



Generation Business Unit

ENVIRONMENTAL PROGRAM

Engineering, Project & Field Services

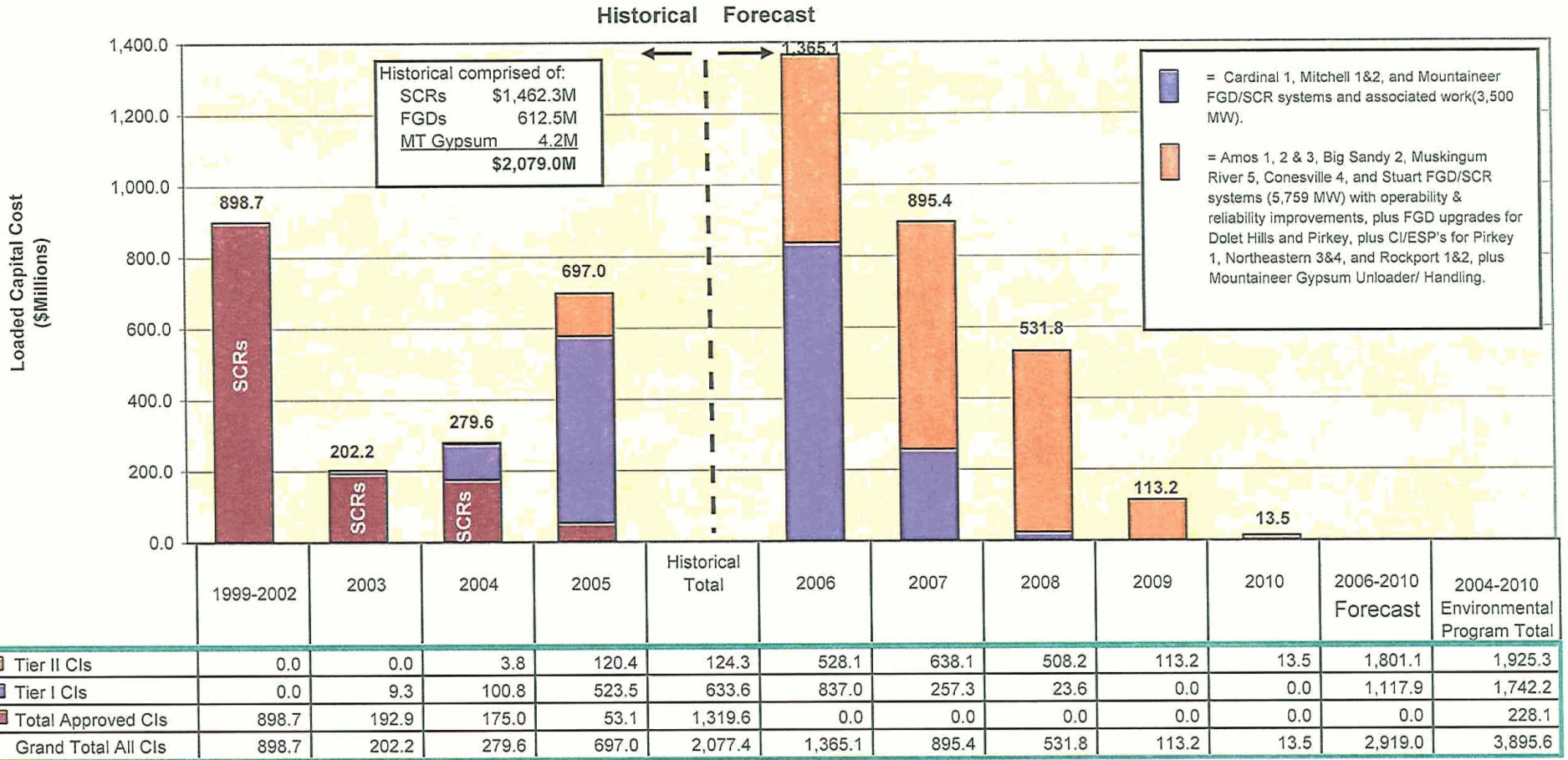
2006-2010 SCR & FGD Long Range Plan – Rev. 6

