Dry cooling	versus a	applicant-pr	roposed t	echnology

Dry cooling versus applicant-pro	posed technology											NPV discount r		NPV of revenues
								8				and escalation	rate calculator	with wet cooling
Parameter Beacon dry cooling (250 Mw plant)				Genesis dry cooling (125 Mw unit)					s % of Bead		1	1	\$55,874,000	
										er-Mw basis		1	1.00799	\$55,874,000
	Solar Field	•	Solar Field	Page # in	Solar Field			Solar Field	Solar Field S			1	1.01605	\$55,874,000
	Unchanged	WP study	y Expanded	WP study	Unchanged	WP study		Expanded	UnchangedE	•	•	1	1.02417	\$55,874,000
							12.00%	6.87%		12.00%	6.87%	1	1.03235	\$55,874,000
												1	1.04060	\$55,874,000
Annual output with wet cooling	60252		60252			) (Note B)	280,000					1	1.04892	\$55,874,000
Net generation impact (Mwh)	-45,16	•		)		0 (Note B)	13,440		0 79.7%			1	1.05730	\$55,874,000
% reduction in net gen	-7.50%			6 Note A	-6.43%		4.80%					1	1.06575	\$55,874,000
Revenue impact of net gen	-\$6,774,30		\$	-	-\$5,039,450		\$2,184,000					1	1.07427	\$55,874,000
Capital cost	-\$20,497,00	•	-\$73,497,00		-\$258,000			-\$15,429,756		72.8%	42.0%	1	1.08286	\$55,874,000
Annual O&M cost impact	\$1,288,00		\$1,288,00		\$746,000		\$746,000			115.8%	115.8%	1	1.09151	\$55,874,000
NPV of O&M cost impact	\$12,980,000	•	\$12,980,00	•	\$7,517,919		\$7,517,919			115.8%	115.8%	1	1.10023	\$55,874,000
NPV of generation impact	-\$63,860,00	) p. 17	\$	)	-\$47,505,909	3	\$20,588,140					1	1.10903	\$55,874,000
Annual extra revenue with dry co	oling due to higher	price per	kwh		\$0	)	\$0					1	1.11789	\$55,874,000
NPV of extra revenue with dry co	oling due to higher	price per	kwh		\$0	)	\$0	\$0	0			1	1.12682	\$55,874,000
												1	1.13583	\$55,874,000
Total impact on NPV	-\$71,377,00	)	-\$60,517,00	)	-\$40,245,989	)	\$1,348,060	-\$7,911,830	6 112.8%	-4.5%	26.1%	1	1.14491	\$55,874,000
Reported total impact on NPV	-\$71,100,000	) p. 17	-\$60,100,00	) p. 17								1	1.15406	\$55,874,000
												1	1.16328	\$55,874,000
Price at which output is sold (\$/N	1wh) \$150	) p. 17	\$15	)	\$199.55	5	\$162.50	\$162.50	0			1	1.17258	\$55,874,000
												1	1.18195	\$55,874,000
NPV of 30-year output, wet cooli	ng \$1,133,424,87	5	\$1,133,424,87	5	\$526,713,268	3	\$526,713,268	\$526,713,268	8			1	1.19140	\$55,874,000
												1	1.20092	\$55,874,000
Total impact on NPV	-6.30%	, D	-5.34%	, o	-7.64%	, 0	0.26%	-1.50%	6			1	1.21051	\$55,874,000
												1	1.22019	\$55,874,000
		TOD												
	Wet price	mulitplier	Effective price	9								1	1.22994	\$55,874,000
Genesis revenue/Mwh - wet coo	ling: \$162.50	) 1.22	8 \$199.5	5								1	1.23977	\$55,874,000
Genesis revenue/Mwh - dry cool	ing: \$162.5	) 1.19	4 \$194.0	3								1	1.24968	\$55,874,000
-	-											1	1.25967	\$55,874,000
							Implicit O&M ir	flation rate		0.7992%				, ,
					Per WP pp. 15, 17 fo	r BSP:	NPV/annual co	st for O&M		10.07764				
					Per WP p. 17 for BSF		NPV/annual co	st for generation	on	9.42680				
					•		Implicit discour	nt rate		10.000%		9.42680	10.0776	\$526,713,268
							•							

Note A:Should have been 4.1%, not zero, per Beacon FSA, pp. 6-9, 6-40, 6-44 Note B:Output based on actual contract quantitites, per AL3546-E-A, confidential appendices, pdf p. 13 of 67 Note C:Price based on the public estimate for Beacon, not the actual Genesis price

