Actual rate of return received each year

	2016	2017	2018	2019	2020	average	
Base - increasing DRP	255.17	259.98	264.37	278.49	288.43	269.29	
Base - decreasing DRP	255.17	247.86	243.03	230.30	222.36	239.74	
Shift out 2017 capex in 2016 - increasing DRP	255.17	257.12	268.38	281.65	291.20	270.71	0.53%
Shift out 2017 capex in 2016 - decreasing DRP	255.17	252.12	239.73	227.69	220.08	238.96	-0.33%
Capex abandoned in 2016 - increasing DRP	255.17	260.59	264.92	279.40	289.22	269.86	0.21%
Capex abandoned in 2016 - decreasing DRP	255.17	247.87	243.04	229.86	221.98	239.58	-0.07%
capex doubled in 2016 - increasing DRP	255.17	259.45	263.91	277.69	287.75	268.80	-0.18%
capex doubled in 2016 - decreasing DRP	255.17	247.84	243.02	230.68	222.70	239.88	0.06%
divest $100 mil in 2016 - increasing DRP	255.17	261.32	265.56	280.46	290.14	270.53	0.46%
divest $100 mil in 2016 - decreasing DRP	255.17	247.89	243.05	229.35	221.53	239.40	-0.14%
$500 mil investment in 2016 not $100 mil - increasing DRP	255.17	258.25	262.85	275.83	286.13	267.65	-0.61%
$500 mil investment in 2016 not $100 mil - decreasing DRP	255.17	247.82	243.01	231.57	223.49	240.21	0.19%

Idea is some simple modelling

Here, the regulator does not s
forward your investment plan
change your mind at the start
2016.

The workings are very crude.
These are then copied and pa

You change the forecast cape
increasing or decreasing DRP
downwards.

rates	2016	2017	2018	2019	2020
	255.17	258.25	262.85	275.83	286.13

Input cells
Outputs
increase/decrease 1.1
2015 submission

				2015	2016	2017	2018	2019	2020	2021
2006	72.4	Rates weighted av		256.29	255.17	259.98	264.37	278.49	288.43	302.04
2007	124.1									
2008	348.9									
2009	462.4									
2010	212.7	Rates raw								
2011	237.1			2015	2016	2017	2018	2019	2020	2021
2012	317.2	rate on the day		256.29	250.19	275.21	302.73	333.00	366.30	402.93
2013	306.8									
2014	225		2015	256.29	255.68	257.57	262.22	269.89	280.89	295.55
2015	195.3		2016		250.19	252.69	257.95	266.23	277.84	293.11
			2017			275.21	277.96	283.74	292.85	305.62
			2018				302.73	305.76	312.11	322.13
			2019					333.00	336.33	343.33
			2020						366.30	369.97
			2021							402.93
			2022							
			2023							
			2024							
			2025							

RAB and new capex

	Life	Value	
Pipeline	70	2500	51.71394799
compression	30	632	5.602836879
metering	50	30	0.443262411
Other	30	222	1.968085106

Weighted av life 60

Init asset value and yearly new capex	Weighted av life(yrs)		2015	2016	2017	2018	2019	2020
$ 1,000,000,000	60	2015	$ 1,000,000,000	$ 983,333,333.33	$ 966,666,666.67	$ 950,000,000.00	$ 933,333,333.33	$ 916,666,666.67
$ 100,000,000	60	2016		$ 100,000,000	$ 98,333,333.33	$ 96,666,666.67	$ 95,000,000.00	$ 93,333,333.33
$ 200,000,000	60	2017			$ 200,000,000	$ 196,666,666.67	$ 193,333,333.33	$ 190,000,000.00
$ -	60	2018				$ -	$ -	$ -
$ 150,000,000	60	2019					$ 150,000,000	$ 147,500,000.00
$ -	60	2020						$ -
$ -	60	2021						
$ -	60	2022						
$ -	60	2023						
$ -	60	2024						
$ -	60	2025						

Proportion of each asset in total

		2015	2016	2017	2018	2019	2020
	2015	100.00%	90.77%	76.42%	76.41%	68.04%	68.03%
	2016		9.23%	7.77%	7.77%	6.93%	6.93%
	2017			15.81%	15.82%	14.09%	14.10%
	2018				0.00%	0.00%	0.00%
	2019					10.94%	10.95%
	2020						0.00%
	2021						
	2022						
	2023						
	2024						
	2025						
checksum		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

; to see what happens when service providers start changing investment plans.

simply do the weighting at the start of the AA period, but updates each year during the AA period, so you put
ıs for 2017 in 2016. That way if you say you were going to invest in 2016 when your first submit in 2015, and
: of 2016, the investment plan you submit to the regulator in 2016 would no longer have the inverstment in

