Department of Revenue
Washington State

COST OF CAPITAL STUDY

YIELD CAPITALIZATION

2011 ASSESSMENT YEAR

APPENDIX C

ELECTRIC INDEPENDENT POWER PRODUCERS

EQUITY RATE						**12.00%**		
CAPITAL ASSET PRICING MODEL								PAGE
CAPM Ex Post			9.05%					5
CAPM Ex Ante			9.50%					6
DIVIDEND GROWTH MODELS								
Value Line, based on Dividends Growth			8.70%					8
Value Line, based on Earnings Growth			12.00%					9
Value Line, based on Return on Equity			9.00%					10
					RANGE	8.70 - 12.00%		
DEBT RATE						**7.00%**		11
MARKET CAPITAL STRUCTURE								
Equity	50%	x	12.00%	=		6.00%		3
Debt	50%	x	7.00%	=	3.50%			3
Marginal Tax Rate	38%	=	(1-.038)	x	3.50%	2.17%		
WEIGHTED AVERAGE COST OF CAPITAL						**8.17%**		

SUPPORT FOR GUIDELINE COMPANIES

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Capital Structure at Book Value

Company	Ticker	Beta	P/E Ratio	Div'd Yield	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
AES Corp	aes	1.20	11.8	nil	6,974,683,301	28.0%	-	0.0%	17,920,000,000	72.0%	24,894,683,301
American Elec Power	aep	0.70	11.5	5.1%	13,615,832,255	45.9%	61,000,000	0.2%	15,995,000,000	53.9%	29,671,832,255
Constellation Energy	ceg	0.80	11.7	3.4%	201,961,349	4.4%	190,000,000	4.1%	4,190,100,000	91.4%	4,582,061,349
Dominion	D	0.70	13.6	4.6%	12,132,611,369	42.7%	257,000,000	0.9%	16,023,000,000	56.4%	28,412,611,369
Dynegy Inc	dyn	1.45	nmf	nil	2,853,104,465	38.0%	-	0.0%	4,661,000,000	62.0%	7,514,104,465
El Paso Electric	ee	0.75	11.6	nil	807,305,516	52.2%	-	0.0%	739,700,000	47.8%	1,547,005,516
Entergy	etr	0.70	10.7	4.8%	8,548,241,499	42.8%	-	0.0%	11,445,000,000	57.2%	19,993,241,499
GenOn Energy	gen	nmf	nmf	nil	6,184,000,000	60.6%	-	0.0%	4,026,000,000	39.4%	10,210,000,000
NRG Energy	nrg	1.15	10.9	nil	8,009,190,835	46.2%	248,000,000	1.4%	9,063,000,000	52.3%	17,320,190,835
Ormat Technologies	ora	1.15	37.3	0.7%	919,975,442	57.8%	-	0.0%	672,300,000	42.2%	1,592,275,442
PPL Corp	ppl	0.70	11.5	5.4%	483,291,708	5.0%	250,000,000	2.6%	8,839,000,000	92.3%	9,572,291,708
Sempra Energy	sre	0.85	13.7	3.1%	247,855,454	3.1%	179,000,000	2.2%	7,562,000,000	94.7%	7,988,855,454
	Mean	**0.92**	**14.4**	**3.9%**	**5,081,504,433**	**35.6%**		**1.0%**	**8,428,008,333**	**63.5%**	
	Weighted Mean				**60,978,053,192**	**37.3%**	**1,185,000,000**	**0.7%**	**101,136,100,000**	**61.9%**	**163,299,153,192**
	Median			**4.6%**		**42.7%**		**0.1%**		**56.8%**	

SUPPORT FOR CAPITAL STRUCTURE

MARKET VALUE

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Capital Structure at Market Value

