

**Hydro Update** 



July 5, 2017



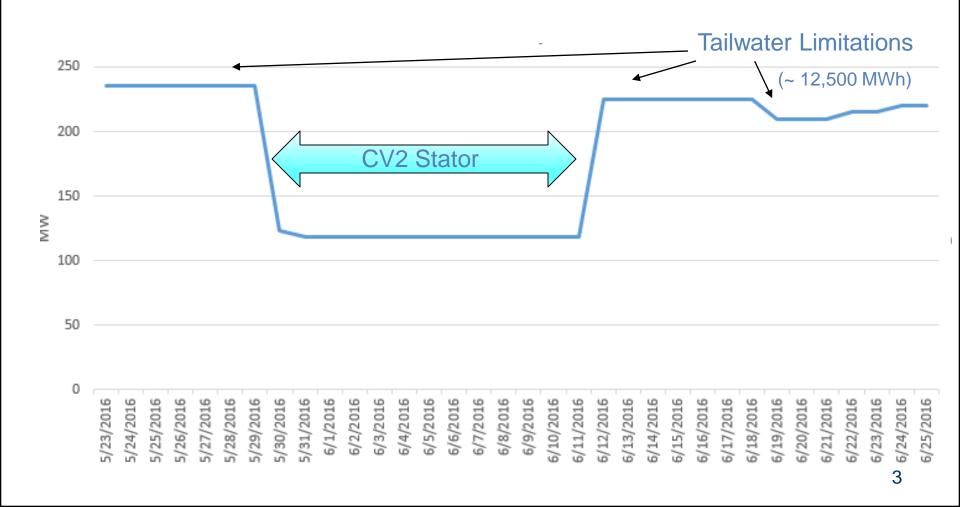
### **Collierville Unit 2 Stator Ground**







## **Collierville Available Capacity**





#### **Dollars & Cents**

 ~\$850K lost opportunity due to Collierville U2 Stator Fault (between May 30 – June 11)

 ~\$450K lost opportunity due to tailwater curtailment (between May 23 – June 25)

 ~\$2.4M net revenue during recent heat wave (between June 18 – 25)

