

Public Service Company of Colorado				
2017 Variable Non Fuel O&M Forecast to Actuals - Clean Air - Clean Jobs Act				
Variable Non-Fuel O&M Expense CACJA	Actuals 2017	Forecast 2017	Variance 2017	Variance Explanation 2017
Pawnee Station				
5600078: Chemicals - Lime	\$ 960,054	\$ 1,678,661	\$ (718,607)	Actual lime expense for the Scrubber was █████ tons at \$████/ton, while the 2017 estimate was based on a usage amount of █████ tons at \$████/ton. Sourcing renegotiated the lime contracts at the end of 2016 which took effect on Jan 1, 2017 resulting in much more favorable pricing. Lime usage was estimated through performance testing at Pawnee in the fourth quarter of 2014.
5600082: Chemicals Ammonia	\$ 893,159	\$ 1,057,758	\$ (164,599)	Actual ammonia expense for SCR was █████ tons at \$████/ton, while the 2017 estimate was based on a usage amount of █████ tons at \$████/ton. Ammonia usage was estimated through performance testing at Pawnee in the fourth quarter of 2014.
5600001: Lime Slurry Disposal - Operations	\$ 132,002	\$ 100,000	\$ 32,002	Lime Slurry disposal costs from Boral, the disposal company that Xcel uses, were slightly higher than original forecast due to a higher number of loads being disposed of. When the estimate was developed for the lime slurry disposal costs it was based on a fixed number of loads in the current contract. The actual number of loads came in higher than what was outlined in the original contract.
5600076: Iron Carbonate	\$ 47,547	\$ 300,432	\$ (252,885)	The 2017 estimate for iron carbonate was based on a usage amount of █████ tons at \$████/ton. However, actual utilization is coming in much lower than forecast. Although we had believed that the mechanical issues were resolved we have continued to experience issues with the system that feeds the iron carbonate. Due to these mechanical issues, less iron carbonate was utilized at the plant although Pawnee has continued to run within the limits of its emissions permits.
5600001/5600066: Maintenance costs	\$ -	\$ 125,000	\$ (125,000)	Actual maintenance costs were determined to not be a variable cost and were therefore not included. Much like with the Hayden maintenance costs identified in the 2015 filing which were not eligible for recovery under the CACJA Rider, we identified that the Pawnee maintenance costs were not variable O&M eligible for recovery in the CACJA Rider and as a result they are not included in actuals.
Total Pawnee	\$ 2,032,762	\$ 3,261,851	\$ (1,229,089)	
Cherokee Station				
5600076: Chemicals - Other Chemicals	\$ 550,603	\$ 470,611	\$ 79,992	Other Chemicals expense came in slightly higher due to higher than forecasted generation. Actual generation was 3,176,669 MWh compared to forecasted generation of 2,876,200 MWh.
5600078: Chemicals - Lime	\$ 32,329	\$ 139,146	\$ (106,817)	Lime came in under the forecast due to lower utilization and a lower cost per ton of lime. Sourcing renegotiated the lime contracts at the end of 2016 which took effect on Jan 1, 2017 resulting in more favorable pricing. The estimated usage rates were based on usage at a comparable Xcel 2x1 PowerPlant that is 10+ years old. Since the CHR 2x1 was brand new, it didn't need to use as much lime as a 10+ year old plant.
5600082: Chemicals Ammonia	\$ 100,245	\$ 371,875	\$ (271,630)	The primary driver of the lower ammonia expense is the difference in the price of ammonia between the 2017 estimate at \$████/ton and 2017 actuals at \$████/ton. The estimate was based on a comparable Xcel 2x1 PowerPlant (Rocky Mountain). The difference in cost is due to the plants using a different type of ammonia. The ammonia at Rocky Mountain is much more concentrated and therefore more expensive per ton, while the ammonia used at Cherokee is cheaper per ton as it is less concentrated.
5600083: Chemicals - Sulfuric Acid	\$ 67,297	\$ 66,068	\$ 1,229	Sulfuric Acid actuals were in line with forecast.
5600341: Water Use Costs	\$ 392,053	\$ 952,275	\$ (560,222)	The forecast for water use costs were based on total water use costs allocated between Unit 4 and Unit7 with Unit 7 estimated to use 42%. The primary driver of the underrun is the adjustment to water use costs to remove the fixed component. The remaining variable water costs were allocated to Unit 7 based on generation.
Total Cherokee	\$ 1,142,527	\$ 1,999,975	\$ (857,448)	
Hayden Station-Unit 1				
5600082: Chemicals Ammonia	\$ 515,349	\$ 711,026	\$ (195,677)	Usage was lower than projected due to an actual capacity factor of 72% compared to the budgeted capacity factor of 85% or stated in generation, actual generation of 875,319 MWh compared to a budget of 1,304,398 MWh. Lower than budgeted natural gas prices made gas generation more economical than originally projected so gas generation was dispatched at a higher rate than originally projected.
5600001/5600066: Maintenance costs	\$ -	\$ 75,500	\$ (75,500)	Actual maintenance costs were determined to not be a variable cost and was therefore not included. In our 2015 filing, we had determined that these Hayden maintenance costs were not recoverable through the CACJA rider; however, we inadvertently included these costs in the 2017 variable O&M forecast.
Total Hayden Unit 1	\$ 515,349	\$ 786,526	\$ (271,177)	
Hayden Station-Unit 2				
5600082: Chemicals Ammonia	\$ 134,879	\$ 321,808	\$ (186,929)	Usage was lower than projected due to an actual capacity factor of 62% compared to the budgeted capacity factor of 85% or stated in generation, actual generation of 533,307 MWh compared to a budget of 729,619 MWh. Lower than budgeted natural gas prices made gas generation more economical than originally projected so gas generation was dispatched at a higher rate than originally projected.
5600001/5600066: Maintenance costs	\$ -	\$ 37,400	\$ (37,400)	Actual maintenance costs were determined to not be a variable cost and was therefore not included. In our 2015 filing, we had determined that these Hayden maintenance costs were not recoverable through the CACJA rider; however, we inadvertently included these costs in the 2017 variable O&M forecast.
Total Hayden Unit 2	\$ 134,879	\$ 359,208	\$ (224,329)	
Cherokee Unit 3 Commodity Costs to be Removed	\$ 1,418,410	\$ 1,418,410	\$ -	
All Station Total	\$ 2,407,107	\$ 4,989,150	\$ (2,582,043)	