Company	Ticker	Stock Average	Common Shares	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
AES Corp	aes	11.668	788,099,808	9,195,811,260	32.3%	-	0.0%	19,266,228,272	67.7%	28,462,039,532
American Elec Power	aep	36.320	480,276,270	17,443,634,126	51.3%	61,000,000	0.2%	16,509,343,926	48.5%	34,013,978,052
Constellation Energy	ceg	30.235	201,961,349	6,106,301,387	55.3%	190,000,000	1.7%	4,741,936,170	43.0%	11,038,237,557
Dominion	D	43.240	580,507,721	25,101,153,856	58.0%	257,000,000	0.6%	17,916,869,749	41.4%	43,275,023,605
Dynegy Inc	dyn	5.125	120,894,257	619,583,067	15.8%	-	0.0%	3,293,055,115	84.2%	3,912,638,182
El Paso Electric	ee	25.823	43,520,513	1,123,844,714	60.6%	-	0.0%	730,157,870	39.4%	1,854,002,584
Entergy	etr	73.353	180,915,164	13,270,730,330	54.0%	-	0.0%	11,297,359,500	46.0%	24,568,089,830
GenOn Energy	gen	3.720	773,000,000	2,875,560,000	40.9%	-	0.0%	4,155,462,247	59.1%	7,031,022,247
NRG Energy	nrg	19.783	247,197,248	4,890,385,556	33.9%	248,000,000	1.7%	9,300,180,638	64.4%	14,438,566,195
Ormat Technologies	ora	28.337	45,430,886	1,287,359,873	65.0%	-	0.0%	693,918,845	35.0%	1,981,278,718
PPL Corp	ppl	26.320	483,291,708	12,720,237,755	57.6%	250,000,000	1.1%	9,123,231,695	41.3%	22,093,469,449
Sempra Energy	sre	52.273	247,855,454	12,956,230,765	61.9%	179,000,000	0.9%	7,805,167,788	37.3%	20,940,398,553
			Mean		**48.9%**		**0.5%**		**50.6%**	
			Weighted Mean	**107,590,832,689**	**50.4%**	**1,185,000,000**	**0.6%**	**104,832,911,816**	**49.1%**	**213,608,744,505**
			Median		**54.7%**		**0.1%**		**44.5%**	
			Max		**65.0%**		**1.7%**		**84.2%**	
			Min		**15.8%**		**0.0%**		**35.0%**	
			Target		**50%**		**0%**		**50%**	**100%**

Source:

Stock Price: Yahoo

Market Value Debt: Bond Analysis

SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Company	Ticker	Stock Avg	Revenues	Multiple	Cash Flow	Multiple	Earnings	Multiple	Book Value	Multiple
AES Corp	aes	11.668	19.100	0.6	2.50	4.7	0.95	12.3	8.85	1.3
American Elec Power	aep	36.320	30.100	1.2	6.00	6.1	2.60	14.0	28.35	1.3
Constellation Energy	ceg	30.235	71.850	0.4	5.25	5.8	2.10	14.4	38.20	0.8
Dominion	D	43.240	25.050	1.7	5.20	8.3	2.90	14.9	20.90	2.1
Dynegy Inc	dyn	5.125	17.700	0.3	1.95	2.6	(1.00)	nmf	23.60	0.2
El Paso Electric	ee	25.823	20.800	1.2	4.85	5.3	2.05	12.6	18.55	1.4
Entergy	etr	73.353	65.000	1.1	15.25	4.8	6.65	11.0	47.25	1.6
GenOn Energy	gen	3.720	6.430	0.6	0.10	37.2	(0.30)	nmf	8.00	0.5
NRG Energy	nrg	19.783	40.000	0.5	5.90	3.4	2.40	8.2	32.40	0.6
Ormat Technologies	ora	28.337	8.250	3.4	2.50	11.3	0.30	94.5	20.25	1.4
PPL Corp	ppl	26.320	19.400	1.4	3.60	7.3	2.15	12.2	16.85	1.6
Sempra Energy	sre	52.273	37.850	1.4	7.40	7.1	3.70	14.1	37.75	1.4
		Mean		**1.2**		**8.7**		**20.8**		**1.2**
		Median		**1.2**		**5.9**		**13.3**		**1.4**
		Trimmed Mean				**5.8**		**12.6**		
		Max		**3.4**		**37.2**		**94.5**		**2.1**
		Min		**0.3**		**2.6**		**8.2**		**0.2**
		Std Dev		**0.9**		**9.3**		**25.9**		**0.5**
		Coefficient of Variation		**0.7**		**1.1**		**1.2**		**0.5**
		Say		**1.2**		**6.0**		**13.0**		**1.3**

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Ex Post

Ke = Rf + B (Rm-Rf)

Ke =	**Cost of Equity**			**9.05%**
				to page 1
	Rf =	risk free rate	4.25%	
	Rp =	risk premium	4.80%	
	B =	Beta	1.00	page 7

Rp =	**Risk Premium**	(Rm-Rf)		**4.80%**
				to above

2011 Ibbotson Risk Premia Over Time Report, Page 3

	9.9%	Large Company Geometric Rm
less	5.1%	Average Historical Rf Income Return

Rf =	**Risk Free Rate**		**4.25%**
			to above

2011 Ibbotson Risk Premia Over Time Report, Page 4

Long Term (20 years) US Treasury Bond Yield		4.10%

Value Line Investment Survey, Selected Yields January 7, 2011, page 2469

US Treasury Securities year end data

30 year	4.43%
30 year Zero	4.71%

Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/)