Cells D27 to G28 pick up the cost of debt for each year, so F 28 is the forecast DRP for 2018 made in 2017.
sted (as values) into rows five downwards once all the changes are made.

x once during the period (in 2016) so alter Q64 to 75 accordingly. Then you change cell C31 to reflect an
through time. This gives you a scenario in D28 to G28 which gets copied and pasted as values into rows five

2022	2023	2024	2025
319.67	341.74	368.67	400.97

2022	2023	2024	2025
443.23	487.55	536.30	589.93
314.25	337.37	365.37	398.74
312.42	336.15	364.76	398.74
322.42	343.66	369.77	401.24
336.18	354.67	378.02	406.74
354.35	369.80	390.13	415.83
377.66	389.78	406.78	429.15
406.96	415.42	428.76	447.46
443.23	447.66	456.97	471.64
	487.55	492.43	502.66
		536.30	541.67
			589.93

2016 submission

	2015	2016	2017	2018
Rates weighted av	256.29	253.83	258.25	262.85

Rates raw

	2015	2016	2017	2018
rate on the day	256.29	250.19	275.21	302.73
2015	256.29	255.68	257.57	262.22
2016		250.19	252.69	257.95
2017			275.21	277.96
2018				302.73
2019				
2020				
2021				
2022				
2023				
2024				
2025				

RAB and new capex

	Life	Value	
Pipeline	70	2500	51.71394799
compression	30	632	5.602836879
metering	50	30	0.443262411
Other	30	222	1.968085106

Weighted av life	60

2021	2022	2023	2024	2025
$ 900,000,000.00	$ 883,333,333.33	$ 866,666,666.67	$ 850,000,000.00	$ 833,333,333.33
$ 91,666,666.67	$ 90,000,000.00	$ 88,333,333.33	$ 86,666,666.67	$ 85,000,000.00
$ 186,666,666.67	$ 183,333,333.33	$ 180,000,000.00	$ 176,666,666.67	$ 173,333,333.33
$ -	$ -	$ -	$ -	$ -
$ 145,000,000.00	$ 142,500,000.00	$ 140,000,000.00	$ 137,500,000.00	$ 135,000,000.00
$ -	$ -	$ -	$ -	$ -
$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -
		$ -	$ -	$ -
			$ -	$ -
				$ -

Init asset value and yearly new capex	Weighted av life(yrs)
$ 1,000,000,000	60
$ 500,000,000	60
$ 200,000,000	60
$ -	60
$ 150,000,000	60
$ -	60
$ -	60
$ -	60
$ -	60
$ -	60
$ -	60

	2015	2016	2017
2015	$ 1,000,000,000	$ 983,333,333.33	$ 966,666,666.67
2016		$ 500,000,000	$ 491,666,666.67
2017			$ 200,000,000
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			

Proportion of each asset in total

2021	2022	2023	2024	2025
68.01%	67.99%	67.97%	67.95%	67.93%
6.93%	6.93%	6.93%	6.93%	6.93%
14.11%	14.11%	14.12%	14.12%	14.13%
0.00%	0.00%	0.00%	0.00%	0.00%
10.96%	10.97%	10.98%	10.99%	11.01%
0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%
		0.00%	0.00%	0.00%
			0.00%	0.00%
				0.00%
100.00%	100.00%	100.00%	100.00%	100.00%

	2015	2016	2017
2015	100.00%	66.29%	58.29%
2016		33.71%	29.65%
2017			12.06%
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			
checksum	100.00%	100.00%	100.00%

2019	2020	2021	2022	2023	2024	2025
275.83	286.13	300.10	318.10	340.52	367.83	400.49

2019	2020	2021	2022	2023	2024	2025
333.00	366.30	402.93	443.23	487.55	536.30	589.93
269.89	280.89	295.55	314.25	337.37	365.37	398.74
266.23	277.84	293.11	312.42	336.15	364.76	398.74
283.74	292.85	305.62	322.42	343.66	369.77	401.24
305.76	312.11	322.13	336.18	354.67	378.02	406.74
333.00	336.33	343.33	354.35	369.80	390.13	415.83
	366.30	369.97	377.66	389.78	406.78	429.15
		402.93	406.96	415.42	428.76	447.46
			443.23	447.66	456.97	471.64
				487.55	492.43	502.66
					536.30	541.67
						589.93

