

**Appendix B**  
IRP Data



## Integrated Resource Plan Data

Input	Unit	Mohave NGCC (Cooling Tower and CO <sub>2</sub> Removal)	Mohave NGCC (Air-Cooled Condenser and CO <sub>2</sub> Removal)	Solar Site 1 (Trough)	Solar Site 2 (Trough)	Solar Site 1 (Dish)	Solar Site 2 (Dish)	Gray Mountain Phase 1	Gray Mountain Phases 1-3
Capacity	MW	846	846	300	300	425	425	150	450
<u>Outages</u>									
Schedule Maintenance Rate	% of year	6.5%	6.5%	1.0%	1.0%	1.5%	1.5%	3.0%	3.0%
Forced Outage Rate	% of year	4.0%	4.0%	1.5%	1.5%	2.0%	2.0%	3.0%	3.0%
<u>Average Heat Rates</u>									
Full Load Heat Rate	BTU/kWh	8,310	8,310	0	0	0	0	0	0
Heat Rate Points									
75.0%	BTU/kWh	8,945	8,945	0	0	0	0	0	0
50.0%	BTU/kWh	8,325	8,325	0	0	0	0	0	0
25.0%	BTU/kWh	10,075	10,075						
Heat Rate Capacity Points									
100.0%	MW	846	846	300	300	425	425	150	450
75.0%	MW	635	635	225	225	319	319	113	338
50.0%	MW	423	423	150	150	213	213	75	225
25.0%	MW	212	212	75	75	106	106	38	113
<u>Costs</u>									
Burnertip Fuel Price	\$/MMBTU	8.64	8.64	0.0	0.0	0.0	0.0	0.0	0.0
Fixed O&M	\$/kW-yr	2.32	2.08	33	33	3	3	55.32	53.05
Variable O&M	\$/MWh	6.45	6.45	30	30	11	11	0.195	0.195
<u>Emissions</u>									
CO2 Emissions	lbs/MMBTU	114	114	11	11	0	0	0	0
NOx Emissions	lbs/MMBTU	0.037	0.037	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SO2 Emissions	lbs/MMBTU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<u>Repair Time</u>									
Mean Time to Repair	hrs	47	47	20	20	0	0	0	0
Min Time to Repair	hrs	4	4	4	4	0	0	0	0
Max Time to Repair	hrs	720	720	336	336	0	0	0	0
<u>Dispatch</u>									
Ramp Rate	MW/hr	2,538	2,538	0	0	0	0	0	0
Run Up Rate	MW/hr	250	250	250	250	0	0	0	0
Min Up Time	hrs	0	0	4	4	0	0	0	0
Min Down Time	hrs	0	0	2	2	0	0	0	0
Start-Up Fuel	MMBTU	22,490	22,490	0	0	0	0	0	0
Expected Plant Life Time	years	25	25	20	20	20	20	20	20

## Integrated Resource Plan Data

Input	Unit	Aubrey Cliffs	Clear Creek	Sunshine Wind Park
Capacity	MW	100	75	60
<u>Outages</u>				
Schedule Maintenance Rate	% of year	3.0%	3.0%	3.0%
Forced Outage Rate	% of year	3.0%	3.0%	3.0%
<u>Average Heat Rates</u>				
Full Load Heat Rate	BTU/kWh	0	0	0
<u>Heat Rate Points</u>				
75.0%	BTU/kWh	0	0	0
50.0%	BTU/kWh	0	0	0
25.0%	BTU/kWh			
<u>Heat Rate Capacity Points</u>				
100.0%	MW	100	75	60
75.0%	MW	75	56	45
50.0%	MW	50	38	30
25.0%	MW	25	19	15
<u>Costs</u>				
Burnertip Fuel Price	\$/MMBTU	0.0	0.0	0.0
Fixed O&M	\$/kW-yr	31.91	32.24	33.33
Variable O&M	\$/MWh	0.223	0.244	0.279
<u>Emissions</u>				
CO2 Emissions	lbs/MMBTU	0	0	0
NOx Emissions	lbs/MMBTU	0.0000	0.0000	0.0000
SO2 Emissions	lbs/MMBTU	0.000	0.000	0.000
<u>Repair Time</u>				
Mean Time to Repair	hrs	0	0	0
Min Time to Repair	hrs	0	0	0
Max Time to Repair	hrs	0	0	0
<u>Dispatch</u>				
Ramp Rate	MW/hr	0	0	0
Run Up Rate	MW/hr	0	0	0
Min Up Time	hrs	0	0	0
Min Down Time	hrs	0	0	0
Start-Up Fuel	MMBTU	0	0	0
Expected Plant Life Time	years	20	20	20