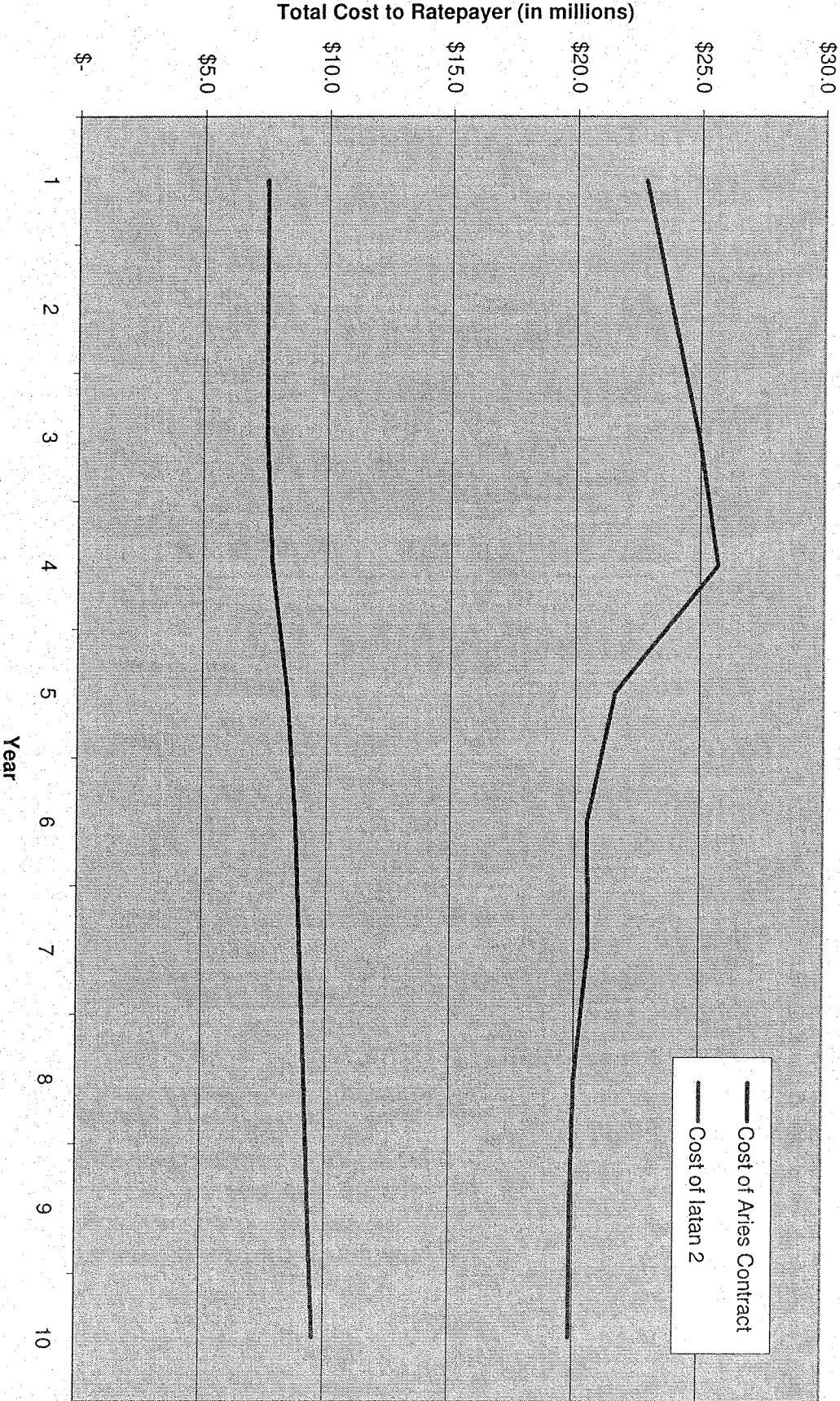