January 3, 2011 as of 12-31-10

Treasury Constant Maturities

20 year	4.13%	
30 year	4.34%	
20 year TIPS	1.59%	
	2.54%	Inflation Indication
		2.50%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Ex Ante

Ke = Rf + B (Rp)

Ke =	**Cost of Equity**				**9.50%**
					to page 1
	Rm =	rate of return	9.50%		
	Rf =	risk free rate	4.25%		
	Rp =	risk premium	5.25%		
	B =	Beta	1.00		page 7

Rp =	**Risk Premium**			**5.25%**
				to above
	Shannon Pratt and Roger Grabowski		3.50 - 6.00%	
		Cost of Capital, Applications and Examples, Third Edition, 2008, Page 113		
	Dr. Aswath Damodaran		5.20%	
		http://pages.stern.nyu.edu/~adamodar/ 2010 Implied Premium		
	Ibbotson		6.00%	
		2011 Risk Premia Over Time Report, Page 4 Long-horizon expected ERP (supply side)		
	Campbell Harvey		2.89%	December 2010
		The Equity Risk Premium 10 Year Data: Evidence from the Duke CFO Outlook Survey	3.42%	10 year average
			2.39 - 4.74%	10 year average range

Rf =	**Risk Free Rate**			**4.25%**
				to above
	2011 Ibbotson Risk Premia Over Time Report, Page 4			
		Long Term (20 years) US Treasury Bond Yield	4.10%	
	Value Line Investment Survey, Selected Yields January 7, 2011, page 2469			
		US Treasury Securities year end data		
		30 year	4.43%	
		30 year Zero	4.71%	
	Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/)			
	January 3, 2011 as of 12-31-10			
		Treasury Constant Maturities		
		20 year	4.13%	
		30 year	4.34%	
		20 year TIPS	1.59%	
			2.54%	Inflation Indication
				2.50%

BETA CALCULATION FOR CAPM

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Company	Ticker	Value Line
AES Corp	aes	1.20
American Elec Power	aep	0.70
Constellation Energy	ceg	0.80
Dominion	D	0.70
Dynegy Inc	dyn	1.45
El Paso Electric	ee	0.75
Entergy	etr	0.70
GenOn Energy	gen	1.05
NRG Energy	nrg	1.15
Ormat Technologies	ora	1.15
PPL Corp	ppl	0.70
Sempra Energy	sre	0.85
	Mean	**0.93**
	Median	**0.93**
	Max	**1.45**
	Min	**0.70**
	Say	**1.00**

Source: Value Line-five year, weekly

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Based on Dividend Growth

Ke = (D1 / Po) + G

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

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Dividend Growth (G)	Ke
AES Corp	aes	11.668	nil	nmf	nil	nmf
American Elec Power	aep	36.320	1.84	5.07%	3.99%	9.06%
Constellation Energy	ceg	30.235	0.96	3.18%	1.03%	4.20%
Dominion	D	43.240	1.97	4.56%	7.01%	11.57%
Dynegy Inc	dyn	5.125	nil	nmf	nil	nmf
El Paso Electric	ee	25.823	nil	nmf	nmf	nmf
Entergy	etr	73.353	3.38	4.61%	2.67%	7.28%
GenOn Energy	gen	3.720	nil	nmf	nil	nmf
NRG Energy	nrg	19.783	nil	nmf	nmf	nmf
Ormat Technologies	ora	28.337	0.20	0.71%	6.70%	7.41%
PPL Corp	ppl	26.320	1.40	5.32%	3.39%	8.71%
Sempra Energy	sre	52.273	1.68	3.21%	7.07%	10.28%
					Mean	**8.36%**
					Median	**8.71%**
					Max	**11.57%**
					Min	**4.20%**
					Say	**8.70%**

Source: Value Line Projections to 13-15

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Based on Earnings Growth

Ke = (D1 / Po) + G

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

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Earnings Growth (G)	Ke
AES Corp	aes	11.668	nil	nmf	13.02%	nmf
American Elec Power	aep	36.320	1.84	5.07%	7.71%	12.78%
Constellation Energy	ceg	30.235	0.96	3.18%	11.54%	14.71%
Dominion	D	43.240	1.97	4.56%	6.64%	11.19%
Dynegy Inc	dyn	5.125	nil	nmf	nmf	nmf
El Paso Electric	ee	25.823	nil	nmf	5.09%	nmf
Entergy	etr	73.353	3.38	4.61%	0.37%	4.98%
GenOn Energy	gen	3.720	nil	nmf	nmf	nmf
NRG Energy	nrg	19.783	nil	nmf	3.46%	nmf
Ormat Technologies	ora	28.337	0.20	0.71%	55.41%	56.12%
PPL Corp	ppl	26.320	1.40	5.32%	3.84%	9.16%
Sempra Energy	sre	52.273	1.68	3.21%	5.02%	8.23%
					Mean	**16.74%**
					Median	**11.19%**
					Trimmed Mean	**10.18%**
					Max	**56.12%**
					Min	**4.98%**
					Say	**12.00%**