June 23, 2006



ENVIRONMENTAL PROGRAM

AEP Environmental-Related Capital and Removal Expenditures for SCR and FGD Projects (AEP-Owned Plants)



Note: No expenditures for new build or allowances are included in this report. Long Range Plan Rev. 6 is AEP view only; no cash flow is shown for OVEC/IKEC (Kyger and Clifty Creek), Buckeye Power (Cardinal 2 and 3) or CCD portion of Conesville.



ENVIRONMENTAL PROGRAM

2004-2010 Environmental Program (CapEx Only, Including Overheads and AFUDC)

Plant	Equipment	CI Phase	2004	Long Range Plan						Total
				2005	2006	2007	2008	2009	2010	
SCR										
In Service Projects	SCR	In-Service	175,069,039	53,135,000	-	-	-	-	-	228,204,039
Mitchell U1	SCR	Phase 3	10,278,843	51,999,021	54,729,080	16,764,479	-	-	-	133,771,424
Mitchell U2	SCR	Phase 3	10,276,302	65,405,942	49,954,094	11,920,455	-	-	-	137,556,793
Conesville U4 @43.5%	SCR	Phase 2	38,101	2,688,276	6,550,786	18,066,499	18,118,834	7,277,080	-	52,739,576
Total SCR's			195,662,285	173,228,239	111,233,960	46,751,433	18,118,834	7,277,080	-	552,271,831
FGD										
Pirkey @85.94%	FGD	Phase 3	176,940	3,880,099	12,032,695	-	-	-	-	16,089,735
Dolet Hills @ 40.23%	FGD	Phase 3	-	-	620,125	437,715	-	-	-	1,057,840
Mountaineer	FGD	Phase 3	31,860,903	122,351,068	200,443,017	6,149,668	-	-	-	360,804,656
Mitchell U1	FGD	Phase 3	21,436,754	106,107,833	89,122,124	26,239,551	-	-	-	242,906,262
Mitchell U2	FGD	Phase 3	20,881,532	104,375,142	92,060,824	18,836,635	-	-	-	236,154,132
Cardinal U1	FGD	Phase 3	5,526,743	35,726,150	89,369,389	79,756,735	6,369,402	-	-	216,748,420
Amos U3	FGD	Phase 3	755,330	29,640,190	134,207,245	131,470,481	54,877,601	-	-	350,950,847
Muskingum River U5	FGD	Phase 2	418,423	11,551,591	59,571,607	121,970,616	83,174,636	-	-	276,686,873
Amos U1 & U2	FGD	Phase 3	857,303	33,876,815	91,481,902	110,654,622	104,763,373	15,833,004	-	357,467,019
Conesville U4 @43.5%	FGD	Phase 2	257,389	3,775,573	13,859,045	37,282,407	44,409,538	12,331,698	-	111,915,649
Big Sandy U2	FGD	Phase 2	-	-	-	-	-	-	13,320,556	13,320,556
Stuart	FGD	Phase 3	-	23,426,000	71,189,000	30,420,000	17,673,500	7,411,560	-	150,120,060
Total FGD's			62,171,318	474,710,462	653,956,973	563,218,429	311,268,050	35,676,262	13,320,556	2,334,222,049
Landfill										
Mountaineer LBR	Landfill		-	7,362,103	11,567,396	10,858,620	11,665,924	-	-	41,454,042
Cardinal U1	Landfill		471,689	455,514	3,309,470	7,224,904	4,241,840	-	-	15,703,417
Amos	Landfill		472,175	1,570,348	12,991,123	10,022,950	8,206,006	12,090,239	-	45,352,841
Muskingum River U5	Landfill		232,806	408,789	4,049,769	8,621,602	15,095,980	-	-	28,408,945
Conesville U4 @ 43.5%	Landfill		64,629	325,515	388,740	182,743	34,987	40,216	165,495	1,202,325
Total Landfills			1,241,299	10,122,268	32,306,497	36,910,818	39,244,738	12,130,456	165,495	132,121,570