July 3, 2017



#### **Dollars & Cents Details – CV2 Generator Fault**

COLVIL_7	PL1X2 📲																					
Column La	abels 💌																					
▼ 30-May		31-Ma	у :	1-Jun	2-Jun		3-Jun	4-J	un	5-Jun		6-Jun	7-Ju	ın	8-Jun	ı	9-Jun	1	10-Jun	11-	Jun	Grand Total
\$	(1,293)	\$ (5,8	314)	\$ (4,723)	\$ (4,	,426)	\$ (3,324	l) \$	(3,679)	\$ (4,	842)	\$ (4,006)	) \$	(3,717)	\$ (5	,382)	\$ (6	,093)	\$ (4,462	) \$	(6,444)	\$ (58,205
\$	(3,127)	\$ (5,8	370)	\$ (4,729)	\$ (4,	,425)	\$ (3,330	) \$	(3,713)	\$ (4,	792)	\$ (3,987)	) \$	(3,743)	\$ (5	,362)	\$ (5	,553)	\$ (3,771	\$	(5,700)	\$ (58,102
		\$	(22)														\$	(676)	\$ (202	\$	(252)	\$ (1,152
		\$	(60)							\$	(55)								\$ (491	\$	(488)	\$ (1,093
		\$	12																			\$ 12
\$	1,841	\$ 1	109	\$ 19	\$	27	\$ 20	\$	52	\$	25	\$ 21	\$	51	\$	17	\$	124	\$ 37	\$	30	\$ 2,375
		\$	22														\$	28				\$ 50
\$	(7)	\$	(6)	\$ (13)	\$	(29)	\$ (14	) \$	(19)	\$	(21)	\$ (40)	) \$	(25)	\$	(37)	\$	(16)	\$ (33	\$	(33)	\$ (293
																	\$	(0)	\$ (2	\$	(1)	\$ (3
\$	(2,184)	\$ (2,9	925)																			\$ (5,108
\$	(2,184)	\$ (2,9	925)																			\$ (5,108
\$	(96,261)	\$ (69,9	960)	\$ (61,208)	\$ (67	,865)	\$ (60,586	) \$(	54,551)	\$ (65,	146)	\$ (71,294	) \$ (7	73,284)	\$ (68	,596)	\$ (58	,330)	\$ (34,031	\$(	25,003)	\$ (806,114
\$	(147,324)	\$(72,9	935)	\$(61,214)	\$(67	,861)	\$(60,590	) \$(	54,529)	\$(65,	074)	\$(71,257	) \$(7	73,290)	\$(68	,602)	\$(58	,343)	\$(32,126	\$(	22,817)	\$ (855,961
\$	49,914	\$ 1,5	549							\$	(47)	\$ (1	)						\$ (1,847	\$	(1,991)	\$ 47,577
\$	1,149	\$ 1,4	126	\$ 6	\$	(4)	\$ 3	\$	(22)	\$	(26)	\$ (36)	) \$	6	\$	6	\$	13	\$ (58	\$	(194)	\$ 2,270
t \$	(0)	\$	(0)	\$ 0	\$	0	\$ 0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0	\$ 0	\$	0	\$ 0
\$	9	\$	12	\$ 16	\$	(17)	\$ (5	) \$	5	\$	(5)	\$ (43)	) \$	(8)	\$	(4)	\$	(4)	\$ (145	\$	(75)	\$ (264
\$	0			\$ 0	\$	0	\$ 0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0	\$ 0	\$	0	\$ 0
t																			\$ (58	\$	(105)	\$ (163
\$	9	\$	12	\$ 16	\$	(17)	\$ (5	) \$	5	\$	24	\$ (21	) \$	(8)	\$	(4)	\$	(4)	\$ (87	\$	30	\$ (49
										\$	(30)	\$ (21	)									\$ (51
\$	1,617	\$ 1,1	102	\$ 993	\$	978	\$ 975	\$	971	\$	974	\$ 985	\$	983	\$	990	\$	965	\$ 931	\$	878	\$ 13,343
\$	2	\$	2	\$ 1	\$	1	\$ 2	\$	1	\$	1	\$ 1	\$	1	\$	1	\$	1	\$ 1	\$	1	\$ 19
\$	674	\$ 2	290	\$ 253	\$	246	\$ 243	\$	240	\$	243	\$ 253	\$	243	\$	250	\$	240	\$ 244	\$	233	\$ 3,653
\$	941	\$ 8	310	\$ 738	\$	731	\$ 731	. \$	730	\$	729	\$ 731	\$	739	\$	739	\$	724	\$ 685	\$	644	\$ 9,671
\$	(98,111)	\$ (77,9	585)	\$ (64,921)	\$ (71	,330)	\$ (62,940	) \$(	57,254)	\$ (69,	020)	\$ (74,358	) \$ (7	76,026)	\$(72	,992)	\$ (63	,461)	\$ (37,707	\$(	30,644)	\$ (856,348
t	Column Li  30-May  \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ (1,293) \$ (3,127) \$ (3,127) \$ (2,184) \$ (2,184) \$ (96,261) \$ (147,324) \$ 49,914 \$ 1,149 \$ (0) \$ 9 \$ 0 \$ 0 \$ 5 \$ 674 \$ 941	Column Labels	Column Labels	Column Labels	Column Labels ▼  ▼ 30-May 31-May 1-Jun 2-Jun \$ (1,293) \$ (5,814) \$ (4,723) \$ (4   \$ (3,127) \$ (5,870) \$ (4,729) \$ (4   \$ (22) \$ (60) \$ 12   \$ (60) \$ 12   \$ 1,841 \$ 109 \$ 19 \$ \$ 22   \$ (7) \$ (6) \$ (13) \$ \$   \$ (2,184) \$ (2,925) \$ (61,208) \$ (67   \$ (2,184) \$ (2,925) \$ (61,208) \$ (67   \$ (147,324) \$ (72,935) \$ (61,214) \$ (67   \$ 49,914 \$ 1,549 \$ 1,426 \$ 6 \$ \$ (147,324) \$ (72,935) \$ (61,214) \$ (67   \$ 49,914 \$ 1,549 \$ 1,426 \$ 6 \$ \$ (147,324) \$ (147	Column Labels  ▼ 30-May  \$ (1,293) \$ (5,814) \$ (4,723) \$ (4,426) \$ (3,127) \$ (5,870) \$ (4,729) \$ (4,425) \$ (22) \$ (60) \$ 12 \$ 