Source: Value Line Projections to 13-15

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Based on Return on Equity

Ke = (D1 / Po) + G

Ke = Cost of Equity
D1 = Expected Dividends
Po = Current Price
G = Sustainable Growth
b = Retained Earnings (plowback)
ROE = Return on Equity

Value Line

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	b (1-payout ratio)	ROE	Growth (b*ROE)	Ke
AES Corp	aes	11.668	nil	nmf	100.0%	11.00%	11.00%	nmf
American Elec Power	aep	36.320	1.84	5.07%	34.0%	9.00%	3.06%	8.13%
Constellation Energy	ceg	30.235	0.96	3.18%	52.0%	5.50%	2.86%	6.04%
Dominion	D	43.240	1.97	4.56%	37.0%	14.00%	5.18%	9.74%
Dynegy Inc	dyn	5.125	nil	nmf	nmf	nmf	nmf	nmf
El Paso Electric	ee	25.823	nil	nmf	nmf	11.00%	nmf	nmf
Entergy	etr	73.353	3.38	4.61%	51.0%	14.50%	7.40%	12.00%
GenOn Energy	gen	3.720	nil	nmf	100.0%	nmf	nmf	nmf
NRG Energy	nrg	19.783	nil	nmf	98.0%	8.00%	7.84%	nmf
Ormat Technologies	ora	28.337	0.20	0.71%	nmf	2.20%	nmf	nmf
PPL Corp	ppl	26.320	1.40	5.32%	34.0%	11.00%	3.74%	9.06%
Sempra Energy	sre	52.273	1.68	3.21%	58.0%	10.00%	5.80%	9.01%
							Mean	**9.00%**
							Median	**9.04%**
							Max	**12.00%**
							Min	**6.04%**
							Say	**9.00%**

SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Company	Ticker	Mergent's Ratings	S&P Ratings	WAYTM
AES Corp	aes		BB	6.80%
American Elec Power	aep		BBB	
Constellation Energy	ceg		BBB-	6.43%
Dominion	D	Baa2	A-	4.68%
Dynegy Inc	dyn	Caa2	B-	16.18%
El Paso Electric	ee	Ba3	BBB	6.10%
Entergy	etr	Baa3	BBB	6.06%
GenOn Energy	gen		B	
NRG Energy	nrg	B1	BB-	6.71%
Ormat Technologies	ora			
PPL Corp	ppl		BBB	
Sempra Energy	sre	Aa3	BBB+	
Overall Average Debt Rating		**Ba3**	**BB+**	**7.57%**

bond analysis, A-BBB bonds

	All issues	20+ year maturities
Guideline Companies, All Ratings	**7.20%**	**6.18%**

bond analysis page 12

Mergent's Bond Record January 2011, page 210

Corporate	Aaa	Aa	A	Baa
October	4.68%	4.83%	5.09%	5.72%
November	4.87%	5.07%	5.33%	5.92%
December	5.02%	5.26%	5.52%	6.10%
4th Qtr Average	**4.86%**	**5.05%**	**5.31%**	**5.91%**

