Paso Corporation	EP S	15.61	590	9,200	20.00	0.66	0.92
American Electric Power Co. Inc.	AEP N	29.26	322	9,400	42.20	0.63	0.89
Enel S.p.a. (32%)	EN	26.51	388	10,300	32.70	0.39	0.89
Duke Energy Corporation	DUK	22.54	792	17,900	30.40	0.48	0.87
Dominion Resources	D	56.07	269	15,100	76.20	0.45	0.86
Exelon Corporation	EXC N	44.01	323	14,200	70.80	0.45	0.79
	<i>Total or Median</i>			<i>76,000</i>		<i>0.47</i>	<i>0.88</i>
<b>Natural Gas and Oil</b>							
Occidental Petroleum Corp.	OXY	29.18	372	10,900	30.00	0.48	0.99
OAo Lukoil	LUKOY	65.80	299	19,700	70.00	0.08	0.95
Devon Energy	DVN	47.86	165	7,900	55.00	0.48	0.93
ENI S.p.A.	E	75.58	776	58,700	85.00	0.18	0.91
Encana Corporation	ECA B	29.61	470	13,900	35.00	0.28	0.89
Anadarko Petroleum Corp.	APC	44.06	266	11,700	56.00	0.26	0.84
Unocal Corporation	UCL	32.35	245	7,900	45.00	0.33	0.81
ConocoPhillips	P B	52.14	680	35,500	80.00	0.32	0.76
Burlington Resources	BR B	37.53	202	7,600	57.00	0.28	0.76
Marathon Oil Corporation	MRO B	24.49	310	7,600	40.00	0.36	0.75
Petroleo Brasileiro S. A.	PBR B	16.93	1,086	18,400	30.00	0.27	0.68
	<i>Total or Median</i>			<i>189,000</i>		<i>0.28</i>	<i>0.82</i>
<b>Service</b>							
Baker Hughes Inc.	BHI	27.67	339	9,400	25.00	0.09	1.10
Schlumberger Ltd.	SLB	41.90	581	24,300	44.00	0.22	0.96
Halliburton Company	HAL	14.00	432	6,000	20.00	0.21	0.76

