Exhibit 6.8: Total Returns, Income Returns, and Capital Appreciation Returns of the SBBI® Asset Classes; Summary Statistics of Annual Returns (%)
1926–2020

	Geometric Mean (%)	Arithmetic Mean (%)	Standard Deviation (%)	Serial Correlation
Large-Cap Stocks	10.3	12.2	19.7	0.01
Total Return	3.9	3.9	1.6	0.91
Income	6.2	8.0	19.0	0.01
Capital Appreciation				
Small-Cap Stocks (TR)	11.9	16.2	31.3	0.06
Long-term Corp Bonds (TR)	6.2	6.5	8.5	0.02
Long-term Gov't Bonds	5.7	6.1	9.8	-0.15
Total Return	4.9	4.9	2.6	0.96
Income	0.6	1.0	8.9	-0.24
Capital Appreciation				
Inter-term Gov't Bonds	5.1	5.3	5.6	0.15
Total Return	4.3	4.3	2.9	0.96
Income	0.6	0.7	4.4	-0.16
Capital Appreciation	3.3	3.3	3.1	0.91
U.S. Treasury Bills (TR)	2.9	2.9	4.0	0.63
Inflation				

In general, risk is rewarded by a higher return over the long term. For example, Exhibit 6.8 shows that over the 1926–2020 time horizon small-cap stocks were the riskiest asset class with a standard deviation of 31.3%, but also provided the greatest rewards to long-term investors, with an arithmetic mean annual return of 16.2%. Comparably, the risk (as measured by standard deviation) of large-cap stocks was significantly lower at 19.7%, and the reward (as measured by arithmetic average annual return) of large-cap stocks was correspondently lower at 12.2%.

U.S. Treasury bills, with a standard deviation of 3.1%, were nearly riskless and had the lowest arithmetic mean annual return at 3.3%.

Inflation-Adjusted Series Summary Statistics

Inflation-adjusted basic series summary statistics are presented in Exhibit 6.9. Note that the real rate of interest is close to zero (0.5%) on average. For the 95-year period, the geometric and arithmetic means are lower by the amount of inflation than those of the nominal series.

DUFF & PHELPS
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2021 SBBI® Yearbook

Stocks, Bonds, Bills, and Inflation®

U.S. Capital Markets Performance by
Asset Class 1926–2020

Appendix A-1

Large-Capitalization Stocks: Total Return
From 1926 to 2020

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Jan–Dec*
1926	0.0000	-0.0385	-0.0575	0.0253	0.0179	0.0457	0.0479	0.0248	0.0252	-0.0284	0.0347	0.0196	1926	0.1162
1927	-0.0193	0.0537	0.0087	0.0201	0.0607	-0.0067	0.0670	0.0515	0.0450	-0.0502	0.0721	0.0279	1927	0.3749
1928	-0.0040	-0.0125	0.1101	0.0345	0.0197	-0.0385	0.0141	0.0803	0.0259	0.0168	0.1292	0.0049	1928	0.4361
1929	0.0583	-0.0019	-0.0012	0.0176	-0.0362	0.1140	0.0471	0.1028	-0.0476	-0.1973	-0.1246	0.0282	1929	-0.0842
1930	0.0639	0.0259	0.0812	-0.0080	-0.0096	-0.1625	0.0386	0.0141	-0.1282	-0.0855	-0.0089	-0.0706	1930	-0.2490
1931	0.0502	0.1193	-0.0675	-0.0935	-0.1279	0.1421	-0.0722	0.0182	-0.2973	0.0896	-0.0798	-0.1400	1931	-0.4334
1932	-0.0271	0.0570	-0.1158	-0.1997	-0.2196	-0.0022	0.3815	0.3869	-0.0346	-0.1349	-0.0417	0.0565	1932	-0.0819
1933	0.0087	-0.1772	0.0353	0.4256	0.1683	0.1338	-0.0862	0.1206	-0.1118	-0.0855	0.1127	0.0253	1933	0.5399
1934	0.1069	-0.0322	0.0000	-0.0251	-0.0736	0.0229	-0.1132	0.0611	-0.0033	-0.0286	0.0942	-0.0010	1934	-0.0144
1935	-0.0411	-0.0341	-0.0286	0.0980	0.0409	0.0699	0.0850	0.0280	0.0256	0.0777	0.0474	0.0394	1935	0.4767
1936	0.0670	0.0224	0.0268	-0.0751	0.0545	0.0333	0.0701	0.0151	0.0031	0.0775	0.0134	-0.0029	1936	0.3392
1937	0.0390	0.0191	-0.0077	-0.0809	-0.0024	-0.0504	0.1045	-0.0483	-0.1403	-0.0981	-0.0866	-0.0459	1937	-0.3503
1938	0.0152	0.0674	-0.2487	0.1447	-0.0330	0.2503	0.0744	-0.0226	0.0166	0.0776	-0.0273	0.0401	1938	0.3112
1939	-0.0674	0.0390	-0.1339	-0.0027	0.0733	-0.0612	0.1105	-0.0648	0.1673	-0.0123	-0.0398	0.0270	1939	-0.0041
1940	-0.0336	0.0133	0.0124	-0.0024	-0.2289	0.0809	0.0341	0.0350	0.0123	0.0422	-0.0316	0.0009	1940	-0.0978
1941	-0.0463	-0.0060	0.0071	-0.0612	0.0183	0.0578	0.0579	0.0010	-0.0068	-0.0657	-0.0284	-0.0407	1941	-0.1159
1942	0.0161	-0.0159	-0.0652	-0.0400	0.0796	0.0221	0.0337	0.0164	0.0290	0.0678	-0.0021	0.0549	1942	0.2034
1943	0.0737	0.0583	0.0545	0.0035	0.0552	0.0223	-0.0526	0.0171	0.0263	-0.0108	-0.0654	0.0617	1943	0.2590
1944	0.0171	0.0042	0.0195	-0.0100	0.0505	0.0543	-0.0193	0.0157	-0.0008	0.0023	0.0133	0.0374	1944	0.1975
1945	0.0158	0.0683	-0.0441	0.0902	0.0195	-0.0007	-0.0180	0.0641	0.0438	0.0322	0.0396	0.0116	1945	0.3644
1946	0.0714	-0.0641	0.0480	0.0393	0.0288	-0.0370	-0.0239	-0.0674	-0.0997	-0.0060	-0.0027	0.0457	1946	-0.0807
1947	0.0255	-0.0077	-0.0149	-0.0363	0.0014	0.0554	0.0381	-0.0203	-0.0111	0.0238	-0.0175	0.0233	1947	0.0571
1948	-0.0379	-0.0388	0.0793	0.0292	0.0879	0.0054	-0.0508	0.0158	-0.0276	0.0710	-0.0961	0.0346	1948	0.0550
1949	0.0039	-0.0296	0.0328	-0.0179	-0.0258	0.0014	0.0650	0.0219	0.0263	0.0340	0.0175	0.0486	1949	0.1879
1950	0.0197	0.0199	0.0070	0.0486	0.0509	-0.0548	0.0119	0.0443	0.0592	0.0093	0.0169	0.0513	1950	0.3171
1951	0.0637	0.0157	-0.0156	0.0509	-0.0299	-0.0228	0.0711	0.0478	0.0013	-0.0103	0.0096	0.0424	1951	0.2402
1952	0.0181	-0.0282	0.0503	-0.0402	0.0343	0.0490	0.0196	-0.0071	-0.0176	0.0020	0.0571	0.0382	1952	0.1837
1953	-0.0049	-0.0106	-0.0212	-0.0237	0.0077	-0.0134	0.0273	-0.0501	0.0034	0.0540	0.0204	0.0053	1953	-0.0099
1954	0.0536	0.0111	0.0325	0.0516	0.0418	0.0031	0.0589	-0.0275	0.0851	-0.0167	0.0909	0.0534	1954	0.5262
1955	0.0197	0.0098	-0.0030	0.0396	0.0055	0.0841	0.0622	-0.0025	0.0130	-0.0284	0.0827	0.0015	1955	0.3156
1956	-0.0347	0.0413	0.0710	-0.0004	-0.0593	0.0409	0.0530	-0.0328	-0.0440	0.0066	-0.0050	0.0370	1956	0.0656

*Compound annual return

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Large-Capitalization Stocks: Total Return
From 1926 to 2020

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Jan–Dec*
1957	-0.0401	-0.0264	0.0215	0.0388	0.0437	0.0004	0.0131	-0.0505	-0.0602	-0.0302	0.0231	-0.0395	1957	-0.1078
1958	0.0445	-0.0141	0.0328	0.0337	0.0212	0.0279	0.0449	0.0176	0.0501	0.0270	0.0284	0.0535	1958	0.4336
1959	0.0063	0.0049	0.0020	0.0402	0.0240	-0.0022	0.0363	-0.0102	-0.0443	0.0128	0.0186	0.0292	1959	0.1196
1960	-0.0700	0.0147	-0.0123	-0.0161	0.0326	0.0211	-0.0234	0.0317	-0.0590	-0.0007	0.0465	0.0479	1960	0.0047
1961	0.0645	0.0319	0.0270	0.0051	0.0239	-0.0275	0.0342	0.0243	-0.0184	0.0298	0.0447	0.0046	1961	0.2689
1962	-0.0366	0.0209	-0.0046	-0.0607	-0.0811	-0.0803	0.0652	0.0208	-0.0465	0.0064	0.1086	0.0153	1962	-0.0873
1963	0.0506	-0.0239	0.0370	0.0500	0.0193	-0.0188	-0.0022	0.0535	-0.0097	0.0339	-0.0046	0.0262	1963	0.2280
1964	0.0283	0.0147	0.0165	0.0075	0.0162	0.0178	0.0195	-0.0118	0.0301	0.0096	0.0005	0.0056	1964	0.1648
1965	0.0345	0.0031	-0.0133	0.0356	-0.0030	-0.0473	0.0147	0.0272	0.0334	0.0289	-0.0031	0.0106	1965	0.1245
1966	0.0062	-0.0131	-0.0205	0.0220	-0.0492	-0.0146	-0.0120	-0.0725	-0.0053	0.0494	0.0095	0.0002	1966	-0.1006
1967	0.0798	0.0072	0.0409	0.0437	-0.0477	0.0190	0.0468	-0.0070	0.0342	-0.0276	0.0065	0.0278	1967	0.2398
1968	-0.0425	-0.0261	0.0110	0.0834	0.0161	0.0105	-0.0172	0.0164	0.0400	0.0087	0.0531	-0.0402	1968	0.1106
1969	-0.0068	-0.0426	0.0359	0.0229	0.0026	-0.0542	-0.0587	0.0454	-0.0236	0.0459	-0.0297	-0.0177	1969	-0.0850
1970	-0.0743	0.0558	0.0044	-0.0875	-0.0578	-0.0466	0.0769	0.0478	0.0362	-0.0083	0.0506	0.0597	1970	0.0386
1971	0.0432	0.0117	0.0394	0.0389	-0.0391	0.0033	-0.0387	0.0388	-0.0044	-0.0392	0.0002	0.0888	1971	0.1430
1972	0.0206	0.0277	0.0083	0.0058	0.0197	-0.0194	0.0048	0.0369	-0.0025	0.0118	0.0481	0.0142	1972	0.1900
1973	-0.0149	-0.0352	0.0008	-0.0383	-0.0163	-0.0040	0.0407	-0.0341	0.0427	0.0017	-0.1109	0.0198	1973	-0.1469
1974	-0.0072	-0.0007	-0.0205	-0.0359	-0.0302	-0.0113	-0.0742	-0.0864	-0.1152	0.1681	-0.0488	-0.0156	1974	-0.2647
1975	0.1272	0.0638	0.0254	0.0510	0.0477	0.0477	-0.0644	-0.0176	-0.0312	0.0653	0.0282	-0.0081	1975	0.3723
1976	0.1217	-0.0084	0.0337	-0.0078	-0.0111	0.0443	-0.0048	-0.0018	0.0258	-0.0186	-0.0041	0.0561	1976	0.2393
1977	-0.0473	-0.0182	-0.0105	0.0042	-0.0196	0.0494	-0.0124	-0.0172	0.0016	-0.0390	0.0316	0.0075	1977	-0.0716
1978	-0.0574	-0.0203	0.0294	0.0902	0.0092	-0.0138	0.0583	0.0301	-0.0032	-0.0872	0.0215	0.0196	1978	0.0657
1979	0.0443	-0.0321	0.0596	0.0063	-0.0217	0.0435	0.0134	0.0577	0.0043	-0.0640	0.0475	0.0214	1979	0.1861
1980	0.0622	-0.0001	-0.0972	0.0462	0.0515	0.0316	0.0696	0.0101	0.0294	0.0202	0.1065	-0.0302	1980	0.3250
1981	-0.0418	0.0174	0.0400	-0.0193	0.0026	-0.0063	0.0021	-0.0577	-0.0493	0.0540	0.0413	-0.0256	1981	-0.0492
1982	-0.0131	-0.0559	-0.0052	0.0452	-0.0341	-0.0150	-0.0178	0.1214	0.0125	0.1151	0.0404	0.0193	1982	0.2155
1983	0.0372	0.0229	0.0369	0.0788	-0.0087	0.0389	-0.0295	0.0150	0.0138	-0.0116	0.0211	-0.0052	1983	0.2256
1984	-0.0056	-0.0352	0.0173	0.0095	-0.0554	0.0217	-0.0124	0.1104	0.0002	0.0039	-0.0112	0.0263	1984	0.0627
1985	0.0779	0.0122	0.0007	-0.0009	0.0578	0.0157	-0.0015	-0.0085	-0.0313	0.0462	0.0686	0.0484	1985	0.3173
1986	0.0056	0.0747	0.0558	-0.0113	0.0532	0.0169	-0.0559	0.0742	-0.0827	0.0577	0.0243	-0.0255	1986	0.1867
1987	0.1347	0.0395	0.0289	-0.0089	0.0087	0.0505	0.0507	0.0373	-0.0219	-0.2154	-0.0824	0.0761	1987	0.0525

*Compound annual return

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Large-Capitalization Stocks: Total Return
From 1926 to 2020

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Jan–Dec*
1988	0.0421	0.0466	-0.0309	0.0111	0.0086	0.0459	-0.0038	-0.0339	0.0426	0.0278	-0.0143	0.0174	1988	0.1661
1989	0.0732	-0.0249	0.0233	0.0519	0.0405	-0.0057	0.0903	0.0195	-0.0041	-0.0232	0.0204	0.0240	1989	0.3169
1990	-0.0671	0.0129	0.0255	-0.0249	0.0975	-0.0067	-0.0032	-0.0904	-0.0487	-0.0043	0.0646	0.0279	1990	-0.0310
1991	0.0436	0.0715	0.0242	0.0024	0.0431	-0.0458	0.0466	0.0237	-0.0167	0.0134	-0.0403	0.1144	1991	0.3047
1992	-0.0186	0.0130	-0.0194	0.0294	0.0049	-0.0149	0.0409	-0.0205	0.0118	0.0035	0.0341	0.0123	1992	0.0762
1993	0.0084	0.0136	0.0211	-0.0242	0.0268	0.0029	-0.0040	0.0379	-0.0077	0.0207	-0.0095	0.0121	1993	0.1008
1994	0.0340	-0.0271	-0.0436	0.0128	0.0164	-0.0245	0.0328	0.0410	-0.0245	0.0225	-0.0364	0.0148	1994	0.0132
1995	0.0259	0.0390	0.0295	0.0294	0.0400	0.0232	0.0332	0.0025	0.0422	-0.0036	0.0439	0.0193	1995	0.3758
1996	0.0340	0.0093	0.0096	0.0147	0.0258	0.0038	-0.0442	0.0211	0.0563	0.0276	0.0756	-0.0198	1996	0.2296
1997	0.0625	0.0078	-0.0411	0.0597	0.0609	0.0448	0.0796	-0.0560	0.0548	-0.0334	0.0463	0.0172	1997	0.3336
1998	0.0111	0.0721	0.0512	0.0101	-0.0172	0.0406	-0.0106	-0.1446	0.0641	0.0813	0.0606	0.0576	1998	0.2858
1999	0.0418	-0.0311	0.0400	0.0387	-0.0236	0.0555	-0.0312	-0.0049	-0.0274	0.0633	0.0203	0.0589	1999	0.2104
2000	-0.0502	-0.0189	0.0978	-0.0301	-0.0205	0.0247	-0.0156	0.0621	-0.0528	-0.0042	-0.0788	0.0049	2000	-0.0910
2001	0.0355	-0.0912	-0.0634	0.0777	0.0067	-0.0243	-0.0098	-0.0626	-0.0808	0.0191	0.0767	0.0088	2001	-0.1189
2002	-0.0146	-0.0193	0.0376	-0.0606	-0.0074	-0.0712	-0.0780	0.0066	-0.1087	0.0880	0.0589	-0.0587	2002	-0.2210
2003	-0.0262	-0.0150	0.0097	0.0824	0.0527	0.0128	0.0176	0.0195	-0.0106	0.0566	0.0088	0.0524	2003	0.2868
2004	0.0184	0.0139	-0.0151	-0.0157	0.0137	0.0194	-0.0331	0.0040	0.0108	0.0153	0.0405	0.0340	2004	0.1088
2005	-0.0244	0.0210	-0.0177	-0.0190	0.0318	0.0014	0.0372	-0.0091	0.0081	-0.0167	0.0378	0.0003	2005	0.0491
2006	0.0265	0.0027	0.0124	0.0134	-0.0288	0.0014	0.0062	0.0238	0.0258	0.0326	0.0190	0.0140	2006	0.1579
2007	0.0151	-0.0196	0.0112	0.0443	0.0349	-0.0166	-0.0310	0.0150	0.0374	0.0159	-0.0418	-0.0069	2007	0.0549
2008	-0.0600	-0.0325	-0.0043	0.0487	0.0130	-0.0843	-0.0084	0.0145	-0.0891	-0.1679	-0.0718	0.0106	2008	-0.3700
2009	-0.0843	-0.1065	0.0876	0.0957	0.0559	0.0020	0.0756	0.0361	0.0373	-0.0186	0.0600	0.0193	2009	0.2646
2010	-0.0360	0.0310	0.0603	0.0158	-0.0799	-0.0523	0.0701	-0.0451	0.0892	0.0380	0.0001	0.0668	2010	0.1506
2011	0.0237	0.0343	0.0004	0.0296	-0.0113	-0.0167	-0.0203	-0.0543	-0.0703	0.1093	-0.0022	0.0102	2011	0.0211
2012	0.0448	0.0432	0.0329	-0.0063	-0.0601	0.0412	0.0139	0.0225	0.0258	-0.0185	0.0058	0.0091	2012	0.1600
2013	0.0518	0.0136	0.0375	0.0193	0.0234	-0.0134	0.0509	-0.0290	0.0314	0.0460	0.0305	0.0253	2013	0.3239
2014	-0.0346	0.0457	0.0084	0.0074	0.0235	0.0207	-0.0138	0.0400	-0.0140	0.0244	0.0269	-0.0025	2014	0.1369
2015	-0.0300	0.0575	-0.0158	0.0096	0.0129	-0.0194	0.0210	-0.0603	-0.0247	0.0844	0.0030	-0.0158	2015	0.0138
2016	-0.0496	-0.0013	0.0678	0.0039	0.0180	0.0026	0.0369	0.0014	0.0002	-0.0182	0.0370	0.0198	2016	0.1196
2017	0.0190	0.0397	0.0012	0.0103	0.0141	0.0062	0.0206	0.0031	0.0206	0.0233	0.0307	0.0111	2017	0.2183
2018	0.0573	-0.0369	-0.0254	0.0038	0.0241	0.0062	0.0372	0.0326	0.0057	-0.0684	0.0204	-0.0903	2018	-0.0438
2019	0.0801	0.0321	0.0194	0.0405	-0.0635	0.0705	0.0144	-0.0158	0.0187	0.0217	0.0363	0.0302	2019	0.3149
2020	-0.0004	-0.0823	-0.1235	0.1282	0.0476	0.0199	0.0564	0.0719	-0.0380	-0.0266	0.1095	0.0384	2020	0.1840

*Compound annual return

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147 FERC ¶ 61,234
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Martha Coakley, Massachusetts Attorney General; Connecticut Public Utilities Regulatory Authority; Massachusetts Department of Public Utilities; New Hampshire Public Utilities Commission; Connecticut Office of Consumer Counsel; Maine Office of the Public Advocate; George Jepsen, Connecticut Attorney General; New Hampshire Office of Consumer Advocate; Rhode Island Division of Public Utilities and Carriers; Vermont Department of Public Service; Massachusetts Municipal Wholesale Electric Company; Associated Industries of Massachusetts; The Energy Consortium; Power Options, Inc.; and the Industrial Energy Consumer Group

Docket No. EL11-66-001

v.

Bangor Hydro-Electric Company; Central Maine Power Company; New England Power Company d/b/a National Grid; New Hampshire Transmission LLC d/b/a NextEra; NSTAR Electric and Gas Corporation; Northeast Utilities Service Company; The United Illuminating Company; Unitil Energy Systems, Inc. and Fitchburg Gas and Electric Light Company; Vermont Transco, LLC

OPINION NO. 531

ORDER ON INITIAL DECISION

Issued: June 19, 2014

147 FERC ¶ 61,234
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;
Philip D. Moeller, John R. Norris,
and Tony Clark.

Martha Coakley, Massachusetts Attorney General; Connecticut Public Utilities Regulatory Authority; Massachusetts Department of Public Utilities; New Hampshire Public Utilities Commission; Connecticut Office of Consumer Counsel; Maine Office of the Public Advocate; George Jepsen, Connecticut Attorney General; New Hampshire Office of Consumer Advocate; Rhode Island Division of Public Utilities and Carriers; Vermont Department of Public Service; Massachusetts Municipal Wholesale Electric Company; Associated Industries of Massachusetts; The Energy Consortium; Power Options, Inc.; and the Industrial Energy Consumer Group

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1. This order addresses briefs on and opposing exceptions to an Initial Decision issued on August 6, 2013 by the presiding Administrative Law Judge (Presiding Judge) in the captioned proceeding.[1] The Initial Decision set forth the Presiding Judge's findings concerning a complaint filed pursuant to section 206 of the Federal Power Act (FPA)[2] challenging the New England Transmission Owners' (NETOs)[3] base return on equity (ROE) reflected in ISO New England Inc.'s (ISO-NE) open access transmission tariff (OATT). In this order, we affirm the Initial Decision in part, reverse the Initial Decision in part, announce a new approach we will use for determining the base ROE for public utilities, and establish a paper hearing to allow the participants an opportunity to submit briefs on a limited issue regarding application of this new ROE approach to this proceeding. We also change our practice on post-hearing ROE adjustments.

I. Background

2. The NETOs recover their transmission revenue requirements through formula rates included in ISO-NE's OATT.[4] The revenue requirements for Regional Network Service[5] and Local Network Service[6] that the NETOs provide are calculated using the same single base ROE. On October 31, 2006, the Commission, in Opinion No. 489, established the base ROE at 11.14 percent, which consisted of an initial base ROE of 10.4 percent plus an upward adjustment of 74 basis points to account for changes in

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[1] *Martha Coakley, Mass. Attorney Gen. v. Bangor Hydro-Elec. Co.*, 144 FERC ¶ 63,012 (2013) (Initial Decision).

[2] 16 U.S.C. § 824e (2012).

[3] The NETOs include Bangor Hydro-Elec. Co.; Cent. Me. Power Co.; New England Power Co. d/b/a Nat'l Grid; N.H. Transmission LLC d/b/a NextEra; NSTAR Elect. & Gas Corp.; Ne. Utilities Serv. Co.; United Illuminating Co.; Unitil Energy Systems, Inc. and Fitchburg Gas & Elec. Light Co.; and Vt. Transco, LLC.

[4] ISO-NE's OATT is section II of ISO-NE's Transmission, Markets, and Services Tariff (Tariff). *See* ISO-NE, Tariff, § II.

[5] Regional Network Service is the transmission service over the pool transmission facilities described in Part II.B of the OATT. ISO-NE, Tariff, § I.2 (50.0.0); *see also* ISO-NE, Tariff, § II.B Regional Network Service (0.0.0), *et seq.*

[6] Local Network Service is the network service provided under Schedule 21 and the Local Service Schedules of ISO-NE's OATT. ISO-NE, Tariff, § I.2 (50.0.0); *see also* ISO-NE, Tariff, Schedule 21 Local Service (1.0.0), *et seq.*

capital market conditions that took place between the issuance of the Administrative Law Judge's initial decision in that proceeding and the issuance of Opinion No. 489,[7] as reflected in U.S. Treasury bond yields during that time period.

3. On September 30, 2011, the Complainants[8] filed a complaint alleging that the NETOs' 11.14 percent base ROE is unjust and unreasonable because capital market conditions have significantly changed since that base ROE was established in 2006. The Complainants argued that the bubble in the U.S. housing market, the subsequent financial crisis and economic recession, and the fiscal and monetary policies of the U.S. government have caused a "flight to quality"[9] in the capital markets. The Complainants contended that these market conditions have lowered bond yields and, as a result, capital costs for utilities.[10] The Complainants argued that, as a result, the NETOs' 11.14 percent base ROE now exceeds the level necessary to satisfy the Supreme Court's standards in *Bluefield*[11] and *Hope*.[12] The Complainants asserted that, based on a discounted cash flow (DCF) analysis conducted by their expert witness, the just and reasonable base ROE for the NETOs should not exceed 9.2 percent.

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[7] *Bangor Hydro-Elec. Co.*, Opinion No. 489, 117 FERC ¶ 61,129 (2006) *order on reh'g*, 122 FERC ¶ 61,265 (2008), *order granting clarification*, 124 FERC ¶ 61,136 (2008), *aff'd sub nom. Conn. Dep't of Pub. Util. Control v. FERC*, 593 F.3d 30 (2010).

[8] Complainants include Martha Coakley, Mass. Attorney Gen.; Conn. Pub. Utilities Regulatory Auth.; Mass. Dept. of Pub. Utilities; N.H. Pub. Utilities Comm'n; Conn. Office of Consumer Counsel; Me. Office of the Pub. Advocate; George Jepsen, Conn. Attorney Gen.; N.H. Office of Consumer Advocate; R.I. Div. of Pub. Utilities and Carriers; Vt. Dept. of Pub. Serv.; Mass. Mun. Wholesale Elec. Co.; Associated Indus. of Mass.; the Energy Consortium; Power Options, Inc.; and the Indus. Energy Consumer Group.

[9] The "flight to quality" refers to investors seeking low-risk investment vehicles.

[10] Complaint, Ex. C-1 at 5-12.

[11] *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923) (*Bluefield*).

[12] *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) (*Hope*).