Debt Yield Rate	**7.00%**

to page 1

12/31/2010

Electric IPP

2011.5

Company	type	Call	coupon	maturity	Price 12/10	Issued / Book	current yield	yield to maturity	WAYTM	Rating	Mkt Val	Mkt : Book	Embedded	Debt Service	CO WAYTM
AES Corp	Sr Nt		9.750	2016	111.75	535,000,000	8.72%	6.64%	0.19%	BB-	$ 597,862,500	111.75%		52,162,500	0.009304997
AES Corp	Sr Nt		8.000	2017	105.75	1,500,000,000	7.57%	6.72%	0.53%	NR	$ 1,586,250,000	105.75%		120,000,000	0.026368904
AES Corp	Sr Nt		9.750	2016	111.75	535,000,000	8.72%	6.64%	0.19%	NR	$ 597,862,500	111.75%		52,162,500	0.009304997
AES Corp	Sr Nt		8.000	2020	106.00	625,000,000	7.55%	7.04%	0.23%	NR	$ 662,500,000	106.00%		50,000,000	0.011515348
AES Corp	Sr Nt		8.000	2020	106.00	625,000,000	7.55%	7.04%	0.23%	BB-	$ 662,500,000	106.00%		50,000,000	0.011515348
5		**500**		**sum**	**541.25**	**3,820,000,000**	**Percent of book**	**108.25%**	**1.37%**		**$ 4,106,975,000**	**107.51%**	**8.49%**	**324,325,000**	**6.80%**
Constellation Energy	Nt		7.600	2032	113.17	2,000,000,000	6.72%	6.43%	0.68%	BBB-	$ 2,263,400,000	113.17%		152,000,000	0.064262688
1		**100**		**sum**	**113.17**	**2,000,000,000**	**Percent of book**	**113.17%**	**0.68%**		**$ 2,263,400,000**	**113.17%**	**7.60%**	**152,000,000**	**6.43%**
Dominion Resources	Sr Nt		5.600	2016	112.55	250,000,000	4.98%	2.61%	0.03%	A-	$ 281,375,000	112.55%		14,000,000	0.001325245
Dominion Resources	Sr Nt		6.000	2017	113.22	350,000,000	5.30%	3.33%	0.06%	A-	$ 396,270,000	113.22%		21,000,000	0.002368799
Dominion Resources	Sr Nt		6.400	2018	116.34	500,000,000	5.50%	3.54%	0.09%	A-	$ 581,700,000	116.34%		32,000,000	0.003599231
Dominion Resources	Sr Nt		8.875	2019	129.57	600,000,000	6.85%	4.20%	0.13%	A-	$ 777,420,000	129.57%		53,250,000	0.005119115
Dominion Resources	Sr Nt		5.200	2019	108.26	500,000,000	4.80%	3.91%	0.10%	A-	$ 541,300,000	108.26%		26,000,000	0.003971700
Dominion Resources	Sr Nt		6.750	2032	112.36	600,000,000	6.01%	5.71%	0.18%	A-	$ 674,160,000	112.36%		40,500,000	0.006965203
Dominion Resources	Sr Nt		5.950	2035	106.27	500,000,000	5.60%	5.47%	0.14%	A-	$ 531,350,000	106.27%		29,750,000	0.005558559
Dominion Resources	Sr Nt		6.300	2033	108.14	600,000,000	5.83%	5.64%	0.18%	NR	$ 648,840,000	108.14%		37,800,000	0.006874764
Dominion Resources	Sr Nt		2.125	2023	121.87	220,000,000	1.74%	0.20%	0.00%	NR	$ 268,114,000	121.87%		4,675,000	0.000089194
Dominion Resources	Jr Sub Nt		7.500	2066	104.50	300,000,000	7.18%	7.17%	0.11%	BBB	$ 313,500,000	104.50%		22,500,000	0.004371815
Dominion Resources	Jr Sub Nt		6.300	2066	97.50	500,000,000	6.46%	6.47%	0.17%	BBB	$ 487,500,000	97.50%		31,500,000	0.006572331
11		**1100**		**sum**	**1230.58**	**4,920,000,000**	**Percent of book**	**111.87%**	**1.22%**		**$ 5,501,529,000**	**111.82%**	**6.36%**	**312,975,000**	**4.68%**
Dynegy Holdings	Sr Nt		8.375	2016	74.75	1,047,000,000	11.20%	16.81%	0.93%	B-	$ 782,632,500	74.75%		87,686,250	0.081993645
Dynegy Holdings	Sr Nt		7.750	2019	66.75	1,100,000,000	11.61%	15.57%	0.91%	B-	$ 734,250,000	66.75%		85,250,000	0.079757799
2		**200**		**sum**	**141.50**	**2,147,000,000**	**Percent of book**	**70.75%**	**1.84%**		**$ 1,516,882,500**	**70.65%**	**8.05%**	**172,936,250**	**16.18%**
El Paso Electric	Sr Nt		6.000	2035	98.71	400,000,000	6.08%	6.10%	0.13%	BBB	$ 394,840,000	98.71%		24,000,000	0.061047849
1		**100**		**sum**	**98.71**	**400,000,000**	**Percent of book**	**98.71%**	**0.13%**		**$ 394,840,000**	**98.71%**	**6.00%**	**24,000,000**	**6.10%**
Entergy Corp	1st Mtg		5.920	2016	100.22	100,000,000	5.91%	5.86%	0.03%	A-	$ 100,220,000	100.22%		5,920,000	0.006407614
Entergy Corp	1st Mtg		4.950	2018	100.18	95,000,000	4.94%	4.92%	0.02%	A-	$ 95,171,000	100.18%		4,702,500	0.005105058
Entergy Corp	1st Mtg		5.500	2019	94.62	100,000,000	5.81%	6.43%	0.03%	NR	$ 94,620,000	94.62%		5,500,000	0.007023415
Entergy Corp	1st Mtg		5.660	2025	98.67	175,000,000	5.74%	5.80%	0.05%	A-	$ 172,672,500	98.67%		9,905,000	0.011102090
Entergy Corp	1st Mtg		6.380	2034	100.24	60,000,000	6.36%	6.36%	0.02%	A-	$ 60,144,000	100.24%		3,828,000	0.004170266
Entergy Corp	1st Mtg		6.250	2034	100.15	100,000,000	6.24%	6.24%	0.03%	A-	$ 100,150,000	100.15%		6,250,000	0.006816852
Entergy Corp	1st Mtg		6.300	2035	99.42	200,000,000	6.34%	6.35%	0.07%	A-	$ 198,840,000	99.42%		12,600,000	0.013875752
Entergy Corp	1st Mtg		6.180	2035	95.74	85,000,000	6.45%	6.54%	0.03%	BBB+	$ 81,379,000	95.74%		5,253,000	0.006075213
8		**800**		**Sum**	**789.24**	**$ 915,000,000**	**Percent of book**	**98.66%**	**0.29%**		**$ 903,196,500**	**98.71%**	**5.90%**	**53,958,500**	**6.06%**
NRG Energy	Sr Nt		7.375	2016	102.50	3,600,000,000	7.20%	6.71%	1.28%	BB-	$ 3,690,000,000	102.50%		265,500,000	0.051418749
NRG Energy	Sr Nt		7.375	2017	103.00	1,100,000,000	7.16%	6.70%	0.39%	BB-	$ 1,133,000,000	103.00%		81,125,000	0.01569235
2		**200**		**sum**	**205.50**	**$ 4,700,000,000**	**Percent of book**	**102.75%**	**1.67%**		**$ 4,823,000,000**	**102.62%**	**7.38%**	**$ 346,625,000**	**6.71%**
				Total		**$ 18,902,000,000**			**7.20%**	**Total**	**$ 19,509,823,000**	**103.22%**	**7.34%**	**$ 1,386,819,750**	**7.76%**