Buy/Sell rating after symbol: B - Buy, N - Neutral, S - Sell

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

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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) 12-Sep 2002	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM	
<b>Mega Cap</b>								
Exxon Mobil Corporation	XOM	33.59	1.4	9.5	20	2.7	10.1	
BP plc	BP	43.21	1.1	8.1	17	3.3	9.1	
TotalFinaElf S.A.	TOT	69.41	1.2	7.3	15	3.7	9.0	
Royal Dutch/Shell	RD	B	43.00	1.0	6.9	14	3.9	9.1
ChevronTexaco Corporation	CVX	B	73.12	1.1	6.7	13	3.8	9.2
	<i>Median</i>		<i>1.1</i>	<i>7.3</i>	<i>15</i>	<i>3.7</i>	<i>9.1</i>	
<b>Energy Infrastructure</b>								
Southern Company	SO	26.85	3.3	9.6	16	5.0	9.0	
American Electric Power Co. Inc.	AEP	N	29.26	0.5	8.0	8	8.2	9.0
Enel S.p.a. (32%)	EN	26.51	2.2	8.0	32	6.1	9.0	
Duke Energy Corporation	DUK	22.54	0.7	7.8	9	4.9	9.0	
Dominion Resources	D	56.07	3.2	7.7	11	4.6	9.0	
El Paso Corporation	EP	S	15.61	2.6	7.3	9	5.6	7.9
Exelon Corporation	EXC	N	44.01	2.2	7.1	10	4.0	9.0
	<i>Median</i>		<i>2.2</i>	<i>7.8</i>	<i>10</i>	<i>5.0</i>	<i>9.0</i>	
<b>Natural Gas and Oil</b>								
Occidental Petroleum Corp.	OXY	29.18	1.5	8.0	14	3.4	8.1	
ConocoPhillips	P	B	52.14	0.8	7.1	15	2.8	9.3
Devon Energy	DVN	47.86	3.1	6.9	48	0.4	7.4	
Anadarko Petroleum Corp.	APC	44.06	2.7	6.8	14	0.7	8.1	
ENI S.p.A.	E	75.58	1.6	6.6	15	4.5	7.3	
Burlington Resources	BR	B	37.53	4.6	6.1	15	1.5	8.0
Encana Corporation	ECA	B	29.61	2.5	5.6	12	0.9	6.3
Marathon Oil Corporation	MRO	B	24.49	0.4	5.5	10	3.8	7.3
Unocal Corporation	UCL	32.35	2.3	5.0	12	2.5	6.2	
OAO Lukoil	LUKOY	65.80	1.7	4.6	9	1.6	4.9	
Petroleo Brasileiro S. A.	PBR	B	16.93	1.4	3.8	5	8.0	5.6
	<i>Median</i>		<i>1.7</i>	<i>6.1</i>	<i>14</i>	<i>2.5</i>	<i>7.3</i>	
<b>Service</b>								
Baker Hughes Inc.	BHI	27.67	2.0	11.8	33	1.7	10.8	
Schlumberger Ltd.	SLB	41.90	2.3	8.6	31	1.8	8.9	
Halliburton Company	HAL	14.00	0.6	7.4	19	3.6	9.8	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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<b>Energy Infrastructure</b>								
Kinder Morgan Energy Partners, L.P.	KMP	S	33.40	136	4,500	14.00	0.49	1.71
Enterprise Products Part.	EPD		20.90	175	3,700	9.50	0.43	1.68
Kinder Morgan Management, LLC	KMR	S	32.46	30	1,000	14.00	0.49	1.67
Kinder Morgan, Inc.	KMI	S	40.50	123	5,000	8.10	0.87	1.52
Constellation Energy Group	CEG		25.96	164	4,300	20.00	0.69	1.09
Calpine Corporation	CPN	N	3.72	375	1,400	1.00	0.97	1.08
Williams Companies	WMB		2.87	521	1,500	1.00	0.97	1.05
AES Corporation	AES		3.07	543	1,700	1.00	0.98	1.05
Dynegy Inc.	DYN		1.78	418	700	1.00	0.94	1.05
CMS Energy Corporation	CMS		9.70	137	1,300	8.70	0.90	1.01
Mirant Corporation	MIR		3.23	413	1,300	4.00	0.86	0.97
Sempra Energy	SRE		21.33	207	4,400	24.30	0.64	0.96
Valero Energy Corporation	VLO		31.10	115	3,600	40.00	0.60	0.91
<i>Total or Median</i>					<i>34,400</i>		<i>0.86</i>	<i>1.05</i>
<b>Natural Gas and Oil</b>								
Murphy Oil Corporation	MUR		84.25	46	3,800	82.00	0.18	1.02
Suncor Energy	SU		16.73	454	7,600	17.00	0.25	0.99
Ocean Energy, Inc.	OEI		19.56	178	3,500	20.00	0.30	0.98
Petro-Canada	PCZ		29.99	262	7,900	31.00	0.11	0.97
Imperial Oil Limited (30%)	IMO		27.84	114	3,200	30.00	0.14	0.94
XTO Energy Inc.	XTO	B	20.15	124	2,500	26.00	0.25	0.83
Norsk Hydro ASA (49%)	NHY		42.16	126	5,300	54.00	0.18	0.82
PetroChina Company Ltd (10%)	PTR	B	20.30	176	3,600	30.00	0.17	0.73
<i>Total or Median</i>					<i>37,400</i>		<i>0.18</i>	<i>0.95</i>
<b>Coal Producers (Small Cap)</b>								
Penn Virginia Res. Part, L.P.	PVR		20.70	15	300	17.00	-	1.23
Consol Energy Inc.	CNX		13.68	79	1,100	5.00	0.88	1.20
Peabody Energy	BTU		25.50	55	1,400	18.00	0.75	1.10
Arch Coal	ACI		17.56	48	800	18.00	0.61	0.99
Alliance Res. Part, L.P.	ARLP		24.36	16	400	29.00	0.36	0.90
Fording Coal (USS)	FDG		14.38	52	800	23.00	0.04	0.64
Massey Energy	MEE		7.58	75	600	18.00	0.37	0.64
					<i>5,400</i>		<i>0.37</i>	<i>0.99</i>