4. On May 3, 2012, the Commission issued an order on the complaint, establishing hearing and settlement judge procedures.[13] The Hearing Order also set a refund effective date of October 1, 2011. The hearing commenced on May 6, 2012 and was completed on May 10, 2013.[14] In accordance with the hearing's procedural schedule, the participants each first submitted an ROE analysis,[15] based on data from a 6-month study period in 2012,[16] and then filed an updated ROE analysis, using the same DCF methodology that each participant used in its initial analysis but with data based on the 6-month study period from October 2012 through March 2013.

5. On August 6, 2013, the Presiding Judge issued the Initial Decision, finding the NETOs' current 11.14 percent base ROE to be unjust and unreasonable.[17] The Presiding Judge adopted the DCF methodology used by the NETOs and found that it is appropriate to establish two different base ROEs in this proceeding—one for the 15-month refund period from October 1, 2011 (i.e., the refund effective date) to December 31, 2012, and one for the prospective period commencing when the Commission issues its order setting the going-forward base ROE. Thus, the Presiding Judge considered two separate DCF analyses relying on overlapping data from each period, the first using data from May 2012 through October 2012 and the second using data from October 2012 through March 2013. The Presiding Judge found the just and reasonable base ROE for the refund period to be 10.6 percent and the just and reasonable base ROE for the prospective period to be 9.7 percent.[18]

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[13] *Martha Coakley, Mass. Attorney Gen. v. Bangor Hydro-Elec. Co.*, 139 FERC ¶ 61,090 (2012) (Hearing Order).

[14] The parties conducted settlement negotiations but reached an impasse, leading to termination of the settlement procedures in August 2012. Initial Decision, 144 FERC ¶ 63,012 at P 28.

[15] The following expert witnesses submitted ROE analyses: Dr. William E. Avera, for the NETOs; Ms. Sabina U. Joe, for Trial Staff; Dr. John Wilson, for the EMCOS; and Dr. Randall Woolridge, for the Complainants.

[16] Due to the different due dates for the parties' initial briefs, which ranged from October 2012 to January 2013, each party's initial ROE analysis was based on a different 6-month period in 2012.

[17] Initial Decision, 144 FERC ¶ 63,012 at P 544.

[18] *Id.*

6. The Complainants, Eastern Massachusetts Consumer Owned Systems (EMCOS),[19] the NETOs, and Trial Staff each filed briefs on and opposing exceptions to the Initial Decision.

II. Overview of the Commission's Rulings in this Order

7. In this order, we (1) change our approach on the DCF methodology to be applied in public utility rate cases, (2) apply that approach to the facts of this proceeding to determine the NETOs' base ROE, (3) institute a paper hearing and reopen the record to provide the participants an opportunity to submit briefs on an issue regarding the application of this new DCF approach to the facts of this proceeding, and (4) change our practice on post-hearing ROE adjustments.

8. As discussed in detail below, the Commission has historically applied different DCF methodologies in determining the ROE for public utilities and natural gas and oil pipelines. While there are multiple differences between the two DCF methodologies, the most fundamental difference is that the methodology applied to natural gas and oil pipelines (i.e., the two-step DCF methodology) considers long-term growth projections in estimating a company's cost of equity, whereas the methodology applied to public utilities (i.e., the one-step DCF methodology) considers only short-term growth projections. Based on a review of those methodologies and changes to the electric utility industry since the Commission last considered its electric industry DCF policy, we conclude that it is now appropriate to use the same model for the electric industry as the Commission has used for the natural gas and oil pipeline industries—i.e., use the two-step DCF methodology. We also make a tentative finding that the required long-term growth projection should be based on projected long-term growth in gross domestic product (GDP), but we establish a paper hearing to permit participants to present evidence on that issue.

9. After setting forth our new approach to the electric industry DCF analysis, we then apply the two-step DCF methodology to the facts of this proceeding to produce a proxy group and zone of reasonableness for determining the NETOs' base ROE. While no party proposed using the two-step DCF methodology in this proceeding, there is considerable overlap in the issues that arise under either type of DCF analysis. We find that the NETOs' starting proxy group is consistent with Commission precedent and the record contains all the financial data necessary to conduct a DCF analysis of that proxy group using the two-step DCF methodology, except for a projection of long-term GDP

[19] EMCOS filed a motion to intervene out-of-time on Oct. 1, 2012, and the Presiding Judge granted the motion on Oct. 4, 2012.

growth.[20] Therefore, in order to complete a DCF analysis of the proxy group under the two-step DCF method, we take official notice of the necessary GDP growth projections. Our DCF analysis produces a zone of reasonableness of from 7.03 percent to 11.74 percent. We find it appropriate, based on record evidence, to place the NETOs' base ROE halfway between the midpoint of the zone of reasonableness and the top of that zone. This results in an ROE for the NETOs of 10.57 percent.

10. However, because the participants have not had an opportunity to present evidence on long-term growth rate estimates in this proceeding, we establish a paper hearing and reopen the record to provide that opportunity. Accordingly, our finding concerning the specific numerical just and reasonable ROE for the NETOs is subject to the outcome of the paper hearing on the appropriate long-term growth projection to be used in the two-step DCF methodology.

11. Lastly, based on the record in this proceeding and the economic trends since 2008 more generally, we change our past practice on post-hearing ROE adjustments. Specifically, we end our practice of updating the ROE based on changes in U.S. Treasury bond yields during the proceeding, in light of our shift to the two-step DCF methodology and mounting evidence that U.S. Treasury bond yields are not necessarily a reliable one-for-one indicator of changes in investor-required returns.

12. On balance, we find that our actions in this order, including the shift to the use of the two-step DCF methodology, the placement of the NETOs' base ROE at the midpoint of the upper half of the zone of reasonableness, and the elimination of the post-hearing adjustment based on U.S. Treasury bonds, taken together produce a base ROE that reasonably balances investor and consumer interests consistent with *Hope* and *Bluefield* and allow just and reasonable rates for consumers and transmission owners.[21]

III. Adopting the Two-Step, Constant Growth DCF Methodology for Public Utilities

13. The Complaint filed in this proceeding argues that, based on the DCF methodology the Commission currently uses in public utility rate cases, the existing base

[20] We adopt the work papers provided by the NETOs' witness, Dr. Avera, including his stock prices, dividends, and IBES short-term growth projections, as the appropriate inputs for the dividend yield calculations using the two-step DCF methodology.

[21] *See, e.g., Hope*, 320 U.S. at 603.

ROE for electric transmission service is too high, and thus unjust and unreasonable.[22] Other pending complaints before the Commission echo the same theme.[23] At the same time, the NETOs have assailed the Commission's existing electric DCF methodology as failing to produce adequate returns.[24] In light of the concerns raised by both transmission customers and transmission owners, the Commission has reviewed its DCF analysis used in determining public utility ROEs. For the reasons discussed below, we find that the ROE in this proceeding, as well as in future public utility cases,[25] should be based on the same DCF methodology the Commission has used in natural gas pipeline and oil pipeline cases for many years—the two-step, constant growth DCF methodology, or two-step DCF methodology.

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[22] Complaint at 25-26.

[23] *See*, *e.g.*, Environment Northeast, *et al.*, Complaint, Docket No. EL13-33-000 (filed Dec. 27, 2012); Seminole Electric Cooperative, Inc. and Florida Municipal Power Authority, Complaint, Docket No. EL12-39-000 (filed Feb. 29, 2012); Seminole Electric Cooperative, Inc. and Florida Municipal Power Authority, Complaint, Docket No. EL13-63-000 (filed May 13, 2013); Golden Spread Electric Cooperative, Inc., Complaint, Docket No. EL12-59-000 (filed Apr. 20, 2012); Golden Spread Electric Cooperative, Inc., Complaint, Docket No. EL13-78-000 (filed Jul. 19, 2013); Grand Valley Rural Power Lines, *et al.*, Complaint, Docket No. EL12-77-000 (filed Jun. 21, 2012); Grand Valley Rural Power Lines, *et al.*, Complaint, Docket No. EL13-86-000 (filed Aug. 30, 2013); New York Association of Public Power, Complaint, Docket No. EL12-101-000 (filed Sept. 11, 2012); Municipal Electric Association of New York, Complaint, Docket No. EL13-16-000 (filed Nov. 2, 2012); New York Association of Public Power, Complaint, Docket No. EL14-29-000 (filed Feb. 6, 2014); Delaware Division of the Public Advocate, *et al.*, Complaint, Docket No. EL13-48-000 (filed Feb. 27, 2013); Frankford Electric & Water Plant Board, *et al.*, Complaint, Docket No. EL14-5-000 (filed Oct. 17, 2013); and ABATE, *et al.*, Complaint, Docket No. EL14-12-000 (filed Nov. 12, 2013).

[24] *See*, *e.g.*, NETOs Brief on Exceptions at 36..

[25] We consider that this group includes all currently pending ROE-related complaint cases in which the Commission has not issued a final order. In cases which have already been set for hearing, the Presiding Judge should modify the procedural schedule as necessary to provide the participants an opportunity to present evidence relevant to the application of the two-step DCF methodology.

14. For over 30 years, the Commission has based ROEs on the rate of return required by investors to invest in a company – otherwise known as the capital attraction rate of return, or the market cost of equity capital. Over this period, the Commission has relied primarily on the DCF model to provide an estimate of the investors' required rate of return.[26] The underlying premise of the DCF model is that an investment in common stock is worth the present value of the infinite stream of dividends discounted at a market rate commensurate with the investment's risk.[27]

15. With simplifying assumptions, the formula for the DCF model reduces to: P = D/k-g, where "P" is the price of the common stock, "D" is the current dividend, "k" is the discount rate (or investors' required rate of return), and "g" is the expected growth rate in dividends. For ratemaking purposes, the Commission rearranges the DCF formula to solve for "k", the discount rate, which represents the rate of return that investors require to invest in a company's common stock, and then multiplies the dividend yield by the expression (1+.5g) to account for the fact that dividends are paid on a quarterly basis. Multiplying the dividend yield by (1+.5g) increases the dividend yield by one half of the growth rate and produces what the Commission refers to as the "adjusted dividend yield." The resulting formula is known as the constant growth DCF model and can be expressed as follows: k=D/P (1+.5g) +g.

16. While the DCF model has been employed for decades, it has nonetheless continued to generate controversy. In response, the Commission has, over the years, made changes in its implementation of the model with respect to the industries it regulates. In making these changes, the Commission's application of the DCF model to public utilities now diverges significantly from the Commission's application of the model to natural gas and oil pipelines. As discussed in more detail below, the Commission uses a one-step DCF methodology for public utilities and a two-step DCF methodology for natural gas and oil pipelines. The difference in the naming conventions for the two methodologies stems from the growth rate projections used in each: the one-

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[26] The Commission first took cognizance of the DCF methodology in public utility cases as far back as the 1970's. *See, e.g., Minn. Power and Light Co.*, 3 FERC ¶ 61,045, at 61,132-33 (1978) ("We are interested in forward looking analyses of the market's required rates of return. The Commission seeks to have before it estimates of the opportunity cost of equity capital in capital markets to use in making rate of return determinations. Market oriented techniques, including the DCF approach, are useful in this regard.").

[27] *See, e.g., Canadian Ass'n of Petroleum Producers v. FERC*, 254 F.3d 289, 293 (D.C. Cir. 2001) (*CAPP v. FERC*).

step DCF methodology is based only on short-term growth projections, while the two-step DCF methodology considers both short-term and long-term growth projections.

A. Two-Step DCF Methodology

17. The Commission developed the two-step DCF methodology used for determining the cost of capital for individual gas and oil pipelines in a series of orders during the mid-1990s. Under that methodology, the Commission determines a single cost of equity estimate for each member of a proxy group. For the dividend yield component of the DCF model, the Commission derives a single, average dividend yield based on the indicated dividend and the average of the monthly high and low stock prices over a six-month period.[28] The Commission uses a two-step procedure for determining the constant dividend growth component of the model, averaging short-term and long-term growth estimates. Security analysts' five-year forecasts for each company in the proxy group, as published by the Institutional Brokers Estimate System (IBES), are used for determining growth for the short term; earnings forecasts made by investment analysts are considered to be the best available estimates of short-term dividend growth because they are likely relied on by investors when making their investment decisions.[29] Long-term growth is based on forecasts of long-term growth of the economy as a whole, as reflected in GDP.[30] The short-term forecast receives a two-thirds weighting and the long-term forecast receives a one-third weighting in calculating the growth rate in the DCF model.[31]

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[28] *See, e.g., Portland Natural Gas Transmission Sys.*, Opinion No. 510, 134 FERC ¶ 61,129, at PP 232-34 (2011).

[29] *See, e.g., Transcon. Gas Pipe Line Corp.*, Opinion No. 414-B, 85 FERC ¶ 61,323, at 62,269 & n.34 (1998) (which cites an article entitled "Using Analysts' Growth Forecasts to Estimate Shareholders Required Rates of Return" in *Financial Management*, Spring 1986, pages 58-67); *Composition of Proxy Groups for Determining Gas and Oil Pipeline Return on Equity*, 123 FERC ¶ 61,048, at PP 73-77 (2008) (*Proxy Group Policy Statement*).

[30] *Nw. Pipeline Corp.*, Opinion No. 396-B, 79 FERC ¶ 61,309, at 62,383 (1997) *Williston Basin Interstate Pipeline Co.*, 79 FERC ¶ 61,311, at 62,389 (1997), *aff'd in relevant part sub nom. Williston Basin Interstate Pipeline Co. v. FERC*, 165 F.3d 54, 57 (D.C. Cir. 1999).

[31] *Transcon. Gas Pipe Line Corp.*, Opinion No. 414-A, 84 FERC ¶ 61,084, at 61,423-24, *reh'g denied*, Opinion No. 414-B, 85 FERC ¶ 61,323, at 62,266-70 (1998), *aff'd, CAPP v. FERC*, 254 F.3d 289.

18. The Commission first required a two-step method for determining constant growth of dividends in natural gas pipeline cases in 1994, in *Ozark Gas Transmission System*, 68 FERC ¶ 61,032 (1994) (*Ozark*). In *Ozark*, the Commission held that the constant growth DCF model that the Commission uses requires consideration of long-term growth projections. The Commission explained:

> In the constant growth DCF model used by both parties in this proceeding, dividends are expected to grow indefinitely at the rate of (g). The indefinite future used by the DCF model is 50 years or more. . . . While we concede that it is more difficult to project growth for many years from the present time, we conclude that a projection limited to five years, with no evidence of what is anticipated beyond that point, is not consistent with the DCF model and cannot be relied on in a DCF analysis.[32]

19. The Commission also pointed out that, in its 1983 decision adopting the constant growth DCF model for gas pipeline cases, the Commission had cautioned that "we cannot simply adopt, without further consideration, calculations of past dividend growth or projections by investment advisory services of growth for relatively short periods of years into the future."[33] Thus, the Commission in *Ozark* reversed the Presiding Judge's sole reliance on five-year growth projections for the DCF analysis, finding that "the five-year projections are not of themselves incorrect, but merely limited to too brief a time period to meet the requirements of the DCF model."[34]

20. Following *Ozark*, debate ensued in natural gas pipeline cases over the best way to estimate the long-term growth of pipeline dividends. In Opinion No. 396-B, issued in 1997, the Commission found that none of the proposed natural gas industry-specific projections of long-term growth were reliable.[35] Instead, the Commission held that the long-term growth in the United States economy as a whole, as measured by GDP, is the

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[32] *Ozark*, 68 FERC at 61,105. The Commission chose 50 years to represent the indefinite future because the present value of a one-dollar dividend received 50 years in the future and discounted at 12 percent is less than one cent. *Id.* at n.32.

[33] *Consol. Gas Supply Corp.*, 24 FERC ¶ 61,046, at 61,146 (1983).

[34] *Ozark*, 68 FERC at 61,107.

[35] The proposed industry-specific projections included projections of the growth of natural gas consumption and the growth of natural gas prices.

most reasonable measure to use as the long-term growth measure for a DCF analysis.[36] The Commission stated, "[i]t is reasonable to expect that, over the long-run, a regulated firm will grow at the rate of the average firm in the economy, because regulation will generally prevent the firm from being extremely profitable during good periods, but also protects it somewhat during bad periods."[37] The D.C. Court of Appeals affirmed the Commission's decision to use GDP to estimate long-term growth in dividends, finding that "[t]he testimony adduced at the hearing demonstrated that major investment houses used an economy-wide approach to project long-term growth, that such an approach was supported by practical economic considerations, and that existing industry-specific approaches imperfectly reflected investor expectations and made unfounded economic assumptions."[38]

21. When the Commission first required use of a long-term growth estimate, the Commission simply averaged the short-term five-year IBES growth estimate with the long-term GDP growth estimate in determining the overall dividend growth rate.[39] However, in 1998, in Opinion No. 414-A, the Commission changed the weighting scheme in order to give two-thirds weight to short-term forecasts and one-third weight to long-term forecasts. The Commission explained,

> While determining the cost of equity nevertheless requires that a long-term evaluation be taken into account, long-term projections are inherently more difficult to make, and thus less reliable, than short-term projections. Over a longer period, there is a greater likelihood for unanticipated developments to occur affecting the projection. Given the greater reliability of the short-term projection, we believe it is appropriate to give it greater weight. However, continuing to give some effect to the long-term growth projection,

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[36] Opinion No. 396-B, 79 FERC at 62,382-83, *reh'g denied*, Opinion No. 396-C, 81 FERC ¶ 61,036 (1997).

[37] *Id.*

[38] *Williston Basin Interstate Pipeline Co., v. FERC*, 165 F.3d 54, 64 (D.C. Cir. 1999). Nonetheless, finding the record evidence inadequate to support the Commission's use of certain GDP data, the Court remanded the case for further proceedings on this issue. Subsequently, the Commission has used an average of three GDP growth projections.

[39] Opinion No. 396-B, 79 FERC at 62,383, *reh'g denied*, Opinion No. 396-C, 81 FERC ¶ 61,036 (1997).

> will aid in normalizing any distortions that might be reflected in short-term data limited to a narrow segment of the economy.[40]

22. The United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) affirmed this two-thirds/one-third weighting for determining the overall dividend growth estimate.[41] Since Opinion No. 414-A, the Commission has made no changes in its two-step DCF methodology used for natural gas and oil pipelines, except to require that, if a master limited partnership (MLP) is included in the proxy group, its long-term growth rate should be one-half the GDP growth estimate.[42] The Commission explained that MLPs have less growth potential than corporations, because they generally distribute to partners an amount in excess of their reported earnings.[43]

23. After the Commission derives a single cost of equity estimate for each member of a natural gas or oil pipeline proxy group, the zone of reasonableness is defined by the low and high estimates of the market cost of equity for the members of the proxy group.

B. One-Step DCF Methodology

24. While the Commission also uses a constant growth DCF model to determine public utility ROEs, the Commission uses a one-step DCF methodology, which differs in numerous ways from the two-step DCF methodology it uses for natural gas and oil pipelines. First, instead of determining a single cost of equity estimate for each proxy company, the one-step DCF methodology determines separate high and low estimates for each proxy company. This is done as follows.

25. First, the Commission calculates two dividend yields for each proxy company – a low average dividend yield and a high average dividend yield, with both averages based on high and low stock prices for each of the six months in the study period. Next, the Commission makes two estimates of dividend growth. One is based on the same IBES analyst five-year growth forecasts used for the short-term growth projection in the two-step DCF methodology. The other is based on the "br + sv" sustainable growth formula, where "b" represents the percentage of earnings expected to be retained (after the payment of dividends), "r" represents the expected rate of return on book equity, "s"

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[40] Opinion No. 414-A, 84 FERC at 61,423-24.

[41] *CAPP v. FERC*, 254 F.3d at 297.

[42] *Proxy Group Policy Statement*, 123 FERC ¶ 61,048 at P 106.

[43] *Id.* P 12.

represents the percent of common equity expected to be issued annually as new common stock, and "v" is the equity accretion rate. The "br" component of this formula projects a utility's growth from the investment of retained earnings, and the "sv" component estimates growth from external capital raised by the sale of additional stock.[44] For each input in the "br + sv" formula, the Commission uses an average of the estimates published in *Value Line* for the current year, the next year, and three- to five-years in the future.[45]

26. The low cost of equity estimate for each proxy company is determined by adding the lower of the two growth projections for that company to the low dividend yield. The high cost of equity estimate for each company is determined by adding the higher of the two growth estimates for that company to the high dividend yield.[46] If the proceeding involves a group of electric utilities, the Commission uses the lowest of the proxy company low estimates to determine the bottom of the range of reasonable returns and the highest of the proxy company high estimates to determine the top of the range and then generally sets the base ROE for the group at the midpoint of the range. If the proceeding involves a single company, the Commission averages the high and low cost of equity estimates of each proxy company, and sets the ROE for the electric utility at the median value of the range of reasonable returns.[47]

27. The most significant difference between the one-step and two-step DCF methodologies is the lack of a long-term growth projection in the one-step DCF methodology. After the Commission held in *Ozark* that the DCF model requires use of a long-term growth projection in natural gas pipeline cases, the issue arose whether the Commission should also modify its electric DCF methodology to include a long-term growth projection. In 1999, in an Initial Decision involving Southern California Edison Company, [48] the Presiding Judge adopted a two-step DCF formula with a long-term growth projection for a public utility, because he found it consistent with the

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[44] However, in the absence of reliable record evidence on expected common stock issuances, the "sv" component is generally considered to be zero.

[45] *See S. Cal. Edison Co.*, 92 FERC ¶ 61,070, at 61,263 (1999).

[46] *Id.* at 61,264; *see also Appalachian Power Co.*, 83 FERC ¶ 61,335, at 62,350 (1998).

[47] *S. Cal. Edison Co. v. FERC*, 717 F.3d 177, 183-87 (D.C. Cir. 2013).

[48] *S. Cal. Edison Co.*, 86 FERC ¶ 63,014 (1999).

Commission's recent precedent in natural gas pipeline cases.[49] In contrast to the approach taken in natural gas and oil pipeline cases, the Commission had consistently applied a one-step, constant growth DCF model for determining allowed ROEs for public utilities.[50] On September 17, 1999, in response to exceptions taken to the Initial Decision on how best to determine the allowed ROE for Southern California Edison Company, the Commission issued an "Order Establishing Further Proceedings on Issue of Rate of Return on Common Equity."[51]

28. Based on a review of the record developed in the reopened proceeding, the Commission issued Opinion No. 445, which reversed the Initial Decision and found that the time was not ripe to apply the two-step DCF methodology in public utility cases.[52] The Commission stated that, up until that time, it had not expressly addressed the differing approaches taken in determining the allowed ROE in natural gas/oil pipeline and public utility cases. The Commission in Opinion No. 445 then compared the two industries and concluded "that significant differences exist in the electric utility industry and the natural gas pipeline industry which warrant the continued use of different growth rates in the DCF models for each."

29. The Commission explained that the electric industry was just beginning a significant new phase of its restructuring, while the gas pipeline industry had nearly completed its major restructuring when Opinion No. 396-B was issued in 1997.[53] In particular, at the time of its filing, Southern California Edison Company had just begun to

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[49] *Id.* at 65,143 (citing *Williston Basin Interstate Pipeline Co.*, 50 FERC ¶ 61,284 (1990), *vacated on other grounds*, 931 F.2d 948 (D.C. Cir. 1991); Opinion No. 396-B, 79 FERC ¶ 61,309, *reh'g denied*, Opinion No. 396-C, 81 FERC ¶ 61,036; and *Transcon. Gas Pipe Line Corp.*, Opinion No. 414, 80 FERC ¶ 61,157 (1997), *order on reh'g*, Opinion No. 414-A , 84 FERC ¶ 61,084.

[50] *See, e.g., Consumers Energy Co.*, 85 FERC ¶ 61,100 (1998); *Sw. Pub. Serv. Co.*, 83 FERC ¶ 61,138 (1998); *Appalachian Power Co.*, 83 FERC ¶ 61,335; *Jersey Cent. Power & Light Co.*, Opinion No. 408, 77 FERC ¶ 61,001 (1996); *S. Cal. Edison Co.*, 56 FERC ¶ 61,003, *order on reh'g*, 56 FERC ¶ 61,117 (1991); *Conn. Light & Power Co.*, Opinion No. 305, 43 FERC ¶ 61,508 (1988).

[51] *S. Cal. Edison Co.*, 88 FERC ¶ 61,254 (1999).

[52] *S. Cal. Edison Co.*, Opinion No. 445, 92 FERC ¶ 61,070, at 61,261 (2000).

[53] *Id.*

restructure from a vertically integrated utility.[54] Indeed, with the electric industry in flux and the future so uncertain, it seemed too speculative to assume that investors were reflecting long-term growth estimates in their investment decisions.

30. In addition, the Commission observed that there was a significant difference in the short-term growth rates between Southern California Edison Company and gas pipeline companies versus GDP growth rates. While the short-term growth rates of natural gas pipeline proxy group companies were all significantly higher than the projected growth in GDP, that was not true for public utilities.[55] The Commission attributed this difference to the higher dividend payout ratios of public utilities, which produce lower growth from retained earnings, and the resulting lower dividend growth.[56] With such a wide gap between short-term and long-term natural gas pipeline growth rates, the implication was that the two-step DCF methodology was better suited to the natural gas pipeline industry than to the electric utility industry because the short-term dividend growth rates for public utilities did not deviate significantly from GDP rates.

31. Moreover, the record in the Opinion No. 445 proceeding contained evidence that two large investment firms use the long-term growth of the economy as a whole in their analyses of natural gas pipeline companies, while one of them indicated that it treated electric utilities differently from all of the other industrial companies when estimating growth rates.[57] For all of these reasons, the Commission found that it would be "premature" at that time to incorporate a GDP estimate in the DCF methodology applicable to an electric utility company.[58] Therefore, the Commission calculated the ROE for Southern California Edison Company using the one-step, constant growth DCF methodology and has continued to use this approach in electric utility cases.

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[54] *Id.*

[55] *S. Cal. Edison Co.*, 92 FERC at 61,261 (citing *Ozark*, 68 FERC at 61,104-05 (growth estimates ranging from 8.81 percent to 15.2 percent and GDP estimates of 5.4 percent)); *Williston Basin Interstate Pipeline Co.*, 72 FERC ¶ 61,074, at 61,387 (growth estimates ranging from 8 to 15 percent and GDP estimates of 5.37 percent and 6.33 percent); Opinion No. 414-A, 84 FERC ¶ 61,084 at Appendix A (growth estimates ranging from 8 percent to 15 percent and a GDP estimate of 5.45 percent).

[56] Opinion No. 445, 92 FERC at 61,262.

[57] *Id.*.