ENVIRONMENTAL PROGRAM

2004-2010 Environmental Program (CapEx Only, Including Overheads and AFUDC)

Plant	Equipment	CI Phase	2004	Long Range Plan						Total
				2005	2006	2007	2008	2009	2010	
Associated										
Mountaineer	Assoc.	Phase 3	-	17,601,045	99,849,800	17,750,632	-	-	-	135,201,478
Cardinal U1	Assoc.	Phase 3	-	-	16,247,352	51,329,492	1,336,718	-	-	68,913,561
Mitchell U1 & U2	Assoc.	Phase 3	-	12,015,223	130,422,947	10,460,764	-	-	-	152,898,934
Conesville U4 @43.5%	Assoc.	Phase 2	-	431,119	1,682,500	10,156,610	14,051,570	6,918,791	-	33,240,589
Amos U1 & U2	Assoc.	Phase 3	-	1,751,655	12,890,696	17,551,183	85,587,056	-	-	117,780,589
Amos U3	Assoc.	Phase 3	-	3,623,110	49,606,615	123,909,587	8,475,298	-	-	185,614,610
Muskingum River U5	Assoc.	Phase 2	-	-	2,685,475	17,258,449	19,569,256	-	-	39,513,180
Total Associated			-	35,422,152	313,385,386	248,416,716	129,019,898	6,918,791	-	733,162,942
CI/ESP										
Pirkey 1	ACI/ESP		-	-	-	-	4,880,000	7,320,000	-	12,200,000
Northeastern 3 & 4	ACI/ESP		-	-	-	-	7,500,000	11,200,000	-	18,700,000
Rockport 1 & 2	ACI/ESP		-	-	-	-	21,800,000	32,800,000	-	54,600,000
Total CI/ESP's			-	-	-	-	34,180,000	51,320,000	-	85,500,000
Other										
Mountaineer Gypsum Unloader	Other		581,774	1,553,906	10,294,185	7,516	-	-	-	12,437,380
Mountaineer Gypsum Handling	Other		-	1,992,637	43,896,872	41,816	-	-	-	45,931,325
Total Other			581,774	3,546,542	54,191,057	49,332	-	-	-	58,368,705
Grand Total			279,656,676	697,029,663	1,365,073,873	895,346,729	531,831,519	113,222,588	13,486,051	3,895,647,098



ENVIRONMENTAL PROGRAM

2006-2010 Long Range (CapEx Only, Including Overheads and AFUDC)

Notes:

1. Based on the March 15, 2006 preliminary P&FS Regulatory MECO model output excluding provisions for CAIR implementation. CAIR needs further analytical evaluation to determine full implementation/compliance requirements. This may result in increased technology deployment.
2. Mercury solutions are preliminary. Carbon injection/ESP's, forecasted at a nominal \$21/kw, may be required on additional and/or alternative units. If carbon injection/baghouses are required, overall compliance costs will increase by approximately \$120-\$140/kw for selected units.
3. Continuing generation optimization efforts related to unit outages may shift cash flow to match generation optimization requirements.
4. Tolerances on scrubber estimates for Muskingum River 5 and Conesville 4 are $\pm 15\%$, and the Amos 1-3, Mountaineer, Mitchell 1&2 and Cardinal tolerances are $+0/-5\%$.
5. The potential deferral of the MR5 FGD in-service date, including the suspension of all non-essential work, is currently under evaluation.
6. Associated work includes Boiler Modifications, SO₃ Mitigation Systems, Balanced Draft Conversion, Control System Modernizations, Waste Water Treatment and Coal Blending Capability. Tolerances on Associated Work estimates are as depicted in Note 4.
7. Steel and alloy prices escalated substantially in 2004. These increases are reflected in the project cost and a nominal 3% escalation factor for material and field labor has been applied going forward. However, escalation associated with radically changing market conditions and component and labor availability/shortages can not be reasonably predicted at this time. If future unanticipated escalation is incurred, the Long Range Plan will be adjusted accordingly.
8. Cash flows are nominal for a given year and may be re-ordered for optimum construction. Sequencing in later years is for planning purposes only. Individual unit timing may be modified.
9. Total costs reflect the Overhead and AFUDC rates for each Operating Company obtained from Corporate Planning and Budgeting.
10. There are no dollars for plant capacity additions or allowance credits.
11. The impact of natural disaster(s) have not been factored into the cost projections.

