

Cost of Capital Study
2009 Assessment Year

Industry: **Electric - IPP**

				Reference
Equity:				
Yield Capitalization				Page
			9.60%	5
			12.00%	6
Dividend Growth Models				
			nmf	8
			nmf	9
			14.00%	
Debt:				
			11.00%	10
Industry Market Capital Structure				
Equity	40%	x	14.00% =	5.60%
Debt	60%	x	11.00% x (1-.038) =	4.09%
Marginal Tax Rate	38%			3
				3
Weighted Average Cost of Capital:				<u>9.69%</u>

Support for Guideline Companies

Electric - IPP 2009 Assessment Year

Industry Overall						
Company Name	Ticker	Beta	P/E Ratio	Div'd Yield	Long Term Debt	Pref Stock Com Stock
AES Corp	aes	1.05	6.6	nil	82.0%	18.0%
Dynegy Inc	dyn	1.55	nmf	nil	57.0%	43.0%
Mirant	mir	0.95		nil	41.0%	59.0%
NRG Energy	nrg	1.15	6.0	nil	51.0%	49.0%
Reliant Energy	rri	1.65	nmf	nil	43.0%	57.0%
Mean		1.27	6.3	nil	55%	45%

source: Value Line Apr 3, 2009

**Support for Capital Structure
(based on Market Value)
Electric - IPP
2009 Assessment Year**

Industry Overall													
Company Name	Ticker	\$Stock\$ Average	Common Shares	Common \$ Stock \$	%	Preferred \$ Stock \$	%	Book Val \$LT Debt\$	%	Mkt:Bk	Mkt Val \$LT Debt\$	%	\$ Total \$ Debt & Equity
AES Corp	aes	8.007	666,216,009	5,334,169,512	25.5%		0.0%	16,863,000,000	80.6%	92.4%	15,582,661,111	74.5%	20,916,830,623
Dynegy Inc	dyn	2.588	840,295,109	2,174,963,840	32.4%		0.0%	5,736,000,000	85.4%	79.2%	4,541,920,039	67.6%	6,716,883,880
Mirant	mir	16.670	144,629,446	2,410,972,865	50.6%		0.0%	2,630,000,000	55.2%	89.3%	2,349,807,719	49.4%	4,760,780,584
NRG Energy	nrg	20.903	234,356,717	4,898,836,574	40.6%	250,000	0.0%	7,704,000,000	63.9%	92.9%	7,156,524,255	59.4%	12,055,610,830
Reliant Energy	rri	5.073	350,362,189	1,777,504,172	40.9%		0.0%	2,871,000,000	66.1%	89.3%	2,565,132,305	59.1%	4,342,636,477
Mean:					38.0%		0.0%		70.3%			62.0%	
Weighted Mean:				16,596,446,964	34.0%	250,000	0.0%	35,804,000,000	73.4%		32,196,045,429	66.0%	48,792,742,393
Median:					40.6%		0.0%		66.1%			59.4%	
Estimated:					40%		0%					60%	100%

source: Value Line Apr 3, 2009

Support for Market Multiples

Electric - IPP

2009 Assessment Year

Industry Overall										
Company Name	Ticker	\$Stock\$ Average	Rev's	Multiple	Cash Flow	Multiple	Earnings	Multiple	Book Value	Multiple
AES Corp	aes	8.007	24.12	0.33	2.50	3.20	0.99	8.09	5.51	1.45
Dynegy Inc	dyn	2.588	4.23	0.61	0.65	3.98	0.20	12.94	6.20	0.42
Mirant	mir	16.670	22.04	0.76	9.42	1.77	6.11	2.73	26.01	0.64
NRG Energy	nrg	20.903	29.38	0.71	6.87	3.04	3.66	5.71	26.56	0.79
Reliant Energy	rri	5.073	35.83	0.14	neg	nmf	neg	nmf	10.78	0.47
Mean:				0.51	3.00		7.37		0.75	
Median:				0.61	3.12		6.90		0.64	
Weighted Mean:		53.24	115.60	0.46	19.44	2.74	10.96	4.86	75.06	0.71
Estimated:				0.50	3.00		6.00		0.70	

source: Value Line Investment Survey and Finance.Yahoo.com

Note: Average Stock Price = 4th 1/4 High/Low common stock price averages

**Support for Yield Capitalization Equity Component
Capital Asset Pricing Model**

Electric - IPP

2009 Assessment Year

Ex Post

$Ke = Rf + B (Rm-Rf)$

Ke = Cost of Equity			9.60%
			to page 1
Rf =	risk free rate	3.0%	
Rp =	risk premium	4.4%	
B =	Beta	1.50	page 7