This includes short term. For 20+ year maturities see below

Source: Standard & Poor's Bond Guide, January 2011, 2010 Yr End Prices

Company	type	Call	coupon	maturity	Price 12/10	Issued / Book	current yield	yield to maturity	WAYTM	Rating	Mkt Val	Mkt : Book	Embedded	Debt Service
Constellation Energy	Nt		7.600	2032	113.17	2,000,000,000	6.72%	6.43%	2.40%	BBB-	$ 2,263,400,000	113.17%		152,000,000
Dominion Resources	Sr Nt		6.750	2032	112.36	600,000,000	6.01%	5.71%	0.64%	A-	$ 674,160,000	112.36%		40,500,000
Dominion Resources	Sr Nt		6.300	2033	108.14	600,000,000	5.83%	5.64%	0.63%	NR	$ 648,840,000	108.14%		37,800,000
Entergy Corp	1st Mtg		6.380	2034	100.24	60,000,000	6.36%	6.36%	0.07%	A-	$ 60,144,000	100.24%		3,828,000
Entergy Corp	1st Mtg		6.250	2034	100.15	100,000,000	6.24%	6.24%	0.12%	A-	$ 100,150,000	100.15%		6,250,000
Dominion Resources	Sr Nt		5.950	2035	106.27	500,000,000	5.60%	5.47%	0.51%	A-	$ 531,350,000	106.27%		29,750,000
El Paso Electric	Sr Nt		6.000	2035	98.71	400,000,000	6.08%	6.10%	0.46%	BBB	$ 394,840,000	98.71%		24,000,000
Entergy Corp	1st Mtg		6.300	2035	99.42	200,000,000	6.34%	6.35%	0.24%	A-	$ 198,840,000	99.42%		12,600,000
Entergy Corp	1st Mtg		6.180	2035	95.74	85,000,000	6.45%	6.54%	0.10%	BBB+	$ 81,379,000	95.74%		5,253,000
Dominion Resources	Jr Sub Nt		7.500	2066	104.50	300,000,000	7.18%	7.17%	0.40%	BBB	$ 313,500,000	104.50%		22,500,000
Dominion Resources	Jr Sub Nt		6.300	2066	97.50	500,000,000	6.46%	6.47%	0.60%	BBB	$ 487,500,000	97.50%		31,500,000
				Total		**$ 5,345,000,000**			**6.18%**	**Total**	**$ 5,754,103,000**	**107.65%**	**6.85%**	**$ 365,981,000**

Embedded debt rate	**6.85%**
Weighted average yield to maturity	**6.18%**
Debt service / Market value	**6.36%**
SAY:	**6.50%**

DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

Instructions: Data entered on this page will flow to the applicable worksheets.