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	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 12-Sep 2002</i>	<i>EV/ Sales NTM</i>	<i>EV/ Ebitda NTM</i>	<i>P/E NTM</i>	<i>Dividend or Distribution NTM (%)</i>	<i>PV/ Ebitda NTM</i>
<b>Energy Infrastructure</b>							
Enterprise Products Part.	EPD	20.90	1.8	18.5	45	6.0	11.0
Kinder Morgan Energy Partners, L.P.	KMP S	33.40	3.3	15.4	18	7.3	9.0
Kinder Morgan Management, LLC	KMR S	32.46	3.2	15.0	17	7.5	9.0
Kinder Morgan, Inc.	KMI S	40.50	3.6	13.7	17	0.5	9.0
Calpine Corporation	CPN N	3.72	1.9	11.0			10.2
Constellation Energy Group	CEG	25.96	2.8	10.0	10	3.7	9.2
Williams Companies	WMB	2.87	1.9	9.5		-	9.0
AES Corporation	AES	3.07	2.8	9.4			9.0
Dynegy Inc.	DYN	1.78	0.2	9.4		-	9.0
CMS Energy Corporation	CMS	9.70	1.3	9.1	5	7.4	9.0
Mirant Corporation	MIR	3.23	0.4	8.7	2	-	9.0
Sempra Energy	SRE	21.33	2.4	8.6	8	4.7	9.0
Valero Energy Corporation	VLO	31.10	0.4	7.1	8	1.3	7.8
	<i>Median</i>		<i>1.9</i>	<i>9.5</i>	<i>10</i>	<i>3.7</i>	<i>9.0</i>
<b>Natural Gas and Oil</b>							
Suncor Energy	SU	16.73	3.6	10.7	24	1.3	10.8
Imperial Oil Limited (30%)	IMO	27.84	1.3	9.6	22	1.9	10.3
Murphy Oil Corporation	MUR	84.25	1.0	8.2	40	1.8	8.0
Ocean Energy, Inc.	OEI	19.56	4.6	7.7	33	0.8	7.8
Petro-Canada	PCZ	29.99	1.8	7.2	19	0.8	7.4
XTO Energy Inc.	XTO B	20.15	4.2	6.0	12	0.2	7.3
Norsk Hydro ASA (49%)	NHY	42.16	0.8	3.9	11	2.5	4.8
PetroChina Company Ltd (10%)	PTR B	20.30	1.6	3.7	7	6.3	5.1
	<i>Median</i>		<i>1.7</i>	<i>7.4</i>	<i>20</i>	<i>1.5</i>	<i>7.6</i>
<b>Coal Producers (Small Cap)</b>							
Penn Virginia Res. Part, L.P.	PVR	20.70	9.8	13.6	15	9.7	11.0
Consol Energy Inc.	CNX	13.68	1.9	11.7	31	4.1	9.7
Peabody Energy	BTU	25.50	1.5	9.9	21	1.6	9.0
Arch Coal	ACI	17.56	1.5	9.0	99	1.3	9.0
Fording Coal (US\$)	FDG	14.38	1.3	5.8	13	2.7	9.0
Massey Energy	MEE	7.58	1.0	5.7	190	2.1	8.9
Alliance Res. Part, L.P.	ARLP	24.36	1.3	5.4	7	8.2	6.0
			<i>1.5</i>	<i>9.0</i>	<i>21</i>	<i>2.7</i>	<i>9.0</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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## Meter Reader

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

September 16, 2002

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

	Symbol/ Rating	Price (\$/sh) 12-Sep 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio	
<b>Energy Infrastructure</b>								
El Paso Energy Partners	EPN	S	33.73	42.8	1,440	10.20	0.64	1.84
Enbridge Energy Partners,	EEP		43.45	31.0	1,350	16.60	0.58	1.68
TEPPCO Partners, L.P.	TPP		29.92	46.5	1,390	12.90	0.61	1.52
Plains All Amer. Pipeline	PAA		23.94	41.6	1,000	14.90	0.39	1.38
Northern Border Partners	NBP		36.62	42.0	1,540	20.10	0.57	1.36
AmeriGas Partners, L.P.	APU		23.05	49.0	1,130	23.50	0.47	0.99
Penn Virginia Corporation	PVA		33.55	9.0	300	38.00	0.09	0.89
	<i>Total or Median</i>				8,200		0.57	1.38
<b>Natural Gas and Oil</b>								
Provident Energy Trust	PVX		6.88	36.0	250	5.00	0.46	1.21
Dorchester Hugoton, Ltd.	DHULZ		13.33	10.7	143	11.60	(0.17)	1.17
Quicksilver Resources Inc.	KWK		19.49	19.4	380	19.00	0.44	1.01
Pogo Producing Company	PPP		32.51	60.5	1,970	32.00	0.27	1.01
Newfield Exploration Company	NFX		32.00	48.6	1,560	33.00	0.25	0.98
CNOOC Limited (19%)	CEO	B	27.17	78.0	2,120	30.00	-	0.91
Enerplus Resources Fund	ERF		17.26	69.6	1,200	20.00	0.19	0.89
Encore Acquisition Corp. (25%)	EAC		17.24	7.5	129	20.00	0.18	0.88
Spinnaker Exploration Company	SKE		29.64	28.5	850	35.00	0.03	0.85
Stone Energy Company	SGY		32.82	26.4	870	42.00	0.29	0.84
Southwestern Energy Company	SWN		11.70	25.6	300	17.00	0.44	0.83
Forest Oil Corporation	FST	N	26.01	46.8	1,220	35.00	0.30	0.82
Unit Corporation	UNT		17.03	36.2	620	21.00	0.03	0.82
Magnum Hunter Resources, Inc.	MHR		5.19	71.5	370	11.00	0.46	0.71
Swift Energy Company	SFY		12.00	24.8	300	22.00	0.32	0.69
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.46	56.9	1,330	40.00	0.12	0.63
	<i>Total or Median</i>				13,600		0.26	0.87
<b>Natural Gas Royalty Trusts</b>								
Cross Timbers Royalty Trust	CRT		17.90	6.0	107	20.00	-	0.89
San Juan Basin Royalty Trust	SJT	B	11.80	46.6	550	16.10	-	0.73
Hugoton RoyaltyTrust (46%)	HGT		11.44	18.4	210	16.30	-	0.70
<b>Micro Cap</b>								
Abraxas Petroleum Corporation	ABP		0.80	27.0	22	2.00	0.84	0.90
Energy Partners Ltd.(30%)	EPL	B	7.57	8.2	62	10.00	0.38	0.85
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.38	27.3	38	3.00	0.22	0.58