Rp = Risk Premium			4.40%
			to above
2009 Ibbotson Risk Premia Over Time Report page 4			
	Ibbotson, SBBI, Large Co.	9.6% Geometric Rm	
	less	5.2% Average Historical Rf Return	

Rf = Risk Free Rate			3.00%
			to above
2009 Ibbotson Risk Premia Over Time Report page 5			
	Long Term (20 years) US Treasury Bond Yield	3.0%	
Value Line Investment Survey, Selected Yields January 9, 2009, page 3757			
	US Treasury Securities year end data		
	30 year	2.56%	
	30 year Zero	2.42%	
Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/)			
	January 5, 2009 as of 12-31-08		
	Treasury Constant Maturities		
	20 year	3.05%	
	20 year TIPS	2.36%	
		0.69%	Inflation Indication

Support for Yield Capitalization Equity Component Capital Asset Pricing Model

Electric - IPP

2009 Assessment Year

Ex Ante

$$\text{Ke} = \text{Rf} + \text{B} (\text{Rp})$$

Ke = Cost of Equity	12.00%
Rm =	rate of return 9.0%
Rf =	risk free rate 3.0%
Rp =	risk premium 6.0%
B =	Beta 1.50
	to page 1
	page 7

Rp = Risk Premium	6.00%
	to above
Shannon Pratt and Roger Grabowski	3.5 - 6%
Cost of Capital, Applications and Examples, Third Edition, 2008, Page 113	
Dr. Aswath Damodaran	6.43%
http://pages.stern.nyu.edu/~adamodar/ 2008 Implied Premium	
Ibbotson	5.7%
2009 Risk Premia Over Time Report, Page 5 Long-horizon expected ERP (supply side)	
John Graham and Campbell Harvey	4.12%
The Equity Risk Premium in January 2008:	3.46%
Evidence from the Global CEO Outlook Survey	2.39 - 4.65%
	November 2008 10 year average 10 year average range

Rf = Risk Free Rate	3.00%
	to above
2009 Ibbotson Risk Premia Over Time Report page 5	
Long Term (20 years) US Treasury Bond Yield	3.0%
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US Treasury Securities year end data	
30 year	2.56%
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Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/) January 5, 2009 as of 12-31-08	
Treasury Constant Maturities	
20 year	3.05%
20 year TIPS	2.36%
	0.69%
	Inflation Indication

**Beta Calculation for CAPM
Electric - IPP
2009 Assessment Year**

Beta =				
Industry Overall		ValueLine	Yahoo	Zacks
AES Corp	aes	1.05	1.49	1.49
Dynegy Inc	dyn	1.55	1.32	1.60
Mirant	mir	0.95	1.16	1.34
NRG Energy	nrg	1.15	1.06	1.23
Reliant Energy	rri	1.65	1.99	2.11
	Mean:	1.27	1.40	1.55
	Median:	1.15	1.32	1.49
	Range:	.95-1.60	1.06-1.99	1.23-2.11
			Estimated:	1.50

Support for Yield Capitalization Equity Component
Electric - IPP
2009 Assessment Year

Dividend Growth Model

(based on Value Line Dividends Growth)

$$K_e = D_1 / P_0 + G$$

where:

- Ke** = Cost of Equity
- D1** = Expected Dividends
- Po** = Current Price
- G** = Sustainable Growth

Industry Overall						
Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G)	Ke
AES Corp	aes	8.007	nil	nmf	nil	nmf
Dynegy Inc	dyn	2.588	nil	nmf	nil	nmf
Mirant	mir	16.670				
NRG Energy	nrg	20.903	nil	nmf	nmf	nmf
Reliant Energy	rri	5.073	nil	nmf	nil	nmf
Mean:						nmf
Median:						nmf
Range:						nmf
Estimated						nmf

source: Value Line and Finance.Yahoo.com

Note: Stock Price = 4th 1/4 High / Low average

Support for Yield Capitalization Equity Component
Electric - IPP
2009 Assessment Year