[58] *Id.*

Significantly, though, the Commission added that "[s]hould circumstances in the industry change, in the future, we will reevaluate our methodology, as necessary."[59]

C. Adoption of the Two-Step DCF Methodology for Public Utility Rate Cases

32. This proceeding has caused the Commission to revisit its historical use of DCF analyses to determine the allowed ROE in public utility cases, given the evolution of the electric industry since issuance of Opinion No. 445. Based on this review, the Commission finds that it is now appropriate to change the way DCF analyses are conducted in public utility cases to use the same methodology as the Commission uses in natural gas and oil pipeline cases. In theory, an analytical tool such as the DCF model is equally applicable to all companies, whether they are public utilities, natural gas pipeline companies, or oil pipeline companies.

33. The DCF model is based on the premise that an investment in common stock is worth the present value of the infinite stream of future dividends discounted at a market rate commensurate with the investment's risk. Corporations have indefinite lives and therefore will pay dividends for an indefinite period. For that reason, the Commission stated as long ago as 1983, when it first adopted the constant growth DCF model for gas pipeline cases, that "projections by investment advisory services of growth for relatively short periods of years into the future"[60] cannot be relied on "without further consideration." Thus, as the Commission held in *Ozark*, the constant growth DCF model requires consideration of long-term growth projections.

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[59] *Id.* In Opinion No. 446, the Commission similarly rejected a proposal to use the two-step DCF methodology for a public utility, for essentially the same reasons as in Opinion No. 445. *Sys. Energy Resources, Inc.*, Opinion No. 446, 92 FERC ¶ 61,119, at 61,443-46 (2000). In addition, the Commission stated that use of the two-step DCF methodology could overcompensate the public utility for its cost of equity. The Commission pointed out that the internal growth rate of public utilities averaged only 2.51 percent during the 1993-1997 period and was projected to be 3.86 percent in 2002, as compared to 20-year GDP growth projections in that case of 5.0 and 5.2 percent (and in contrast to natural gas pipeline growth rates that exceeded GDP). The Commission attributed these low internal growth rates to public utilities' high dividend payout ratios, and stated that combining a public utility's high dividend yield with growth rates reflecting the projected growth in GDP could overestimate the utility's cost of capital.

[60] *Consol. Gas Supply Corp.*, 24 FERC at 61,105.

34. Both growth projections used in the existing one-step DCF methodology rely on growth projections by investment advisory services for relatively short periods of years. The IBES growth projections are for only five years. While the "br + sv" growth formula used in public utility rate cases seeks to estimate a company's sustainable growth, it relies on short-term *Value Line* projections of the various inputs to the formula for the current year, the next year, and a year three- to five-years in the future. For that reason, the Commission has previously held that the "br + sv" formula only produces a projection of short-term growth, similar to the IBES projections.[61] Thus, the one-step DCF methodology does not include a long-term growth projection of the type ordinarily required by the constant growth DCF model.

35. When, in 2000, the Commission nevertheless decided not to adopt the two-step DCF methodology in the Opinion No. 445 proceeding, an important consideration was the fact that Southern California Edison Company and other public utilities were only just beginning the process of restructuring. Given the anticipated changes in the industry at that time, it did not seem to be an appropriate time to reflect an estimate of long-term growth in dividends in the DCF model. In those circumstances, the Commission's view was that investors would be unlikely to place much weight on long-term forecasts because the uncertainties regarding the future were so great.[62] Regulatory change is an inevitable part of any regulated industry. However, the investor uncertainty due to the type of changes anticipated in 2000 has diminished.

36. Therefore, we now believe that the time has come to apply the DCF methodology in public utility cases in a manner more consistent with the way it is applied in natural gas and oil pipeline cases. Most importantly, including a long-term estimate of dividend growth in the constant growth DCF model, as is done in natural gas/oil pipeline cases, will now bring the public utility ROE approach into full alignment with the underlying theory of the DCF model.[63]

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[61] *Proxy Group Policy Statement*, 123 FERC ¶ 61,048 at P 100 (citing Opinion No. 445, 92 FERC at 61,262-3).

[62] Opinion No. 445, 92 FERC at 61,261-61,262.

[63] Incorporating a long-term growth estimate in the DCF methodology is consistent with the underlying theory of the constant growth DCF model because

> from the standpoint of the DCF model that extends into perpetuity, analysts' horizons are too short, typically five years. It is often unrealistic for such growth to continue in perpetuity. A transition must occur between the first stage of growth forecast by analysts for the first five years and the

(continued…)

37. In addition, the Commission believes that developing a zone of reasonableness pursuant to the two-step DCF methodology with its use of a single cost of equity estimate for each proxy company is less likely to produce the anomalous results that can result from combining high and low dividend yields with high and low short-term projections of dividend growth to produce two estimates for each proxy company. For example, to the extent a high DCF estimate is based on an IBES five-year projection, that result is inconsistent with the theory underlying the constant growth DCF model, which requires an estimate of dividend growth extending into the indefinite future. Moreover, the purpose of the sustainable "br + sv" growth estimate is to act as a check on the reasonableness of IBES forecasts. In practice, however, the two growth rates are used independently to establish high and low estimates of the cost of equity for electric utilities. The end result is often a zone of reasonableness that is defined by two widely divergent growth rates that do not engender much confidence in the reliability of the estimates.

38. The Commission recognizes that the IBES growth projections of electric utilities continue to reflect a different pattern from those of natural gas and oil pipelines. While pipeline IBES growth projections are consistently higher than projections of long-term growth in GDP growth, that is not true of public utilities. For example, the IBES growth projections for the national proxy group we adopt in this case range from 2.0 percent to 8.10 percent, as compared to long-term projected growth in GDP of 4.39 percent.[64] However, we no longer believe the generally lower IBES short-term growth projections of public utilities justify not including a long-term growth projection in the DCF analysis of electric utilities. As the Commission stated in Opinion No. 414-A, giving "some effect to the long-term growth projection will aid in normalizing any distortions that might be reflected in short-term data limited to a narrow segment of the economy."[65] This is true, regardless of whether the short-term growth projection is greater or less than the growth in the economy as a whole. Over the long-run, a regulated firm may reasonably be expected to grow at the rate of the average firm in the economy; growth either

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> company's long-term sustainable growth rate. . . . It is useful to remember that eventually all company growth rates, especially utility services growth rates, converge to a level consistent with the growth rate of the aggregate economy.

Roger A. Morin, New Regulatory Finance 308 (Public Utilities Reports, Inc. 2006).

[64] Moreover, four public utilities, which we are excluding from the proxy group in this case, have negative IBES growth projections.

[65] Opinion No. 414-A, 84 FERC at 61,423.

significantly above or below the growth of the economy as a whole is unlikely to continue indefinitely. Using the same long-term growth projection for all public utilities is consistent with this expectation. It also produces a narrower zone of reasonableness, consistent with the fact different firms in a regulated industry would not ordinarily be expected to have widely varying levels of profitability.

39. Therefore, in this proceeding, and in future public utility cases, the Commission will adopt the same two-step DCF methodology used in natural gas and oil pipeline cases.[66] In other words, there will be a single, six-month average dividend yield for each company in the proxy group. More importantly, the estimate of the dividend growth rate for each company in the proxy group will now include a short-term projection of dividend growth (with a two-thirds weight) and a long-term projection of dividend growth (with a one-third weight). The short-term growth estimate will be based on the five-year projections reported by IBES (or a comparable source). Given the absence of an electric industry-specific long-term growth projection that reasonably reflects investor expectations, the long-term growth estimate will be based on an average of the GDP growth rates that have been relied on in gas and oil pipeline cases.[67]

40. We also find that it is reasonable to expect that public utilities, which transmit electricity to supply energy to the national economy, will sustain growth consistent with the growth of the economy as whole.[68] This conclusion is buttressed by the fact that the current three to five year projected internal growth rate of electric utilities approximates the projected growth in GDP. The median internal growth rate of the 41 electric utilities in the proxy group before application of the low-end outlier test is 4.32 percent, and the midpoint internal growth rate for those utilities is 4.55 percent.[69] These growth rates are

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[66] As noted *supra* at n.25, the Commission will apply the two-step methodology to all pending ROE-related complaint cases, including those that have been set for hearing.

[67] In Opinion No. 396-B, the Commission based the GDP growth rate on forecasts made by the Energy Information Administration (EIA), DRI/McGraw Hill, and Wharton Economic Forecasting Associates (Wharton). Opinion No. 396-B, 79 FERC at 62,384-62,385. Over time, however, the sources of GDP data have changed. Currently, the Commission uses GDP data from EIA, Social Security Administration, and IHS Global Insight (which was formed by the merger of DRI/McGraw Hill and Wharton). *See Portland Natural Gas Transmission Sys.*, 137 FERC ¶ 63,018, at PP 121-128 (2011), *aff'd in relevant part*, Opinion No. 524, 142 FERC ¶ 61,197 at PP 317-320.

[68] *See supra* n.63.

[69] *See* Ex. NET-703.

very close to the 4.39 percent projected long-term growth in GDP. While the Commission, in Opinion No. 446, declined to apply the two-step DCF methodology to public utilities based in part of the fact their internal growth rates were less than GDP, that disparity no longer exists.[70] In Opinion No. 446, the Commission explained that the two-step DCF methodology could overcompensate a public utility for its cost of equity because GDP was approximately double the internal grow rates of the companies analyzed in that proceeding.[71] Because public utilities' internal growth rates now approximate GDP, incorporating GDP into public utilities' cost of equity estimates will not overcompensate those utilities. For this reason, the Commission no longer sees a reason to use a long-term growth projection for public utilities that is less than the projected long-term growth of GDP.

41. For the reasons discussed above, the Commission concludes that using, in public utility cases, the same formulation of the DCF model used for natural gas/oil proceedings is consistent with the underlying theory of the DCF model and is preferable to the one-step DCF methodology. However, we also understand that any DCF analysis may be affected by potentially unrepresentative financial inputs to the DCF formula, including those produced by historically anomalous capital market conditions. Therefore, while the DCF model remains the Commission's preferred approach to determining allowed rate of return, the Commission may consider the extent to which economic anomalies may have affected the reliability of DCF analyses in determining where to set a public utility's ROE within the range of reasonable returns established by the two-step constant growth DCF methodology.

D. Implementation of the Two-Step DCF Methodology in This Case

42. While the NETOs raised concerns at the hearing in this case as to whether the Commission's existing electric DCF analysis accurately reflects investor expectations, no participant in the hearing proposed to use the two-step DCF methodology. Thus, the participants have not had an opportunity to present evidence on issues raised by implementation of the two-step constant growth method that do not arise under our existing electric DCF methodology. However, there is considerable overlap in the issues that arise when conducting either type of DCF analysis, and all of the financial evidence necessary to apply the two-step DCF methodology in this case is in the evidentiary record developed at the hearing, with the exception of necessary GDP growth projections.

[70] *See* Opinion No. 446, 92 FERC at 61,443-61,446.

[71] *Id.*, *supra* n. 59.

43. For the reasons provided above, we find that the NETOs' ROE to be established in this case should be determined using the two-step DCF methodology. Based on the extensive record developed at the hearing in this case, together with taking official notice of the appropriate long-term GDP growth projections, we will make tentative findings in this order, based on the record thus far in this proceeding, concerning whether the NETOs' existing base ROE is unjust and unreasonable and what the just and reasonable ROE for the NETOs is under the two-step DCF methodology. However, as discussed below, we will reopen the record for the limited purpose of allowing the participants to this proceeding an opportunity to present written evidence concerning issues unique to the application of the two-step DCF methodology to the facts of this proceeding. Specifically, this will give the participants an opportunity to present evidence concerning the appropriate long-term growth projection to be used for public utilities under the two-step DCF methodology. As discussed in more detail below, we find that the participants have had ample opportunity to litigate all other issues in this proceeding and, therefore, will not entertain those issues in the paper hearing. After reviewing the pleadings submitted during the paper hearing, we will make a final determination of the NETOs' just and reasonable base ROE.

IV. Burden of Proof

A. Initial Decision

44. The Presiding Judge found that the Complainants and Trial Staff hold the burden to establish that the current ROE is unjust and unreasonable, and that they have met that burden in this case.[72] The Presiding Judge rejected the NETOs' argument that the existing base ROE should be retained because it falls within the zone of reasonableness of the DCF analyses, explaining that "a bright line litmus test of this sort" is contrary to Commission precedent and illogical when applied to the facts of this case.[73] The Presiding Judge found that the Commission has previously rejected this argument in *Bangor Hydro*.[74] The Presiding Judge further explained that all of the evidence in this case supports the finding that the existing 11.14 percent base ROE is no longer just and reasonable.

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[72] Initial Decision, 144 FERC ¶ 63,012 at P 546.

[73] *Id.* P 547.

[74] *Id.* P 547 (citing *Bangor Hydro-Elec. Co.*, 122 FERC ¶ 61,038 (2008) (*Bangor Hydro*)).

B. Briefs on Exceptions

45. The NETOs argue both that the Complainants have the burden to show that the existing base ROE is unjust and unreasonable, and that the Commission does not have statutory authority to change the existing base ROE unless the evidence shows that it is entirely outside the zone of reasonableness. The NETOs assert that the Complainants have not met this burden. The NETOs further contend that the Initial Decision did not acknowledge or examine the Commission and court precedent on this issue—specifically, *City of Winnfield* and *Texas Eastern*.[75] The NETOs argue that the Initial Decision also overlooks years of case law that links the zone of reasonableness to the determination of whether a rate is just and reasonable,[76] and relies on only one case *Bangor Hydro*, which is both distinguishable and contrary to D.C. Circuit precedent.[77] The NETOs further contend that the principle that rates have to be outside the zone of reasonableness to be unjust and unreasonable is also recognized under the Interstate Commerce Act.[78]

C. Briefs Opposing Exceptions

46. According to Trial Staff, all parties agree that the Initial Decision correctly determined that the parties challenging the existing base ROE bear the burden of showing that it is unjust and unreasonable. Trial Staff further asserts that the Initial Decision properly determined that the burden has been met in this case. Trial Staff, the Complainants, and EMCOS state that the Commission is not required to accept an ROE merely because it falls within the zone of reasonableness, and the Commission already rejected the NETOs' argument to the contrary in *Bangor Hydro*. EMCOS state that the Initial Decision correctly follows *Bangor Hydro* in finding that the determination of a just

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[75] NETOs Brief on Exceptions at 10-11 (citing *City of Winnfield v. FERC*, 744 F.2d 871 (D.C. Cir. 1984) (*City of Winnfield*); *Texas Eastern Transmission Corp.*, 32 FERC ¶ 61,056 at 61,150, n.6 (1985) (*Texas Eastern*)).

[76] NETOs Brief on Exceptions at 13-15 (citing *Me. Pub. Utilities Comm'n v. FERC*, 520 F.3d 464, 470-471 (D.C. Cir. 2008), *rev'd in part on other grounds sub nom. NRG Power Mktg., LLC v. Me. Pub. Utilities Comm'n*, 558 U.S. 165 (2010); *Calpine Corp. v. Cal. Indep. Sys. Op. Corp.*, 128 FERC ¶ 61,271, at P 41 (2009); *Cal. Indep. Sys. Op. Corp.*, 140 FERC ¶ 61,168, at P 17 (2012); *Montana-Dakota Utils. Co. v. Nw. Pub. Serv. Co.*, 341 U.S. 246, 251 (1951) (*Montana-Dakota*)).

[77] NETOs Brief on Exceptions at 19 (citing *Bangor Hydro*, 122 FERC ¶ 61,038).

[78] *Id.* at n.16 (citing *Lakehead Pipe Line Co., Ltd. P'ship*, 65 FERC ¶ 63,021, at 65,137 (1993)).

and reasonable ROE does not turn on whether the ROE falls within the zone of reasonableness, but instead requires a balancing of interests that reflects the unique circumstances of each case.[79]

47. The Complainants and EMCOS contend that the NETOs' argument contradicts controlling judicial precedent,[80] and is unsupported by *City of Winnfield* and *Texas Eastern*.[81] Similarly, Trial Staff asserts that the Presiding Judge properly considered *City of Winnfield* and *Texas Eastern*, as well as other relevant case law, in rejecting the NETOs' argument.[82] Trial Staff contends that *City of Winnfield* involved an FPA section 205 proceeding in which the court's discussion of FPA section 206 is dicta, and asserts that *Texas Eastern* is distinguishable because it dealt with issues of cost allocation and rate design, not base ROE. The Complainants argue that Commission precedent involving cases in which both the zone of reasonableness and ROE were at issue clearly indicate that the zone of reasonableness is not a zone of immunity.[83]

48. The Complainants argue that the NETOs' zone of immunity argument is contrary to the Regulatory Fairness Act.[84] The Complainants also argue that Order No. 679 and Commission precedent on incentive ROE adders do not render any ROE below the top of the zone of reasonableness ipso facto reasonable; rather, the Complainants assert that those cases hold that the Commission is authorized to place the total ROE below the top

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[79] EMCOS Brief Opposing Exceptions at 10-11.

[80] Complainants Brief Opposing Exceptions at 11-13 (citing *FPC v. Natural Gas Pipeline Co.*, 315 U.S. 575 (1942); *FPC v. Conway Corp.*, 426 U.S. 271, 278-279 (1976); *Montana-Dakota*, 341 U.S. 246); EMCOS Brief Opposing Exceptions at 7-8 (citing *FPC v. Conway Corp.*, 426 U.S. at 278-79).

[81] Complainants Brief Opposing Exceptions at 14-18.

[82] Trial Staff Brief Opposing Exceptions at 11 (citing Initial Decision, 144 FERC ¶ 63,012 at n.45).

[83] Complainants Brief Opposing Exceptions at 21 (citing *Golden Spread Elec. Coop. Inc. v. Sw. Pub. Serv. Co.*, Opinion No. 501, 123 FERC ¶ 61,047 (2008), *order on reh'g*, 144 FERC ¶ 61,132 (2013); *Orange & Rockland Utils., Inc.*, Opinion No. 314, 44 FERC ¶ 61,253, at 61,953-55, *modified*, Opinion No. 314-A, 45 FERC ¶ 61,252 (1988), *reh'g denied*, 46 FERC ¶ 61,036 (1989); *Yankee Atomic Elec. Co.*, 40 FERC ¶ 61,372, at 62,212 (1987), *modified*, 43 FERC ¶ 61,232 (1988)).

[84] Complainants Brief Opposing Exceptions at 21-22.

of the zone after applying the adders to a base ROE that represents the Commission's best estimate of a cost-based equity return.[85] Lastly, the Complainants assert that the NETOs' reliance on the Interstate Commerce Act's "Maximum Reasonable Rate" standard is misplaced because it ignores significant differences between the ICA and the FPA, and because the Interstate Commerce Act does not repeal the FPA's just and reasonable standard.[86]

D. Commission Determination

49. We affirm the Presiding Judge's determination on the burden of proof.

50. Under FPA section 206, the burden of proof to show that a rate is unjust and unreasonable "shall be upon the Commission or the complainant."[87] As to what that burden entails in the context of an ROE proceeding, the Supreme Court has held that a just and reasonable ROE should be "commensurate with returns on investments in other enterprises having corresponding risks . . . [and] sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital."[88] An ROE above that level would exploit consumers and is, therefore, unjust and unreasonable.[89] To estimate the rate of return necessary to attract equity investors, the Commission uses the DCF model, which assumes that a stock's price is equal to the

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[85] *Id.* at 24-25 (citing Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 93; *Promoting Transmission Investment Through Pricing Reform*, 141 FERC ¶ 61,129, at P 11 (2012); *Atl. Grid Operations A LLC, et al.*, 135 FERC ¶ 61,144, at PP 88, 94 (2011)).

[86] Complainants Brief Opposing Exceptions at 26-27.

[87] 16 U.S.C. § 824e(b) (2012).

[88] *Hope*, 320 U.S. at 603; *see also Bluefield*, 262 U.S. at 693 ("The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.").

[89] *Jersey Cent. Power & Light Co. v. FERC*, 810 F.2d 1168, 1180 (D.C. Cir. 1987) (*en banc*) ("In addition to prohibiting rates so low as to be confiscatory, the holding of [*Hope*] makes clear that exploitative rates are illegal as well."); *see also Washington Gas Light Co. v. Baker*, 188 F.2d 11, 15 (D.C. Cir. 1950), *cert. denied*, 340 U.S. 952 (1951).

present value of the infinite stream of expected dividends discounted at a market rate commensurate with the stock's risk.[90]

51. We reject the NETOs' argument that the Commission does not have the authority under FPA section 206 to change the existing base ROE unless the evidence shows that it is entirely outside the zone of reasonableness. As the Presiding Judge correctly noted, the Commission previously rejected this argument in *Bangor Hydro*.[91] We do so here for the same reasons. As the Commission explained in that case, the premise of the NETOs' contention is that every ROE within the "zone of reasonableness" is necessarily "just and reasonable." However, this premise is without substantive merit, because it fails to recognize that the determination of a zone of reasonableness is simply the first step in the determination of a just and reasonable ROE for a utility or group of utilities.

> When the Commission identifies a "zone of reasonableness" in a particular case, it identifies a range that reflects the "substantial spread between what is unreasonable because it is too low and what is unreasonable because it is too high." However, not every rate within this "substantial spread" would necessarily be just and reasonable if charged. Certain rates, though within the zone, may not be just and reasonable given the circumstances of the case.[92]

52. The decision of the United States Court of Appeals for the District of Columbia Circuit in *S. Cal. Edison Co. v. FERC*,[93] supports this conclusion. In that case, the utility filed to modify its rates under FPA section 205. The court stated that section 205 required the Commission to approve the utility's rate proposal "as long as the new rates are just and reasonable."[94] Nevertheless, the court also held that the Commission had

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[90] *See, e.g., S. Cal. Edison Co. v. FERC*, 717 F.3d at 179.

[91] *See Bangor Hydro*, 122 FERC ¶ 61,038 at PP 10-15.

[92] *Id.* P 11 (quoting *Montana-Dakota*, 341 U.S. at 251).

[93] *S. Cal. Edison Co. v. FERC*, 717 F.3d at 181-82 (finding that the Commission had authority to set a utility's ROE at the median of the zone of reasonableness even though the utility proposed using the midpoint, which was also within the zone of reasonableness); *accord Montana-Dakota*, 341 U.S. at 251 (explaining that while statutory reasonableness is an abstract concept represented by an area rather than a pinpoint the Commission must translate that concept into a concrete rate, and it is the rate—not the abstract concept—that governs the rights of the buyer and seller).

[94] *S. Cal. Edison Co. v. FERC*, 717 F.3d at 181.

authority to require the utility's ROE to be set at the median of the zone of reasonableness, even though the midpoint ROE proposed by the utility was also within the zone of reasonableness. In short, the court recognized that the Commission need not treat every ROE within the zone of reasonableness as an equally just and reasonable ROE. If the Commission were required to find any and every ROE within the zone of reasonableness to be equally just and reasonable, the Commission would be required to accept any ROE proposed by a utility in a section 205 rate case, even an ROE at the very top of the zone of reasonableness, as long as that ROE did not exceed the top of the range of reasonableness. However, the FPA has never been understood to require such a result.

53. FPA section 206 contains the same "just and reasonable" standard as FPA section 205. Yet the NETOs effectively contend that we must apply a different just and reasonable standard in section 206 cases than in section 205 cases.[95] Despite the fact FPA section 205 does not require that every ROE within the zone of reasonableness be considered equally just and reasonable for purposes of a utility rate filing under FPA section 205, the NETOs would require us to treat every existing ROE within the zone of reasonableness as equally just and reasonable in a section 206 case. Nothing in the FPA, however, supports such a different understanding of the phrase "just and reasonable" as between those two sections of the FPA when establishing a utility's ROE.

54. We further find to be misplaced the NETOs' reliance on *City of Winnfield*, for the proposition that in a section 206 proceeding a utility's existing rates must "be found to be entirely outside the zone of reasonableness before the agency can dictate their level or form." *City of Winnfield* involved a utility's section 205 proposal to design its rates based on incremental fuel costs rather than average system costs; the case did not involve the ROE component of a utility's cost of service. Thus, the court was not using the phrase "zone of reasonableness" as it is commonly used in proceedings involving a utility's ROE.[96]

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[95] Given that the FPA was intended to be a consumer-protection statute, *see, e.g., Pub. Sys. v. FERC*, 606 F.2d 973, 979 n.27 (D.C. Cir. 1979), it is hard to find persuasive an argument that would allow, under FPA section 205, a utility to propose an increase in its ROE to anywhere in the zone, but would effectively bar, under FPA section 206, a customer from seeking to decrease the ROE being challenged merely because the ROE falls somewhere within the zone.

[96] The Commission's *Texas Eastern* order, also relied on by the NETOs, is distinguishable for the same reason, because it also involved cost allocation and rate design issues, rather than the determination of an entity's ROE.

55. For these reasons, we therefore conclude that the zone of reasonableness produced by a DCF analysis does not create a zone of immunity for a utility's ROE.

V. Appropriate Time Period for the Base ROE in this Proceeding

A. Initial Decision

56. The Presiding Judge found that a separate, higher ROE is appropriate for the "locked in/refund period" from October 2011 through December 2012,[97] and therefore established two separate ROEs: one for the refund period and one to apply prospectively.[98] The Presiding Judge found the just and reasonable base ROE for the refund period to be 10.6 percent, based on the NETOs' DCF data from May 2012 through October 2012, and the just and reasonable base ROE for the prospective period to be 9.7 percent, based on the NETOs' DCF data from October 2012 through March 2013.[99] The Presiding Judge stated that the DCF analysis and data for the period October 2011 through December 2012 "clearly support a higher ROE" than the data for the prospective period. In establishing two base ROEs, using two different data sets and zones of reasonableness, the Presiding Judge reasoned that the "refund period should be representative of what the true ROE was when calculating refunds, otherwise it would allow for a windfall and a return of excessive refunds, based upon supporting data which did not exist at the time."[100]

B. Briefs on Exceptions

57. The Complainants, EMCOS, and Trial Staff argue that the Initial Decision erred in adopting two base ROEs in this proceeding.[101] The Complainants, EMCOS, and Trial

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[97] The refund period is the 15-month period commencing on the refund effective date established in an FPA section 206 proceeding. In this case, the refund period is October 1, 2011 (i.e., the refund effective date) through December 31, 2012.

[98] Initial Decision, 144 FERC ¶ 63,012 at P 585. The Presiding Judge adopted the NETOs' values for both time periods, establishing base ROEs of 10.6 percent for the refund period and 9.7 percent for the prospective period. *Id.*

[99] *See id.* P 585 (citing NETOs June 6, 2013 Initial Brief at 19).

[100] Initial Decision, 144 FERC ¶ 63,012 at P 585.

[101] Complainants Brief on Exceptions at 19; EMCOS Brief on Exceptions at 19; Trial Staff Brief on Exceptions at 77.