Guideline Companies		Stock Price	Revenues	Cash Flow	Earnings	Dividends	Bk Value	Common	Calculated Debt	Wtd Avg YTM	div to earnings Payout Ratio	Payout Ratio	ROE
Name	Ticker	(4th Qtr Avg)	Per Share	Per Share	Per Share	Per Share	Stock	Shares	mk to bk		calculated	V L	V L
AES Corp	aes	11.668	19.10	2.50	0.95		8.85	788,099,808	107.51%	6.80%			11.0%
American Elec Power	aep	36.320	30.10	6.00	2.60	1.71	28.35	480,276,270	103.22%		66%	66%	9.0%
Constellation Energy	ceg	30.235	71.85	5.25	2.10	0.96	38.20	201,961,349	113.17%	6.43%	46%	48%	5.5%
Dominion	D	43.240	25.05	5.20	2.90	1.83	20.90	580,507,721	111.82%	4.68%	63%	63%	14.0%
Dynegy Inc	dyn	5.125	17.70	1.95	(1.00)	nil	23.60	120,894,257	70.65%	16.18%		nil	nmf
El Paso Electric	ee	25.823	20.80	4.85	2.05	nil	18.55	43,520,513	98.71%	6.10%		nil	11.0%
Entergy	etr	73.353	65.00	15.25	6.65	3.24	47.25	180,915,164	98.71%	6.06%	49%	49%	14.5%
GenOn Energy	gen	3.720	6.43	0.10	(0.30)		8.00	773,000,000	103.22%				nmf
NRG Energy	nrg	19.783	40.00	5.90	2.40		32.40	247,197,248	102.62%	6.71%		2%	8.0%
Ormat Technologies	ora	28.337	8.25	2.50	0.30	0.27	20.25	45,430,886	103.22%		90%	nmf	2.2%
PPL Corp	ppl	26.320	19.40	3.60	2.15	1.40	16.85	483,291,708	103.22%		65%	66%	11.0%
Sempra Energy	sre	52.273	37.85	7.40	3.70	1.56	37.75	247,855,454	103.22%		42%	42%	10.0%
Value Line December 31, 2010		Yahoo	Value Line	Value Line	Value Line	Value Line	Value Line	Value Line	Bond analysis 101.61% 103.22%	Bond analysis	calculated	Value Line	Value Line

SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

			2009		2010		2009		2010	
Company	**Ticker**	**Stock Average**	**Actual Earnings Ratio (EPS/P)**		**Projected Earnings Ratio (PEPS/P)**		**Cash Flow Ratio (CF/P)**		**Projected Cash Flow Ratio**	
AES Corp	aes	11.67	0.95	nmf	1.15	9.9%	2.50	21.4%	2.70	23.1%
American Elec Power	aep	36.32	2.60	nmf	3.10	8.5%	6.00	16.5%	6.35	17.5%
Constellation Energy	ceg	30.24	2.10	6.9%	3.00	9.9%	5.25	17.4%	6.25	20.7%
Dominion	D	43.24	2.90	6.7%	3.20	7.4%	5.20	12.0%	5.60	13.0%
Dynegy Inc	dyn	5.13	(1.00)	nmf	(1.35)	nmf	1.95	38.0%	1.65	32.2%
El Paso Electric	ee	25.82	2.05	7.9%	2.10	8.1%	4.85	18.8%	5.20	20.1%
Entergy	etr	73.35	6.65	9.1%	6.50	8.9%	15.25	20.8%	15.50	21.1%
GenOn Energy	gen	3.72	(0.30)	nmf	(0.25)	nmf	0.10	2.7%	0.20	5.4%
NRG Energy	nrg	19.78	2.40	12.1%	1.10	5.6%	5.90	29.8%	4.70	23.8%
Ormat Technologies	ora	28.34	0.30	1.1%	0.95	3.4%	2.50	8.8%	3.50	12.4%
PPL Corp	ppl	26.32	2.15	8.2%	2.25	8.5%	3.60	13.7%	4.55	17.3%
Sempra Energy	sre	52.27	3.70	7.1%	4.20	8.0%	7.40	14.2%	8.30	15.9%
		Mean		**7.4%**		**7.8%**		**17.8%**		**18.5%**
		Median		**7.5%**		**8.3%**		**16.9%**		**18.8%**
		Trimmed Mean						**16.0%**		**18.5%**
		Max		**12.1%**		**9.9%**		**38.0%**		**32.2%**
		Min		**1.1%**		**3.4%**		**2.7%**		**5.4%**
Source:		**Say**		**7.5%**		**8.0%**		**17.0%**		**18.5%**

