California Energy Action Plan

Preliminary Monthly Outlook for Summer 2006

Joint Meeting
of the California Energy Commission and the
California Public Utilities Commission
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California Energy Commission

California Energy Action Plan

2006 Monthly Outlook - Statewide

	Resource Adequacy Planning Conventions	June	July	August	September
1	Existing Generation[1]	55,714	57,133	57,133	57,133
2	Retirements (Known)	-1,133	0	0	0
3	High Probability CA Additions	2,552	0	0	0
4	Net Interchange [2]	12,921	12,921	12,921	12,921
5	Total Net Generation (MW)	70,054	70,054	70,054	70,054
6	1-in-2 Summer Temperature Demand (Normal)[3]	56,095	58,605	59,157	58,229
7	Demand Response (DR)	691	691	691	691
8	Interruptible/Curtailable Programs	1,349	1,349	1,349	1,349
9	Planning Reserve[4]	28.5%	23.0%	21.9%	23.8%
	Expected Operating Conditions				
10	Outages (Average forced + planned)	-2,300	-2,300	-2,300	-2,300
11	Zonal Transmission Limitation[5]	-400	-400	-400	-400
12	Expected Operating Generation with Outages/Limitations[6]	67,354	67,354	67,354	67,354
13	Expected Operating Reserve Margin (1-in-2)[7]	25.5%	18.7%	17.4%	19.7%
	Adverse Conditions				
14	High Zonal Transmission Limitation	-550	-550	-550	-550
15	High Forced Outages (1 STD above average)	-1,200	-1,200	-1,200	-1,200
16	Adverse Temperature Impact (1-in-10)	-3,381	-3,554	-3,609	-3,574
17	Adverse Scenario Reserve Margin[7]	12.9%	6.9%	5.6%	7.6%
18	Adverse Scenario Reserve Margin w/DR and Interruptibles[8]	17.2%	10.9%	9.6%	11.7%
19	Resources needed to meet 7.0% Reserve (W/DR & Interruptibles)	0	0	0	0
20	Surplus Resources Above 7.0% Reserve (W/DR & Interruptibles)	4,839	1,968	1,319	2,349
21	Existing Generation Without Capacity Contracts	-3,722	-3,722	-3,722	-3,722

[1] Dependable capacity by station includes 1,080 MW of stations located South of Miguel.

[2] 2006 estimate of the following Net Imports: **DC imports 2,000 MW, SW imports 3,900 MW, NW imports (COI) 4,000 MW, LADWP Control Area imports 2,834 MW, IID Imports 184 MW. Imports with own reserves highlighted in bold.**

[3] Demand forecast completed 8/29/2005.

[4] Planning Reserve calculation ((Total Generation+Demand Response+Interruptibles)/Normal Demand)-1.

[5] Based on CA ISO data.

[6] Does not include Demand Response/Interruptible Programs due to Reserve Margins in excess of 5% (Stage 2).

[7] Operating Reserve calculation ((Operating Generation-**Imports with Reserves**)/(Demand-**Imports with Reserves**))-1. See Footnote 2.

[8] Demand Response and Interruptibles added to Operating Generation in Reserve Margin formula from Footnote 7.

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2006 Monthly Outlook - CA ISO

	Resource Adequacy Planning Conventions	June	July	August	September
1	Existing Generation[1]	46,078	47,155	47,155	47,155
2	Retirements (Known)	-995	0	0	0
3	High Probability CA Additions	2,072	0	0	0
4	Net Interchange [2]	10,903	10,903	10,903	10,903
5	Total Net Generation (MW)	58,058	58,058	58,058	58,058
6	1-in-2 Summer Temperature Demand (Normal)[3]	46,058	48,010	48,136	47,660
7	Demand Response (DR)	691	691	691	691
8	Interruptible/Curtailable Programs	1,149	1,149	1,149	1,149
9	Planning Reserve[4]	30.0%	24.8%	24.4%	25.7%
	Expected Operating Conditions				
10	Outages (Average forced + planned)	-2,044	-2,044	-2,044	-2,044
11	Zonal Transmission Limitation[5]	-400	-400	-400	-400
12	Expected Operating Generation with Outages/Limitations[6]	55,614	55,614	55,614	55,614
13	Expected Operating Reserve Margin (1-in-2)[7]	26.4%	20.0%	19.6%	21.1%
	Adverse Conditions				
14	High Zonal Transmission Limitation	-550	-550	-550	-550
15	High Forced Outages (1 STD above average)	-856	-856	-856	-856
16	Adverse Temperature Impact (1-in-10)	-2,635	-2,767	-2,789	-2,788
17	Adverse Scenario Reserve Margin[7]	14.2%	8.4%	8.0%	9.3%
18	Adverse Scenario Reserve Margin w/DR and Interruptibles[8]	19.0%	12.9%	12.5%	13.8%
19	Resources needed to meet 7.0% Reserve (W/DR & Interruptibles)	0	0	0	0
20	Surplus Resources Above 7.0% Reserve (W/DR & Interruptibles)	4,640	2,410	2,251	2,762
21	Existing Generation Without Capacity Contracts	-3,722	-3,722	-3,722	-3,722

[1] Dependable capacity by station includes 1,080 MW of stations located South of Miguel.

[2] 2006 estimate of the following Net Imports: **DC imports 2,000 MW, SW imports 3,903 MW, NW imports (COI) 4,000 MW**, LADWP Control Area imports 1,000 MW. **Imports with own reserves highlighted in bold.**

[3] Demand forecast completed 8/29/2005.