2017 submission

	2015
Rates weighted av	256.29

Rates raw

	2015
rate on the day	256.29

2015	256.29
2016	
2017	
2018	
2019	
2020	
2021	
2022	
2023	
2024	
2025	

RAB and new capex

	Life
Pipeline	70
compression	30
metering	50
Other	30

Weighted av life	60

2018	2019	2020	2021	2022	2023	2024	2025	Init asset value and yearly new capex	Weighted av life(yrs)	
$ 950,000,000.00	$ 933,333,333.33	$ 916,666,666.67	$ 900,000,000.00	$ 883,333,333.33	$ 866,666,666.67	$ 850,000,000.00	$ 833,333,333.33	$ 1,000,000,000	60	2015
$ 483,333,333.33	$ 475,000,000.00	$ 466,666,666.67	$ 458,333,333.33	$ 450,000,000.00	$ 441,666,666.67	$ 433,333,333.33	$ 425,000,000.00	$ 500,000,000	60	2016
$ 196,666,666.67	$ 193,333,333.33	$ 190,000,000.00	$ 186,666,666.67	$ 183,333,333.33	$ 180,000,000.00	$ 176,666,666.67	$ 173,333,333.33	$ 200,000,000	60	2017
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	60	2018
	$ 150,000,000	$ 147,500,000.00	$ 145,000,000.00	$ 142,500,000.00	$ 140,000,000.00	$ 137,500,000.00	$ 135,000,000.00	$ 150,000,000	60	2019
		$ -	$ -	$ -	$ -	$ -	$ -	$ -	60	2020
			$ -	$ -	$ -	$ -	$ -	$ -	60	2021
				$ -	$ -	$ -	$ -	$ -	60	2022
					$ -	$ -	$ -	$ -	60	2023
						$ -	$ -	$ -	60	2024
							$ -	$ -	60	2025

Proportion of each asset in total

2018	2019	2020	2021	2022	2023	2024	2025	
58.28%	53.28%	53.27%	53.25%	53.24%	53.22%	53.21%	53.19%	2015
29.65%	27.12%	27.12%	27.12%	27.12%	27.12%	27.13%	27.13%	2016
12.07%	11.04%	11.04%	11.05%	11.05%	11.05%	11.06%	11.06%	2017
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2018
	8.56%	8.57%	8.58%	8.59%	8.60%	8.61%	8.62%	2019
		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2020
			0.00%	0.00%	0.00%	0.00%	0.00%	2021
				0.00%	0.00%	0.00%	0.00%	2022
					0.00%	0.00%	0.00%	2023
						0.00%	0.00%	2024
							0.00%	2025
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	checksum

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
253.83	258.25	262.85	275.83	286.13	300.10	318.10	340.52	367.83	400.49

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
250.19	275.21	302.73	333.00	366.30	402.93	443.23	487.55	536.30	589.93

255.68	257.57	262.22	269.89	280.89	295.55	314.25	337.37	365.37	398.74
250.19	252.69	257.95	266.23	277.84	293.11	312.42	336.15	364.76	398.74
	275.21	277.96	283.74	292.85	305.62	322.42	343.66	369.77	401.24
		302.73	305.76	312.11	322.13	336.18	354.67	378.02	406.74
			333.00	336.33	343.33	354.35	369.80	390.13	415.83
				366.30	369.97	377.66	389.78	406.78	429.15
					402.93	406.96	415.42	428.76	447.46
						443.23	447.66	456.97	471.64
							487.55	492.43	502.66
								536.30	541.67
									589.93

Value		
	2500	51.71394799
	632	5.602836879
	30	0.443262411
	222	1.968085106

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
$ 1,000,000,000	$ 983,333,333.33	$ 966,666,666.67	$ 950,000,000.00	$ 933,333,333.33	$ 916,666,666.67	$ 900,000,000.00	$ 883,333,333.33	$ 866,666,666.67	$ 850,000,000.00	$ 833,333,333.33
	$ 500,000,000	$ 491,666,666.67	$ 483,333,333.33	$ 475,000,000.00	$ 466,666,666.67	$ 458,333,333.33	$ 450,000,000.00	$ 441,666,666.67	$ 433,333,333.33	$ 425,000,000.00
		$ 200,000,000	$ 196,666,666.67	$ 193,333,333.33	$ 190,000,000.00	$ 186,666,666.67	$ 183,333,333.33	$ 180,000,000.00	$ 176,666,666.67	$ 173,333,333.33
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
				$ 150,000,000	$ 147,500,000.00	$ 145,000,000.00	$ 142,500,000.00	$ 140,000,000.00	$ 137,500,000.00	$ 135,000,000.00
					$ -	$ -	$ -	$ -	$ -	$ -
						$ -	$ -	$ -	$ -	$ -
							$ -	$ -	$ -	$ -
								$ -	$ -	$ -
									$ -	$ -
										$ -

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
100.00%	66.29%	58.29%	58.28%	53.28%	53.27%	53.25%	53.24%	53.22%	53.21%	53.19%
	33.71%	29.65%	29.65%	27.12%	27.12%	27.12%	27.12%	27.12%	27.13%	27.13%
		12.06%	12.07%	11.04%	11.04%	11.05%	11.05%	11.05%	11.06%	11.06%
			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
				8.56%	8.57%	8.58%	8.59%	8.60%	8.61%	8.62%
					0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
						0.00%	0.00%	0.00%	0.00%	0.00%
							0.00%	0.00%	0.00%	0.00%
								0.00%	0.00%	0.00%
									0.00%	0.00%
										0.00%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