Staff contend that the Commission uses the term "locked-in period" to describe two specific situations, neither of which are present in this case: (1) the rate being litigated has been superseded or is no longer in effect,[102] or (2) significant time has elapsed between the closing of the record and when the Commission issues its order.

58. The Complainants argue that FPA section 206(b) makes clear that the just and reasonable rate to be used in calculating refunds and the just and reasonable rate to be observed prospectively are the same,[103] and this is confirmed by the legislative history of the Regulatory Fairness Act through which that refund provision was added to the FPA.[104] The Complainants also argue that the Initial Decision's establishment of two base ROEs is contrary to Commission precedent clearly indicating that the Commission establishes a single zone of reasonableness and a single ROE.[105] The Complainants

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[102] Complainants Brief on Exceptions at 21 (citing Opinion No. 501, 123 FERC ¶ 61,047 at P 65, *order on reh'g*, 144 FERC ¶ 61,132); EMCOS Brief on Exceptions at 19-20 (citing Opinion No. 501, 123 FERC ¶ 61,047 at P 65; *Blue Ridge Power Agency v. Appalachian Power Co.*, Opinion No. 363, 55 FERC ¶ 61,509, at 62,785 (1991)); Trial Staff Brief on Exceptions at 80 (citing *S. Cal. Edison Co.*, 139 FERC ¶ 61,042, a P 21 (2012); *S. Cal. Edison Co.*, 137 FERC ¶ 61,016, at P 33 (2011); Opinion No. 501, 123 FERC ¶ 61,047 at P 56; Opinion No. 363, 55 FERC at 62,785).

[103] Complainants Brief on Exceptions at 22-23 (citing *San Diego Gas & Elec. Co. v. Sellers of Ancillary Services Into Markets Operated by the Cal. Indep. Sys. Op. Corp. and Cal. Power Exchange Corp.*, 127 FERC ¶ 61,191, at PP 19-20 (2009)).

[104] Complainants Brief on Exceptions at 23 (citing 134 Cong. Rec. 25,129 (1988) (colloquy of Representatives Gejdenson (D-CT) and Sharp (R-IN)).

[105] Complainants Brief on Exceptions at 27-34 (citing Opinion No. 510, 134 FERC ¶ 61,129, *order on reh'g*, 142 FERC ¶ 61,198; Opinion No. 363, 55 FERC ¶ 61,509, *reh'g granted*, Opinion No. 363-A, 57 FERC ¶ 61,100 (1991), *reh'g granted*, Opinion No. 363-B, 58 FERC ¶ 61,193 (1992); *Golden Spread Elec. Coop., Inc. v. Southwestern Pub. Serv. Co.*, 115 FERC ¶ 63,043, at P 104 (2006), *on exceptions*, Opinion No. 501, 123 FERC ¶ 61,047, at PP 62, 65, n.133; Opinion No. 445, 92 FERC ¶ 61,070; Opinion No. 489, 117 FERC ¶ 61,129; *S. Cal. Edison Co.*, 131 FERC ¶ 61,020, at PP 21, 101, *reh'g denied*, 137 FERC ¶ 61,016, *rev. in part granted in part sub nom. S. Cal. Edison Co. v. FERC*, 717 F.3d 177; *Sw. Pub. Serv. Co.*, 53 FERC ¶ 61,084, at 61,240 (1990), *reh'g denied*, 53 FERC ¶ 61,406 (1990)); Trial Staff Brief on Exceptions at 82 (citing *Golden Spread Elec. Coop., Inc., et al. v. Southwestern Pub. Serv. Co.*, 109 FERC ¶ 61,321, at P 16 (2004); Opinion No. 445, 92 FERC ¶ 61,070).

further assert that the Initial Decision's dual ROE approach would be poor policy because it would add "pointless complexity and gaming to ROE litigation."[106]

59. EMCOS contend that setting a single ROE, even when the DCF data for a refund period differs from the DCF data used to set the ROE, is consistent with the "constantly changing nature of DCF analyses and ROEs."[107] EMCOS further argue that the Initial Decision's rationale for setting two ROEs, i.e., that doing so is necessary to avoid a windfall to ratepayers, ignores the fact that ratepayers only benefit from 15 months of refund protection. Thus, EMCOS assert that the Initial Decision fails to adequately balance the interests of investors and ratepayers.[108]

60. Trial Staff states that a policy of setting two base ROE's in one proceeding would lead to illogical results because a simple shift in the procedural schedule would result in both the initial ROE analysis and the updated ROE analysis being based on data from the refund period. Trial Staff asserts that Commission policy on what constitutes a "locked-in period" should not be based on "a mere happenstance shift of a few months in the procedural schedule of a particular case."[109] Further, Trial Staff argues that *Kern River Transmission Co.*, 126 FERC ¶ 61,034 (2009) (*Kern River*), the one case the NETOs cite in favor of two base ROEs, is distinguishable from this case because *Kern River* involved a full rate case in which the ROE data was from 2008 but the data for the utility's other cost of service elements were based on data from a 2004 test period.[110] Trial Staff asserts that the issue in *Kern River* was the synchronization of data over a five-year period, whereas the instant case involves a four-month difference between the end of the refund period and the end of the six-month data period used for determining the base ROE, and involves no synchronization issues.

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[106] Complainants Brief on Exceptions at 34.

[107] EMCOS Brief on Exceptions at 21 (citing *Bluefield*, 262 U.S. at 693; *Consumer Advocate Div. of the Pub. Serv. Comm'n of West Virginia*, 68 FERC ¶ 61,207, at 61,998 (1994)).

[108] EMCOS Brief on Exceptions at 21-22.

[109] Trial Staff Brief on Exceptions at 79.

[110] Trial Staff Brief on Exceptions at 81 (citing *Kern River Gas Transmission Co.*, 126 FERC ¶ 61,034 (2009) (*Kern River*)).

C. Brief Opposing Exceptions

61. The NETOs argue that the Presiding Judge properly recognized that the base ROE for the refund period should reflect the best record evidence of the cost of equity during that period and the base ROE for the prospective period should be based on the most recent data in the record, and therefore it was appropriate for the Presiding Judge to establish two base ROEs. The NETOs contend that the refund period is a "locked-in period" because the Commission establishes that a rate is "locked-in" when "the rate being litigated has been superseded *or is otherwise no longer in effect*."[111] The NETOs argue that after December 31, 2012 the base ROE for the refund period will no longer be in effect because the base ROE will revert to 11.14 percent[112] until the Commission issues its order on the Initial Decision, at which time the Commission will adjust the base ROE that will apply from the date of the order on the Initial Decision to reflect changes in the 10-year U.S. Treasury bonds.

62. The NETOs also argue that the base ROE for the refund period should reflect the best record evidence of the cost of equity during that period, regardless of whether it is a "locked-in period," and to find otherwise would be contrary to ratemaking principles and precedent.[113] The NETOs argue that the Commission's standard practice in electric ROE cases is to use DCF data from during or before the refund period to establish an ROE for the refund period, and none of the cases cited by the Complainants, EMCOS, or Trial Staff support the proposition that the refund period ROE should be based on DCF data from after the close of the refund period.[114]

63. The NETOs contend that FPA section 206(b) does not preclude establishing separate ROEs for the refund and prospective periods, and that this is demonstrated by the Commission's policy of updating ROEs based on changes in the Treasury bond yields, which regularly produces separate rates for the refund period and the prospective period. Further, the NETOs assert that the legislative history of the Regulatory Fairness

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[111] NETOs Brief Opposing Exceptions at 71 (quoting Opinion No. 501, 123 FERC ¶ 61,047 at P 65) (internal quotations omitted) (emphasis added by NETOs).

[112] However, the NETOs explain that the rate will instead revert to the level determined in Docket No. EL13-33-000 if the pending complaint in that proceeding is not dismissed. NETOs Brief Opposing Exceptions at n.108.

[113] NETOs Brief Opposing Exceptions at 74-76 (citing *Kern River*, 126 FERC ¶ 61,034 at P 57).

[114] NETOs Brief Opposing Exceptions at 77-79.

Act did not change the Commission's regulatory process or rate setting standards, and therefore supports the Commission's standard practice of establishing the ROE based on data from before or during the refund period.[115]

D. Commission Determination

64. We find that it is inappropriate to establish two base ROEs in this proceeding. The Commission's long-standing practice is to establish one base ROE in a proceeding, using one zone of reasonableness.[116] The Commission has only established different ROEs for different time periods in a proceeding based on post-hearing adjustments to reflect post-hearing changes in U.S. Treasury bond yields, but those adjustments must remain within the single zone of reasonableness established in the proceeding. Notably, the Presiding Judge and the NETOs have cited no precedent in which the Commission established two base ROEs, based on two zones of reasonableness, in one proceeding. Our general policy has also been to base the zone of reasonableness on the most recent financial data in the record.[117] Here, the most recent data in the record are the data for a 6-month study period from October 2012 through March 2013.[118] This data is reasonably representative of the refund period, as it includes the last three months of that period.

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[115] NETOs Brief Opposing Exceptions at 80-81.

[116] *See, e.g.*, Opinion No. 510, 134 FERC ¶ 61,129, *order on reh'g*, 142 FERC ¶ 61,198; *Sw. Pub. Serv. Co.*, 53 FERC at 61,240, *reh'g denied*, 53 FERC ¶ 61,406.

[117] *See, e.g.*, Opinion No. 489, 117 FERC ¶ 61,129 at P 28; *Sw. Pub. Serv. Co.*, 53 FERC at 61,240, *reh'g denied*, 53 FERC ¶ 61,406. In *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 21 (2010), the Commission did not permit use of updated financial data not available at the time of the utility's filing, and instead relied solely on the U.S. Treasury bond adjustment to update the utility's ROE. However, as discussed *infra*, section VII, we are changing our practice to no longer apply the U.S. Treasury bond adjustment, and instead will determine ROE based on the most recent financial data in the record, including post-test period data.

[118] We acknowledge that Trial Staff submitted DCF data for the 6-month period ending April 2013; however, Trial Staff only provided data for the companies in their own regional proxy group. Thus, the data for the period October 2012 through March 2013 are the most recent DCF data in the record for all companies in the national proxy group.

65. The NETOs nevertheless argue that it is appropriate to establish two base ROEs in this proceeding based on two different zones of reasonableness because the refund period is a locked-in period. We disagree. The NETOs assert that the rate being litigated "is no longer in effect," positing that their base ROE will revert to 11.14 percent at the end of the refund period or that the Commission may adjust the base ROE upon issuance of the instant order to reflect changes in U.S. Treasury bond yields. These arguments are not persuasive.

66. Section 206(b) of the FPA provides that

> [a]t the conclusion of any proceeding under this section, the Commission may order refunds of any amounts paid, for the period subsequent to the refund effective date through a date fifteen months after such refund effective date, in excess of those which would have been paid under the just and reasonable rate . . . which the Commission orders to be thereafter observed and in force.[119]

That the NETOs' need not pay refunds between the end of the fifteen-month refund period and the conclusion of the proceeding is purely a matter of refund liability in the context of a section 206 proceeding, it does not require separate ROEs. In other words, that refunds may only be ordered for fifteen months does not mean that two ROEs are required.

67. The Commission's decision at the end of an FPA section 205 proceeding to update a base ROE to reflect changes in capital market conditions following that proceeding similarly does not dictate that the Commission must set a separate, entirely new ROE to be effective prospectively. When the Commission applies its Treasury bond adjustment to an open-ended rate established in an FPA section 205 proceeding, it applies that adjustment "for the entire period the rates are in effect—both up to the date of the Commission's decision and subsequently."[120] The same approach – adopting a single ROE – is equally appropriate here. Further, we agree with Trial Staff that it would be poor policy to establish two base ROEs in one proceeding based, e.g., solely on a happenstance shift in a proceeding's procedural schedule.

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[119] 16 U.S.C. § 824e(b) (2012).

[120] *Pac. Gas & Elec. Co.*, 53 FERC ¶ 61,146, at 61,538 (1990). Further, because we are changing our practice to no longer apply the U.S. Treasury bond adjustment, this aspect of the NETOs' argument is moot.

68. The NETOs rely on *Kern River*[121] to argue that Commission policy requires that, where other aspects of a utility's rates are established based on data for a certain time period, those rates should reflect the utility's capital costs during that same period. Therefore, the NETOs argue, their capital costs for the October 2011 to December 2012 refund period must be based on financial data from that period, because the rates they charged during that period reflected their debt and other costs from 2011 to 2012. *Kern River* does not support establishing separate zones of reasonableness for the refund and prospective periods based on the use of financial data from two separate periods. In fact, in *Kern River*, the Commission established a single zone of reasonableness and ROE applicable to both the refund period and prospective period in that NGA section 4 general cost-of-service rate case. In that case, the Commission had to choose between two proxy groups in the record – one based on data from 2004 and one based on data from 2008 – for purposes of determining the pipeline's ROE for all periods. The Commission found that because all other elements of Kern River's rates in that proceeding were being established based on data from a 2004 test year, Kern River's rates should reflect its capital costs from that same time period. Accordingly, the Commission deemed it appropriate to use the data from 2004, rather than data from four years later in 2008, to determine Kern River's cost of equity for both the refund period and going forward. The Commission explained that it would be "internally inconsistent to use debt and equity costs from different periods."[122]

69. Unlike *Kern River*, this proceeding is not a general rate case establishing multiple cost-of-service elements or a utility's weighted cost of capital; rather, it involves only the NETOs' base ROE. Moreover, we are determining the NETOs' cost of capital using data for the six months ending March 2013, which includes the last three months of the refund period; we are not using data from four years after the refund period as some parties sought to do in *Kern River*. As a result, this case does not raise the same types of concerns regarding internal consistency among cost-of-service elements that the Commission faced in *Kern River*. In sum, *Kern River* does not require or support establishing separate ROEs for the refund and prospective periods in this case.

VI. Application of the Two-Step DCF Methodology in This Case

A. General DCF Methodology Issues

70. As discussed below, we affirm the Presiding Judge's finding that the calculation of dividend yields by the Complainants' witness was incorrect and contrary to Commission

[121] *See Kern River*, 126 FERC ¶ 61,034.

[122] *Id.* P 57.

policy, and we describe below the correct method of calculating the average dividend yield to be used in the two-step DCF methodology. We also affirm the Presiding Judge's findings concerning the appropriate sources of dividend growth data to be used in a DCF analysis.

1. Calculation of Dividend Yields

i. Initial Decision

71. The Presiding Judge concluded that the NETOs' witness correctly calculated the average high and low dividend yield for each member of the proxy group for the six-month period,[123] and then correctly increased these yields by one-half of the high and low growth rates to convert them to adjusted dividend yields.[124] The Presiding Judge explained that the dividend yields the NETOs' witness calculated in his April 26, 2013 testimony represent the latest monthly dividend yields available at the time he prepared his testimony, and should be used for the ROE analysis.[125]

72. The Presiding Judge stated that the NETOs' witness and Trial Staff's witness calculated their dividend yields in accordance with Commission policy,[126] where each company's high and low dividend yields are calculated for each month of the six-month dividend yield period. The Presiding Judge explained that the high and low dividend yields for a given month are equal to the current annualized dividend divided by the lowest stock price on any day in the month and the current annualized dividend divided by the highest stock price on any day in the month, respectively. The Presiding Judge further explained that the respective high and low dividend yields for the six-month dividend yield period is then equal to the average of the six monthly high or low dividend yields.[127] The Presiding Judge found that the Complainants' witness did not use the

[123] Initial Decision, 144 FERC ¶ 63,012 at P 559 (citing Ex. NET-300 at 30).

[124] Initial Decision, 144 FERC ¶ 63,012 at P 559 (citing *Pepco Holdings, Inc.*, 124 FERC ¶ 61,176, at P 119 (2008)).

[125] Initial Decision, 144 FERC ¶ 63,012 at P 560.

[126] *Id.* P 561 (citing *Appalachian Power Co.*, 83 FERC at 62,350).

[127] Initial Decision, 144 FERC ¶ 63,012 at P 561 (citing Ex. S-1 at 40-41; Ex. NET-300 at 30).

Commission's long-standing methodology for calculating the dividend yield,[128] and as a result, those dividend yields and the associated DCF results are fatally defective.

ii. Brief on Exceptions

73. Complainants contend that the difference in how the four witnesses calculated the dividend yields involved the sequence in which daily stock prices were identified and sorted to identify the six past months' high and low averaged share prices. The Complainants state that their witness relied on the monthly dividend yields reported by *AUS Utility Reports*, which calculates those yields based on the daily share price at the middle of each month. The Complainants' witness then used the highest of the dividend yields reported by *AUS Utility Reports* for the six relevant months as the high dividend yield, and the lowest of the six dividend yields as the low dividend yield. Complainants state that the difference between the method used by their witness and the method used by the NETOs and Trial Staff is a minor one that does not materially affect any conclusion. Complainants further state that Dr. Woolridge's method of relying on dividend yields reported by a third-party source has an advantage over the other method in that the yields are available to and widely relied upon by investors.[129]

iii. Briefs Opposing Exceptions

74. NETOs agree with the Presiding Judge's determination that Dr. Avera calculated the dividend yields in accordance with Commission policy.[130] NETOs also agree with the Presiding Judge's rejection of Dr. Woolridge's dividend yield calculations because they contain a serious methodological error.[131] NETOs contend that, while Complainants seek to salvage Dr. Woolridge's dividend yields by asserting that his method is "consistent with practices that the Commission has applied in performing its own dividend yield analyses," the cases Complainants cite are contrary to this argument. NETOs argue that the Complainants' attempt to minimize the error by claiming that the difference between Dr. Avera's and Dr. Woolridge's approaches is "immaterial." NETOs further argue that the Appendix that the Complainants attach to their brief, which

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[128] Initial Decision, 144 FERC ¶ 63,012 at P 562 (citing *Appalachian Power Co.*, 83 FERC at 62,350 (where the Commission cited its policy that dividend yields should be based upon the average high and low dividend yield for the six-month period)).

[129] Complainants Brief on Exceptions at 93.

[130] NETOs Brief Opposing Exceptions at 53-54.

[131] *Id.* at 56.

substitutes Dr. Avera's dividend yield data for Dr. Woolridge's, only addresses the April 17, 2013 proxy group, upon which Dr. Woolridge no longer relies. NETOs further state that the Appendix only shows Dr. Avera's dividend yields for the companies that are common to both proxy groups. They note that the one company missing from the Appendix, Unisource Energy Corp. (Unisource Energy), is the company that forms the high end of Dr. Woolridge's proxy group. Finally, NETOs argue that the dividend yield for Unisource Energy shown in Dr. Woolridge's analysis is incorrect, and thus Dr. Woolridge's April 17, 2013 DCF range and midpoint are wrong.[132]

iv. Commission Determination

75. As discussed in the preceding section, the dividend yield calculations in this case should be based on financial data for the six-month period ending March 2013.[133]

76. While the parties dispute the Presiding Judge's determination regarding the calculation of high and low dividend yields, that issue is mooted by our application of the two-step DCF methodology to public utilities. The two-step DCF methodology does not require the calculation of high and low dividend yields; rather, it requires the calculation of a single dividend yield for each member of the proxy group.[134] However, we do agree with the Presiding Judge that the Complainants improperly based their dividend yield calculations on the monthly dividend yields reported by *AUS Utility Reports*, which apparently calculates those yields based on the daily share price at the middle of each month. Rather than rely on dividend yields published in a newsletter that has not been shown to be widely relied on by investors, we find that it is more accurate to directly calculate dividend yields based on actual stock prices reported by the New York Stock Exchange or NASDAQ, and the company's own indicated dividends. Moreover, we find that our reliance on an average of the high and low stock prices for each month, as described below, produces a dividend yield that is more representative of financial

[132] *Id.* at 56-58 (citing *Consumers Energy Co.*, 98 FERC ¶ 61,333, at 62,416 (2002); *Orange & Rockland Utils., Inc.*, 40 FERC ¶ 63,053, at 65,202 (1987) (calculating the average monthly dividend yield for each month), *on exceptions*, Opinion No. 314, 44 FERC at 61,953, n.17, *order on reh'g*, Opinion No. 314-A, 45 FERC ¶ 61,252; *Conn. Light & Power Co.*, Opinion No. 305-A, 45 FERC ¶ 61,370, at 62,162 (1988) (calculating the average of the high stock prices for each month and the average of the low stock price for each month)).

[133] Initial Decision, 144 FERC ¶ 63,012 at P 559 (citing Ex. NET-300 at 30; Ex. NET-304 at note (a); Ex. NET-702 – UPDATED at note (a)).

[134] *See* Opinion No. 510, 134 FERC ¶ 61,129 at PP 232-234.

conditions during the entire month than is the *AUS Utility Report's* reliance on a single day's stock price from the middle of the month.

77. Accordingly, we find that the dividend yields of the proxy companies in this case should be calculated in the same manner that the Commission has consistently calculated dividend yields when applying the two-step DCF methodology. That methodology derives a single dividend yield for each proxy group company, using a three step process: (1) averaging the high and low stock prices as reported by the New York Stock Exchange or NASDAQ for each of the six months in the study period; (2) dividing the company's indicated annual dividend for each of those months[135] by its average stock price for each month (resulting in a monthly dividend yield for each month of the study period); and (3) averaging those monthly dividend yields.

78. As the Commission found in *Portland*, the method described above for calculating dividend yield for the two-step DCF methodology is an appropriate method of calculating the average dividend yield because "it matches each average monthly stock price with the actual dividend paid for that month to calculate the actual dividend yields for each of the preceding six months."[136] As the Commission also noted in *Portland*, this method is preferable to calculating the estimated dividend yield for each proxy group member based only on the dividend declared in the final month of the period. Using only the dividend declared in the final month results in a mismatch between the stock prices and the dividends used to calculate a firm's dividend yield. This can result in overstated dividend yields, particularly when a firm raises it dividends or distributions during the six-month study period, because earlier stock prices do not reflect the increased value of the stock resulting from the increased dividend or distribution.[137]

2. Acceptable Sources of Analyst Growth Rate Data

i. Initial Decision

79. For the prospective period, the Presiding Judge adopted the NETOs' growth rate estimates from the October 2012 to March 2013 study period,[138] which were based on

[135] In Opinion No. 510, the Commission approved the use of the most recent dividend declared by the relevant company to determine the "indicated annual dividend" for each of the six months.

[136] Opinion No. 510, 134 FERC 61,129 at P 234.

[137] *Id.* P 234.

[138] Initial Decision, 144 FERC ¶ 63,012 at P 565.

five-year IBES growth rates published by *Yahoo! Finance*.[139] The Presiding Judge noted that the Commission has previously relied on IBES growth rate projections published by *Yahoo! Finance* for many years.[140] The Presiding Judge also adopted the NETOs' position that, in order for an IBES growth projection to be used, *Yahoo! Finance* must indicate that at least two analysts cover the electric utility in question.[141] The Presiding Judge rejected Trial Staff's proposal to use growth projections from the Reuters Estimates Database (RED) when necessary, to assure that the growth projection is based on the estimate of more than one analyst.

80. Consistent with the Presiding Judge's holdings on the appropriate sources of analyst growth projections, the Presiding Judge adopted the NETOs' proposed 8.07 percent IBES growth projection in *Yahoo! Finance* for UIL Holdings. The Presiding Judge rejected Trial Staff's proposed 6.03 percent growth projection for UIL Holdings based on the average of two analyst growth projections in RED, one of 4.0 percent and one of 8.07 percent. The Presiding Judge agreed with the NETOs that it was more likely than not that the 4.0 percent growth projection in RED was a stale projection from one year ago, because RED indicated that the mean growth projection from one year before was 4.0 percent. The Presiding Judge further found that, whether only one or two analysts projected 8.07 percent growth for UIL Holdings, the fact that growth projection was reported in both IBES and RED was sufficient to confirm its use in this proceeding.[142]

ii. Briefs on Exceptions

81. Trial Staff takes issue with exclusive reliance on IBES analyst growth rate estimates published by *Yahoo! Finance*, arguing that the estimates are unreliable and stale.[143] Trial Staff states that *Yahoo! Finance* does not provide information regarding the number of analysts contributing to the IBES growth projection or the date of the growth projections. However, Trial Staff states, Thomson Reuters on Demand, which publishes the same IBES growth projections as *Yahoo! Finance*, also provides both the number of analysts contributing to each IBES growth projection and the age of those

[139] *Id.* P 552.

[140] *Id.* P 566.

[141] *Id.* P 544.

[142] *Id.* P 596 n.85.

[143] Trial Staff Brief on Exceptions at 62-66.

projections. Trial Staff argues that the use of a single analyst growth rate projection is inconsistent with the Commission's preference for consensus, two-analyst estimates.[144] Therefore, Trial Staff contends that, when Thomson Reuters on Demand indicates that the IBES growth rate reflects the view of only one analyst, the RED mean analyst growth rate should be used instead. Trial Staff states that RED is published on Thomson Reuter's website *reuters.com*, which is a free public website with different employees from Thomson Reuters on Demand. That website provides (1) RED analyst growth estimates, (2) the number of analysts contributing to the mean estimate, (3) the high and low estimate, and (4) the mean estimate one year ago.

82. Trial Staff argues that the Initial Decision contains no citations to support the Presiding Judge's finding that Commission policy mandates use of IBES data to the exclusion of any other source. Further, Trial Staff states that in Opinion No. 489 the Commission noted that the presiding judge in that case was not precluded "from finding candidates for inclusion in the proxy group for which comparable data can be reasonably substituted for the growth rate data reported by IBES."[145] Trial Staff argues that the Commission has not specifically addressed the quality of the growth rate estimates as sourced from the *Yahoo! Finance* website and for this reason the Commission has never previously determined whether another source should also be used when IBES data turns out to be stale or not based on consensus estimates.[146]

83. Complainants similarly contend that although the Commission has previously referenced IBES forecasts obtained from *Yahoo! Finance*, it has made clear that this approval is not exclusive of other credible sources.[147] Complainants contend that Trial Staff's approach of turning to Reuters when IBES reports only one analyst's long-term growth estimate is a better way to handle the unprecedented circumstance of a single analyst's forecast which threatens to drive the high or low cost of equity estimate.[148]

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[144] *Id.* at 67-69.

[145] *Id.* at 64-65 (citing Opinion No. 489, 117 FERC ¶ 61,129 at P 8, *order on reh'g*, 122 FERC ¶ 61,265, *order granting clarification*, 124 FERC ¶ 61,136 (2008)).

[146] Trial Staff Brief on Exceptions at 66 (citing *Proxy Group Policy Statement*, 123 FERC ¶ 61,048 at PP 83-84 (conditionally allowing, but not requiring, reference to growth forecasts published by Yahoo), *reh'g denied*, 123 FERC ¶ 61,259 (2008)).