Submitted by:

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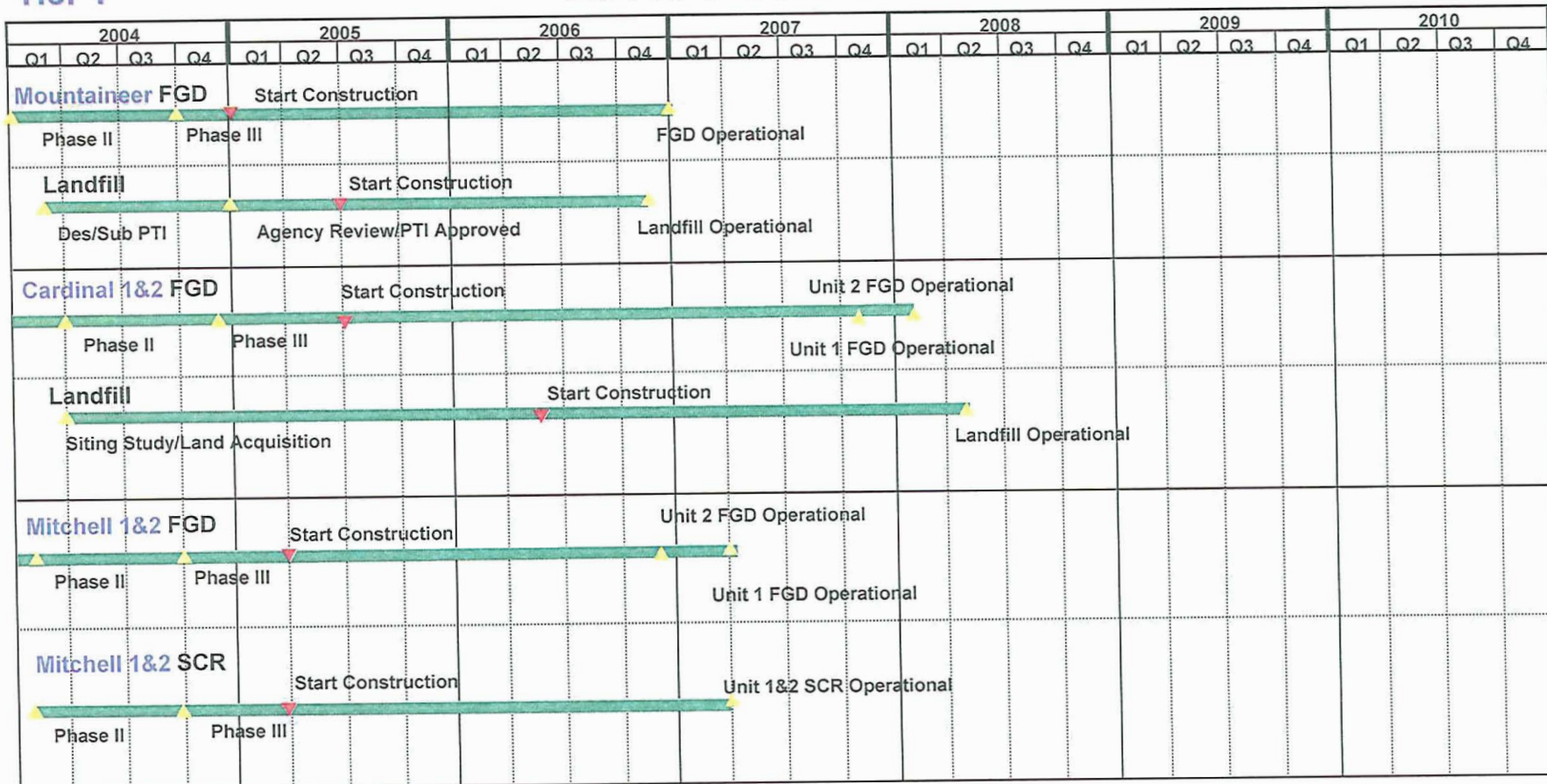
Scott N. Smith
V.P. – Generation Business Services