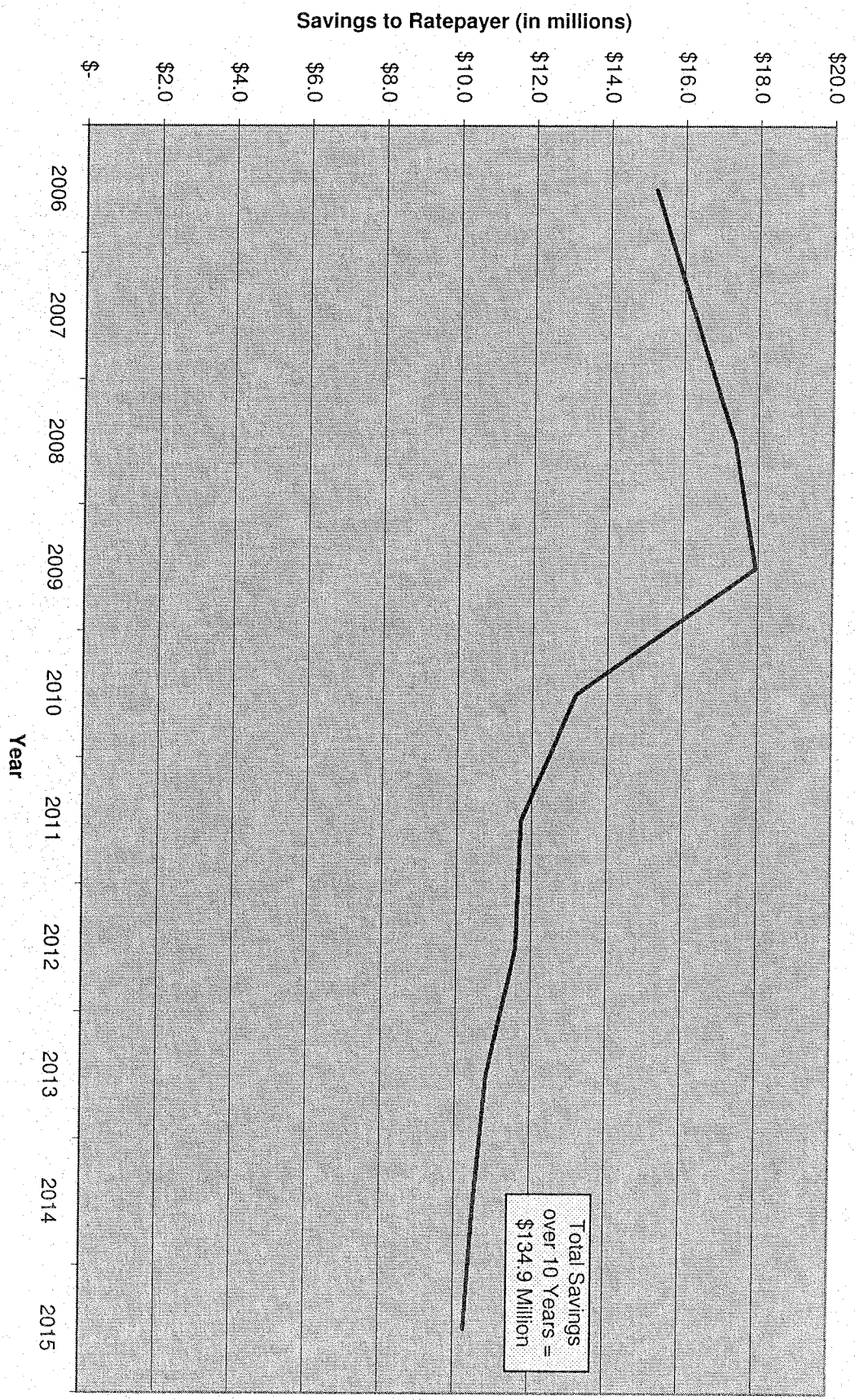