Actual earnings: Value Line / Q4 average stock price

Estimated Earnings: Value Line / Q4 average stock price

Actual Cash Flow: Value Line / Q4 average stock price

Estimated Cash Flow: Value Line / Q4 average stock price

AVERAGE FOURTH QUARTER STOCK PRICE

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

ELECTRIC IPP

								27.76
AES Corp	aes							**Q4 Average**
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	10.950	12.460	10.870	12.180	5112500	12.180	
	11/01/2010	12.060	12.140	10.700	10.810	5828300	10.810	
	10/01/2010	11.440	12.540	11.300	11.940	4786600	11.940	**11.668**
AEP Corp	aep							
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	35.950	36.470	34.920	35.980	2521900	35.980	
	11/01/2010	37.580	37.940	35.360	35.600	2860500	35.600	
	10/01/2010	36.400	37.550	35.680	37.440	3263600	36.980	**36.320**
Constellation Energy	ceg							
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	28.710	31.540	27.640	30.630	2309800	30.630	
	11/01/2010	30.370	31.310	28.000	28.360	2458700	28.120	
	10/01/2010	32.560	33.180	29.740	30.240	2489600	29.980	**30.235**
Dominion Resources	D							
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	41.930	45.000	41.320	42.720	2301900	42.720	
	11/01/2010	43.670	43.670	41.130	41.530	3363300	41.530	
	10/01/2010	43.940	45.120	43.200	43.460	2745600	42.990	**43.240**
Dynegy Inc	dyn							
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	5.150	5.920	5.100	5.620	5684700	5.620	
	11/01/2010	4.720	5.750	4.430	5.090	7712500	5.090	
	10/01/2010	4.890	4.990	4.560	4.640	6732300	4.640	**5.125**
El Paso Electric	ee							
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	26.710	28.650	26.460	27.530	212100	27.530	
	11/01/2010	24.670	26.880	24.310	26.340	235200	26.340	
	10/01/2010	23.950	25.130	23.510	24.600	230200	24.600	**25.823**
Entergy Corp	etr							
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	71.960	72.700	68.650	70.830	1600600	70.830	
	11/01/2010	75.370	77.080	71.120	71.240	1759300	71.240	
	10/01/2010	76.700	77.900	72.670	74.530	1673400	73.710	**73.353**
GenOn Energy	gen							
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	3.560	3.950	3.460	3.810	8562400	3.810	
	11/01/2010	3.790	4.040	3.500	3.520	6726600	3.520	
	10/01/2010	3.560	3.870	3.500	3.760	4199500	3.760	**3.720**
NRG Energy	nrg							
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	19.600	19.710	18.220	19.540	2856500	19.540	
	11/01/2010	20.000	20.410	19.110	19.380	3055300	19.380	
	10/01/2010	21.020	21.640	19.610	19.910	2340100	19.910	**19.783**
Ormat Technologies	ora							
Date		Open	High	Low	Close	Volume	Adj Close	
	12/01/2010	27.170	29.800	26.760	29.580	98900	29.580	
	11/01/2010	28.690	28.700	26.550	26.800	132100	26.800	
	10/01/2010	29.370	30.340	27.870	28.510	105300	28.460	**28.337**
PPL Corp	ppl							
Date		Open	High	Low	Close	Volume	Adj Close	

12/01/2010	25.600	26.540	25.130	26.320	3869100	26.320	
11/01/2010	26.970	27.090	25.130	25.410	4176800	25.060	
10/01/2010	27.500	28.140	25.890	26.860	4532300	26.490	**26.320**

Sempra Energy sre

Date	Open	High	Low	Close	Volume	Adj Close	
12/01/2010	50.570	52.750	50.080	52.480	1667000	52.480	
11/01/2010	53.720	54.280	49.490	50.090	1846000	49.720	
10/01/2010	53.860	54.450	52.590	53.480	1237900	53.080	**52.273**

Source:
finance.yahoo.com
Historical Stock Quotes
01/10/2011