Dividend Growth Model

(based on Value Line Earnings Growth)

$$K_e = D_1 / P_0 + G$$

where:

- Ke** = Cost of Equity
- D1** = Expected Dividends
- Po** = Current Price
- G** = Sustainable Growth

Industry Overall						
Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Earnings Growth (G)	Ke
AES Corp	aes	8.007	nil	nmf	9.00%	nmf
Dynegy Inc	dyn	2.588	nil	nmf	nmf	nmf
Mirant	mir	16.670				
NRG Energy	nrg	20.903	nil	nmf	1.00%	nmf
Reliant Energy	rri	5.073	nil	nmf	nmf	nmf
Mean:						nmf
Median:						nmf
Range:						nmf
Estimated:						nmf

source: Value Line and Finance.Yahoo.com
 Note: Stock Price = 4th 1/4 High / Low average

Support for Debt Rating and Debt Yield Rate

Electric - IPP

2009 Assessment Year

Industry Overall		Ratings	
Company	Ticker	Mergent's	S&P
AES Corp	aes		BB-
Dynegy Inc	dyn		B
Mirant	mir		B+
NRG Energy	nrg		B+
Reliant Energy	rri	B1	B+
Overall Average Debt Rating		B	B

DEBT YIELD RATE
11.00%

Mergent's Bond Record				
Corporate	Aaa	Aa	A	Baa
October	6.28%	6.79%	7.58%	8.88%
November	6.12%	6.73%	7.68%	9.21%
December	5.06%	5.81%	6.70%	8.45%
Average	5.82%	6.44%	7.32%	8.85%

**Support for Equity Component of Direct Capitalization Rates
Electric - IPP
2009 Assessment Year**

Industry Overall										
Company Name	Ticker	\$Stock\$ Average	Actual		Projected		Actual		Projected	
			Earnings	Ratio	Earnings	Ratio	Cash Flow	Ratio	Cash Flow	Ratio
AES Corp	aes	8.007	0.99	12.4%	1.10	13.7%	2.50	31.2%	2.60	32.5%
Dynegy Inc	dyn	2.588	0.20	7.7%	(0.20)	nmf	0.65	25.1%	(0.55)	nmf
Mirant	mir	16.670	6.11	36.7%	2.92	17.5%	9.42	56.5%		nmf
NRG Energy	nrg	20.903	3.66	17.5%	2.40	11.5%	6.87	32.9%	5.75	27.5%
Reliant Energy	rri	5.073	(2.15)	nmf	(0.60)	nmf	(1.17)	nmf	0.30	5.9%
	Mean:			18.6%		14.2%		36.4%		22.0%
	Weighted Mean:	53.242	8.81	16.5%	5.62	10.6%	18.27	34.3%	8.10	15.2%
	Median:			14.9%		13.7%		32.0%		27.5%
	Say:			16.0%		11.0%		33.0%		16.0%