Decision to Build Iatan 2



Savings to Ratepayer by Contracting with Aries instead of Building Iatan 2



Appendix B

Assumptions									
Plant/Unit Name	PM	Fuel	Fixed O&M (\$/MW-yr)	Capital Cost (\$/MW)	Variable O&M (\$/MWh)	Heat Rate (Btu/kWh)	Fuel Price (\$/MMBtu)		
Aries SHRP	OC	NG	\$ 13.21	\$ 590	\$ 415	1.93	7500	6.520	
Item II	CT	NG	\$ 9.33	\$ 415	\$ 3.89	12000	6.520		
	COL	COL	\$ 32.90	\$ 1,500	\$ 12.00	9000	\$ 1.207		
			0.612						
			0.388	\$ 95.30					

Case 1 - Decision to Build SHRP (315 MW Need)

Option A - Pay Aries a Capacity Payment

Supply

Aries

MW

Capacity Cost (\$/MW-yr)

Energy Savings (\$/MW-yr)

Net Effect to Ratepayer (\$/MW-yr)

43.90

Option B - Build SHRP

SHRP

Spot Market Purchases

315

\$ 86.09

\$ 23.26

\$ 62.83

47.85

Option A - Pay Aries a Capacity Payment

Supply

Aries

MW

Capacity Cost (\$/yr)

Energy Savings (\$/yr)

Net Effect to Ratepayer (\$/yr)

22,606,706

Option B - Build SHRP

SHRP

Spot Market Purchases

315

\$ 27,119,892

\$ 7,327,444

\$ 19,792,448

9,569,709

Total \$

29,361,957

\$

6,753,751

Case 2 - SHRP Built, No Other Builds; Decision for Aries to Leave (200 MW Need)

Option A - Aries Stays

Supply

Spot Market Purchases

200

\$ 47.85

\$

\$ 47.85

Option B - Aries Leaves

Spot Market Purchases

200

\$ 52.05

\$

\$ 52.05

Option A - Aries Stays

Supply

Spot Market Purchases

200

\$ 9,569,708

\$

\$ 9,569,708

Option B - Aries Leaves

Spot Market Purchases

200

\$ 10,409,317

\$

\$ 10,409,317

Total \$

839,608

Case 3 - SHRP Built; Decision to Build Item 2 (200 MW Need)

Option A - Pay Aries a Capacity Payment

Supply

Aries

MW

Capacity Cost (\$/MW-yr)

Energy Savings (\$/MW-yr)

Net Effect to Ratepayer (\$/MW-yr)

47.85

Option B - Build Item 2

Item 2

Spot Market Purchases

200

\$ 268.78

\$ 188.53

\$ 39.25

Option C - Purchase from Spot Market

Spot Market Purchases

200

\$ 47.85

\$

\$ 47.85

Chart Data

Option A

Option B

Option C

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Option B

ant ran during 1 month	15
Price o Fuel \$/MMBtu \$	7.00

Simple Cycle Peaking

	Aries	Plant
Capacity MW	230	315
Heat Rate	7.46	11.5
VOM \$/MWh	1.00	\$ 0.25
Start Fuel MMBtu	1000	200
Major Maintenance St costs \$	15250.5	5400

SC Pkr

SC Pkr

Equivalent Costs Per

Heat Rate vs SC Pkr vs SC Pkr

MMBtu/MWh

(47.62)

\$ (69,324)

2.48

120,633

12.50

310,590

16.79

500,547

19.18

690,504

20.70

880,461

21.75

1,070,418

22.52

1,260,375

1	Run Hours per start	\$
2	Run Hours per start	\$
3	Run Hours per start	\$
4	Run Hours per start	\$
5	Run Hours per start	\$
6	Run Hours per start	\$
7	Run Hours per start	\$
8	Run Hours per start	\$
9	Run Hours per start	\$
10	Run Hours per start	\$
11	Run Hours per start	\$
12	Run Hours per start	\$
13	Run Hours per start	\$
14	Run Hours per start	\$
15	Run Hours per start	\$
16	Run Hours per start	\$

149.96	21.42	\$ 102.34
101.59	14.51	\$ 91.54
85.47	12.21	\$ 87.95
77.41	11.06	\$ 86.15
72.57	10.37	\$ 85.07
69.34	9.91	\$ 84.35
67.04	9.58	\$ 83.83
65.31	9.33	\$ 83.45
63.97	9.14	\$ 83.15
62.89	8.98	\$ 82.91
62.01	8.86	\$ 82.71
61.28	8.75	\$ 82.55
60.66	8.67	\$ 82.41
60.13	8.59	\$ 82.29
59.67	8.52	\$ 82.19
59.27	8.47	\$ 82.10

14.62	\$	(47.62)	\$	(164,303)
13.08	\$	(10.05)	\$	(69,324)
12.56	\$	2.48	\$	25,654
12.31	\$	8.74	\$	120,633
12.15	\$	12.50	\$	215,611
12.05	\$	15.00	\$	310,590
11.98	\$	16.79	\$	405,568
11.92	\$	18.14	\$	500,547
11.88	\$	19.18	\$	595,525
11.84	\$	20.01	\$	690,504
11.82	\$	20.70	\$	785,482
11.79	\$	21.27	\$	880,461
11.77	\$	21.75	\$	975,439
11.76	\$	22.16	\$	1,070,418
11.74	\$	22.52	\$	1,165,396
11.73	\$	22.83	\$	1,260,375

Appendix D

Calpine Capacity and Energy Offers to Aquila