ENVIRONMENTAL PROGRAM

Tier 1

Level 1 Schedule

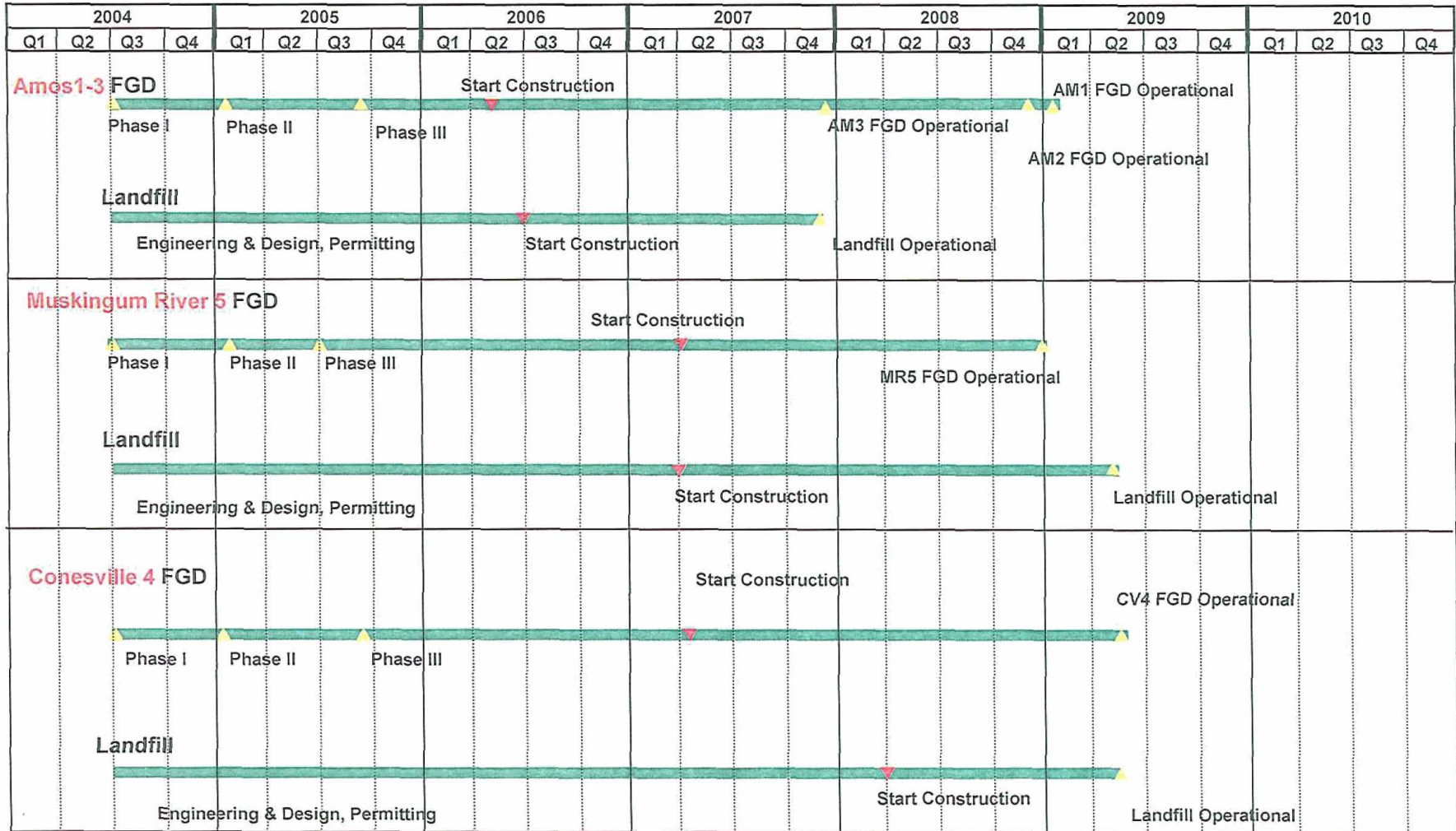




ENVIRONMENTAL PROGRAM

Tier 2

Level 1 Schedule





Generation Business Unit

ENVIRONMENTAL PROGRAM

2004-2010 Environmental Program for AEP owned Plants Long Range Plan Revisions

Plant SCR	December 2005 Rev. 5	Controllable Cost	Non-Controllable Cost	Impact on Forecast	Forecast Rev. 6
In Service Projects	228	-	(0)	(0)	228
Mitchell U1	134	0	(0)	(0)	134
Mitchell U2	136	2	0	2	138
Conesville U4 @43.5%	52	0	0	0	53
Total SCR's	550	2	0	2	552
FGD					
Pirkey @85.94%	14	2	0	2	16
Dolet Hills @ 40.23%	4	(3)	(0)	(3)	1
Mountaineer	367	(8)	2	(6)	361
Mitchell U1	230	12	1	13	243
Mitchell U2	226	11	(1)	10	236
Cardinal U1	229	(18)	5	(12)	217
Amos U3	316	36	(0)	35	351
Muskingum River U5	200	62	15	76	277
Amos U1&U2	395	(37)	(1)	(38)	357
Conesville U4 @43.5%	111	(0)	1	1	112
Big Sandy U2	198	(150)	(35)	(185)	13
Stuart	150	-	-	-	150
Total FGD's	2,441	(94)	(13)	(107)	2,334