[147] Complainants Brief on Exceptions at 71.

[148] *Id.* at 72-73.

84. Trial Staff, Complainants, and the EMCOS also oppose the Presiding Judge's acceptance of the NETOs' proposal to use the IBES 8.07 percent growth rate for UIL Holdings. Trial Staff states that the use of a single analyst's growth rate projection for UIL Holdings is inconsistent with the NETOs' assertion that a public utility must be covered by two analysts to be included in the proxy group.[149] Trial Staff also disagrees with the Presiding Judge's conclusion that RED data supports the latest IBES growth projection for UIL Holdings of 8.07 percent. Trial Staff states that the RED data indicates a proper consensus growth estimate of 6.03 percent, based on two analysts' estimates, one of 8.07 percent and one of 4.0 percent. Trial Staff also disputes the Presiding Judge's conclusion that the 4.0 percent growth rate estimate is stale.[150] While the RED data shows that the estimate for one year ago was 4.0 percent, it does not state that the current 4.0 estimate is the same year-old estimate. Moreover, Trial Staff argues that the time periods for the growth rate estimates and the dividend yields were not synchronized, and that this could lead to distorted results.[151]

85. Complainants and EMCOS argue that the Presiding Judge's reliance on the UIL Holdings IBES growth rate from *Yahoo! Finance* was in error since it was based on a single analyst's estimate, the estimate was attributed too much weight, the application of the estimate was asynchronous with the dividend yields period, and an adjustment should have been made to avoid double-counting transmission incentives.[152] EMCOS further argues that the Presiding Judge erred in not using growth rate sources that it put forth for UIL Holdings, including Zacks and DailyFinance.com.[153]

iii. Briefs Opposing Exceptions

86. The NETOs argue that the Presiding Judge was correct to accept their use of IBES growth rate estimates from *Yahoo! Finance*, because the Commission has routinely relied on *Yahoo! Finance* as a source of IBES growth rate data.[154] The NETOs state that the

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[149] Trial Staff Brief on Exceptions at 67-70.

[150] *Id.* at 70-72.

[151] *Id.* at 73-74.

[152] Complainants Brief on Exceptions at 67-78; EMCOS Brief on Exceptions at 25-27.

[153] EMCOS Brief on Exceptions at 24.

[154] NETOs Brief Opposing Exceptions at 34.

Presiding Judge was correct to adopt the NETOs' proxy group screening criteria requiring that all proxy group members be "[e]lectric utilities that are covered by at least two industry analysts."[155] However, the NETOs state, this requirement does not mean that the IBES growth projection must be based on growth projections of more than one analyst. The NETOs explain that *Yahoo! Finance* indicates how many analysts cover a particular electric utility, but it does not identify the number of analysts contributing to its growth rate estimates.[156] Nevertheless, the Commission has consistently relied on IBES growth projections in *Yahoo! Finance* and has never required that IBES growth rates used in the DCF calculation be based on estimates provided by two analysts, and the Commission did not require it in *Atlantic Path15* or *Southern California Edison* or any other case.

87. NETOs also take issue with Trial Staff's reliance on data from RED, noting that the Commission will rely on such data only when IBES data is not available.[157] NETOs support the Presiding Judge's use of the most recent growth rate data even though it was submitted after the deadline for submitting final DCF results, because the Presiding Judge allowed parties to submit additional testimony on the issue.[158] NETOs argue that the more recent data on UIL Holdings indicates that the investment community changed its view of UIL Holdings's growth prospects.[159] NETOs disagree with Trial Staff that there was an inconsistency between the UIL Holdings growth rate and dividend data used in the DCF analysis; that the Presiding Judge used the wrong updated data; that two sources of long-term growth data are required for a company to remain in the proxy group; and that the Commission should reject the use of *Yahoo! Finance* growth estimates in this proceeding.[160] Finally, NETOs argue that the Commission should affirm the Presiding Judge's rejection of the Complainants' incentive adjustment to UIL Holdings's growth rate.[161]

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[155] *Id.* at 16 (emphasis removed).

[156] *Id.* at 16-19.

[157] *Id.* at 35-36 (citing *Proxy Group Policy Statement*, 123 FERC ¶ 61,048 at P 84).

[158] NETOs Brief Opposing Exceptions at 38-39.

[159] *Id.* at 40.

[160] *Id.* at 41-44.

[161] *Id.* at 50.

iv. Commission Determination

88. We affirm the Presiding Judge's adoption of the NETOs' five-year IBES growth rate data contained in its witness's April 26, 2013 testimony. The growth rate used in the DCF model should be the growth rate expected by the market. That growth rate may not necessarily prove to be the correct growth forecast, but the cost of common equity to a regulated enterprise depends upon what the market expects, not upon what ultimately happens. Accordingly, it is appropriate to look to the most recent record evidence of the growth rates actually expected by the investment community.[162]

89. The Commission has long relied on IBES growth projections as evidence of the growth rates expected by the investment community.[163] Since the discontinuation of the IBES Monthly Summary Data Book in 2008, the Commission has consistently used IBES growth rate estimates published by *Yahoo! Finance* as the source of analysts' consensus growth rates.[164] The NETOs have provided the requisite IBES growth rate figures published by *Yahoo! Finance* for every company in the national proxy group we adopt later in this order.[165]

90. We reject Trial Staff's proposal to use RED growth projections published by *reuters.com* for some of the proxy companies in place of the *Yahoo! Finance* IBES growth projections. Although the Commission has previously stated that "comparable data can be reasonably substituted for the growth rate data reported by [IBES] or Value

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[162] *See Kern River*, 126 FERC ¶ 61,034 at P 120; *Proxy Group Policy Statement*, 123 FERC ¶ 61,048 at P 73; *Transcon. Gas Pipe Line Corp.*, 85 FERC at 61,268-69.

[163] *See, e.g.*, *RITELine Ill., LLC*, 137 FERC ¶ 61,039, at P 68 (2011); *N. Pass Transmission LLC*, 134 FERC ¶ 61,095, at P 46 (2011); *Pub. Serv. Elec. & Gas Co.*, 126 FERC ¶ 61,219, at P 62 (2009); Opinion No. 445, 92 FERC at 61,257.

[164] *See, e.g.*, *N. Pass Transmission LLC*, 134 FERC ¶ 61,095 at P 52 (approving proxy selection criteria that required available IBES and Value Line data); *RITELine Ill., LLC*, 137 FERC ¶ 61,039 at P 71; *Pioneer Transmission, LLC*, 126 FERC ¶ 61,281, at P 92 (2009); *Pub. Serv. Elec. & Gas Co.*, 126 FERC ¶ 61,219 at P 62 (approving a screen which excluded companies for which no IBES or Value Line data is available).

[165] The workpapers provided by the NETOs' witness do not include an IBES growth projection for CH Energy Group, and therefore that company will not be included in the proxy group. *See* Ex. NET-702 – UPDATED; NETOs, "Workpapers for the Respondents' Supplemental Testimony of Dr. William Avera under EL11-66" (dated Apr. 19, 2013).

Line" when the IBES growth rate figures are not available,[166] that is not the case here, because the NETOs have provided IBES growth data for all relevant companies. The Presiding Judge correctly found that the Commission has never required that there be two (or more) analysts' long-term growth rates for a company in order for it to be included in a proxy group. Trial Staff has only provided RED growth estimates for the few companies for which it asserts the IBES growth projection only reflects the view of one analyst. As a result, it is not possible to use RED growth estimates for all the companies in the proxy group. We find that an alternate source of growth rate data should only be used when that source can be used for the growth projections of all of the proxy group companies. Using different sources of growth rate data for different companies in a proxy group could produce skewed results, because those sources may take different approaches to calculating growth rates. Moreover, while the sources of growth rate data often rely on many of the same analysts in publishing their estimates, the different sources may use slightly different time periods from one another. For this reason, the Commission has consistently used a single investor service such as IBES for the investment analysts' growth rate estimate.[167] Therefore, while we reaffirm that there may be more than one valid source of growth rate estimates, in order to ensure that growth rate estimates are internally consistent in an ROE analysis we find it inappropriate to use estimates from different sources for different proxy group companies.

91. Consistent with the above discussion, we also find that the Presiding Judge correctly adopted the NETOs' proposed 8.07 percent IBES growth projection in *Yahoo! Finance* for UIL Holdings. While Thomson Reuters on Demand indicates that the UIL Holdings IBES growth rate reflects the view of only one analyst, we are not persuaded that investors would place less weight upon that IBES growth rate than the other IBES growth projections in *Yahoo! Finance*, which Trial Staff recognizes is a popular website for investors.[168]

B. Composition of the Proxy Group

92. In this section we address the following issues concerning the proper methodology for developing a proxy group and calculating the zone of reasonableness: (1) the use of a national group of companies considered electric utilities by Value Line; (2) the inclusion

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[166] *See, e.g.*, *ISO New England, Inc.*, 109 FERC ¶ 61,147, at P 205 (2004); *ISO New England, Inc.*, 110 FERC ¶ 61,111, at P 23 (2005).

[167] *See, e.g.*, *RITELine Ill., LLC*, 137 FERC ¶ 61,039 at P 68; *N. Pass Transmission LLC*, 134 FERC ¶ 61,095 at P 46; *S. Cal. Edison Co.*, 92 FERC at 61,263.

[168] Trail Staff Brief on Exceptions at 62.

of companies with credit ratings no more than one notch above or below the utility or utilities whose rate is at issue; (3) the inclusion of companies that pay dividends and have neither made nor announced a dividend cut during the six-month study period; (4) the inclusion of companies with no major merger activity during the six-month study period; and (5) companies whose DCF results pass threshold tests of economic logic.

1. National Proxy Group vs. Regional Proxy Group

i. Initial Decision

93. The Presiding Judge found it appropriate to use a national proxy group, rather than a regional proxy group, explaining that "the current financial and market conditions are better served by use of a more diverse national proxy group."[169] The Presiding Judge adopted the national proxy group produced by the NETOs' DCF analysis. The Presiding Judge noted that, although Opinion No. 489 happened to involve use of a regional proxy group, the Commission did not expressly prohibit use of a national proxy group, and that the Commission has found national proxy groups preferable.[170] However, the Presiding Judge agreed with the NETOs that, because several of the NETOs either do not have credit ratings or have Moody's credit ratings two notches lower than their S&P credit ratings, a national proxy group is more reflective of the NETOs than is a regional proxy group.[171] The Presiding Judge found that the NETOs' proxy group substantially complies with Commission precedent,[172] but that Trial Staff's proxy group was deficient because it relied primarily on companies that are significantly larger than most of the NETOs.[173]

ii. Briefs on Exceptions

94. EMCOS argues that using a large national proxy group could include outliers that will skew the ROE analysis, and that this concern is even more pressing when using the

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[169] Initial Decision, 144 FERC ¶ 63,012 at P 551 n.49.

[170] *Id.*

[171] *Id.*

[172] *Id.* P 553 (citing *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at PP 32, 51 (using same proxy group criteria as Dr. Avera, but also requiring minimum revenues of $1 billion, which is inapplicable here given the NETOs' sizes).

[173] Initial Decision, 142 FERC ¶ 63,007 at P 554.

midpoint as the measure of central tendency.[174] Trial Staff argues that the Commission has never applied a national proxy group to estimate the base ROE for a diverse group of utilities[175] and Commission policy favors the use of a regional proxy group.[176] Trial Staff argues that its regional proxy group is the best reflection of the appropriate quality, span, and distribution of the NETOs' diverse risks.[177] Trial Staff further argues that pivotal issues in the Initial Decision include recognition of both S&P and Moody's credit ratings, and Ms. Lapson's presumption that unrated entities should be presumed to have near-junk or junk ratings of BBB- and lower.[178] Trial Staff explains that the Commission has found that it is appropriate to use a corporate credit rating screen of all investment grade companies when an applicant has no credit rating of its own.[179] Trial Staff argues that the Presiding Judge and the NETOs both failed to establish any relationship between the Morningstar market capitalization theory and the *Hope* and *Bluefield* goals, nor did they establish how "size" should be weighed against credit ratings in evaluating risk in this case. Trial Staff contends that the record does not support "size" as a superior criterion to credit ratings for determining a company's business and financial risk, and argues that credit ratings are the superior measure for developing comparable risk proxy groups.[180]

iii. Briefs Opposing Exceptions

95. The NETOs argue that the Presiding Judge correctly ruled that Commission precedent favors the use of a national proxy group, and that their national proxy group is more representative of the NETOs than Trial Staff's regional group.[181] NETOs contend that Trial Staff's regional proxy group selection is inappropriate because: (1) it cannot

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[174] EMCOS Brief on Exceptions at 29-30 (citing *S. Cal. Edison Co.*, 137 FERC ¶ 61,016 at P 21, *aff'd sub nom. S. Cal. Edison Co. v. FERC*, 717 F.3d 177).

[175] Trial Staff Brief on Exceptions at 18.

[176] *Id.* at 18-19.

[177] *Id.* at 44.

[178] *Id.* at 40.

[179] *Id.* at 37-41 (citing *Atl. Grid Operations A LLC*, 135 FERC ¶ 61,144 at P 88 n.55).

[180] Trial Staff Brief on Exceptions at 30-31.

[181] NETOs Brief Opposing Exceptions at 6-7, 22-23.

fairly be called a regional proxy group for New England; (2) the Commission has never rejected a DCF study using a national proxy group; (3) there is no economic basis for comparable risk to be tied to the measure of central tendency; (4) the NETOs must compete for equity capital with utilities world-wide; and (5) it is not representative of the NETOs' business and financial risks.[182]

iv. Commission Determination

96. We find that it is appropriate to use a national proxy group, and we therefore affirm the Initial Decision's adoption of the NETOs' national proxy group.[183] Whether it is more appropriate to use a national proxy group or a regional proxy group is a question of capital attraction and comparability of risk.[184] We agree that "the NETOs must compete for capital with other utilities (and companies in other sectors) throughout the nation,"[185] and that investors are not limited to investments in geographically adjacent states but instead participate in national or international capital markets.[186] If the NETOs' ROE is significantly less than the returns of utilities in other parts of the nation, capital will more readily flow to areas other than New England and the NETOs may not be able to attract sufficient capital consistent with the *Hope* and *Bluefield* standards. Further, widening the geographic range of the proxy group allows for the application of more stringent screening criteria, to refine the proxy group to a level of risk more comparable, while maintaining a group of proxy companies that is sufficiently large and diverse to reliably capture the range of reasonable returns.[187] Moreover, in determining

[182] *Id.* at 7-11.

[183] *See* Initial Decision, 144 FERC ¶ 63,012 at P 541 n.49.

[184] *See generally Proxy Group Policy Statement*, 123 FERC ¶ 61,048 at P 48 ("[T]he purpose of the proxy group is to 'provide market-determined stock and dividend figures from public companies comparable to a target company for which those figures are unavailable.[']. . . It is thus crucial that the firms in the proxy group be comparable to the regulated firm whose rate is being determined. In other words, as the court emphasized in *Petal*, the proxy group must be 'risk-appropriate.'") (quoting *Petal Gas Storage, L.L.C. v. F.E.R.C.*, 496 F.3d 695, 699 (D.C. Cir. 2007) (*Petal Gas*)).

[185] *Proxy Group Policy Statement*, 123 FERC ¶ 61,048 at P 434.

[186] *Id.* P 443.

[187] *See* Initial Decision, 144 FERC ¶ 63,012 at P 71.

comparability of financial and business risks, financial data is much more probative than geographical proximity.[188]

2. Value Line Electric Utilities

i. Initial Decision

97. The Presiding Judge found that the NETOs' use of *Value Line*'s electric utilities list as a proxy screen is consistent with Commission policy.[189] The Presiding Judge found that the Complainants' proposed proxy group is deficient, because they required that each proxy group company be followed by multiple financial services companies, which the Commission has never required.[190]

ii. Briefs on Exceptions

98. Complainants argue that the Presiding Judge should have accepted their use of *AUS Utility Reports* instead of *Value Line* as a proxy group screen, as well as their elimination of proxy companies that do not derive at least 50 percent of their revenues from regulated electric operations[191]

iii. Briefs Opposing Exceptions

99. The NETOs state that the Presiding Judge properly rejected the Complainants' requirements that the proxy group members be included in *AUS Utility Reports* and derive 50 percent of their revenues from regulated electric utility operations. The NETOs argue that their proxy group criteria already screen out companies that investors do not consider to be electric utilities by excluding companies not included in *Value Line*'s electric utility industry group. The NETOs further argue that Dr. Woolridge's 50 percent

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[188] *See S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 29 ("We are persuaded by the parties that using a national proxy group in this case complies with the *Hope* standard of risk that is necessary 'to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.'") (quoting *Hope*, 320 U.S. at 603).

[189] Initial Decision, 144 FERC ¶ 63,012 at P 552 (citing *Atl. Path 15, LLC*, 122 FERC ¶ 61,135 at P 20, *order on reh'g*, 133 FERC ¶ 61,153 (2010); *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at PP 32, 51).

[190] Initial Decision, 144 FERC ¶ 63,012 at P 554.

[191] Complainants Brief on Exceptions at 90-91.

electric revenue test does not follow the Commission's decision in Docket No. ER04-157. Specifically, the NETOs contend that UGI Corporation (UGI) was excluded in that case because its regulated electric utility revenues were less than 5 percent of its total revenues and it was not classified as an electric utility by *Value Line*. The NETOs claim that the Commission did not establish a bright line revenues test in that case, nor has it ever done so.[192]

iv. Commission Determination

100. We affirm the Initial Decision's use of *Value Line* data as a proxy group screen. The Commission has previously relied on *Value Line*'s electric utility group listing to determine whether a company's risks warrant its exclusion from the electric proxy group.[193] We reject the Complainants' use of *AUS Utility Reports* instead of Value Line. The Commission has never relied upon *AUS Utility Reports* and we are not persuaded that it is appropriate to do so now. Unlike *Value Line*, which is an investment-oriented publication, *AUS Utility Reports* is a service published primarily for regulators and is not typically relied upon by investors.[194]

101. We also reject the Complainants' requirement that a company derive at least 50 percent of its revenues from regulated electric utility operations. The Commission has never applied a percentage threshold related to revenue sources, as determined by *AUS Utility Reports* or any other outlet, beyond which a utility is no longer considered an electric utility. While the Complainants correctly state that the Commission in Docket No. ER04-157 excluded UGI because it "receive[d] less than 5 percent of its revenue from its regulated electric utility operations," and was primarily a gas company rather than an electric company,[195] the Commission did not establish a percentage threshold for revenue sources. The Commission instead focused on the fact that UGI's risk profile was

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[192] NETOs Brief Opposing Exceptions at 19-21 (citing *Bangor Hydro-Elec. Co.*, 111 FERC ¶ 63,048, at PP 29, 58, 61 (2005), *order on initial decision*, Opinion No. 489, 117 FERC ¶ 61,129 at PP 34, 37-38, *order on reh'g*, 122 FERC ¶ 61,265, *order granting clarification*, 124 FERC ¶ 61,136 (2008)).

[193] *See Atl. Grid Operations A LLC*, 135 FERC ¶ 61,144 at P 96; *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 51.

[194] Ex. NET-300 at 116.

[195] Complainants Brief on Exceptions at 91.

"significantly different than the risk profile of an electric utility company and the other companies in the proxy group."[196]

102. We therefore find that the appropriate starting point for the two-step DCF methodology will be the 49 companies, from across the United States, that *Value Line* classifies as being in the electric utility industry.[197] We accept the *Value Line* industry classifications because *Value Line* is a widely-followed, independent investor service; as there may be other reliable sources that investors rely upon, we will not mandate the use of *Value Line* in all cases, and will consider the use of other sources shown to be reliable and commonly relied upon by investors.

3. Credit Ratings

i. Initial Decision

103. The Presiding Judge found that it was appropriate for the NETOs to screen their proxy group to exclude public utilities with corporate credit ratings more than one notch above and below the subject utilities to be appropriate for use in this case, because the Commission has used this as screening criterion in previous cases.[198] The Presiding Judge also found that Trial Staff disregarded this proxy group screen.[199]

ii. Briefs on Exceptions

104. Trial Staff states that it assessed the risk comparability of its regional proxy group using methods consistent with Commission precedent, and the NETOs' adherence to the one-notch risk band convention produces an inferior proxy group for the diverse companies that make up the NETOs.[200] Trial Staff contends that the Commission has

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[196] Opinion No. 489, 117 FERC ¶ 61,129 at P 37, *order on reh'g*, 122 FERC ¶ 61,265, *order granting clarification*, 124 FERC ¶ 61,136 (2008).

[197] *See* NETOs, "Workpapers for the Respondents' Supplemental Testimony of Dr. William Avera under EL11-66" (dated Apr. 19, 2013).

[198] Initial Decision, 144 FERC ¶ 63,012 at P 552, n.51 (citing *RITELine Ill., LLC*, 137 FERC ¶ 61,039 at P 68 (using corporate credit ratings one notch above and below target); *N. Pass Transmission, LLC*, 134 FERC ¶ 61,095 at P 46; *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 51).

[199] Initial Decision, 144 FERC ¶ 63,012 at P 553.

[200] Trial Staff Brief on Exceptions at 34.

only applied the one-notch credit rating screen in establishing a base ROE for a single utility and that it should not be used with a diverse group of utilities because it would result in a five-notch band.[201] Trial Staff argues that the unique circumstances of a diverse group of utilities supports dollar-weighted credit rating analyses, and that the NETOs' proxy group is inappropriately skewed toward higher risk.[202] Further, Trial Staff contends that the NETOs' recognition of both S&P and Moody's credit ratings, and the NETOs' presumption that unrated entities should be presumed to have near-junk or junk ratings, are unprecedented and unsupported.[203] Complainants argue that the Presiding Judge erred in rejecting the Complainants' proxy group because it purportedly used screening criteria "foreign to the FERC jurisdiction."[204]

iii. Briefs Opposing Exceptions

105. The NETOs argue that Trial Staff's claim that the NETOs are "dominantly rated A-/BBB+" is based on a flawed assessment of the NETOs' credit ratings. The NETOs assert that a proper analysis shows that they have an average rating of approximately BBB. The NETOs contend that Trial Staff ignored the presence of unrated entities among the NETOs and failed to consider the fact that the Moody's credit ratings of three of the seven NETOs have an S&P rating two notches lower than their S&P ratings. The NETOs also assert that eight of the 12 NETOs are lower rated than Trial Staff assumes. The NETOs contend that investors rely on both S&P and Moody's ratings and would assign either the lower of the two ratings or the average of the two ratings.[205] The NETOs argue that the Commission does not adopt a specific credit rating for unrated entities, but instead defaults to a comparable risk band of all investment grade utilities.[206]

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[201] *Id.* at 35-36.

[202] *Id.* at 37-39.

[203] *Id.* at 40-44.

[204] Complainants Brief on Exceptions at 88.

[205] NETOs Brief Opposing Exceptions at 23-24.

[206] *Id.* at 26-29 (citing *Atl. Grid Operations A LLC*, 135 FERC ¶ 61,144 at P 88 n.55).

iv. Commission Determination

106. We affirm the Initial Decision's finding that it is appropriate to exclude from the proxy group those utilities with corporate credit ratings more than one notch above or below the NETOs' credit ratings. We reject Trial Staff's argument that the precedent on the credit rating band screen is limited to cases involving single utilities and that the screen should not apply in a case involving multiple utilities. The purpose of the credit rating band screen is to include in the proxy group only those companies whose credit ratings approximate those of the utilities whose rate is at issue. For a diverse group of utilities with a range of credit ratings, that approximation may require a credit rating band spanning more notches than the three that are typical in single utility cases. Further, contrary to Trial Staff's assertion, the Commission has in the past permitted comparable risk bands as wide as five credit notches.[207]

107. We further find that ratings from both major credit ratings services should be considered when developing the comparable risk band. As the NETOs correctly state, investors rely upon credit ratings from both S&P and Moody's. Therefore, while the Presiding Judge's application of the credit rating screen using only S&P ratings is consistent with Commission precedent, basing the credit rating screen on data only from S&P does not necessarily provide an accurate estimate of the NETOs' risk. Thus, we find that, in applying the credit rating proxy group screen to exclude companies more than one notch above or below the NETOs' credit ratings, it is appropriate to use both the S&P corporate credit ratings and the Moody's issuer ratings *when both are available*.[208] If a company is more than one notch above or below the credit ratings of the utilities whose rates are at issue based on *either* the S&P ratings *or* the Moody's ratings, that company shall be excluded from the proxy group.

108. Based upon the NETOs' range of S&P credit ratings from A- to BBB, we affirm the Presiding Judge's finding that the appropriate S&P corporate credit rating band screen in this case spans the five notches from A to BBB-. Based upon the record data that the Moody's credit ratings for the NETOs range from A2 to Baa2, we find that the appropriate Moody's credit rating band screen spans the six notches from A1 to Baa3.[209]

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[207] *See, e.g., Tallgrass Transmission, LLC*, 125 FERC ¶ 61,248, at 62,240 n.79 (2008) ("For both projects, the Commission screened the proxy group for companies with corporate credit ratings of BBB- to A.").

[208] We will not require that a company have both S&P and Moody's ratings to be eligible for inclusion in a proxy group, and we will screen only on the available rating.

[209] We note that the credit rating bands are based on only those NETOs that have credit ratings from S&P or Moody's.

Four of the initial proxy group companies fall outside one or both of these credit rating bands and are, therefore, excluded from the proxy group. Specifically, we exclude MGE Energy because of its AA- S&P rating; NV Energy, Inc. and PNM Resources, Inc. because of their Ba1 Moody's ratings; and Unisource Energy because of its BB+ S&P rating and its Ba1 Moody's rating.

4. Dividend Payments and Cuts

i. Initial Decision

109. The Presiding Judge found that the NETOs appropriately screened from their proxy group any company that has not paid six months of dividends without a dividend cut.[210] The Presiding Judge also found that Trial Staff's and Complainants' proxy groups were deficient because they required that each proxy group member have paid dividends for three years without any cuts.[211]

ii. Briefs on Exceptions

110. Trial Staff states that the significance of the dividend yield screen is highlighted by the Commission's past practice and finance theory on the limitations of the DCF model. Trial Staff explains that its three-year dividend yield criterion is a non-issue because it did not distort the proxy group results or estimated ROE.[212] Complainants argue that the NETOs failed to consistently follow their own dividend yield criterion and kept Exelon Corp. (Exelon) in the proxy group with adjusted dividend yields of 6-7 percent, despite its announcement in February 2013 that it was cutting its dividend effective April 2013.[213]

iii. Briefs Opposing Exceptions

111. NETOs state that the Presiding Judge properly required each proxy group member to have paid six months of dividends and rejected Trial Staff's and Complainants' proposed requirement that each proxy group member have paid steady or rising dividends

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[210] Initial Decision, 144 FERC ¶ 63,012 at P 552.