2018 submission

	2015	2016	2017	2018	2019	2020	2021	2022	2023
Rates weighted av	256.29	253.83	258.25	262.85	275.83	286.13	300.10	318.10	340.52

Rates raw

	2015	2016	2017	2018	2019	2020	2021	2022	2023
rate on the day	256.29	250.19	275.21	302.73	333.00	366.30	402.93	443.23	487.55
2015	256.29	255.68	257.57	262.22	269.89	280.89	295.55	314.25	337.37
2016		250.19	252.69	257.95	266.23	277.84	293.11	312.42	336.15
2017			275.21	277.96	283.74	292.85	305.62	322.42	343.66
2018				302.73	305.76	312.11	322.13	336.18	354.67
2019					333.00	336.33	343.33	354.35	369.80
2020						366.30	369.97	377.66	389.78
2021							402.93	406.96	415.42
2022								443.23	447.66
2023									487.55
2024									
2025									

RAB and new capex

	Life	Value	
Pipeline	70	2500	51.71394799
compression	30	632	5.602836879
metering	50	30	0.443262411
Other	30	222	1.968085106

Weighted av life		60

Init asset value and yearly new capex	Weighted av life(yrs)		2015	2016	2017	2018	2019	2020	2021	2022
$ 1,000,000,000	60	2015	$ 1,000,000,000	$ 983,333,333.33	$ 966,666,666.67	$ 950,000,000.00	$ 933,333,333.33	$ 916,666,666.67	$ 900,000,000.00	$ 883,333,333.33
$ 500,000,000	60	2016		$ 500,000,000	$ 491,666,666.67	$ 483,333,333.33	$ 475,000,000.00	$ 466,666,666.67	$ 458,333,333.33	$ 450,000,000.00
$ 200,000,000	60	2017			$ 200,000,000	$ 196,666,666.67	$ 193,333,333.33	$ 190,000,000.00	$ 186,666,666.67	$ 183,333,333.33
$ -	60	2018				$ -	$ -	$ -	$ -	$ -
$ 150,000,000	60	2019					$ 150,000,000	$ 147,500,000.00	$ 145,000,000.00	$ 142,500,000.00
$ -	60	2020						$ -	$ -	$ -
$ -	60	2021							$ -	$ -
$ -	60	2022								$ -
$ -	60	2023								
$ -	60	2024								
$ -	60	2025								

Proportion of each asset in total

	2015	2016	2017	2018	2019	2020	2021	2022
2015	100.00%	66.29%	58.29%	58.28%	53.28%	53.27%	53.25%	53.24%
2016		33.71%	29.65%	29.65%	27.12%	27.12%	27.12%	27.12%
2017			12.06%	12.07%	11.04%	11.04%	11.05%	11.05%
2018				0.00%	0.00%	0.00%	0.00%	0.00%
2019					8.56%	8.57%	8.58%	8.59%
2020						0.00%	0.00%	0.00%
2021							0.00%	0.00%
2022								0.00%
2023								
2024								
2025								
checksum	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

2019 submission

2024	2025		2015	2016	2017	2018	2019	2020
367.83	400.49	Rates weighted av	256.29	253.83	258.25	262.85	275.83	286.13

Rates raw

2024	2025		2015	2016	2017	2018	2019	2020
536.30	589.93	rate on the day	256.29	250.19	275.21	302.73	333.00	366.30
365.37	398.74	2015	256.29	255.68	257.57	262.22	269.89	280.89
364.76	398.74	2016		250.19	252.69	257.95	266.23	277.84
369.77	401.24	2017			275.21	277.96	283.74	292.85
378.02	406.74	2018				302.73	305.76	312.11
390.13	415.83	2019					333.00	336.33
406.78	429.15	2020						366.30
428.76	447.46	2021						
456.97	471.64	2022						
492.43	502.66	2023						
536.30	541.67	2024						
	589.93	2025						

RAB and new capex

	Life	Value	
Pipeline	70	2500	51.71394799
compression	30	632	5.602836879
metering	50	30	0.443262411
Other	30	222	1.968085106