Buy/Sell rating after symbol: B - Buy, N - Neutral, S - Sell

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

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## Meter Reader

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

September 16, 2002

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

	<i>Symbol/</i>		<i>Price</i>	<i>EV/</i>	<i>EV/</i>	<i>Dividend or</i>	<i>PV/</i>
	<i>Rating</i>	<i>12-Sep</i>	<i>Sales</i>	<i>Ebitda</i>	<i>P/E</i>	<i>NTM</i>	<i>Ebitda</i>
		<i>2002</i>	<i>NTM</i>	<i>NTM</i>	<i>NTM</i>	<i>(%)</i>	<i>NTM</i>
<b>Energy Infrastructure</b>							
El Paso Energy Partners	EPN	S	33.73	9.3	16.5	26	9.0
Enbridge Energy Partners,	EEP		43.45	6.8	15.1	84	9.0
TEPPCO Partners, L.P.	TPP		29.92	1.1	13.7	19	9.0
Plains All Amer. Pipeline	PAA		23.94	0.2	12.4	18	9.0
Northern Border Partners	NBP		36.62	7.7	12.2	16	9.0
AmeriGas Partners, L.P.	APU		23.05	1.5	8.9	13	9.0
Penn Virginia Corporation	PVA		33.55	3.2	5.1	22	5.8
	<i>Median</i>			<i>3.2</i>	<i>12.4</i>	<i>19</i>	<i>9.0</i>
<b>Natural Gas and Oil</b>							
Dorchester Hugoton, Ltd.	DHULZ		13.33	6.4	9.5	13	8.1
Quicksilver Resources Inc.	KWK		19.49	4.5	8.4	21	8.3
Pogo Producing Company	PPP		32.51	4.3	7.4	46	7.3
Provident Energy Trust	PVX		6.88	3.6	7.3	89	6.1
Enerplus Resources Fund	ERF		17.26	4.6	6.5	16	7.4
Encore Acquisition Corp. (25%)	EAC		17.24	4.3	6.5	15	7.4
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.46	3.5	6.5	7	10.3
Forest Oil Corporation	FST	N	26.01	3.8	6.4	21	7.8
CNOOC Limited (19%)	CEO	B	27.17	4.5	5.9	12	6.5
Magnum Hunter Resources, Inc.	MHR		5.19	2.9	5.9	15	8.3
Swift Energy Company	SFY		12.00	3.8	5.6	25	8.1
Unit Corporation	UNT		17.03	2.9	5.4	12	6.6
Southwestern Energy Company	SWN		11.70	2.2	5.2	12	6.3
Newfield Exploration Company	NFX		32.00	3.3	4.6	18	4.7
Stone Energy Company	SGY		32.82	3.2	4.3	10	5.0
Spinnaker Exploration Company	SKE		29.64	3.5	4.1	13	4.8
	<i>Median</i>			<i>3.7</i>	<i>6.2</i>	<i>15</i>	<i>7.3</i>
<b>Natural Gas Royalty Trusts</b>							
Cross Timbers Royalty Trust	CRT		17.90	6.3	8.9	10	10.0
San Juan Basin Royalty Trust	SJT	B	11.80	5.6	7.3	10	9.9
Hugoton RoyaltyTrust (46%)	HGT		11.44	4.6	6.8	9	9.6
<b>Micro Cap</b>							
Abraxas Petroleum Corporation	ABP		0.80	4.3	6.3	-	6.9
Energy Partners Ltd.(30%)	EPL	B	7.57	2.5	5.3	-	6.3
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.38	3.3	5.0	11	8.5

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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