source: Value Line Apr 3, 2009

Build Up ERP - D&F

2009 Assessment Year

Electric - IPP

Company	Ticker	Market value of equity in millions \$	ERP1	Book Value of Equity in Million \$	ERP2	5 Yr Ave Net Income in Million \$	ERP3	Market value of Invested Capital in millions \$	ERP4	Total Assets in millions \$	ERP5	5 yr Ave EBITA in millions \$	ERP6	Sales in millions \$	ERP7	Number of employees	ERP8	
AES Corp	aes	5,386	6.38%	3,935	5.67%	635	5.68%	24,488	4.56%	34,806	4.52%	3,964	4.88%	16,070	6.18%	28,000	6.67%	5.57%
Dynegy Inc	dyn	2,164	7.79%	4,348	5.55%	(164)	NMF	9,340	5.96%	14,213	5.59%	502	7.22%	3,549	7.48%	455	10.13%	7.10%
Mirant	mir	2,610	7.50%	5,310	5.30%	80	8.07%	5,365	6.77%	5,748	6.66%	1,014	6.42%	3,188	7.58%	1,740	9.00%	7.16%
NRG Energy	nrg	4,933	6.52%	5,375	5.28%	354	6.36%	13,131	5.47%	24,808	4.92%	1,748	5.81%	6,885	6.91%	3,415	8.44%	6.21%
Reliant Energy	rri	1,769	8.10%	4,805	5.42%	58	8.44%	4,671	6.97%	10,635	5.93%	452	7.34%	12,553	6.40%	3,700	8.37%	7.12%
Mean			7.26%		5.45%		7.14%		5.95%		5.52%		6.33%		6.91%		8.52%	6.63%
Median			7.50%		5.42%		7.21%		5.96%		5.59%		6.42%		6.91%		8.44%	7.10%
Estimated			7.50%		5.40%		7.20%		5.95%		5.50%		6.40%		6.91%		8.40%	6.66%
add Rf			10.50%		8.40%		10.20%		8.95%		8.50%		9.40%		9.91%		11.40%	9.66%
add: (forwardlooking ERP - ave. historical ERP used in study)			12.66%		10.56%		12.36%		11.11%		10.66%		11.56%		12.07%		13.56%	11.82%
add IRP (SBBI IRP adjusted--arithmetic)			10.2%		8.1%		9.9%		8.7%		8.2%		9.1%		9.7%		11.1%	9.40%
add IRP (SBBI IRP adjusted--geometric)			9.1%		7.0%		8.8%		7.5%		7.1%		8.0%		8.5%		10.0%	8.24%

Company Name	Coupons	Maturity	YTM	YE Price	Issued	Total Bk Val
AES Corp	9.375	2010	12.35	95.00	850,000,000	1,350,000,000
Dynegy Holdings	6.875	2011	14.52	87.50	500,000,000	2,047,000,000
Dynegy Holdings	8.750	2012	13.91	88.00	500,000,000	
AES Corp	7.750	2014	10.99	88.00	500,000,000	
NRG Energy	7.250	2014	8.92	93.50	1,200,000,000	4,700,000,000
NRG Energy	7.375	2016	8.75	93.00	2,400,000,000	
NRG Energy	7.375	2017	8.81	92.00	1,100,000,000	
Dynegy Holdings	8.375	2016	15.44	71.00	1,047,000,000	
						8,097,000,000

Average for all B 11.18

Median for all B 10.99

Note these are all short tem debt

Mkt Val		Mkt:Bk	Rating
807,500,000	1,247,500,000	92.4%	B
437,500,000	1,620,870,000	79.2%	B-
440,000,000			B-
440,000,000			B
1,122,000,000	4,366,000,000	92.9%	B
2,232,000,000			B
1,012,000,000			B
743,370,000			NR
	7,234,370,000	89.3%	

Qtr 4 Average Stock Price
 Yahoo Finance

AES Corp aes							
Date	Open	High	Low	Close	Volume	Adj Close	
12/01/2008	7.440	8.470	5.800	8.240	8747600	8.240	
11/03/2008	7.800	9.290	6.440	7.690	10113600	7.690	8.007
10/01/2008	11.590	11.740	6.300	7.970	11416400	7.970	
09/02/2008	15.350	15.630	10.900	11.690	9923200	11.690	
08/01/2008	16.260	16.860	14.780	15.260	5418200	15.260	
07/01/2008	18.960	19.500	16.050	16.140	6350400	16.140	
06/02/2008	19.240	20.800	18.480	19.210	5144700	19.210	
05/01/2008	17.390	20.000	17.240	19.480	4708100	19.480	
04/01/2008	16.760	18.330	16.670	17.360	4936200	17.360	
03/03/2008	17.690	18.750	15.700	16.670	6462000	16.670	
02/01/2008	18.950	20.300	17.900	17.980	4138400	17.980	
01/02/2008	21.420	22.480	16.630	19.090	5653000	19.090	

Dynergy Inc dyn							
Date	Open	High	Low	Close	Volume	Adj Close	
12/01/2008	2.160	2.430	1.700	2.000	7509100	2.000	
11/03/2008	3.620	3.640	1.500	2.230	8312600	2.230	2.588
10/01/2008	3.590	4.230	2.030	3.640	14250200	3.640	
09/02/2008	5.910	6.020	2.850	3.580	14889000	3.580	
08/01/2008	6.630	6.860	5.510	5.960	9845200	5.960	
07/01/2008	8.450	8.910	6.480	6.730	9628700	6.730	
06/02/2008	9.340	9.550	8.310	8.550	8033000	8.550	
05/01/2008	8.580	9.920	8.410	9.420	8283000	9.420	
04/01/2008	7.980	8.900	7.890	8.620	6757900	8.620	
03/03/2008	7.260	8.310	7.000	7.890	8492200	7.890	
02/01/2008	7.000	8.330	6.930	7.400	9027200	7.400	
01/02/2008	7.120	7.810	5.670	7.010	9618300	7.010	