[211] *Id.* PP 553-554 (citing Opinion No. 501, 123 FERC ¶ 61,047, *order on reh'g*, 144 FERC ¶ 61,132).

[212] Trial Staff Brief on Exceptions at 44-47.

[213] Complainants Brief on Exceptions at 93 (citing Ex. S-5 at 2-3; Ex. S-7 at 48).

for three years.[214] NETOs state that a three-year dividend yield screen would ignore the fact that the DCF model is based on investors' expected return from the current dividend yield and growth, not historical dividend payments. NETOs argue that Complainants' assertion that the Commission excluded Williams Companies in two cases does not support the exclusion of Empire District here, because the Commission excluded Williams Companies due to its particular financial circumstances, not a dividend cut in the DCF analysis period. NETOs further contend Empire District temporarily suspended its dividend due to a one-time, extreme weather event, not because of financial distress.[215]

iv. Commission Determination

112. We affirm the Initial Decision's finding that it is appropriate to include a utility in the proxy group if it has paid six months of dividends and has not made or announced a dividend cut.[216] We agree with the NETOs that a three-year dividend yield screen would be inappropriate because the DCF model is based on investors' required return from current, not historical, estimates of dividend yield and growth. Accordingly, because Empire District's dividend cut took place outside the six-month study period in this proceeding, we find that it was appropriate for the Presiding Judge to include Empire District in the proxy group. However, Exelon announced during the six-month study period that it would be cutting its dividend in April 2013, and we will therefore exclude Exelon from the proxy group.

5. Merger and Acquisition Activity

i. Initial Decision

113. The Presiding Judge found that the NETOs correctly screened their proxy group to exclude companies with ongoing merger and acquisition (M&A) activity. The Presiding

[214] NETOs Brief Opposing Exceptions at 13 (citing Opinion No. 510, 134 FERC ¶ 61,129, *order on reh'g*, 142 FERC ¶ 61,198).

[215] NETOs Brief Opposing Exceptions at 14-16 (citing *Kern River*, 129 FERC ¶ 61,240; *High Island Offshore System, L.L.C.*, 110 FERC ¶ 61,043 (2005), *vacated and remanded on other grounds sub nom. Petal Gas*, 496 F.3d 695.

[216] *See* Opinion No. 510, 134 FERC ¶ 61,129, *order on reh'g*, 142 FERC ¶ 61,198.

Judge noted that this screen has been used by the Commission in previous cases, and is appropriate for use in this case.[217]

ii. Commission Determination

114. We affirm the Initial Decision's acceptance of the NETOs' M&A screen, as it is consistent with Commission precedent.[218] Our practice is to eliminate from the proxy group any company engaged in M&A activity significant enough to distort the DCF inputs.[219] In applying that screen to the two-step DCF methodology, we affirm the Presiding Judge's elimination of Entergy Corp. and ITC Holdings Corp. from the proxy group due to their ongoing merger activity with each other during the study period, and we eliminate CH Energy Group[220] due to its acquisition by Fortis.[221] While Northeast Utilities was involved in M&A activity in the recent past, the record does not indicate that the M&A activity was significant enough to distort the DCF inputs. Thus, we find that the Presiding Judge appropriately included Northeast Utilities in the proxy group, as it completed its merger with NSTAR on April 12, 2012. Similarly, we agree that it is unnecessary to eliminate Ameren Corp., which announced on March 14, 2013 the sale of its generation business to Dynegy, and CenterPoint Energy and OGE Energy Corp., which also announced on March 14, 2013 the formation of a large master limited partnership for their midstream businesses. No party presented evidence indicating that

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[217] Initial Decision, 144 FERC ¶ 63,012 at P 552 (citing *RITELine Ill., LLC,* 137 FERC ¶ 61,039 at P 68 (applying a screen excluding companies with recent merger and acquisition activity); *N. Pass Transmission, LLC,* 134 FERC ¶ 61,095 at P 46; *S. Cal. Edison Co.,* 131 FERC ¶ 61,020 at P 51)).

[218] *RITELine Ill., LLC,* 137 FERC ¶ 61,039 at P 68 (applying a screen excluding companies with recent merger and acquisition activity); *N. Pass Transmission, LLC,* 134 FERC ¶ 61,095 at P 46; *S. Cal. Edison Co.,* 131 FERC ¶ 61,020 at P 51.

[219] *Bangor Hydro-Elec. Co.*, 111 FERC ¶ 63,048 at PP 67-68, *aff'd in relevant part*, 117 FERC ¶ 61,129 (2006); *see also Atl. Grid Operations A LLC*, 135 FERC ¶ 61,144 at P 88 n.55; *Kern River*, 126 FERC ¶ 61,034 at PP 79-81.

[220] We note that, as discussed above, CH Energy Group is also eliminated from the proxy group due to a lack of IBES growth rate data.

[221] We note that no party filed briefs opposing the NETOs' elimination of Entergy Corp. and ITC Holdings Corp. due to their then-pending merger, nor to the elimination of CH Energy Group due to its acquisition by Fortis. Moreover, no party filed briefs proposing to eliminate additional proxies due to ongoing M&A activity.

these companies' announcements at the end of the study period impacted the DCF results by distorting the companies' stock prices, dividends, or growth rates.

6. High-End Outliers

i. Initial Decision

115. The Presiding Judge found that the NETOs' criteria for screening high-end outliers substantially complies with Commission precedent.[222] The Presiding Judge stated that Commission precedent requires the exclusion of cost of equity results where they fail "fundamental tests of reasonableness and economic logic."[223] The Presiding Judge further stated that the Commission's high-end outlier test since 2004 has been to exclude from the proxy group any company whose cost of equity estimate is at or above 17.7 percent and whose growth rate is at or above 13.3 percent.[224] The Presiding Judge asserted that for the DCF model to work properly both the high-end proxy group members and the low-end members must be appropriate. The Presiding Judge rejected Trial Staff's criticisms of the NETOs' high-end proxy group members and found that the NETOs provided a reasonable basis to support the inclusion of those companies.

ii. Briefs on Exceptions

116. Complainants state that the Initial Decision's adherence to a static 17.7 percent test that originated in 2003 conflicts with its references to "flexibility" and current "economic conditions" in raising the low-end threshold. Complainants further state that under the relevant Commission precedent there is already significant flexibility built into the low-end outlier test. Complainants contend that the Commission has never stated that the 17.7 percent high-end threshold is a static standard, but instead adopted that threshold in the context of a specific record that is now a decade old. Complainants argue that the

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[222] Initial Decision, 144 FERC ¶ 63,012 at P 571.

[223] *Id.* P 572 (citing *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 47; *ISO New England, Inc.*, 109 FERC ¶ 61,147 at P 205).

[224] Initial Decision, 144 FERC ¶ 63,012 at P 572 (citing *ITC Holdings Corp.*, 121 FERC ¶ 61,229, at PP 28, 42 (2007); *Potomac-Appalachian Transmission Highline LLC*, 122 FERC ¶ 61,188, at P 100 (2008), *order on reh'g*, 133 FERC ¶ 61,152, at PP 20, 40, 64 (2010); *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 57; *S. Cal. Edison Co.*, 139 FERC ¶ 61,042, at PP 54, 60; *RITELine Ill., LLC*, 137 FERC ¶ 61,039 at PP 68-73; *N. Pass Transmission LLC*, 134 FERC ¶ 61,095 at PP 46, 52-54).

Initial Decision should have confronted the evidence as to the appropriateness of a more current and stringent test, and that cases cited do not support adhering to a 17.7 percent high-end outlier test given current financial conditions.[225] The Complainants contend that the Presiding Judge should have updated the 17.7 percent high-end outlier test based on the change in bond yields since 2003. They contend that the 17.7 percent ROE rejected as unsustainable and illogical in Opinion No. 489[226] exceeded the contemporaneous average yield on 30-year public utilities by a factor of 3.12. Applying that same factor to the public utility bond yield for the relevant time period in this case would produce a high-end outlier test of 12.46 percent. EMCOS states that the Initial Decision mischaracterizes and ignores their witness testimony on outlier issues. EMCOS also states that the Initial Decision erroneously applies a fixed numerical threshold to define sustainable growth.[227]

iii. Briefs Opposing Exceptions

117. The NETOs state that the Commission does not reject IBES growth rates based on subjective opinions of witnesses. The NETOs also contend that the growth rates in their proxy group were well below the 13.3 percent level that the Commission views as unreasonable.[228]

iv. Commission Determination

118. Because we are adopting a two-step DCF methodology for determining the ROE for public utilities, we find that the high-end outlier issue in this proceeding is moot. Under the two-step DCF methodology, it is unnecessary to screen the proxy group for unsustainable growth rates because the methodology assumes that the long-term growth

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[225] Complainants Brief on Exceptions at 48-49; 82-85 (citing *ITC Holdings Corp.*, 121 FERC ¶ 61,229; *Potomac-Appalachian Transmission Highline LLC*, 122 FERC ¶ 61,188 at P 100, *order on reh'g*, 133 FERC ¶ 61,152 at PP 20, 40, 64; *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 57; *S. Cal. Edison Co.*, 139 FERC ¶ 61,042 at PP 54, 60; *RITELine Ill., LLC*, 137 FERC ¶ 61,039 at PP 68-73; *N. Pass Transmission LLC*, 134 FERC ¶ 61,095 at PP 46, 52-54).

[226] Opinion No. 489, 117 FERC ¶ 61,129 at P 24; *ISO New England, Inc.*, 109 FERC ¶ 61,147 at P 205.

[227] EMCOS Brief on Exceptions at 30-37.

[228] NETOs Brief Opposing Exceptions at 33.

rate for each company is equal to GDP. As a result, no company in the proxy group we are adopting here has a composite growth rate under the two-step DCF methodology in excess of the 7.66 percent growth rate of PNM Resources, Inc., or an ROE in excess of the 11.74 percent ROE of UIL Holdings. And those percentages are well within any high-end outlier test we have previously applied in utility rate cases and are within the high-end outlier test advocated by the Complainants on exceptions.

7. Low-End Outliers

i. Initial Decision

119. The Presiding Judge found that the NETOs' criteria for excluding low-end outliers in this case substantially complies with Commission precedent,[229] which requires the exclusion of companies whose cost of equity estimates fail tests of reasonableness and economic logic.[230] The Presiding Judge noted that, although it may be reasonable to exclude any company whose low-end ROE estimate fails to exceed the average bond yield by about 100 basis points or more, a flexible application of the low-end outlier test is appropriate because the Commission has not established an economic rationale supporting strict application of the 100 basis point figure.[231]

ii. Briefs on Exceptions

120. Trial Staff states that the NETOs incorrectly followed the Commission's well-established rule for excluding any companies whose ROE results fail to exceed the six-month average Moody's bond yield for the relevant rating category by about 100 basis points. Trial Staff notes that the NETOs correctly eliminated four companies which were under the 100 basis points threshold, but argues that they should not have eliminated Edison International (Edison), which had a low-end result of 5.9 percent, since they did not eliminate Cleco, which had a low-end result of 6.0 percent. Instead, Trial Staff contends that the "natural break" is between the 2.7 percent low-end result of Pacific Gas & Electric and the 5.9 percent low-end result of Edison.

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[229] Initial Decision, 144 FERC ¶ 63,012 at P 571.

[230] *Id.* P 572 (citing *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 57; *ISO New England, Inc.*, 109 FERC ¶ 61,147 at P 205).

[231] Initial Decision, 144 FERC ¶ 63,012 at P 573 (citing *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 55).

iii. Briefs Opposing Exceptions

121. In reference to the inclusion of Edison's low-end DCF result, the NETOs argue that there is no strict rule requiring the exclusion of any low-end cost of equity estimate that fails to exceed the average bond yield by 100 basis points. The NETOs argue that the flexible application of the low-end outlier test is consistent "with the Commission directive that low-end DCF results should be eliminated if they are somewhat above the average bond yield, but still sufficiently low that an investor would consider the stock to yield essentially the same return."[232] The NETOs argue that it is appropriate to set the low-end outlier threshold for the refund period slightly more than 100 basis points above utility bond yields given the economic conditions and downward bias on utility bond yields during the relevant time period.[233]

iv. Commission Determination

122. As the Presiding Judge correctly explained, the Commission's low-end outlier test for the one-step DCF methodology in recent years has been to exclude any company whose low-end ROE fails to exceed the average bond yield by some amount of basis points, taking into account the company's ROE estimate relative to the estimates of the other proxy group companies.[234] The purpose of the low-end outlier test is to exclude from the proxy group those companies whose ROE estimates are below the average bond yield or are above the average bond yield but are sufficiently low that an investor would consider the stock to yield essentially the same return as debt.[235] In public utility ROE cases, the Commission has used 100 basis points above the cost of debt as an approximation of this threshold, but has also considered the distribution of proxy group companies to inform its decision on which companies are outliers. As the Presiding Judge explained, this is a flexible test. We therefore affirm the Initial Decision in this respect.

123. Applying the low-end outlier test in the instant proceeding results in the elimination of three companies from the proxy group. The Moody's Baa average for the

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[232] NETOs Brief Opposing Exceptions at 67 (citing *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 55).

[233] NETOs Brief Opposing Exceptions at 67.

[234] Initial Decision, 144 FERC ¶ 63,012 at P 573 (citing *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 55).

[235] *See S. Cal Edison Co.*, 92 FERC at 61,266.

six-month study period ending March 2013 is 4.61 percent. Therefore, we find it appropriate to exclude from the proxy group any company with a cost of equity estimate of approximately 5.61 percent or lower. Accordingly, we eliminate the following companies as low-end outliers: Edison (3.11 percent); Ameren Corp. (5.26 percent); and Public Service Enterprise Group Inc., whose 5.62 percent cost of equity estimate is an insignificant single basis point above the 100 basis point threshold. Our decision to exclude these companies from the proxy group is buttressed by the fact that there is a natural break between the cost of equity estimates of the companies we exclude from the proxy group and the lowest cost of equity estimate of the companies we include in the proxy group, i.e., the 7.03 percent cost of equity estimate of El Paso Electric Co. The 5.62 percent cost of equity estimate of Public Service Enterprise Group Inc, is only 101 basis point above the applicable bond yield, while the 7.03 percent cost of equity estimate of El Paso Electric Co. is 242 basis points above the applicable bond yield. Thus, there is a 141 basis point break between the companies we exclude from the proxy group as low-end outliers and the companies we include in the proxy group.

8. Summary

124. In summary, of the 49 companies in the NETOs' starting proxy group,[236] 11 companies fail the above proxy group screens and are, therefore, eliminated from the proxy group. We eliminate one company – CH Energy Group, Inc. – because no IBES growth rate data is available for that company.[237] We eliminate two companies – Entergy Corp. and ITC Holdings Corp. – due to M&A activity. We eliminate four companies – MGE Energy, Inc., NV Energy, Inc., PNM Resources, Inc., and Unisource Energy Corp.

[236] The 49 companies in our starting proxy group are as follows: ALLETE, Inc.; Alliant Energy Corp.; Ameren Corp.; American Electric Power Co., Inc.; Avista Corp.; Black Hills Corp.; CenterPoint Energy, Inc.; CH Energy Group, Inc.; Cleco Corp.; CMS Energy Corp.; Consolidated Edison, Inc.; Dominion Resources, Inc.; DTE Energy Co.; Duke Energy Corp.; Edison International; El Paso Electric Co.; Empire District Electric Co.; Entergy Corp.; Exelon Corp.; FirstEnergy Corp.; Great Plains Energy Inc.; Hawaiian Electric Industries, Inc.; IDACORP, Inc.; Integrys Energy Group, Inc.; ITC Holdings Corp.; MGE Energy, Inc.; NextEra Energy, Inc.; Northeast Utilities; NorthWestern Corp.; NV Energy, Inc.; OGE Energy Corp.; Otter Tail Corp.; Pepco Holdings, Inc.; PG&E Corp.; Pinnacle West Capital Corp.; PNM Resources, Inc.; Portland General Electric Co.; PPL Corp.; Public Service Enterprise Group Inc.; SCANA Corp.; Sempra Energy; Southern Company; TECO Energy, Inc.; UIL Holdings Corp.; Unisource Energy Corp.; Vectren Corp.; Westar Energy, Inc.; Wisconsin Energy Corp.; Xcel Energy, Inc.

[237] We note that CH Energy Corp. would also fail the M&A screen.

– because their credit ratings fall outside either the Moody's or S&P credit risk bands. We eliminate one company – Exelon Corp. – due to its dividend cut within the 6-month study period.[238] Lastly, we eliminate three companies – Ameren Corp., Edison International, and Public Service Enterprise Group Inc. – as low-end outliers.

125. After eliminating these 11 companies, 38 companies remain in our final proxy group.[239] Based on the record developed thus far in this proceeding, the zone of reasonableness produced by those 38 companies is 7.03 percent to 11.74 percent, as shown in the Appendix to this order.[240] As noted above, this is a tentative finding, based on the 4.39 percent GDP value we use in our DCF analysis,[241] and is subject to any further record evidence submitted in the paper hearing on the long-term growth issue.

C. Placement of the Base ROE within the Zone of Reasonableness

1. Initial Decision

126. The Presiding Judge agreed with the NETOs that the just and reasonable base ROE should be based on the market conditions during the relevant time period, but concluded that the DCF analysis considers market conditions.[242] Accordingly, the

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[238] We note that Exelon Corp. would also be eliminated as a low-end outlier.

[239] The 38 companies in our final proxy group are as follows: ALLETE, Inc.; Alliant Energy Corp.; American Electric Power Co., Inc.; Avista Corp.; Black Hills Corp.; CenterPoint Energy, Inc.; Cleco Corp.; CMS Energy Corp.; Consolidated Edison, Inc.; Dominion Resources, Inc.; DTE Energy Co.; Duke Energy Corp.; El Paso Electric Co.; Empire District Electric Co.; FirstEnergy Corp.; Great Plains Energy Inc.; Hawaiian Electric Industries, Inc.; IDACORP, Inc.; Integrys Energy Group, Inc.; NextEra Energy, Inc.; Northeast Utilities; NorthWestern Corp.; OGE Energy Corp.; Otter Tail Corp.; Pepco Holdings, Inc.; PG&E Corp.; Pinnacle West Capital Corp.; Portland General Electric Co.; PPL Corp.; SCANA Corp.; Sempra Energy; Southern Company; TECO Energy, Inc.; UIL Holdings Corp.; Vectren Corp.; Westar Energy, Inc.; Wisconsin Energy Corp.; Xcel Energy, Inc.

[240] The DCF result for El Paso Electric Co. set the bottom of the zone at 7.03 percent, and the DCF result for UIL Holdings Corp. set the top of the zone at 11.74 percent.

[241] *See* Appendix (explaining our calculation of the 4.39 percent GDP value).

[242] Initial Decision, 144 FERC ¶ 63,012 at P 548.

Presiding Judge found it appropriate to set the just and reasonable rate at the midpoint of the zone of reasonableness,[243] and rejected the NETOs' contention that the base ROE should be set halfway between the midpoint and the top of the zone of reasonableness.[244]

127. The Presiding Judge rejected the NETOs' contention that the traditional DCF methodology understated their true cost of equity and that alternative methodologies should be considered.[245] The Presiding Judge noted, however, that the Commission may consider alternative methods if necessary to adjust the ROE based on the legal and policy considerations expressed in *Hope* and *Bluefield*.[246] The Presiding Judge stated that, if the ROE is set substantially below 10 percent for long periods of time, it could negatively impact future investment in transmission and thereby negatively impact operational needs, reliability, and ratepayers' future costs.[247] The Presiding Judge further noted that current capital market conditions are a relevant consideration in formulating the appropriate ROE in this proceeding.[248] The Presiding Judge also explained that all expert witnesses in this proceeding deviated from the traditional DCF analysis for a variety of reasons including, "to make pragmatic adjustments to the DCF economic analysis theory during a rather volatile and unstable economic period."[249]

2. Briefs on Exceptions

128. The NETOs assert that setting the just and reasonable base ROE depends on the facts of each case and, while the Commission generally uses the midpoint of the zone of reasonableness when establishing the base ROE for a diverse group of utilities, the Commission has acknowledged that the base ROE may be set above the midpoint when warranted.[250] The NETOs argue that it is appropriate to set the base ROE in this

[243] *Id.* PP 590-591.

[244] *Id.* P 591.

[245] *Id.* P 549.

[246] *Id.* P 575.

[247] *Id.* P 576.

[248] *Id.* P 580.

[249] *Id.* P 595.

[250] NETOs Brief on Exceptions at 22 (citing *S. Cal. Edison Co.*, 92 FERC ¶ 61,070).

proceeding halfway between the midpoint and the top of the zone of reasonableness. The NETOs assert that, in declining to set the base ROE halfway up the top half of the zone, the Initial Decision failed to consider the Commission's policy on transmission investment, the extraordinary conditions in the credit markets, and the results of other alternative benchmark methodologies to the electric utility DCF analysis.

129. The NETOs argue that the Initial Decision also erred by not taking into account the effect that the "highly unusual market conditions" had on the DCF results, and that unusually low interest rates caused "abnormal, low-end results that unrealistically depress the ROE midpoint."[251] The NETOs state that capital market conditions at the time of the proceeding were anomalous, that 10-year Treasury bond yields were the lowest they have been since 1941 and yields on public utility bonds have been at their lowest levels in over thirty years.[252]

130. The NETOs further contend that capital market conditions are expected to change significantly in the near-term,[253] and strict reliance on the DCF methodology will result in ROEs "that are insufficient to attract investment on reasonable terms."[254] The NETOs argue that once the Federal Reserve's Quantitative Easing program ends, "which may be in the very near future, interest rates can be expected to rise to more normal levels," and bond levels can be expected to increase.[255] The NETOs assert that the Commission should take into account the evidence regarding low interest rates, how those interest rates depressed the ROE midpoint, and how interest rates will rise in the near-term, and then set the ROEs in the upper range of the zone.[256] The NETOs assert that, because the DCF analysis is meant to reflect the rate of return needed to attract investors going forward, data showing increasing interest rates and cost of capital is particularly relevant.[257]

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[251] NETOs Brief on Exceptions at 31–32.

[252] *Id.* at 33.

[253] *Id.* at 32.

[254] *Id.*

[255] *Id.* at 34.

[256] *Id.* at 32–33.

[257] *Id.* at 35.

131. The NETOs argue that five alternative benchmark methodologies—the capital asset pricing model (CAPM), risk premium analysis, natural gas pipeline ROE, non-utility DCF analysis, and expected earnings analysis—provide additional information that would benefit the Commission's ROE analysis by showing that the existing 11.14 percent base ROE is just and reasonable and that the DCF analysis alone produces distorted results.[258] The NETOs note that since all models have shortcomings, it is appropriate to test DCF results against a number of other models and benchmarks in order to arrive at the soundest conclusion possible.[259]

132. Trial Staff argues that the Presiding Judge erred in stating that, if the ROE is set substantially below 10 percent for long periods, it could negatively impact future investment in the NETOs.[260] Trial Staff argues that an unqualified numerical ROE "floor" is inappropriate and ignores the value of financial estimation techniques used to estimate the cost of capital.[261] Trial Staff further states that the 10 percent floor was in part based on state-allowed ROEs which the Commission has rejected in light of its exclusive jurisdiction in this area.[262] Trial Staff states that the DCF model is based on actual, observed market data, and that the testimony on the alternative methodologies is not probative.[263]

133. Complainants note that, because the cost of capital varies over time, allowed ROEs must vary over time in order to remain cost-based.[264] Complainants argue that the method adopted by the Initial Decision "is incapable of tracking actual capital costs when they fall substantially below 10 [percent]."[265] Complainants argue that the opinion

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[258] *Id.* at 36-37.

[259] *Id.* at 38 (citing NET-300 at 47-49; *Distrigas of Mass. Corp.*, 41 FERC ¶ 61,205, at 61,550-51 (1987); *S. Cal. Edison Co.*, 92 FERC at 61,260-61,267).

[260] Trial Staff Brief on Exceptions at 57.

[261] *Id.*

[262] *Id.*

[263] *Id.* at 58–59.

[264] Complainants Brief on Exceptions at 78–79 (citing *Hope*, 320 U.S. at 615; *Bluefield*, 262 U.S. at 692-93).

[265] Complainants Brief on Exceptions at 79.

expressed in the Initial Decision that an ROE of less than 10 percent for long periods could negatively impact future investment has no basis, and that investment will not be impeded if the actual cost of equity falls below 10 percent.[266]

3. Briefs Opposing Exceptions

134. EMCOS and Trial Staff argue that the base ROE should not be set halfway between the midpoint and the top end of the zone of reasonableness, but should instead be set at the midpoint, consistent with the Commission's traditional DCF methodology. EMCOS state that the base ROE need not be adjusted upwards to counteract alleged distortions caused by the traditional DCF methodology and allegedly anomalous economic conditions, or to further the Commission's transmission investment policies. Trial Staff contends that the public policy considerations that NETOs argue require a base ROE above the midpoint are weighed in determining incentive rates, which are not at issue in this case. Similarly, EMCOS state that the traditional DCF methodology is designed to encourage transmission investment and ROE adders are available if the base ROE fails to do so.

135. Trial Staff asserts that the base ROE should be set according to cost of service ratemaking principles and should reflect investors' required return, i.e., the cost of equity capital. EMCOS states that the base ROE should be set based on current market conditions, not based on predictions that economic conditions could significantly change in the future. EMCOS states that the Commission has previously rejected the argument that current economic conditions are abnormal and have caused DCF results that are too low.[267] EMCOS further notes that should the NETOs' economic prediction come to fruition, they may then make a section 205 filing requesting a rate increase, but until then "rate payers should pay rates that reflect the actual economy."[268]

136. Trial Staff argues that the NETOs' proposed alternative methodologies do not result in a just and reasonable base ROE in this proceeding, due to flawed execution and unreliable or inappropriate data. Trial Staff explains that the Commission has consistently

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[266] *Id.*

[267] EMCOS Brief Opposing Exceptions at 15 (citing Opinion No. 524, 142 FERC ¶ 61,197 at P 233).