1,841 \$ 109 \$ 19 \$ 27 \$ 22 \$ (7) \$ (6) \$ (13) \$ (29) \$ (2,184) \$ (2,925) \$ (2,184) \$ (2,925) \$ (96,261) \$ (69,960) \$ (61,208) \$ (67,865) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ 49,914 \$ 1,549 \$ 1,149 \$ 1,426 \$ 6 \$ (4) \$ (9) \$ (0) \$ 0 \$ 0 \$ 0 \$ 9 \$ 12 \$ 16 \$ (17) \$ 0 \$ 0 \$ 0 \$ 9 \$ 12 \$ 16 \$ (17) \$ 1,617 \$ 1,102 \$ 993 \$ 978 \$ 2 \$ 2 \$ 1 \$ 1 \$ 674 \$ 290 \$ 253 \$ 246 \$ 941 \$ 810 \$ 738 \$ 731	Column Labels    31-May   1-Jun   2-Jun   3-Jun     \$ (1,293) \$ (5,814) \$ (4,723) \$ (4,426) \$ (3,324) \$ (22) \$ (600) \$ 12 \$ (600) \$ 12 \$ 22 \$ 16 \$ (77) \$ (66) \$ (13) \$ (29) \$ (14) \$ (2,925) \$ (2,184) \$ (2,925) \$ (2,184) \$ (2,925) \$ (2,184) \$ (2,925) \$ (2,184) \$ (2,925) \$ (147,324) \$ (72,935) \$ (61,208) \$ (67,865) \$ (60,596) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ (60,596) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ (60,596) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ (60,596) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ (60,596) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ (60,596) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ (60,596) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ (60,596) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ (60,596) \$ (147,324) \$ (149,324)	Column Labels ▼  ▼ 30-May 31-May 1-Jun 2-Jun 3-Jun 4-Jun \$ (1,293) \$ (5,814) \$ (4,723) \$ (4,426) \$ (3,324) \$ (3,127) \$ (5,870) \$ (4,729) \$ (4,425) \$ (3,330) \$ (4,425) \$ (3,330) \$ (4,425) \$ (3,330) \$ (4,425) \$ (3,330) \$ (4,425) \$ (4,425) \$ (3,330) \$ (4,425	Column Labels  ▼ 30-May  \$ (1,293) \$ (5,814) \$ (4,723) \$ (4,426) \$ (3,324) \$ (3,679) \$ (3,127) \$ (5,870) \$ (4,729) \$ (4,425) \$ (3,330) \$ (3,713)	Column Labels ▼  31-May 1-Jun 2-Jun 3-Jun 4-Jun 5-Jun \$ (1,293) \$ (5,814) \$ (4,723) \$ (4,425) \$ (3,324) \$ (3,679) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,679) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,679) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,425) \$	Column Labels ▼ 30-May 31-May 1-Jun 2-Jun 3-Jun 4-Jun 5-Jun  \$ (1,293) \$ (5,814) \$ (4,723) \$ (4,426) \$ (3,324) \$ (3,679) \$ (4,842) \$ (3,127) \$ (5,870) \$ (4,729) \$ (4,425) \$ (3,330) \$ (3,713) \$ (4,792) \$ (22) \$ (60) \$ 12 \$ (60) \$ 12 \$ 1,841 \$ 109 \$ 19 \$ 27 \$ 20 \$ 52 \$ 25 \$ 22 \$ (7) \$ (6) \$ (13) \$ (29) \$ (14) \$ (19) \$ (21)  \$ (2,184) \$ (2,925) \$ (2,184) \$ (2,925) \$ (2,184) \$ (2,925) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,865) \$ (60,586) \$ (54,551) \$ (65,146) \$ (147,324) \$ (72,935) \$ (61,214) \$ (67,861) \$ (60,590) \$ (54,529) \$ (65,074) \$ 49,914 \$ 1,549 \$ 1,149 \$ 1,426 \$ 6 \$ (4) \$ 3 \$ (22) \$ (26) \$ (0) \$ (0) \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 9 \$ 12 \$ 16 \$ (17) \$ (5) \$ 5 \$ (5) \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 9 \$ 12 \$ 16 \$ (17) \$ (5) \$ 5 \$ (5) \$ 0 \$ 24 \$ (30) \$ 1,617 \$ 1,102 \$ 993 \$ 978 \$ 975 \$ 971 \$ 974 \$ 2 \$ 2 \$ 2 \$ 1 \$ 1 \$ 2 \$ 1 \$ 1 \$ 2 \$ 1 \$ 1	Column Labels    31-May   31-May   1-Jun   2-Jun   3-Jun   4-Jun   5-Jun   6-Jun	Column Labels    31-May   1-Jun   2-Jun   3-Jun   4-Jun   5-Jun   6-Jun   7-Jun   5   (1,293) \$ (5,814) \$ (4,723) \$ (4,426) \$ (3,324) \$ (3,679) \$ (4,842) \$ (4,006) \$   \$   \$   (22)   \$   (60)   \$   (22)   \$   (60)   \$   (22)   \$   (60)   \$   (22)   \$   (60)   \$   (22)   \$	Column Labels ▼ 31-May	Column Labels ▼ 31-May	Column Labels	Column Labels	Column Labels ▼  31-May	Column Labels	Column Labels	Column Labels