				Weighted av life	60					
2023	2024	2025	Init asset value and yearly new capex	Weighted av life(yrs)		2015	2016	2017	2018	2019
$ 866,666,666.67	$ 850,000,000.00	$ 833,333,333.33	$ 1,000,000,000	60	2015	$ 1,000,000,000	$ 983,333,333.33	$ 966,666,666.67	$ 950,000,000.00	$ 933,333,333.33
$ 441,666,666.67	$ 433,333,333.33	$ 425,000,000.00	$ 500,000,000	60	2016		$ 500,000,000	$ 491,666,666.67	$ 483,333,333.33	$ 475,000,000.00
$ 180,000,000.00	$ 176,666,666.67	$ 173,333,333.33	$ 200,000,000	60	2017			$ 200,000,000	$ 196,666,666.67	$ 193,333,333.33
$ -	$ -	$ -	$ -	60	2018				$ -	$ -
$ 140,000,000.00	$ 137,500,000.00	$ 135,000,000.00	$ 150,000,000	60	2019					$ 150,000,000
$ -	$ -	$ -	$ -	60	2020					
$ -	$ -	$ -	$ -	60	2021					
$ -	$ -	$ -	$ -	60	2022					
$ -	$ -	$ -	$ -	60	2023					
	$ -	$ -	$ -	60	2024					
		$ -	$ -	60	2025					

Proportion of each asset in total

2023	2024	2025		2015	2016	2017	2018	2019
53.22%	53.21%	53.19%	2015	100.00%	66.29%	58.29%	58.28%	53.28%
27.12%	27.13%	27.13%	2016		33.71%	29.65%	29.65%	27.12%
11.05%	11.06%	11.06%	2017			12.06%	12.07%	11.04%
0.00%	0.00%	0.00%	2018				0.00%	0.00%
8.60%	8.61%	8.62%	2019					8.56%
0.00%	0.00%	0.00%	2020					
0.00%	0.00%	0.00%	2021					
0.00%	0.00%	0.00%	2022					
0.00%	0.00%	0.00%	2023					
	0.00%	0.00%	2024					
		0.00%	2025					
100.00%	100.00%	100.00%	checksum	100.00%	100.00%	100.00%	100.00%	100.00%

2021	2022	2023	2024	2025
300.10	318.10	340.52	367.83	400.49

2021	2022	2023	2024	2025
402.93	443.23	487.55	536.30	589.93

295.55	314.25	337.37	365.37	398.74
293.11	312.42	336.15	364.76	398.74
305.62	322.42	343.66	369.77	401.24
322.13	336.18	354.67	378.02	406.74
343.33	354.35	369.80	390.13	415.83
369.97	377.66	389.78	406.78	429.15
402.93	406.96	415.42	428.76	447.46
	443.23	447.66	456.97	471.64
		487.55	492.43	502.66
			536.30	541.67
				589.93

2020	2021	2022	2023	2024	2025
$ 916,666,666.67	$ 900,000,000.00	$ 883,333,333.33	$ 866,666,666.67	$ 850,000,000.00	$ 833,333,333.33
$ 466,666,666.67	$ 458,333,333.33	$ 450,000,000.00	$ 441,666,666.67	$ 433,333,333.33	$ 425,000,000.00
$ 190,000,000.00	$ 186,666,666.67	$ 183,333,333.33	$ 180,000,000.00	$ 176,666,666.67	$ 173,333,333.33
$ -	$ -	$ -	$ -	$ -	$ -
$ 147,500,000.00	$ 145,000,000.00	$ 142,500,000.00	$ 140,000,000.00	$ 137,500,000.00	$ 135,000,000.00
$ -	$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -
			$ -	$ -	$ -
				$ -	$ -
					$ -

2020	2021	2022	2023	2024	2025
53.27%	53.25%	53.24%	53.22%	53.21%	53.19%
27.12%	27.12%	27.12%	27.12%	27.13%	27.13%
11.04%	11.05%	11.05%	11.05%	11.06%	11.06%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8.57%	8.58%	8.59%	8.60%	8.61%	8.62%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%
		0.00%	0.00%	0.00%	0.00%
			0.00%	0.00%	0.00%
				0.00%	0.00%
					0.00%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Actual rate of return received each year

	2016	2017	2018	2019	2020	2021	2022	2023
Base - increasing DRP	256.29	255.17	259.98	264.37	278.49	288.43	302.04	319.67
Base - decreasing DRP	256.29	255.17	247.86	243.03	230.30	222.36	212.79	201.75
Shift out 2017 capex in 2016 - increasing DRP	256.29	255.17	257.12	268.38	281.65	291.20	304.41	321.65
Shift out 2017 capex in 2016 - decreasing DRP	256.29	255.17	252.12	239.73	227.69	220.08	210.84	200.12
Capex abandoned in 2016 - increasing DRP	256.29	255.68	260.59	264.92	279.40	289.22	302.70	320.21
Capex abandoned in 2016 - decreasing DRP	256.29	255.68	247.87	243.04	229.86	221.98	212.46	201.46
capex doubled in 2016 - increasing DRP	256.29	254.75	259.45	263.91	277.69	287.75	301.46	319.20
capex doubled in 2016 - decreasing DRP	256.29	254.75	247.84	243.02	230.68	222.70	213.09	202.00
divest $100 mil in 2016 - increasing DRP	256.29	256.30	261.32	265.56	280.46	290.14	303.47	320.84
divest $100 mil in 2016 - decreasing DRP	256.29	256.30	247.89	243.05	229.35	221.53	212.07	201.13
$500 mil investment in 2016 not $100 mil - increasing DRP	256.29	253.83	258.25	262.85	275.83	286.13	300.10	318.10
$500 mil investment in 2016 not $100 mil - decreasing DRP	256.29	253.83	247.82	243.01	231.57	223.49	213.77	202.58