[268] EMCOS Brief Opposing Exceptions at 15, 24–25.

rejected the proffered use of financial models other than the traditional DCF analysis.[269] Trial Staff contends that relying on past ROEs or risk premium relationships to impute an expected investor return today, as do some of the alternative methodologies, produces circular results that are theoretically inferior measures of current investor-required equity returns. Trial Staff further contends that, because the data used in the alternative methodologies are not screened based on relative risk, these methods also do not produce ROEs which are relevant to the NETOs' risks. Complainants argue that the Commission has continued to find that non-DCF approaches to determining transmission ROE are "unlikely to produce a just and reasonable result," and that its "preference for the one-step DCF analysis in determining the appropriate ROE for electric utility companies" is well-settled and recently reaffirmed.[270]

137. The NETOs agree with the Presiding Judge that, if the ROE is set substantially below 10 percent for long periods, it could negatively impact future investment, because "investors will expect a somewhat higher return for investment in transmission as compared to investment in state jurisdictional activities," due to the higher risks associated with transmission investment.[271] The NETOs argue that, because the central tendency of state-level ROEs has been around 10 percent to 10.5 percent, an ROE at or below these levels would materially reduce investment.[272] The NETOs assert that the Initial Decision did not establish an ROE floor of 10 percent, but instead simply found that there was "probative value to the argument that an ROE set below 10 [percent] could negatively impact future investment in the NETOs."[273]

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[269] Trial Staff Brief Opposing Exceptions at 36-38 (citing *Allegheny Power*, Opinion No. 469, 106 FERC ¶ 61,241 P 24, *reh'g denied*, Opinion No. 469-A, 108 FERC ¶ 61,151 (2004), *dismissed in part vacated in part and remanded sub nom. Allegheny Power v. FERC*, 437 F.3d 1219 (D.C. Cir. 2006); *Sys. Energy Resources, Inc.*, Opinion No. 446, 92 FERC at 61,446; Opinion No. 445, 92 FERC at 61,260-63).

[270] Complainants Brief Opposing Exceptions at 57 (citing *Xcel Energy Servs., Inc.*, 122 FERC ¶ 61,098, at P 73, *clarified*, 125 FERC ¶ 61,092 (2008); Order No. 679, FERC Stats. & Regs. ¶ 31,222 at PP 99, 102).

[271] NETOs Brief Opposing Exceptions at 95 (citing Ex. NET-600 at 37-38; Tr. 454:25-455:3, 856:3-6; Ex. NET-400 at 26; Tr. 455:4-6, 855:23-856:9).

[272] NETOs Brief Opposing Exceptions at 96.

[273] *Id.* at 98 (citing Initial Decision, 144 FERC ¶ 63,012 at P 576).

138. Complainants argue that "Commission precedent requires 'highly unusual circumstances indicating anomalously high or low risk factors and a very persuasive demonstration' before a base ROE can properly be adjusted upwards from the center of the DCF results," and that NETOs' prediction of market changes falls short of these standards.[274]

139. Complainants take issue with NETOs' claim that low bond yields results in higher utility stock prices and lower dividend yields, arguing that "investors' comparison-shopping makes them willing to accept lower equity returns when debt yields are low."[275] Complainants argue that the DCF analysis process takes that effect into account and its doing so does not result in anything abnormal or unrealistic.[276]

140. Complainants take issue with NETOs' claim that the DCF-estimated ROE should be adjusted upwards due to anticipated interest rate increases since the core DCF method is to infer the return term from share prices paid in the past six months, and argues that "expectations about the pace and vigor of economic recovery, and of associated Federal Reserve monetary policy, are already baked into study-period share prices and analysts' forecasts of the proxies' future earnings."[277] Complainants argue that when the Commission *has* attributed a higher ROE than the DCF results, it was because the utility was substantially riskier than the proxies; but here, Complainants argue, the NETOs are less risky than the proxy group on which the Initial Decision relied and NETOs have "not made the 'very persuasive' showing of greater risk that precedent requires as a precondition to placing a base ROE above the DCF center."[278]

141. Complainants argue that predictions of capital market changes cannot justify raising the ROE in this proceeding.[279] Complainants take issue with NETOs' efforts "to shift the focus of this proceeding to the returns they expect will be demanded by the

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[274] Complainants Brief Opposing Exceptions at 42 (citing Opinion No. 524, 142 FERC ¶ 61,198 at P 241).

[275] Complainants Brief Opposing Exceptions at 43–44.

[276] *Id.* at 44.

[277] *Id.* at 47–48.

[278] *Id.* at 48–49 (citing Opinion No. 524, 142 FERC ¶ 61,198 at P 241).

[279] Complainants Brief Opposing Exceptions at 49.

investors of 2017."[280] Complainants argue that, if NETOs' predictions are correct, it will have the opportunity to then file for a rate increase; the Commission's decision-making in the meantime, however, "requires reference to the DCF results of record, not predictions of how capital costs may rise by 2017."[281]

4. Commission Determination

142. We acknowledge that under the DCF analysis, the Commission typically sets the base ROE with regard to multiple entities at the midpoint of the zone of reasonableness. However, for the reasons set forth below, we conclude that a mechanical application of the DCF methodology with the use of the midpoint here would result in an ROE that does not satisfy the requirements of *Hope* and *Bluefield*. Therefore, based on the record in this case, including the unusual capital market conditions present, we conclude that the just and reasonable base ROE for the NETOs should be set halfway between the midpoint of the zone of reasonableness and the top of the zone of reasonableness. Based on the record thus far in this proceeding, we tentatively find that the just and reasonable base ROE for the NETOs is 10.57 percent, which is halfway between the 9.39 percent midpoint of the zone of reasonableness and the 11.74 percent top of that zone. This finding is tentative because it is subject to the submission of the record evidence at the paper hearing, described below, as to the appropriate long-term growth rate given our adoption of the two-step DCF methodology.

143. Having applied the DCF model and risk screens to develop a proxy group and estimate the zone of reasonable ROEs for similar companies – a zone of 7.03 percent to 11.74 percent – the Commission must next determine where to place the just and reasonable ROE within that zone of reasonableness. *Hope* once again sets forth the principle guiding this determination: the just and reasonable ROE should be "sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital."[282]

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[280] *Id.* at 50.

[281] *Id.*

[282] *Hope*, 320 U.S. at 603; *see also Bluefield*, 262 U.S. at 693 ("The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties."). *Cf. supra* P 102 (describing the NETOs' competition with other utilities and other non-utility companies to attract capital).

144. While the Commission has previously found the midpoint of the zone of reasonableness to be the appropriate measure of central tendency for determining the base ROE for a diverse group of utilities (as opposed to the median, used for a single utility),[283] the midpoint does not represent a just and reasonable outcome *if* the midpoint does not appropriately represent the utilities' risks.[284] The Commission's ultimate task is to ensure that the resulting ROE satisfies the requirements of *Hope* and *Bluefield*.

145. Parties on both sides of the instant ROE issue argue that the unique capital market conditions have impacted the level of equity return the NETOs' require to meet the capital attraction standards of *Hope* and *Bluefield*.[285] We are concerned that capital market conditions in the record are anomalous, thereby making it more difficult to determine the return necessary for public utilities to attract capital. In these circumstances, we have less confidence that the midpoint of the zone of reasonableness established in this proceeding accurately reflects the equity returns necessary to meet the *Hope* and *Bluefield* capital attraction standards.[286] We find it is necessary and reasonable to consider additional record evidence, including evidence of alternative benchmark

[283] *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 91, *remanded on other grounds sub nom. S. Cal. Edison Co. v. FERC*, 717 F.3d 177.

[284] *See Petal Gas*, 496 F.3d at 699.

[285] *See, e.g.*, Ex. C-1, 5-6 (Test. of Complainants' witness Woolridge); NETOs Brief on Exceptions at 32. For example, bond yields are at historic lows, with the yield on U.S. Treasury bonds during the six-month study period ending March 2013 below 2 percent. Ex. NET-405; Ex. NET-400 at 32-33. Until the financial crisis of 2008, the yield on U.S. Treasury bonds had not fallen below 3 percent since the 1950s. Ex. NET-450. U.S. Treasury bond yields are not an input in the DCF model, but they reflect current capital market conditions, which could have an indirect impact on the two inputs in the DCF model—dividend yield and growth rate.

[286] As the NETOs' witness Lapson testified, "There is 'model risk' associated with the excessive reliance or mechanical application of a model when the surrounding conditions are outside of the normal range. 'Model risk' is the risk that a theoretical model that is used to value real-world transactions fails to predict or represent the real phenomenon that is being modeled." Ex. NET-400 at 40.

methodologies and state commission-approved ROEs, to gain insight into the potential impacts of these unusual capital market conditions on the appropriateness of using the resulting midpoint. [287]

146. The NETOs presented five alternative benchmark methodologies in this proceeding: risk premium analysis, the CAPM, comparison of electric ROEs with natural gas pipeline ROEs, comparison of electric utility DCF results with non-utility DCF results, and expected earnings analysis. Of those five, we find the risk premium analysis, the CAPM, and expected earnings analyses informative,[288] and each produces a midpoint (or median) ROE higher than the midpoint of our DCF analysis here. In considering these other methodologies, we do not depart from our use of the DCF methodology; rather, we use the record evidence to inform the just and reasonable placement of the ROE within the zone of reasonableness established in the record by the DCF methodology.

147. The risk premium methodology, in which interest rates are a direct input, is "based on the simple idea that since investors in stocks take greater risk than investors in bonds, the former expect to earn a return on a stock investment that reflects a 'premium' over and above the return they expect to earn on a bond investment."[289] As the NETOs explain, investors' required risk premiums expand with low interest rates and shrink at higher interest rates. The link between interest rates and risk premiums provides a helpful indicator of how investors' required returns on equity have been impacted by the

[287] *See, e.g., Distrigas of Mass. Corp.*, 41 FERC at 61,550 ("The DCF methodology, which we endorse, is but one analytical tool. A risk premium analysis, . . . will also be considered. The weight to be given the results of each such methodology rests on the accuracy and sensibleness of the judgmental imputs [*sic*] and factors that the respective witnesses employed."); *see also,* Roger A. Morin, New Regulatory Finance at 428-430 (Public Utilities Reports, Inc. 2006) (The results from one methodology . . . may be distorted by short-term aberrations.).

[288] We will not consider the non-utility DCF analysis or the natural gas pipeline ROE analysis because those methodologies are not based on electric utilities.

[289] Roger A. Morin, New Regulatory Finance 108 (Public Utilities Reports, Inc. 2006). CAPM estimates risk premiums indirectly, whereas the risk premium analysis methodology develops risk premiums directly. *Id.* at 110.

interest rate environment.[290] The NETOs' risk premium analysis indicates that the NETOs cost of equity is between 10.7 percent and 10.8 percent, which is higher than the 9.39 percent midpoint produced by our DCF analysis.[291] Similar to the risk premium analysis, the NETOs' CAPM uses interest rates as the input for the risk-free rate, which makes it useful in determining how the interest rate environment has impacted investors' required returns on equity.[292] Further, CAPM is utilized by investors as a measure of the cost of equity relative to its risk. Using the same proxy companies from our DCF analysis, before screening for low-end outliers, the NETOs' CAPM analysis produces an ROE range of 7.4 percent to 13.3 percent, with a midpoint value of 10.4 percent and a median value of 10.9 percent.[293] Finally, the NETOs' expected earnings analysis, given its close relationship to the comparable earnings standard that originated in *Hope*, and the fact that it is used by investors to estimate the ROE that a utility will earn in the future can be useful in validating our ROE recommendation.[294] Once again using the same proxy group that we used in our DCF analysis, the expected earnings analysis has an

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[290] While the Commission has in the past rejected the use of risk premium analyses to estimate investor-required returns on equity, those cases are distinguishable from the instant proceeding because they involved proposals to establish a constant risk premium based on the average difference between state commission ROEs and bond rates over multi-year periods. *See New England Power Co.*, 31 FERC ¶ 61,378, at 61,841-42 (1985); *Boston Edison Co.*, Opinion No. 411, 77 FERC at 62,171-72, *aff'g in relevant part*, 66 FERC at 65,075-76, *remanded on other grounds sub nom. Boston Edison Co. v. FERC*, 233 F.3d 60 (2000); *Jersey Cent. Power & Light Co.*, 77 FERC at 61,007; *N. Ind. Pub. Serv. Co., Inc.*, 101 FERC ¶ 61,394, at P 38 (2002).

[291] *See* NETOs Brief on Exceptions at 44.

[292] While the Commission has in the past rejected the use of CAPM analyses, those cases are distinguishable from the instant proceeding because they involved CAPM analyses that were based on historic market risk premiums, *see, e.g., ITC Holdings Corp., et al. v. Interstate Power and Light Co. and Midwest Indep. Sys. Op., Inc.*, 121 FERC ¶ 61,229, at P 43 n.37 (2007), whereas the NETOs' CAPM analysis is based on forward-looking investor expectations for the market risk premium.

[293] Ex. NET-708. While NETO's exhibit does not provide a median value, we calculate it to be 10.4 percent using the 41 companies in our DCF analysis.

[294] Roger A. Morin, New Regulatory Finance 381 (Public Utilities Reports, Inc. 2006). The comparable earning standard uses the return earned on book equity by enterprises of comparable risk as the measure of fair return. *Id.*

ROE range of 8.1 percent to 16.1 percent, with a midpoint value of 12.1 percent and a median value of 10.2 percent.[295] The record evidence from each of these models affirms our setting the ROE at a point above the midpoint under these circumstances.

148. In addition, other record evidence of state commission-approved ROEs supports adjusting the ROE to a point halfway up the upper half of the zone of reasonableness in this case. The Commission has repeatedly held that it does not establish utilities' ROE based on state commission ROEs for state-regulated electric distribution assets, because those ROEs are "established at different times in different jurisdictions which use different policies, standards, and methodologies in setting rates."[296] The wisdom of that rationale is no less applicable now than in the Commission's earlier cases. However, in this proceeding, we are faced with circumstances under which the midpoint of the zone of reasonableness established in this proceeding has fallen below state commission-approved ROEs, even though transmission entails unique risks that state-regulated electric distribution does not. While the midpoint in this case is 9.39 percent, the record indicates that, over the 24-month period from October 1, 2010 through September 30, 2012, approximately 85 percent to 91 percent of state commission authorized ROEs were between 9.8 percent and 10.74 percent.[297] Although we are not using state commission-approved ROEs to establish the NETOs' ROE in this proceeding, the discrepancy between state ROEs and the 9.39 percent midpoint serves as an indicator that an upward adjustment to the midpoint here is necessary to satisfy *Hope* and *Bluefield*.

149. The financial and business risks faced by investors in companies whose focus is electric transmission infrastructure differ in some key respects when compared to other electric infrastructure investment, particularly state-regulated electric distribution. For example, investors providing capital for electric transmission infrastructure face risks including the following: long delays in transmission siting, greater project complexity, environmental impact proceedings, requiring regulatory approval from multiple jurisdictions overseeing permits and rights of way, liquidity risk from financing projects

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[295] Ex. NET-709. While the NETOs' exhibit does not provide a median value, we calculate it to be 10.2 percent using the 41 companies in our DCF analysis.

[296] *Middle South Services, Inc.*, Opinion No. 124, 16 FERC ¶ 61,101, at 61,221 (1981); *see also Boston Edison Co.*, Opinion No. 411, 77 FERC ¶ 61,272, at 62,171-62,172 (1996); *Jersey Cent. Power & Light Co.*, Opinion No. 408, 77 FERC at 61,002.

[297] Ex. NET-400 at 26-27 (citing Ex. NET-402; Ex. NET-403); *see also* Ex. NET-400 at 13 ("Individual transmission tariffs decided since 2006 have typically included base-level ROEs that . . . were within or above the high end of the range of returns available in state jurisdictions.").

that are large relative to the size of a balance sheet, and shorter investment history.[298] We find that these factors increase the NETOs' risk relative to the state-regulated distribution companies. However, as noted above, the record in this proceeding indicates that the vast majority of state commission-authorized ROEs reflected on this record range from 9.8 percent to 10.74 percent,[299] and our DCF analysis in this proceeding produces a midpoint of 9.39 percent, we find that the record evidence concerning state commission authorized ROEs supports setting the NETOs' base ROE above the midpoint.

150. Our obligation as a Commission is to ensure that we meet the requirements of *Hope* and *Bluefield* that ROE be set at a level sufficient to attract investment in interstate electric transmission. Such investment helps promote efficient and competitive electricity markets, reduce costly congestion, enhance reliability, and allow access to new energy resources, including renewables.[300] While a mechanical application of the two-step constant growth DCF methodology produces a midpoint of 9.39 percent in the anomalous capital market conditions reflected in the record, there is also record evidence that a decrease in ROE of that magnitude (down from 11.14 percent) could undermine the ability of the NETOs to attract capital for new investment in electric transmission.[301] As discussed above, a 9.39 percent ROE would be generally below the ROEs set by state commissions for electric utilities within their jurisdiction. Reducing the NETOs' ROE to that level "would put interstate transmission [investments] at a competitive disadvantage in the capital market in contrast with more conventional electric utility activities."[302] In addition, such a reduction in ROE could lead investors to view investments in interstate

[298] *See* Ex. NET-400 at 10-15, n.12; NETOs Brief Opposing Exceptions at 95-97.

[299] Ex. NET-400 at 26-27 (citing Ex. NET-402; Ex. NET-403).

[300] *See* Ex. NET-400 at 19-23 and 30-31.

[301] *Id.* at 16-19. For example, the NETOs' witness pointed out that a May 3, 2012 UBS Investment Research sector comment stated, "We believe companies will redeploy capital elsewhere if transmission returns are materially reduced. In our view, the cost of capital could actually increase, because as returns are set lower, valuation multiples will also be reset much lower than current levels. Additionally, the second order effects on other state and Federal government policy objectives, i.e. renewables development, could be significant, in our view." *Id.* at 18.

[302] *Id.* at 24.

transmission as more unstable, diminishing "investors' confidence in FERC jurisdictional investment in transmission."[303]

151. In these circumstances, we find that the NETOs should be awarded an ROE above the midpoint of the zone of reasonableness established by our DCF analysis. The Commission has traditionally looked to the central tendency to identify the appropriate return within the zone of reasonableness.[304] Similarly, we believe that here in selecting the appropriate return we likewise should look to the central tendency to identify the appropriate return but, in light of the record in this proceeding, we should look to the central tendency for the top half of the zone of reasonableness,[305] thus identifying an appropriate return reflective of capital market conditions in the record and the need to meet the capital attraction standards of *Hope* and *Bluefield*. And thus, we will set the NETOs' ROE at the point that is halfway between the midpoint of the zone of reasonableness and the top of the zone.[306]

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[303] *Id.* at 43. *See also* Ex. NET-600 at 42 ("In my professional opinion, cutting the base ROE by approximately 150 basis points . . . would undermine the favorable access to capital that currently allows for and fosters major development of transmission infrastructure by transmission owners throughout the United States. Strong cash flow and healthy levels of return produce the corporate financial resources that allow utilities such as the NETOs to enter into multi-year commitments to fund major capital investments with both equity and debt, without regard to the cycles in capital and banking markets. . . .A steep reduction in base ROE will affect the capital market appeal of electric transmission investment by the NETOs and other utilities across the nation.").

[304] *See generally, e.g., Midwest Independent Transmission System Operator, Inc.*, 106 FERC ¶ 61,302, at P 10 (2004) (given a range of returns, the "most appropriate" and "most just and reasonable" single return that best considers that range is the central tendency), *aff'd in relevant part sub nom. Pub. Serv. Comm'n of Ky. v. FERC*, 397 F.3d 1004, 1010-11 (D.C. Cir. 2005).

[305] *See infra* P 156 (explaining that the participants have had a full opportunity to submit evidence on the placement of the base ROE above the midpoint of the zone of reasonableness, and contest the evidence relied upon in our finding that it is appropriate to place the base ROE halfway between the midpoint of the zone of reasonableness and the top of that zone).

[306] Concurrently with this opinion we are setting for trial-type evidentiary hearings and settlement judge procedures other pending cases where the issue is the appropriate ROE. Nothing in this order precludes participants in those proceedings from developing a record in those cases supporting a different point in the range of reasonable returns than

(continued…)

152. In sum, based on the record evidence in this case, including the unusual capital market conditions present, we find that, to ensure a base ROE that satisfies the *Hope* and *Bluefield* standards under these circumstances, a base ROE in the upper half of the zone of reasonableness represents a just and reasonable base ROE for the NETOs. When placing a base ROE above the central tendency of the zone of reasonableness, the Commission has in the past placed the base ROE at the midpoint of the upper half of the zone.[307] We, therefore, find that a base ROE halfway between the midpoint of the zone of reasonableness and the top of that zone represents a just and reasonable ROE for the NETOs. Accordingly, based on the record evidence thus far in this proceeding, we tentatively find that a base ROE of 10.57 percent, the point halfway between the 9.39 percent midpoint of the zone of reasonableness and the 11.74 percent top of that zone, is appropriate for the NETOs. As noted, our finding concerning the specific numerical just and reasonable ROE for the NETOs is subject to the outcome of the paper hearing on the appropriate long-term growth projection to be used in the two-step DCF methodology.

153. EMCOS argues that the NETOs' base ROE should not be placed above the midpoint because the DCF methodology is designed to encourage transmission investment and ROE adders are available if the base ROE fails in that respect. Similarly, Trial Staff argues that it is inappropriate to place the NETOs' base ROE above the midpoint because the policy considerations for doing so are weighed in determining incentive rates. We reject both of these arguments. The purpose of the Commission's ROE analysis is to determine a level of return sufficient to satisfy *Hope* and *Bluefield*. Under that precedent, we are tasked with ensuring that the base ROE, among other things, enables the utility to attract investment. In contrast, ROE incentive adders are intended to encourage transmission investment above the level produced by a base ROE due to the circumstances of a certain project or projects. Although section 219 of the FPA gives us authority to provide incentives above the base ROE, nothing in section 219 relieves us from first setting the base ROE at a place that meets *Hope* and *Bluefield*. As

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the midpoint of the upper half of the range. *See Transcon. Gas Pipe Line Corp.*, Opinion No. 414-A, 84 FERC ¶ 61,084, at 61,427-3 (1998) ("the Commission has determined that the parties to a rate proceeding may present evidence they believe is warranted to support any ROE that is within the DCF-derived zone of reasonableness. . . .").

[307] *See, e.g.*, Opinion No. 445, 92 FERC at 61,266; *Consumers Energy Co.*, Opinion No. 429, 85 FERC at 61,363-64. We note that the Commission has also in the past established the base ROE at the top of the zone of reasonableness, *see, e.g.*, Opinion No. 524, 142 FERC ¶ 61,197 at P 4; however, the record in this proceeding does not support, nor do the NETOs argue in favor of, setting the base ROE at the top of the zone.

shown above, our decision regarding the placement of the ROE in the zone meets that precedent.

D. Establishment of Paper Hearing

154. Because we change our approach to setting ROEs in this order, to now and henceforth use the two-step DCF methodology in determining the ROE for public utilities, and the parties did not address that methodology on the record, we will reopen the record for the limited purpose of allowing the participants to this proceeding an opportunity to present written evidence concerning one issue unique to the application of the two-step DCF methodology to the facts of this proceeding. Specifically, because the one-step DCF methodology does not include a long-term growth projection, the participants have not had an opportunity to present evidence concerning the appropriate long-term growth projection to be used for public utilities under the two-step DCF methodology. Therefore, we establish a paper hearing proceeding to provide the participants, including Trial Staff, the opportunity to submit additional evidence and argument concerning the limited issue of the appropriate long-term growth projection to be used in the two-step DCF methodology.

155. However, use of the two-step DCF methodology does not affect the other issues litigated by the parties at the hearing. The two-step DCF methodology uses the same IBES short-term growth projections as the one-step DCF methodology, and the same raw data is used to calculate dividend yields under both methodologies. In addition, the issues of using a national vs. a regional proxy group, application of credit screens, exclusion of companies with dividend cuts or merger activity within the six-month study period, exclusion of outliers, and the placement of the base ROE within the zone of reasonableness are unaffected by what DCF methodology is used. We conclude that the Commission need not establish hearing procedures on the placement of the base ROE within the zone of reasonableness because the hearing already held before the Presiding Judge provided the parties a full opportunity to present evidence on all these issues, including a full opportunity to contest all the evidence we have relied upon in our findings concerning placement in the zone.[308] Accordingly, in order to resolve this proceeding as expeditiously and efficiently as possible consistent with due process, we will not reopen the record for the purpose of allowing any additional evidence to be presented on those issues. For the same reasons, we will not allow any further updating of the financial data beyond the October 2012 through March 2013 period approved in this order.

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[308] *See, e.g.*, Ex. NET-300 at 7-8, 44-45, 45-72, 81-82; Ex. NET-400 at 26-27; Ex. S-12; Ex. NET-500 at 12.

156. Initial briefs are due within 45 days of the issuance of this order, and reply briefs are due within 30 days after the submission of initial briefs. The page limit for each brief will be 25 pages;[309] however, we impose no page limit on attached expert testimony.

VII. Elimination of the Treasury Bond Update

157. The Commission's policy in public utility ROE cases has been to establish a just and reasonable ROE, within a zone of reasonableness, based upon test-period evidence. However, because capital market conditions can change between the date the utility files its case-in-chief and the date the Commission issues a final decision, the Commission updates the ROE within the zone of reasonableness at the time of the final decision to reflect those capital market changes.[310] The Commission's long-standing practice has been to base this post-hearing adjustment on the change in U.S. Treasury bond yields during the same time period.[311] We now change that practice.

158. The premise underlying the use of U.S. Treasury bonds for the post-hearing ROE adjustment is that changes in ROE over time track changes in U.S. Treasury bond yields. However, while U.S. Treasury bond yields are an important indicator of capital market conditions and therefore inform our determination of an appropriate base ROE, the capital market conditions since the 2008 market collapse and the record in this proceeding have shown that there is not a direct correlation between changes in U.S. Treasury bond yields and changes in ROE. Therefore, the premise underlying the Commission's use of U.S. Treasury bond yields for post-hearing ROE adjustments is not always accurate. In *Southern California Edison Company*, a 2008 case in which the post-hearing adjustment was at issue, expert testimony indicated that, as U.S. Treasury bond yields decreased DCF results instead went up, indicating an inverse relationship between

[309] We take this opportunity to remind the participants of the requirements contained in Rule 2003 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2003 (2013).

[310] *E.g., S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 100 (citing *City of Vernon, Cal.*, Opinion No. 479, 111 FERC ¶ 61,092 (2005); *Jersey Cent. Power & Light Co.*, Opinion No. 408, 77 FERC ¶ 61,001).

[311] *E.g., Ill. Power Co.*, 15 FERC ¶ 61,050, at 61,095 (1981); *see also Union Elec. Co. v. FERC*, 890 F.2d 1193 (D.C. Cir. 1989) (affirming the Commission's use of U.S. Treasury bond yields to make post-hearing adjustments within the range of reasonableness).

