MULTI-STAGE METHOD DAVID MURRAY USED PRIOR TO 2019 USING SIX-MONTH AVERAGE OF STOCK PRICES

	Annualized Quarterly	Growth Years	0	7	Growth Years	0	10	Growth in	Cost of
	Dividend	1-5	6	7	8	9	10	Perpetuity	Equity
ALLETE, Inc. (NYSE:ALE)	\$2.82	3.67%	3.56%	3.44%	3.33%	3.22%	3.11%	3.00%	8.17%
Alliant Energy Corporation (NASDAQGS:LNT)	\$1.92	6.69%	6.08%	5.46%	4.85%	4.23%	3.62%	3.00%	7.27%
Ameren Corporation (NYSE:AEE)	\$2.68	6.49%	5.91%	5.33%	4.75%	4.16%	3.58%	3.00%	7.07%
American Electric Power Company, Inc. (NASI		6.36%	5.80%	5.24%	4.68%	4.12%	3.56%	3.00%	8.15%
Avangrid, Inc. (NYSE:AGR)	\$1.76	6.90%	6.25%	5.60%	4.95%	4.30%	3.65%	3.00%	9.49%
Avista Corporation (NYSE:AVA)	\$1.90	4.68%	4.40%	4.12%	3.84%	3.56%	3.28%	3.00%	8.91%
Black Hills Corporation (NYSE:BKH)	\$2.60	4.49%	4.24%	3.99%	3.75%	3.50%	3.25%	3.00%	8.82%
CenterPoint Energy, Inc. (NYSE:CNP)	\$0.84	7.49%	6.74%	5.99%	5.24%	4.50%	3.75%	3.00%	6.96%
CMS Energy Corporation (NYSE:CMS)	\$2.06	7.37%	6.64%	5.91%	5.18%	4.46%	3.73%	3.00%	7.29%
Consolidated Edison, Inc. (NYSE:ED)	\$3.32	5.69%	5.24%	4.80%	4.35%	3.90%	3.45%	3.00%	7.41%
Dominion Energy, Inc. (NYSE:D)	\$2.67	12.65%	11.04%	9.43%	7.82%	6.22%	4.61%	3.00%	10.48%
DTE Energy Company (NYSE:DTE)	\$4.08	7.82%	7.02%	6.21%	5.41%	4.61%	3.80%	3.00%	7.40%
Duke Energy Corporation (NYSE:DUK)	\$4.18	6.39%	5.82%	5.26%	4.69%	4.13%	3.56%	3.00%	7.89%
Edison International (NYSE:EIX)	\$3.12	7.43%	6.69%	5.95%	5.21%	4.48%	3.74%	3.00%	8.30%
Entergy Corporation (NYSE:ETR)	\$4.80	7.56%	6.80%	6.04%	5.28%	4.52%	3.76%	3.00%	8.55%
Evergy, Inc. (NASDAQGS:EVRG)	\$2.67	5.62%	5.19%	4.75%	4.31%	3.87%	3.44%	3.00%	8.64%
Eversource Energy (NYSE:ES)	\$2.86	5.61%	5.18%	4.74%	4.31%	3.87%	3.44%	3.00%	8.48%
Exelon Corporation (NASDAQGS:EXC)	\$1.52	5.86%	5.39%	4.91%	4.43%	3.95%	3.48%	3.00%	7.95%
FirstEnergy Corp. (NYSE:FE)	\$1.70	6.67%	6.06%	5.44%	4.83%	4.22%	3.61%	3.00%	8.30%
Hawaiian Electric Industries, Inc. (NYSE:HE)	\$0.00	-13.00%	-10.33%	-7.67%	-5.00%	-2.33%	0.33%	3.00% N	A
IDACORP, Inc. (NYSE:IDA)	\$3.44	6.74%	6.12%	5.49%	4.87%	4.25%	3.62%	3.00%	7.55%
MDU Resources Group, Inc. (NYSE:MDU)	\$0.52	-1.85%	-1.05%	-0.24%	0.57%	1.38%	2.19%	3.00%	4.35%
MGE Energy, Inc. (NASDAQGS:MGEE)	\$1.80	0.00%	0.50%	1.00%	1.50%	2.00%	2.50%	3.00%	4.72%
NextEra Energy, Inc. (NYSE:NEE)	\$2.06	8.31%	7.43%	6.54%	5.66%	4.77%	3.89%	3.00%	6.83%
NiSource Inc. (NYSE:NI)	\$1.06	7.78%	6.98%	6.18%	5.39%	4.59%	3.80%	3.00%	7.69%
NorthWestern Energy Group, Inc. (NASDAQG	\$2.60	5.61%	5.17%	4.74%	4.30%	3.87%	3.43%	3.00%	8.92%
OGE Energy Corp. (NYSE:OGE)	\$1.69	6.02%	5.51%	5.01%	4.51%	4.01%	3.50%	3.00%	8.47%
Otter Tail Corporation (NASDAQGS:OTTR)	\$1.87	6.00%	5.50%	5.00%	4.50%	4.00%	3.50%	3.00%	5.72%
PG&E Corporation (NYSE:PCG)	\$0.04	9.43%	8.36%	7.29%	6.22%	5.14%	4.07%	3.00%	2.61%
Pinnacle West Capital Corporation (NYSE:PNV	\$3.58	6.68%	6.07%	5.45%	4.84%	4.23%	3.61%	3.00%	8.56%
Portland General Electric Company (NYSE:PO	\$2.00	8.79%	7.82%	6.86%	5.89%	4.93%	3.96%	3.00%	9.33%
PPL Corporation (NYSE:PPL)	\$1.03	7.06%	6.39%	5.71%	5.03%	4.35%	3.68%	3.00%	7.52%
Public Service Enterprise Group Incorporated ((\$2.40	6.48%	5.90%	5.32%	4.74%	4.16%	3.58%	3.00%	6.88%
Sempra (NYSE:SRE)	\$2.48	6.60%	6.00%	5.40%	4.80%	4.20%	3.60%	3.00%	7.05%
The Southern Company (NYSE:SO)	\$2.88	6.47%	5.90%	5.32%	4.74%	4.16%	3.58%	3.00%	7.39%
TXNM Energy, Inc. (NYSE:TXNM)	\$1.55	4.91%	4.59%	4.27%	3.95%	3.64%	3.32%	3.00%	7.48%
Unitil Corporation (NYSE:UTL)	\$1.70	6.20%	5.67%	5.13%	4.60%	4.07%	3.53%	3.00%	6.81%
WEC Energy Group, Inc. (NYSE:WEC)	\$3.34	7.10%	6.42%	5.73%	5.05%	4.37%	3.68%	3.00%	8.05%
Xcel Energy Inc. (NASDAQGS:XEL)	\$2.19	7.15%	6.46%	5.77%	5.07%	4.38%	3.69%	3.00%	7.97%
Companies I used in 2014 UE rate	0000		D			-	•	Average nternational ri Rate Case	7.62% 8.08% 7.89%