Same basic mechanisms for working the spreadsheet as last time, but here, rather than the capex forecast being updated every year, it is upated every five years at the reset. Thus, a change in actual spending in 2016 won't show up for the first five years, but will show up as a change in the DRP available after 2020, when the reset happens.

This time it capture the fact that the firm will actually pay the costs associated with the stuff starting at Column R for 2017 to 2020 (setting up a difference with regulatory allowances) but then when the reset happens in 2020, the regulatory allowance will catch up with where the differences between actual and forecast capex went.

		rates		2016	2017	2018	2019	2020	2021	2022
				256.29	253.83	247.82	243.01	231.57	223.49	213.77
Input cells										
Outputs										
increase/decrease			0.9							
2015 submission										
				2015	2016	2017	2018	2019	2020	2021
2006	72.4	Rates weighted av		256.29	255.17	247.86	243.03	230.30	222.36	212.79
2007	124.1	Rates simple average		256.29	250.19	267.97	278.08	263.45	235.45	230.60
2008	348.9									
2009	462.4									
2010	212.7	Rates raw								
2011	237.1			2015	2016	2017	2018	2019	2020	2021
2012	317.2	rate on the day		256.29	250.19	225.17	202.65	182.39	164.15	147.73
2013	306.8									
2014	225		2015	256.29	255.68	252.57	247.20	239.81	230.60	219.74
2015	195.3		2016		250.19	247.69	242.93	236.15	227.55	217.30
			2017			225.17	222.92	218.64	212.54	204.80
			2018				202.65	200.63	196.78	191.29
			2019					182.39	180.56	177.10
			2020						164.15	162.51
			2021							147.73
			2022							
			2023							
			2024							
			2025							

RAB and new capex

	Life	Value	
Pipeline	70	2500	51.71394799
compression	30	632	5.602836879
metering	50	30	0.443262411
Other	30	222	1.968085106

Weighted av life 60

Init asset value and yearly new capex	Weighted av life(yrs)
$ 1,000,000,000	60
$ 100,000,000	60
$ 200,000,000	60
$ -	60
$ 150,000,000	60
$ -	60
$ -	60
$ -	60
$ -	60
$ -	60
$ -	60

	2015	2016	2017	2018	2019	2020
2015	$ 1,000,000,000	$ 983,333,333.33	$ 966,666,666.67	$ 950,000,000.00	$ 933,333,333.33	$ 916,666,666.67
2016		$ 100,000,000	$ 98,333,333.33	$ 96,666,666.67	$ 95,000,000.00	$ 93,333,333.33
2017			$ 200,000,000	$ 196,666,666.67	$ 193,333,333.33	$ 190,000,000.00
2018				$ -	$ -	$ -
2019					$ 150,000,000	$ 147,500,000.00
2020						$ -
2021						
2022						
2023						
2024						
2025						

Proportion of each asset in total

	2015	2016	2017	2018	2019	2020
2015	100.00%	90.77%	76.42%	76.41%	68.04%	68.03%
2016		9.23%	7.77%	7.77%	6.93%	6.93%
2017			15.81%	15.82%	14.09%	14.10%
2018				0.00%	0.00%	0.00%
2019					10.94%	10.95%
2020						0.00%
2021						
2022						
2023						
2024						
2025						
checksum	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

2024	2025	Average	Diff
341.74	368.67	293.49	
189.37	175.80	223.47	
343.32	369.86	294.91	0.484%
188.07	174.83	222.49	-0.438%
342.15	368.96	294.01	0.180%
189.14	175.62	223.34	-0.060%
341.37	368.42	293.03	-0.155%
189.58	175.96	223.59	0.053%
342.63	369.30	294.63	0.390%
188.87	175.41	223.19	-0.127%
340.52	367.83	291.97	-0.515%
190.06	176.34	223.88	0.180%

2023	2024	2025
202.58	190.06	176.34

2022	2023	2024	2025
201.75	189.37	175.80	161.16
221.66	203.23	184.52	172.79

2022	2023	2024	2025
132.96	119.67	107.70	96.93
207.41	193.75	178.89	162.95
205.58	192.53	178.28	162.95
195.57	185.02	173.28	160.45
184.32	176.02	166.52	155.95
172.16	165.88	158.42	149.87
159.39	154.94	149.30	142.57
146.26	143.45	139.45	134.37
132.96	131.63	129.11	125.50
	119.67	118.47	116.19
		107.70	106.62
			96.93