## Dry cooling versus applicant-proposed technology

	ou toormology											and escalation ra	ate calculator
Parameter	Beacon dry o	cooling (250	) Mw plant)		Genesis dry o	Genesis dry cooling (125 Mw unit) Genesis as							1
							on a p	er-Mw bas	is	1	1.00799		
	Solar Field	Page # in	Solar Field	Page # ir	n Solar Field	Page # in	Solar Field	Solar Field	Solar FieldS	Solar FieldS	Solar Field	d 1	1.01605
	Unchanged	WP study	Expanded	WP study	/ Unchanged	WP study	Expanded	Expanded	Unchange	Expanded E	Expanded	1	1.02417
							12.00%	6.87%		12.00%	6.87%	5 1	1.03235
												1	1.04060
Annual output with wet cooling	60252	'	602527	7		0 (Note B)	,	,				1	1.04892
Net generation impact (Mwh)	-45,16	•	C			0 (Note B)	,		0 79.7%			1	1.05730
% reduction in net gen	-7.50%	% p.16	0.00%	Note A	-6.43%	Ó	4.80%	6 0.00%	6 85.8%			1	1.06575
Revenue impact of net gen	-\$6,774,30	0 p.17	\$C	)	-\$5,039,450	)	\$2,184,000	) \$	0 148.8%			1	1.07427
Capital cost	-\$20,497,00	0 p.17	-\$73,497,000	) p. 17	-\$258,000	) p.8	-\$26,758,000	) -\$15,429,75	6 2.5%	72.8%	42.0%	5 1	1.08286
Annual O&M cost impact	\$1,288,00	0 p.15	\$1,288,000	)	\$746,000	D p. 20	\$746,000	\$746,00	D 115.8%	115.8%	115.8%	5 1	1.09151
NPV of O&M cost impact	\$12,980,00	0 p.17	\$12,980,000	) p. 17	\$7,517,919		\$7,517,919	9 \$7,517,91		115.8%	115.8%	5 1	1.10023
NPV of generation impact	-\$63,860,00	0 p.17	\$0	)	-\$47,505,909	9	\$20,588,140	) \$	0 148.8%			1	1.10903
Annual extra revenue with dry coolin	\$2,181,255	5	\$3,403,904	\$3,248,00	D			1	1.11789				
NPV of extra revenue with dry cooling due to higher price per kwh					\$20,562,262	2	\$32,087,937	7 \$30,618,26	0			1	1.12682
												1	1.13583
Total impact on NPV	-\$71,377,00	0	-\$60,517,000	)	-\$19,683,727	7	\$33,435,996	5 \$22,706,42	4 55.2%	-110.5%	-75.0%	5 1	1.14491
Reported total impact on NPV	-\$71,100,00	0 p.17	-\$60,100,000	) p. 17								1	1.15406
						ne.						1	1.16328
Price at which wet-cooled output is s	sold (\$/Mwh) \$15	0 p.17	\$150	)	\$199.55	5	\$162.50	) \$162.5	D			1	1.17258
												1	1.18195
NPV of 30-year output, wet cooling	\$1,133,424,87	5	\$1,133,424,875	5	\$526,713,268	3	\$526,713,268	3 \$526,713,26	3			1	1.19140
												1	1.20092
Total impact on NPV	-6.30%	%	-5.34%	)	-3.74%	, D	6.35%	6 4.31%	0			1	1.21051
												1	1.22019
		TOD											
		mulitplier	Effective price									1	1.22994
Genesis revenue/Mwh - wet cooling:	: \$162.5	0 1.22	8 \$199.55	ž								1	1.23977
Genesis revenue/Mwh - dry cooling:	\$174.1	0 1.19	4 \$207.88	\$								1	1.24968
												1	1.25967
Price increase for dry cooling:	7.14%	%	4.17%	)			Implicit O&M ir	nflation rate		0.7992%			
					Per WP pp. 15, 17 for BS	SP:	NPV/annual co	ost for O&M		10.07764			
					Per WP p. 17 for BSP:		NPV/annual co	ost for generatio	n	9.42680			
							Implicit discour	nt rate		10.000%		9.42680	10.0776

Note A: Should have been 4.1%, not zero, per Beacon FSA, pp. 6-9, 6-40, 6-44

Note B: Output based on actual contract quantitites, per AL3546-E-A, confidential appendices, pdf p. 13 of 67

Note C: Price based on the actual Genesis contract assuming no Federal loan guarantee

per AL3546-E-A, confidential appendices, pdf p. 13 of 67

NPV discount rate calculator

NPV of revenues
with wet cooling
\$55,874,000
\$55,874,000
\$55,874,000
\$55.874.000
\$55.874.000
\$55,874,000
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\$526,713,268