NRG Energy nrg							
Date	Open	High	Low	Close	Volume	Adj Close	
12/01/2008	23.500	25.150	19.810	23.330	2984300	23.330	
11/03/2008	22.760	24.970	15.700	23.690	3968200	23.690	20.903
10/01/2008	24.670	25.400	14.390	23.250	8076500	23.250	
09/02/2008	37.900	37.900	22.200	24.750	8120000	24.750	
08/01/2008	36.890	39.240	32.440	37.640	4470000	37.640	
07/01/2008	42.690	43.950	34.380	36.290	4201500	36.290	
06/02/2008	41.280	44.400	41.160	42.900	2828900	42.900	
05/01/2008	43.950	44.280	39.760	41.590	4406900	41.590	
04/01/2008	39.290	45.780	38.360	43.950	3049400	43.950	
03/03/2008	41.150	43.000	37.460	38.990	5456500	38.990	
02/01/2008	38.520	42.000	37.260	41.270	3429100	41.270	
01/02/2008	43.710	43.960	34.560	38.590	5314400	38.590	

Reliant Energy rri

Date	Open	High	Low	Close	Volume	Adj Close
12/01/2008	5.590	5.820	4.410	5.780	4012600	5.780
11/03/2008	5.260	6.180	3.660	5.740	5498000	5.740
10/01/2008	7.040	7.600	2.770	5.250	8239500	5.250
09/02/2008	17.250	17.250	4.940	7.350	4694400	7.350
08/01/2008	18.130	18.810	14.320	17.030	4858000	17.030
07/01/2008	21.060	24.150	17.060	18.110	3796400	18.110
06/02/2008	25.500	26.010	20.470	21.270	3047200	21.270
05/01/2008	24.700	26.270	22.970	25.560	3825500	25.560
04/01/2008	24.040	28.060	23.110	25.740	3015600	25.740
03/03/2008	22.900	25.280	21.890	23.650	3106100	23.650
02/01/2008	21.250	24.530	20.750	22.800	3500900	22.800
01/02/2008	26.060	26.740	18.060	21.210	3787400	21.210

5.073

Mirant mir

Date	Open	High	Low	Close	Volume	Adj Close
12/01/2008	16.630	20.280	16.100	18.870	2312500	18.870
11/03/2008	17.290	18.000	14.320	17.220	3891400	17.220
10/01/2008	18.020	19.330	11.990	17.520	4005600	17.520
09/02/2008	29.600	29.600	17.320	18.290	6024200	18.290
08/01/2008	30.650	30.880	26.960	29.580	4458300	29.580
07/01/2008	38.890	39.200	30.400	30.610	4532700	30.610
06/02/2008	40.150	41.400	38.680	39.150	3355400	39.150
05/01/2008	40.970	42.210	38.160	40.620	3317100	40.620
04/01/2008	36.390	41.380	36.080	41.110	3537200	41.110
03/03/2008	36.790	37.980	34.150	36.390	4458300	36.390
02/01/2008	36.900	37.520	35.310	37.000	3080700	37.000
01/02/2008	39.360	39.530	33.750	36.790	3957900	36.790

16.670

Washington State Department of Revenue

(instructions: any data entered on this page will flow to the applicable worksheets)

Industry: Electric - IPP

Assessment Year: 2009 Assessment Year

Guideline Companies:		Stock Price (4th 1/4 average)	Revenues Per Share	Cash Flow Per Share	Earnings Per Share	Dividends Per Share
Name	Ticker					
AES Corp	aes	8.007	24.12	2.50	0.99	nil
Dynegy Inc	dyn	2.588	4.23	0.65	0.20	nil
Mirant	mir	16.670	22.04	9.42	6.11	
NRG Energy	nrg	20.903	29.38	6.87	3.66	
Reliant Energy	rri	5.073	35.83	(1.17)	(2.15)	