Make change in 2016 - so actually pay these costs 2017-20

	2015	2016	2017	2018
Rates weighted av	256.29	253.83	247.82	243.01
Rates simple average	256.29	250.19	267.97	278.08

Rates raw

	2015	2016	2017	2018
rate on the day	256.29	250.19	225.17	202.65
2015	256.29	255.68	252.57	247.20
2016		250.19	247.69	242.93
2017			225.17	222.92
2018				202.65
2019				
2020				
2021				
2022				
2023				
2024				
2025				

RAB and new capex

	Life	Value	
Pipeline	70	2500	51.71394799
compression	30	632	5.602836879
metering	50	30	0.443262411
Other	30	222	1.968085106

Weighted av life 60

2021	2022	2023	2024	2025
$ 900,000,000.00	$ 883,333,333.33	$ 866,666,666.67	$ 850,000,000.00	$ 833,333,333.33
$ 91,666,666.67	$ 90,000,000.00	$ 88,333,333.33	$ 86,666,666.67	$ 85,000,000.00
$ 186,666,666.67	$ 183,333,333.33	$ 180,000,000.00	$ 176,666,666.67	$ 173,333,333.33
$ -	$ -	$ -	$ -	$ -
$ 145,000,000.00	$ 142,500,000.00	$ 140,000,000.00	$ 137,500,000.00	$ 135,000,000.00
$ -	$ -	$ -	$ -	$ -
$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -
		$ -	$ -	$ -
			$ -	$ -
				$ -

Init asset value and yearly new capex	Weighted av life(yrs)
$ 1,000,000,000	60
$ 500,000,000	60
$ 200,000,000	60
$ -	60
$ 150,000,000	60
$ -	60
$ -	60
$ -	60
$ -	60
$ -	60
$ -	60

	2015	2016	2017
2015	$ 1,000,000,000	$ 983,333,333.33	$ 966,666,666.67
2016		$ 500,000,000	$ 491,666,666.67
2017			$ 200,000,000
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			

Proportion of each asset in total

2021	2022	2023	2024	2025
68.01%	67.99%	67.97%	67.95%	67.93%
6.93%	6.93%	6.93%	6.93%	6.93%
14.11%	14.11%	14.12%	14.12%	14.13%
0.00%	0.00%	0.00%	0.00%	0.00%
10.96%	10.97%	10.98%	10.99%	11.01%
0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%
		0.00%	0.00%	0.00%
			0.00%	0.00%
				0.00%
100.00%	100.00%	100.00%	100.00%	100.00%

	2015	2016	2017
2015	100.00%	66.29%	58.29%
2016		33.71%	29.65%
2017			12.06%
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			
checksum	100.00%	100.00%	100.00%

2019	2020	2021	2022	2023	2024	2025
231.57	223.49	213.77	202.58	190.06	176.34	161.55
263.45	235.45	230.60	221.66	203.23	184.52	172.79

2019	2020	2021	2022	2023	2024	2025
182.39	164.15	147.73	132.96	119.67	107.70	96.93
239.81	230.60	219.74	207.41	193.75	178.89	162.95
236.15	227.55	217.30	205.58	192.53	178.28	162.95
218.64	212.54	204.80	195.57	185.02	173.28	160.45
200.63	196.78	191.29	184.32	176.02	166.52	155.95
182.39	180.56	177.10	172.16	165.88	158.42	149.87
	164.15	162.51	159.39	154.94	149.30	142.57
		147.73	146.26	143.45	139.45	134.37
			132.96	131.63	129.11	125.50
				119.67	118.47	116.19
					107.70	106.62
						96.93

2020 submission

	2015
Rates weighted av	256.29
Rates simple average	256.29

Rates raw

	2015
rate on the day	256.29
2015	256.29
2016	
2017	
2018	
2019	
2020	
2021	
2022	
2023	
2024	
2025	