Landfill					
Mountaineer LBR	39	1	1	3	41
Mitchell Landfill	1	(1)	-	(1)	-
Cardinal U1	19	(4)	1	(3)	16
Amos	42	(1)	4	3	45
Muskingum River U5	24	4	1	5	28
Conesville U4 @ 43.5%	24	(15)	(8)	(23)	1
Big Sandy 2	33	(30)	(3)	(33)	-
Total Landfills	182	(46)	(4)	(50)	132
Associated					
Mountaineer	126	8	1	9	135
Cardinal U1	73	(4)	0	(4)	69
Mitchell U1 & U2	141	12	(0)	12	153
Conesville U4 @43.5%	33	(0)	0	0	33
Amos U1 & U2	156	(40)	1	(38)	118
Amos U3	127	54	5	59	186
Muskingum River U5	60	(20)	(0)	(20)	40
Big Sandy 2	72	(62)	(10)	(72)	-
Total Associated	787	(51)	(3)	(54)	733
ACI/ESP					
Pirkey 1	40	(25)	(3)	(28)	12
Northeastern 3 & 4	-	17	2	19	19
Rockport 1 & 2	78	(20)	(3)	(23)	55
Total ACI/ESP	118	(29)	(4)	(33)	86
Other					
Mountaineer Gypsum Unloader	9	4	0	4	12
Mountaineer Gypsum Handling	41	5	0	5	46
Total Other	50	9	0	9	58
Grand Total	4,128	(209)	(24)	(232)	3,896



ENVIRONMENTAL PROGRAM

Escalation From The Producers Price Index May 2006

