

Appendix 8
Estimate of Unrecovered Depreciation and Accumulated Reserve Variance for the CTGS

	Actual				Forecast 2020 Retirement	Original Cost at 12/31/2020	Forecast 2021 Retirement	Original Cost at 12/31/2021
	Original Cost at 12/31/2017	Net Additions and Retirements 2018	Net Additions and Retirements 2019	Original Cost at 12/31/2019				
Structures and Improvements	9,006,038	(1,188)	56,995	9,061,845	-	9,061,845	(9,061,845)	-
Boiler Plant Equipment	26,445,980	(2,597)	(650,236)	25,793,147	-	25,793,147	(25,793,147)	-
Turbogenerator Units								
Unit 7	1,954,691	-	(1,954,691)	-	-	-	-	-
Unit 8	3,909,382	-	-	3,909,382	(3,909,382)	-	-	-
Units 9 and 10	15,637,528	8,464	-	15,645,992	-	15,645,992	(15,645,992)	-
Total Turbogenerator Units	21,501,601	8,464	(1,954,691)	19,555,374	(3,909,382)	15,645,992	(15,645,992)	-
Accessory Electrical Equipment	2,283,113	-	-	2,283,113	-	2,283,113	(2,283,113)	-
Miscellaneous Power Plant Equipment	1,512,887	-	-	1,512,887	-	1,512,887	(1,512,887)	-
	60,749,619	4,680	(2,547,932)	58,206,367	(3,909,382)	54,296,985	(54,296,985)	-
Decommissioning Costs, net of salvage	11,298,000	(760,052)	(398,340)	10,139,608	(415,000)	9,724,608	-	-
	<u>72,047,619</u>			<u>68,345,975</u>		<u>64,021,593</u>		

	Accumulated Depreciation ("A/D") 12/31/2017	2018	2018 Retirements & Retirement Expense	2019	2019 Retirements & Retirement Expense	A/D 12/31/19
	Amortization Expense - Actual					
Structures and Improvements	5,576,582	842,009	(681,135)	844,618	(398,170)	6,183,904
Boiler Plant Equipment	19,588,953	2,023,018	(77,415)	1,998,047	(652,576)	22,880,027
Turbogenerator Units						
Unit 7	1,373,687	160,285	(13,422)	80,143	(1,954,861)	(354,168)
Unit 8	2,633,028	320,569	-	320,569	-	3,274,166
Units 9 and 10	10,098,042	1,282,624	-	1,282,971	-	12,663,637
Total Turbogenerator Units	14,104,757	1,763,478	(13,422)	1,683,683	(1,954,861)	15,583,635
Accessory Electrical Equipment	1,996,684	117,352	-	117,352	-	2,231,388
Miscellaneous Power Plant Equipment	1,196,410	105,751	-	105,751	-	1,407,912
	42,463,386	4,851,608	(771,972)	4,749,451	(3,005,607)	48,286,866
Asset Retirements			11,920		2,607,267	
Retirement Expense			760,052		398,340	

Annual Depreciation Rate UE19-08	Forecast Amortization Expense - per 2017 Study	A/D 12/31/2017	2018	2018 Retirements & Retirement Expense	2019	2019 Retirements & Retirement Expense	2020 Retirements & Retirement Expense		
							2020	2021	2021
14.41%	Structures and Improvements	5,576,582	1,297,684	(681,135)	1,301,705	(398,170)	1,305,812	(415,000)	652,906
11.34%	Boiler Plant Equipment	19,588,953	2,998,827	(77,415)	2,961,811	(652,576)	2,924,943	-	1,462,471
	Turbogenerator Units								
24.47%	Unit 7	1,373,687	478,313	(13,422)	239,156	(1,954,861)	-	-	-
17.32%	Unit 8	2,633,028	677,105	-	677,105	-	338,552	(3,909,382)	-
13.70%	Units 9 and 10	10,098,042	2,142,921	-	2,143,501	-	2,143,501	-	1,071,750
	Total Turbogenerator Units	14,104,757	3,298,339	(13,422)	3,059,762	(1,954,861)	2,482,053	(3,909,382)	1,071,750
7.99%	Accessory Electrical Equipment	1,996,684	182,421	-	182,421	-	182,421	-	91,210
10.18%	Miscellaneous Power Plant Equipment	1,196,410	154,012	-	154,012	-	154,012	-	77,006
		42,463,386	7,931,283	(771,972)	7,659,712	(3,005,607)	7,049,241	(4,324,382)	3,355,344
									60,357,005
									3,664,588
	Difference - Study less Actual	-	<u>3,079,675</u>		<u>2,910,261</u>				<u>3,664,588</u>
			A		B				C

Composite Rate 13.06% 13.16% 12.98% 12.36%

The Composite rate is decreasing due to the retirement of Unit 7 in 2019 & Unit 8 in 2020, both at higher rates than remaining assets

Total Balance Remaining to be collected at the end of 2021 - Regulatory Deferral (proposed) **D = A + B + C** **\$ 9,654,524**