RAB and new capex

	Life
Pipeline	70
compression	30
metering	50
Other	30

Weighted av life 60

2018	2019	2020	2021	2022	2023	2024	2025	Init asset value and yearly new capex	Weighted av life(yrs)	
$ 950,000,000.00	$ 933,333,333.33	$ 916,666,666.67	$ 900,000,000.00	$ 883,333,333.33	$ 866,666,666.67	$ 850,000,000.00	$ 833,333,333.33	$ 1,000,000,000	60	2015
$ 483,333,333.33	$ 475,000,000.00	$ 466,666,666.67	$ 458,333,333.33	$ 450,000,000.00	$ 441,666,666.67	$ 433,333,333.33	$ 425,000,000.00	$ 500,000,000	60	2016
$ 196,666,666.67	$ 193,333,333.33	$ 190,000,000.00	$ 186,666,666.67	$ 183,333,333.33	$ 180,000,000.00	$ 176,666,666.67	$ 173,333,333.33	$ 200,000,000	60	2017
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	60	2018
	$ 150,000,000	$ 147,500,000.00	$ 145,000,000.00	$ 142,500,000.00	$ 140,000,000.00	$ 137,500,000.00	$ 135,000,000.00	$ 150,000,000	60	2019
		$ -	$ -	$ -	$ -	$ -	$ -	$ -	60	2020
			$ -	$ -	$ -	$ -	$ -	$ -	60	2021
				$ -	$ -	$ -	$ -	$ -	60	2022
					$ -	$ -	$ -	$ -	60	2023
						$ -	$ -	$ -	60	2024
							$ -	$ -	60	2025

Proportion of each asset in total

2018	2019	2020	2021	2022	2023	2024	2025	
58.28%	53.28%	53.27%	53.25%	53.24%	53.22%	53.21%	53.19%	2015
29.65%	27.12%	27.12%	27.12%	27.12%	27.12%	27.13%	27.13%	2016
12.07%	11.04%	11.04%	11.05%	11.05%	11.05%	11.06%	11.06%	2017
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2018
	8.56%	8.57%	8.58%	8.59%	8.60%	8.61%	8.62%	2019
		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2020
			0.00%	0.00%	0.00%	0.00%	0.00%	2021
				0.00%	0.00%	0.00%	0.00%	2022
					0.00%	0.00%	0.00%	2023
						0.00%	0.00%	2024
							0.00%	2025
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	checksum

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
253.83	247.82	243.01	231.57	223.49	213.77	202.58	190.06	176.34	161.55
250.19	267.97	278.08	263.45	235.45	230.60	221.66	203.23	184.52	172.79

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
250.19	225.17	202.65	182.39	164.15	147.73	132.96	119.67	107.70	96.93
255.68	252.57	247.20	239.81	230.60	219.74	207.41	193.75	178.89	162.95
250.19	247.69	242.93	236.15	227.55	217.30	205.58	192.53	178.28	162.95
	225.17	222.92	218.64	212.54	204.80	195.57	185.02	173.28	160.45
		202.65	200.63	196.78	191.29	184.32	176.02	166.52	155.95
			182.39	180.56	177.10	172.16	165.88	158.42	149.87
				164.15	162.51	159.39	154.94	149.30	142.57
					147.73	146.26	143.45	139.45	134.37
						132.96	131.63	129.11	125.50
							119.67	118.47	116.19
								107.70	106.62
									96.93

Value		
	2500	51.71394799
	632	5.602836879
	30	0.443262411
	222	1.968085106

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
$ 1,000,000,000	$ 983,333,333.33	$ 966,666,666.67	$ 950,000,000.00	$ 933,333,333.33	$ 916,666,666.67	$ 900,000,000.00	$ 883,333,333.33	$ 866,666,666.67	$ 850,000,000.00	$ 833,333,333.33
	$ 500,000,000	$ 491,666,666.67	$ 483,333,333.33	$ 475,000,000.00	$ 466,666,666.67	$ 458,333,333.33	$ 450,000,000.00	$ 441,666,666.67	$ 433,333,333.33	$ 425,000,000.00
		$ 200,000,000	$ 196,666,666.67	$ 193,333,333.33	$ 190,000,000.00	$ 186,666,666.67	$ 183,333,333.33	$ 180,000,000.00	$ 176,666,666.67	$ 173,333,333.33
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
				$ 150,000,000	$ 147,500,000.00	$ 145,000,000.00	$ 142,500,000.00	$ 140,000,000.00	$ 137,500,000.00	$ 135,000,000.00
					$ -	$ -	$ -	$ -	$ -	$ -
						$ -	$ -	$ -	$ -	$ -
							$ -	$ -	$ -	$ -
								$ -	$ -	$ -
									$ -	$ -
										$ -

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
100.00%	66.29%	58.29%	58.28%	53.28%	53.27%	53.25%	53.24%	53.22%	53.21%	53.19%
	33.71%	29.65%	29.65%	27.12%	27.12%	27.12%	27.12%	27.12%	27.13%	27.13%
		12.06%	12.07%	11.04%	11.04%	11.05%	11.05%	11.05%	11.06%	11.06%
			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
				8.56%	8.57%	8.58%	8.59%	8.60%	8.61%	8.62%
					0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
						0.00%	0.00%	0.00%	0.00%	0.00%
							0.00%	0.00%	0.00%	0.00%
								0.00%	0.00%	0.00%
									0.00%	0.00%
										0.00%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%