## CEC Exhibit 2, modified to incorporate confidential contract information

Dry cooling versus applicant-propose	ed technology -	Genesis o	contract with DO	E loan guarai	ntee							NPV discount rat and escalation ra		NPV of revenues with wet cooling
Parameter	Beacon dry co	oling (250	Mur plant)			Genesis dry cooling (1:	6 Mar smith		Conocio	as % of Be		4		\$55,874,000
alameter	Beacon dry co	ioning (200	nin plant)			Cenesis ary cooling ( i	LO WWW UNITY			ber-Mw bas		4	1.00799	\$55,874,000
	Solar Field	Page # in	Solar Field	Page # in		Solar Field Page # i	n Solar Field	Solar Field	Solar Field			1	1.01605	\$55,874,000
			Expanded	WP study			ly Expanded	Expanded	Unchanged			1	1.02417	\$55,874,000
	onenangeo	wi stady	/ Expanded	Wi Study		onenangee will stee	12.00%	6.87%	onenangen	12.00%		1	1.03235	\$55,874,000
							12.0070	0.0170		12.00%	0.01 /0	1	1.04060	\$55,874,000
Annual output with wet cooling	602527	p. 16	602527			280000 (Note E	3) 280.00	0 280,00	0 92.9%			1	1.04892	\$55,874,000
Net generation impact (Mwh)	-45,162	•	(			-18,000 (Note E	6 <b>1</b>	'	0 79.7%			1	1.05730	\$55,874,000
% reduction in net gen	-7,50%		0.00%	Note A		-6.43%	4,80%					1	1.06575	\$55,874,000
Revenue impact of net gen	-\$6,774,300	•	\$0			-\$5,039,450	\$2,184,00					1	1.07427	\$55,874,000
Capital cost	-\$20,497,000		-\$73,497,000			-\$258,000 p.8	-\$26,758,00			72.8%	42.0%	1	1.08286	\$55,874,000
Annual O&M cost impact	\$1,288,000	•	\$1,288,000	•		\$746,000 p.20	\$746,00			115.8%	115.8%		1.09151	\$55,874,000
NPV of O&M cost impact	\$12,980,000		\$12,980,000			\$7,517,919	\$7,517,91			115.8%	115.8%	1	1.10023	\$55,874,000
NPV of generation impact	-\$63,860,000		\$0	•		-\$47,505,909	\$20,588,14					1	1,10903	\$55,874,000
Annual extra revenue with dry coolin			kwh			\$3,870,526	\$4,988,48	0 \$4,760,00	0			1	1,11789	\$55,874,000
NPV of extra revenue with dry cooling due to higher price per kwh			\$36,486,691	\$47,025,42					1	1.12682	\$55,874,000			
,	0 0											1	1.13583	\$55,874,000
Total impact on NPV	-\$71,377,000	)	-\$60,517,000	1		-\$3,759,298	\$48,373,48	4 \$36,959,75	2 10.5%	-159.9%	-122.1%	1	1,14491	\$55,874,000
Reported total impact on NPV	-\$71,100,000	) p. 17	-\$60,100,000	p. 17								1	1.15406	\$55,874,000
		•										1	1.16328	\$55,874,000
Price at which output is sold (\$/Mwh)	) \$150	) p. 17	\$150	1		\$199.55	\$162.5	0 \$162.5	0			1	1.17258	\$55,874,000
	r											1	1.18195	\$55,874,000
NPV of 30-year output, wet cooling	\$1,133,424,875	;	\$1,133,424,875	i		\$526,713,268	\$526,713,26	8 \$526,713,26	8			1	1.19140	\$55,874,000
												1	1.20092	\$55,874,000
Total impact on NPV	-6.30%	,	-5.34%			-0.71%	9.189	6 7.029	%			1	1.21051	\$55,874,000
												1	1.22019	\$55,874,000
		TOD												
		mulitplier	Effective price									1	1.22994	\$55,874,000
Genesis revenue/Mwh - wet cooling:	\$162.50	1.22	8 \$199.55									1	1.23977	\$55,874,000
Genesis revenue/Mwh - dry cooling:	\$179.50	1.19	4 \$214.32									1	1.24968	\$55,874,000
												1	1.25967	\$55,874,000
Price increase for dry cooling:	10.46%	,	7.40%				Implicit O&M	inflation rate		0.7992%				
				Per W	er WP p	p. 15, 17 for BSP:	NPV/annual o	ost for O&M		10.07764				
				Pe	er WP p	. 17 for BSP:	NPV/annual o	ost for generati	on	9.42680				
							Implicit disco	unt rate		10.000%		9.42680	10.0776	\$526,713,268

Note A:Should have been 4.1%, not zero, per Beacon FSA, pp. 6-9, 6-40, 6-44 Note B:Output based on actual contract quantitites, per AL3546-E-A, confidential appendices, pdf p. 13 of 67 Note C:Price based on the actual Genesis contract assuming a Federal Ioan guarantee, per AL3546-E-A, confidential appendices, pdf p. 13 of 67