MULTI-STAGE METHOD DAVID MURRAY USED PRIOR TO 2019 USING THREE-MONTH AVERAGE OF STOCK PRICES

Common Marra	Annualized Quarterly	Growth Years	0	7	Growth Years	0	10	Growth in	Cost of
Company Name	Dividend	1-5	6	7	8	9	10	Perpetuity	Equity
ALLETE, Inc. (NYSE:ALE)	\$2.82	3.67%	3.56%	3.44%	3.33%	3.22%	3.11%	3.00%	8.14%
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American Electric Power Company, Inc. (NASE		6.36%	5.80%	5.24%	4.68%	4.12%	3.56%	3.00%	7.91%
Avangrid, Inc. (NYSE:AGR)	\$1.76	6.90%	6.25%	5.60%	4.95%	4.30%	3.65%	3.00%	9.49%
Avista Corporation (NYSE:AVA)	\$1.90	4.68%	4.40%	4.12%	3.84%	3.56%	3.28%	3.00%	8.76%
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CMS Energy Corporation (NYSE:CMS)	\$2.06	7.37%	6.64%	5.91%	5.18%	4.46%	3.73%	3.00%	7.06%
Consolidated Edison, Inc. (NYSE:ED)	\$3.32	5.69%	5.24%	4.80%	4.35%	3.90%	3.45%	3.00%	7.18%
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								Average nternational	7.42% 7.86%
Companies I used in 2014 UE rate	case.		Pro			-		ri Rate Case	7.65%

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