U.S. Treasury bond yields and utility ROE.[312] The record in this proceeding also shows an inverse relationship, but with rates moving in opposite directions: U.S. Treasury bond yields have increased while DCF results for the NETOs have gone down.[313]

159. The record in this proceeding also casts doubt on the magnitude, not just the direction, of the relationship between U.S. Treasury bond yields and utility ROE. The Commission's practice traditionally has been to adjust the ROE using a 1:1 correspondence between the ROE and the change in U.S. Treasury bond yields—i.e., for every basis point change in the U.S. Treasury bond yield the Commission would adjust the ROE by one basis point. However, the record in this proceeding indicates that the 1:1 correspondence may not be accurate under current financial conditions, and that a significantly different ratio might be more appropriate—i.e., for every basis point the U.S. Treasury bond yields change, the Commission should adjust the ROE by a fraction of that amount.[314] Thus, the record evidence indicates that, currently, adjusting ROEs based on changes in U.S. Treasury bond yields may not produce a rational result, as both the magnitude and direction of the correlation may be inaccurate.

160. Upon consideration of the record evidence in this proceeding, and in light of the economic conditions since the 2008 market collapse more generally, U.S. Treasury bond yields do not provide a reliable and consistent metric for tracking changes in ROE after the close of the record in a case. Accordingly, we conclude that, rather than updating ROEs by taking official notice of post-hearing changes in U. S. Treasury bond yields, a more reasonable approach is to allow the participants in a rate case to present the most recent financial data available at the time of the hearing, including post-test period financial data then available. This approach will ensure that all participants have an opportunity to present evidence and argument concerning the financial data used to determine the public utility's ROE, while allowing the ROE to be based on the most recent financial data available at the time of the hearing consistent with the due process

[312] *S. Cal. Edison Co. v. FERC*, 717 F.3d at 187-88 (remanding for the Commission to consider evidence that the U.S. Treasury bond yields and corporate bond yields might be inversely related and, therefore, not rationally related).

[313] *Compare* Initial Decision, 144 FERC ¶ 63,012 at P 551 n.49 (stating that the NETOs' DCF analyses in this proceeding indicate a lower cost of equity estimate for the prospective period than the refund period); *with* Ex. EMC-1 at 6-7 (indicating that the average 10-year U.S. Treasury bond yield in Oct. 2012 was between 1.7 and 1.8 percent) and Tr. 560 (indicating that the average 10-year U.S. Treasury bond yield for the period from Oct. 2012 to Mar. 2013 increased slightly to 1.83 percent).

[314] *See generally* May 8, 2013 Transcript at 562-570, 597, 605-606.

rights of the participants. This approach is also consistent with our longstanding practice in natural gas and oil pipeline rate cases.[315] We will, therefore, no longer use changes in U.S. Treasury bond yields to conduct post-hearing adjustments in public utility ROE proceedings.

VIII. Impact of the DCF Methodology Change on Existing ROE Transmission Incentive Adders

161. As noted above, the Commission is changing its approach to require that cost of equity estimates be calculated using the two-step DCF methodology. In general, the two-step DCF methodology will produce a narrower zone of reasonableness than use of the one-step DCF methodology for two reasons: (1) long-term growth rates are more stable than short-term growth rates, and (2) the two-step DCF methodology does not calculate a high-end estimate and low-end estimate for each proxy group company's cost of equity, but rather calculates one estimate for each company.

162. In section 219(a) of the FPA, Congress directed the Commission to establish incentive-based rate treatments to foster investment in transmission facilities. The Commission implemented FPA section 219 in Order No. 679.[316]

163. In order to satisfy the requirement of FPA section 219(d) that any rate incentives be consistent with FPA section 205, the Commission in Order No. 679 stated, "an incentive rate of return sought by an applicant must be within a range of reasonable returns and the rate proposal as a whole must be within the zone of reasonableness before it will be approved."[317]

164. Based on the Commission's policy that the total ROE including any incentive ROE is limited to the zone of reasonableness, the Commission has found in the past that an incentive ROE may not be implemented in full by the utility if the total ROE exceeds the zone of reasonableness. In *Pacific Gas and Electric Company*, for example, the Commission stated that a 200 point basis adder previously granted to Pacific Gas & Electric Company would be limited to within the range of the zone of reasonableness

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[315] Opinion No. 510, 134 FERC ¶ 61,129 at PP 242-246, *order on reh'g*, 142 FERC ¶ 61,198 at PP 205-206.

[316] *Promoting Transmission Investment through Pricing Reform*, Order No. 679, FERC Stats & Regs. ¶ 31,222 (2006), *order on reh'g*, Order No. 679-A, FERC Stats. & Regs. ¶ 31,236, *order on reh'g*, 119 FERC ¶ 61,062 (2007).

[317] *Id.* P 2; *see also id.* P 93.

determined at hearing.[318] The Commission has consistently applied this policy in other recent incentive ROE cases.[319] Nothing in this order changes this Commission policy.

165. Accordingly, when a public utility's ROE is changed, either under section 205 or section 206 of the FPA, that utility's total ROE, inclusive of transmission incentive ROE adders, should not exceed the top of the zone of reasonableness produced by the two-step DCF methodology.

IX. Conclusion

166. On balance, we find that our actions in this order, including the shift to the use of the two-step DCF methodology, the placement of the NETOs' base ROE at the midpoint of the upper half of the zone of reasonableness, and the elimination of the post-hearing adjustment based on U.S. Treasury bonds, taken together produce a base ROE that reasonably balances investor and consumer interests consistent with *Hope* and *Bluefield* and allow just and reasonable rates for consumers and transmission owners.[320]

The Commission orders:

(A) The Initial Decision is hereby affirmed in part and reversed in part, as described in the body of this order.

[318] *Pac. Gas & Elec. Co.*, 141 FERC ¶ 61,168, at P 26 (2012) ("While we continue to grant the 200 basis-point adder for the Path 15 upgrade, we remind PG&E that any ROE adder is limited to within the range of reasonableness of the ROE . . . ").

[319] *See Trans Bay Cable, LLC,* 145 FERC ¶ 61,151, at PP 18-19 (2013); *Atl. Path 15, LLC*, 135 FERC ¶ 61,037 (2011).

[320] *See, e.g., Hope*, 320 U.S. at 603.

(B) A paper hearing is hereby established, as discussed in the body of this order. Initial briefs are due within 45 days of the issuance of this order, and reply briefs are due within 30 days after the submission of initial briefs. Briefs are limited to 25 pages.

By the Commission. Commissioner Norris is dissenting in part with a separate statement attached.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

EL11-66-000: MARTHA COAKLEY, ET.AL. V. BANGOR HYDRO-ELECTRIC CO., ET.AL.
FERC DCF Analysis: Natural Gas Model Using Data for the Six-Month Period Beginning October 2012 and Ending March 2013
Data Screens: Value Line data & I/B/E/S growth; Pays common dividend; No merger activity in past 6 months
Risk Screens: Credit Ratings (S&P: A to BBB-, Moody's A1 to Baa3)

Ticker	Company Name	6 Mos. Avg Div. Yield	Growth Rate ("g") I/B/E/S	GDP	Composite	Adj. Div. Yield	DCF Result	Reason for Removal
ALE	ALLETE, Inc.	4.37%	6.00%	4.39%	5.46%	4.49%	9.95%	
LNT	Alliant Energy Corp.	4.14%	5.87%	4.39%	5.38%	4.25%	9.63%	
AEE	Ameren Corp.	4.99%	-1.80%	4.39%	0.26%	4.99%	--	Low-end Outlier
AEP	American Electric Power Co., Inc.	4.22%	3.60%	4.39%	3.86%	4.31%	8.17%	
AVA	Avista Corp.	4.84%	4.00%	4.39%	4.13%	4.94%	9.07%	
BKH	Black Hills Corp.	4.00%	6.00%	4.39%	5.46%	4.11%	9.57%	
CNP	CenterPoint Energy, Inc.	3.99%	5.00%	4.39%	4.80%	4.09%	8.89%	
CNL	Cleco Corp.	3.20%	8.00%	4.39%	6.80%	3.30%	10.10%	
CMS	CMS Energy Corp.	4.09%	5.90%	4.39%	5.40%	4.20%	9.60%	
ED	Consolidated Edison, Inc.	4.26%	2.00%	4.39%	2.80%	4.32%	7.12%	
D	Dominion Resources, Inc.	4.22%	7.27%	4.39%	6.31%	4.36%	10.67%	
DTE	DTE Energy Co.	3.97%	4.42%	4.39%	4.41%	4.05%	8.46%	
DUK	Duke Energy Corp.	4.62%	4.20%	4.39%	4.26%	4.72%	8.98%	
EIX	Edison International	2.91%	-1.90%	4.39%	0.20%	2.91%	--	Low-end Outlier
EE	El Paso Electric Co.	3.04%	3.70%	4.39%	3.93%	3.10%	7.03%	
EDE	Empire District Electric Co.	4.73%	3.00%	4.39%	3.46%	4.81%	8.28%	
FE	FirstEnergy Corp.	5.26%	4.60%	4.39%	4.53%	5.38%	9.91%	
GXP	Great Plains Energy Inc.	4.04%	6.55%	4.39%	5.83%	4.16%	9.99%	
HE	Hawaiian Electric Industries, Inc.	4.75%	3.30%	4.39%	3.66%	4.83%	8.50%	
IDA	IDACORP, Inc.	3.39%	4.00%	4.39%	4.13%	3.46%	7.59%	
TEG	Integrys Energy Group, Inc.	5.01%	5.67%	4.39%	5.24%	5.15%	10.39%	
NEE	NextEra Energy, Inc.	3.72%	6.20%	4.39%	5.60%	3.82%	9.42%	
NU	Northeast Utilities	3.67%	8.04%	4.39%	6.82%	3.79%	10.62%	
NWE	NorthWestern Corp.	4.18%	5.00%	4.39%	4.80%	4.28%	9.08%	

OGE	OGE Energy Corp.	2.87%	4.55%	4.39%	4.50%	2.93%	7.43%	
OTTR	Otter Tail Corp.	4.60%	5.00%	4.39%	4.80%	4.71%	9.51%	
POM	Pepco Holdings, Inc.	5.46%	3.63%	4.39%	3.88%	5.57%	9.45%	
PCG	PG&E Corp.	4.34%	3.10%	4.39%	3.53%	4.41%	7.94%	
PNW	Pinnacle West Capital Corp.	4.10%	7.30%	4.39%	6.33%	4.23%	10.56%	
POR	Portland General Electric Co.	3.86%	5.58%	4.39%	5.18%	3.96%	9.14%	
PPL	PPL Corp.	4.96%	2.70%	4.39%	3.26%	5.04%	8.31%	
PEG	Public Service Enterprise Group Inc.	4.59%	-0.68%	4.39%	1.01%	4.61%	--	Low-end Outlier
SCG	SCANA Corp.	4.26%	4.43%	4.39%	4.42%	4.36%	8.77%	
SRE	Sempra Energy	3.50%	5.65%	4.39%	5.23%	3.59%	8.82%	
SO	Southern Company	4.40%	4.80%	4.39%	4.66%	4.50%	9.16%	
TE	TECO Energy, Inc.	5.09%	2.90%	4.39%	3.40%	5.18%	8.58%	
UIL	UIL Holdings Corp.	4.72%	8.10%	4.39%	6.86%	4.88%	11.74%	
VVC	Vectren Corp.	4.64%	5.00%	4.39%	4.80%	4.75%	9.55%	
WR	Westar Energy, Inc.	4.42%	6.50%	4.39%	5.80%	4.55%	10.34%	
WEC	Wisconsin Energy Corp.	3.51%	5.37%	4.39%	5.04%	3.60%	8.64%	
XEL	Xcel Energy, Inc.	3.90%	5.12%	4.39%	4.88%	3.99%	8.87%	
	Zone of Reasonableness					**7.03%**	**---**	**11.74%**
						Midpoint:	**9.39%**	
						75th Percentile:	**10.57%**	

Long-term U.S. Gross Domestic Product (GDP) Growth Estimates For the Fourth Quarter of 2012

Source	Year Beginning	Nominal GDP ($Billion)	Year Ending	Nominal GDP ($Billion)	Annual GDP Growth (%)
IHS Global Insight [1]	2017	$ 19,369	2043	$ 57,599	4.28%
EIA [2]	2017	$ 19,421	2040	$ 51,037	4.29%
SSA [3]	2017	$ 20,392	2067	$ 191,986	4.59%
Average:					**4.39%**

Notes

[1] IHS Global Insight: Long-Term Macro Forecast - Baseline (U.S. Economy 30-Year Focus, First Quarter (March 1, 2013), Table Summary 1(a), http://www.globalinsight.com/

2 Report: Annual Energy Outlook 2013 (Release date: April 2013): Table 20. Macroeconomic Indicators. Nominal GDP=(Real GDP)*(GDP Chain-Type Price index). http://www.eia.gov/forecasts/aeo/data.cfm?filter=macroeconomic#macroeconomic (Table 20)

3 Social Security Administration: The 2012 OASDI Trustees Report (April 25, 2012), Table VI.F4.-- OASDI and HI Annual and Summarized Income, Cost, and Balance as a Percentage of GDP, Calendar Years 2012-90, Intermediate Assumptions. Note: (GDP2067)=(GDP2065)*((GDP2070/GDP2065)^(2/5)) http://www.ssa.gov/oact/tr/2012/VI_F2_OASDHI_GDP.html#181864

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Martha Coakley, Massachusetts Attorney General; Connecticut Public Utilities Regulatory Authority; Massachusetts Department of Public Utilities; New Hampshire Public Utilities Commission; Connecticut Office of Consumer Counsel; Maine Office of the Public Advocate; George Jepsen, Connecticut Attorney General; New Hampshire Office of Consumer Advocate; Rhode Island Division of Public Utilities and Carriers; Vermont Department of Public Service; Massachusetts Municipal Wholesale Electric Company; Associated Industries of Massachusetts; The Energy Consortium; Power Options, Inc.; and the Industrial Energy Consumer Group	Docket No. EL11-66-001
v.	
Bangor Hydro-Electric Co.; Central Maine Power Co.; New England Power Co. d/b/a National Grid; New Hampshire Transmission LLC d/b/a NextEra; NSTAR Electric and Gas Corp.; Northeast Utilities Service Co.; The United Illuminating Co.; Unitil Energy Systems, Inc. and Fitchburg Gas and Electric Light Co.; Vermont Transco, LLC	

(Issued June 19, 2014)

NORRIS, Commissioner, *dissenting in part*

We act today to address the backlog of complaint cases filed before the Commission arguing that returns on equity (ROE) for a number of public utilities are too high, and thus the rates derived from such ROEs are no longer just and reasonable. These cases have sat for too long, and I thank Chairman LaFleur for her leadership in working to promptly address the complaints under her watch.

Today's order addresses the complaint filed against the New England transmission owners' ROE. It also serves to announce the Commission's new approach for making determinations on ROE complaints as well as any ROEs proposed under Federal Power Act (FPA) section 205. Based on the record in this proceeding, today's order finds that an upward adjustment from long-standing Commission policy to set the ROE at the

central tendency of the zone of reasonableness is warranted. The order then adjusts the ROE to the midpoint of the upper half of the zone.

While I agree that an upward adjustment from the central tendency is warranted in this case, the decision to grant New England transmission owners an ROE at the midpoint of the upper half of the zone of reasonableness is unjustified, lacks reasoning to support it, and sets troubling precedent. I am concerned that this determination subjects consumers to unjust and unreasonable rates in this proceeding and potentially in future ROE proceedings.

Given unusual capital market conditions that all parties to this proceeding acknowledge, particularly the historically low bond yields, I support the Commission's decision to look beyond the results of our traditional discounted cash flow methodology to inform the placement of the ROE within the zone of reasonableness. The record in this proceeding shows that a straight-forward application of the discounted cash flow methodology would result in a dramatic decrease in ROE and result in a level below that generally set by state commissions for electric distribution assets. This level risks failing to meet our *Hope* and *Bluefield*[1] requirements that ROEs be set so as to enable transmission owners to attract capital for new investment in transmission. I strongly believe that as a nation we still need more investment in transmission to promote competitive markets, reduce congestion, enhance reliability, and enable access to renewable resources. For these reasons, I conclude in this proceeding that an upward adjustment from the central tendency is warranted.

However, I cannot support the upward adjustment from the central tendency approved in today's order. With little justification or support, today's order agrees to the New England transmission owners' request to set their ROE at the midpoint of the upper half of the zone of reasonableness. Today's order has not met the burden to show that a 118 basis point upward adjustment from the central tendency to the midpoint of the upper half of the zone is a necessary and appropriate measure in this proceeding to meet our *Hope* and *Bluefield* requirements, or our FPA section 205 and 206 mandate to ensure that rates are just and reasonable.

[1] *FPC v. Hope Natural Gas Co.*, 320 U.S. 581 (1944) (*Hope);* and *Bluefield Water Works & Improvement Co. V. Pub. Serv.* Comm'n, 262 U.S. 679 (1923) (*Bluefield).*

Indeed, today's order cites only two cases from over a decade ago where the Commission approved an ROE adjustment to the midpoint of the upper half.[2] These cases do not provide relevant precedent, because they involved adjusting the ROE above the central tendency based on the risk profile of a utility that differed from the proxy group studied, a determination that was not made in the current proceeding.[3]

Looking beyond today's order, my broader concern is that the precedent established through this adjustment could become the new norm that would potentially ratchet up and lock in substantially higher ROEs in future cases. I am further troubled by today's order in light of recent Commission decisions on Order No. 1000 compliance filings that have served to protect incumbent transmission owners from competition in the development of new transmission. Simply put, not only will incumbent transmission owners be more insulated from competition, they will also be the primary beneficiaries of the new precedent established in this proceeding that could provide for substantially higher ROEs.

Given the potential significance of today's decision, I would have set the appropriate level of the upward adjustment from the central tendency for paper hearing. The New England transmission owners convincingly argue in the record that an upward adjustment is warranted, but then with limited justification argue that the correct adjustment is the midpoint of the upper half of the zone of reasonableness. Meanwhile, consumer representatives and Commission trial staff at the hearing before the judge argue that no deviation from the central tendency is warranted, consistent with existing Commission policy. Parties were not on notice that the Commission would now deviate from its long-standing precedent that relies on the central tendency. A paper hearing would have efficiently afforded all affected parties the opportunity to make their case in the record as to the appropriate level of the upward adjustment from the central tendency. Regrettably, today's order tilts the balance in favor of the New England transmission owners without further recourse and fails to adequately give a voice to consumer interests.

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[2] *Consumers Energy Co.*, 85 FERC ¶ 61,100 (1998); and *S. Cal. Edison Co.*, 88 FERC ¶ 61,254 (1999).

[3] Notably, moving from the central tendency to the midpoint of the upper half of the zone of reasonableness first in *Consumers Energy* and then in *S. Cal. Edison* resulted in an 18 basis point and a 58 basis point upward adjustment, respectively. In contrast, the adjustment in this case results in a much larger 118 basis point increase.

Finally, I note that in future ROE cases, if parties wish to argue for an upward adjustment, they should make their case for the appropriate level of the adjustment. The Commission should then determine whether or not the record evidence in each individual proceeding warrants an adjustment, and if so, to what level.

For these reasons, I respectfully dissent in part.

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John R. Norris, Commissioner

NEW
REGULATORY
FINANCE

Roger A. Morin, PhD

2006
PUBLIC UTILITIES REPORTS, INC.
Vienna, Virginia

First Printing, June 2006

Library of Congress Cataloging-in-Publication Data
Morin, Roger A.
New regulatory finance/Roger A. Morin.
p. cm.
Rev. ed. of: Regulatory finance. 1994.
Includes bibliographical references and index.
ISBN-13: 978-0-910325-05-9
ISBN-10: 0-910325-05-7
1. Public utilities—United States—Finance. 2. Public utilities—Rate of return. 3. Public utilities—Law and legislation—United States. 4. Capital costs—United States. I. Morin, Roger A. Regulatory finance. II. Public Utilities Reports, Inc. III. Title.

HD2766.M62 2006
363.6068'1—dc22

2006018026

Printed in the United States of America

Chapter 6
Alternative Asset Pricing Models

6.1 Empirical Validity of the CAPM

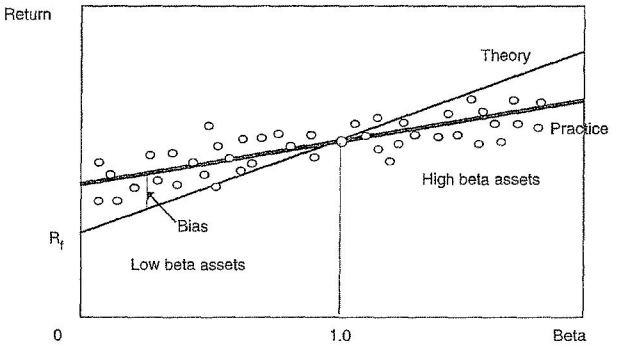
The last chapter showed that the practical difficulties of implementing the CAPM approach are surmountable. Conceptual and empirical problems remain, however.

At the conceptual level, the CAPM has been submitted to criticisms by academicians and practitioners. Contrary to the core assumption of the CAPM, investors may choose not to diversify, and bear company-specific risk if abnormal returns are expected. A substantial percentage of individual investors are indeed inadequately diversified. Short selling is somewhat restricted, in violation of CAPM assumptions. Factors other than market risk (beta) may also influence investor behavior, such as taxation, firm size, and restrictions on borrowing.

At the empirical level, there have been countless tests of the CAPM to determine to what extent security returns and betas are related in the manner predicted by the CAPM. The results of the tests support the idea that beta is related to security returns, that the risk-return tradeoff is positive, and that the relationship is linear. The contradictory finding is that the risk-return tradeoff is not as steeply sloped as predicted by the CAPM. With few exceptions, the empirical studies agree that the implied intercept term exceeds the risk-free rate and the slope term is less than predicted by the CAPM. That is, low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted. This is shown pictorially in Figure 6-1. A CAPM-based estimate of cost of capital underestimates the return required from low-beta securities and overstates the return required from high-beta securities, based on the empirical evidence. Brealey, Myers, and Allen (2006), among many others,[1] provide recent empirical evidence very similar to the relationship depicted in Figure 6-1. This is one of the most

[1] For a summary of the empirical evidence on the CAPM, see Jensen (1972) and Ross (1978). The major empirical tests of the CAPM were published by Friend and Blume (1975), Black, Jensen, and Scholes (1972), Miller and Scholes (1972), Blume and Friend (1973), Blume and Husic (1973), Fama and Macbeth (1972), Basu (1977), Reinganum (1981B), Litzenberger and Ramaswamy (1979), Banz (1981), Gibbons (1982), Stambaugh (1982), Shanken (1985), Black (1993), and Brealey, Myers, and Allen (2006). Evidence in the Canadian context is available in Morin (1980, 1981).

FIGURE 6-1
PREDICTED VS. OBSERVED CAPM RETURN ESTIMATES



well-known results in finance. This result is particularly pertinent for public utilities whose betas are typically less than 1.00. Based on the evidence, as shown in Figure 6-1, a CAPM-based estimate of the cost of capital underestimates the return required from such securities.

The empirical evidence also demonstrates that the SML is highly unstable over short periods and differs significantly from the long-run relationship. This evidence underscores the potential for error in cost of capital estimates that apply the CAPM using historical data over short time periods. The evidence[2] also shows that the addition of specific company risk, as measured by standard deviation, adds explanatory power to the risk-return relationship.

In short, the currently available empirical evidence indicates that the simple version of the CAPM does not provide a perfectly accurate description of the process determining security returns. Explanations for this shortcoming include some or all of the following:

1. The CAPM excludes other important variables that are important in determining security returns, such as size, skewness, and taxes.
2. The market index used in the tests excludes important classes of securities, such as bonds, mortgages, and business investments. There is a further argument that the CAPM can never be really tested and that such a test is infeasible. This is because the market index proxy used

[2] See Friend, Westerfield, and Granito (1978) and Morin (1980).

First Printing, June 2006

Library of Congress Cataloging-in-Publication Data
Morin, Roger A.
New regulatory finance/Roger A. Morin.
p. cm.
Rev. ed. of: Regulatory finance. 1994.
Includes bibliographical references and index.
ISBN-13: 978-0-910325-05-9
ISBN-10: 0-910325-05-7
1. Public utilities—United States—Finance. 2. Public utilities—Rate of return. 3. Public utilities—Law and legislation—United States. 4. Capital costs—United States. I. Morin, Roger A. Regulatory finance. II. Public Utilities Reports, Inc. III. Title.

HD2766.M62 2006
363.6068'1—dc22

2006018026

Printed in the United States of America

long-term risk-free rate version of the CAPM has a higher intercept and a flatter slope than the short-term risk-free version which has been tested. Thus, it is reasonable to apply a conservative alpha adjustment. Moreover, the lowering of the tax burden on capital gains and dividend income enacted in 2002 may have decreased the required return for taxable investors, steepening the slope of the ECAPM risk-return trade-off and bring it closer to the CAPM predicted returns.[13]

To illustrate the application of the ECAPM, assume a risk-free rate of 5%, a market risk premium of 7%, and a beta of 0.80. The Empirical CAPM equation (6-6) above yields a cost of equity estimate of 11.0% as follows:

$$K = 5\% + 0.25\,(12\% - 5\%) + 0.75 \times 0.80\,(12\% - 5\%)$$
$$= 5.0\% + 1.8\% + 4.2\%$$
$$= 11.0\%$$

As an alternative to specifying alpha, see Example 6-1.

Some have argued that the use of the ECAPM is inconsistent with the use of adjusted betas, such as those supplied by Value Line and Bloomberg. This is because the reason for using the ECAPM is to allow for the tendency of betas to regress toward the mean value of 1.00 over time, and, since Value Line betas are already adjusted for such trend, an ECAPM analysis results in double-counting. This argument is erroneous. Fundamentally, the ECAPM is not an adjustment, increase or decrease. in beta. This is obvious from the fact that the expected return on high beta securities is actually lower than that produced by the CAPM estimate. The ECAPM is a formal recognition that the observed risk-return tradeoff is flatter than predicted by the CAPM based on myriad empirical evidence. The ECAPM and the use of adjusted betas comprised two separate features of asset pricing. Even if a company's beta is estimated accurately, the CAPM still understates the return for low-beta stocks. Even if the ECAPM is used, the return for low-beta securities is understated if the betas are understated. Referring back to Figure 6-1, the ECAPM is a return (vertical axis) adjustment and not a beta (horizontal axis) adjustment. Both adjustments are necessary. Moreover, recall from Chapter 3 that the use of adjusted betas compensates for interest rate sensitivity of utility stocks not captured by unadjusted betas.

[13] The lowering of the tax burden on capital gains and dividend income has no impact as far as non-taxable institutional investors (pension funds, 401K, and mutual funds) are concerned, and such investors engage in very large amounts of trading on security markets. It is quite plausible that taxable retail investors are relatively inactive traders and that large non-taxable investors have a substantial influence on capital markets.