Note: Revenues are for CV1 only. If CV2 had been available, revenues would have been approximately double.



### **Dollars & Cents Details – Heat Wave**

Sum of AMOUNT	Colu	umn Labels 🔻																
Row Labels	▼	6/18/2017	6/	19/2017	6/	/20/2017	6/	21/2017	6/	/22/2017	6/	/23/2017	6/	/24/2017	6	/25/2017	Gran	id Total
□ COLVIL_7_PL1X2	\$	(189,726)	\$ (7	272,130)	\$(	336,336)	\$ (	577,477)	\$ (	478,490)	\$ (	189,442)	\$ (	149,913)	\$(	(143,521)	\$	(2,337,036)
■ AncillaryService	\$	(1,489)	\$	(379)	\$	(1,158)	\$	(1,210)	\$	(652)	\$	(1,839)	\$	(919)	\$	(1,183)	\$	(8,827)
Day Ahead Regulation Down Capacity Settlement	\$	(1,552)	\$	(384)	\$	(1,177)	\$	(1,241)	\$	(662)	\$	(1,881)	\$	(945)	\$	(1,224)	\$	(9,066)
Non Compliance Regulation Down Settlement	\$	74	\$	9	\$	36	\$	40	\$	20	\$	58	\$	29	\$	49	\$	315
Regulation Down Mileage Settlement	\$	(11)	\$	(4)	\$	(17)	\$	(9)	\$	(9)	\$	(16)	\$	(3)	\$	(9)	\$	(76)
<b>□</b> Energy	\$	(190,191)	\$ (2	273,686)	\$ (	337,002)	\$ (	578,093)	\$ (	479,649)	\$ (	189,482)	\$ (	150,843)	\$(	(144,228)	\$	(2,343,175)
Day Ahead Energy, Congestion, Loss Settlement	\$	(190,133)	\$(2	289,145)	\$(	336,822)	\$(5	578,216)	\$(	479,662)	\$(	189,500)	\$(	150,760)	\$(	(144,233)	\$	(2,358,471)
FMM Instructed Imbalance Energy Settlement			\$	14,826													\$	14,826
Real Time Instructed Imbalance Energy Settlement	\$	(57)	\$	633	\$	(180)	\$	123	\$	12	\$	18	\$	(83)	\$	4	\$	471
Real Time Uninstructed Imbalance Energy Settlement	\$	(0)	\$	(0)	\$	(0)	\$	0	\$	(0)	\$	(0)	\$	(0)	\$	(0)	\$	(0)
☐ Flexible Ramp	\$	(6)	\$	33	\$	8	\$	4	\$	(8)	\$	5	\$	(18)	\$	(6)	\$	12
Daily Flexible Ramp Up Uncertainty Award Allocation			\$	0					\$	0							\$	0
Flexible Ramp Forecasted Movement Settlement	\$	(6)	\$	33	\$	8	\$	4	\$	(8)	\$	5	\$	(17)	\$	(6)	\$	13
Flexible Ramp Up Uncertainty Capacity Settlement													\$	(1)			\$	(1)
■GMC	\$	1,959	\$	1,902	\$	1,817	\$	1,822	\$	1,819	\$	1,873	\$	1,867	\$	1,896	\$	14,955
GMC - Bid Transaction Fee	\$	1	\$	1	\$	1	\$	1	\$	1	\$	1	\$	1	\$	1	\$	11
GMC - Market Services Charge	\$	441	\$	472	\$	411	\$	410	\$	406	\$	429	\$	421	\$	429	\$	3,420
GMC - System Operations Charge	\$	1,517	\$	1,429	\$	1,404	\$	1,411	\$	1,411	\$	1,443	\$	1,445	\$	1,465	\$	11,524
+ SPICER_1_UNITS	\$	(4,941)	\$	(7,530)	\$	(9,298)	\$	(16,809)	\$	(13,510)	\$	(5,176)	\$	(4,253)	\$	(3,967)	\$	(65,486)
Grand Total	\$	(194,667)	\$ (2	279,661)	\$(	345,634)	\$ (!	594,286)	\$ (	492,001)	\$ (	194,619)	\$(	154,166)	\$(	(147,489)	\$ (	<mark>(2,402,521)</mark>



# New Spicer Meadow Dam, PH, & Spillway