[4] Planning Reserve calculation ((Total Generation+Demand Response+Interruptibles)/Normal Demand)-1.

[5] Based on CA ISO data.

[6] Does not include Demand Response/Interruptible Programs due to Reserve Margins in excess of 5% (Stage 2).

[7] Operating Reserve calculation ((Operating Generation-**Imports with Reserves**)/(Demand-**Imports with Reserves**))-1. See Footnote 2.

[8] Demand Response and Interruptibles added to Operating Generation in Reserve Margin formula from Footnote 7.

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2006 Monthly Outlook - CA ISO NP26

	Resource Adequacy Planning Conventions	June	July	August	September
1	Existing Generation	25,073	25,219	25,219	25,219
2	Retirements (Known)	-219	0	0	0
3	High Probability CA Additions	365	0	0	0
4	Net Interchange [1]	4,000	4,000	4,000	4,000
5	Total Net Generation (MW)	29,219	29,219	29,219	29,219
6	1-in-2 Summer Temperature Demand (Normal)[2]	21,515	21,979	21,685	20,890
7	Demand Response (DR)	296	296	296	296
8	Interruptible/Curtailable Programs	342	342	342	342
9	Planning Reserve[3]	38.8%	35.8%	37.7%	42.9%
	Expected Operating Conditions				
10	Outages (Average forced + planned)	-1,100	-1,100	-1,100	-1,100
11	Zonal Transmission Limitation[4]	0	0	0	0
12	Expected Operating Generation with Outages/Limitations[5]	28,119	28,119	28,119	28,119
13	Expected Operating Reserve Margin (1-in-2)[6]	37.7%	34.2%	36.4%	42.8%
	Adverse Conditions				
14	High Zonal Transmission Limitation	0	0	0	0
15	High Forced Outages (1 STD above average)	-500	-500	-500	-500
16	Adverse Temperature Impact (1-in-10)	-707	-722	-712	-686
17	Adverse Scenario Reserve Margin[6]	29.6%	26.3%	28.4%	34.4%
18	Adverse Scenario Reserve Margin w/DR and Interruptibles[7]	33.1%	29.7%	31.9%	38.0%
19	Resources needed to meet 7.0% Reserve (W/DR & Interruptibles)	0	0	0	0
20	Surplus Resources Above 7.0% Reserve (W/DR & Interruptibles)	4,759	4,247	4,572	5,451
21	Existing Generation Without Capacity Contracts	-682	-682	-682	-682

[1] 2006 estimate of the following Net Imports: **NW imports (COI) 4,000 MW. All Imports assumed to carry own reserves.**
[2] Demand forecast completed 8/29/2005.
[3] Planning Reserve calculation ((Total Generation+Demand Response+Interruptibles)/Normal Demand)-1.
[4] Based on CA ISO data.
[5] Does not include Demand Response/Interruptible Programs due to reserve margins in excess of 5% (Stage 2).
[6] Operating Reserve calculation ((Operating Generation-**Imports with Reserves**)/(Demand-**Imports with Reserves**))-1. See Footnote 1.
[7] Demand Response and Interruptibles added to Operating Generation in Reserve Margin formula from Footnote 6.

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2006 Monthly Outlook - CA ISO SP26

	Resource Adequacy Planning Conventions	June	July	August	September
1	Existing Generation[1]	21,005	21,936	21,936	21,936
2	Retirements (Known)	-776	0	0	0
3	High Probability CA Additions	1,707	0	0	0
4	Net Interchange [2]	9,903	9,903	9,903	9,903
5	Total Net Generation (MW)	31,839	31,839	31,839	31,839
6	1-in-2 Summer Temperature Demand (Normal)[3]	25,091	26,602	27,023	27,337
7	Demand Response (DR)	395	395	395	395
8	Interruptible/Curtailable Programs	807	807	807	807
9	Planning Reserve[4]	31.7%	24.2%	22.3%	20.9%
	Expected Operating Conditions				
10	Outages (Average forced + planned)	-944	-944	-944	-944
11	Zonal Transmission Limitation[5]	-400	-400	-400	-400
12	Expected Operating Generation with Outages/Limitations[6]	30,495	30,495	30,495	30,495
13	Expected Operating Reserve Margin (1-in-2)[7]	28.2%	18.8%	16.4%	14.7%
	Adverse Conditions				
14	High Zonal Transmission Limitation	-550	-550	-550	-550
15	High Forced Outages	-356	-356	-356	-356
16	Adverse Temperature Impact (1-in-10)	-1,960	-2,078	-2,111	-2,135
17	Adverse Scenario Reserve Margin[7]	12.0%	4.0%	2.0%	0.5%
18	Adverse Scenario Reserve Margin w/DR and Interruptibles[8]	17.7%	9.3%	7.1%	5.6%
19	Resources needed to meet 7.0% Reserve (W/DR & Interruptibles)	0	0	0	331
20	Surplus Resources Above 7.0% Reserve (W/DR & Interruptibles)	2,259	516	31	0
21	Existing Generation Without Capacity Contracts	-3,040	-3,040	-3,040	-3,040

[1] Dependable capacity by station includes 1,080 MW of stations located South of Miguel.

[2] 2006 estimate of the following Net Imports: **DC imports 2,000 MW, SW imports 3,903 MW,** Imports from NP26 3,000 MW, LADWP Control Area imports 1,000 MW. **Imports with own reserves highlighted in bold.**

[3] Demand forecast completed 8/29/2005.

[4] Planning Reserve calculation ((Total Generation+Demand Response+Interruptibles)/Normal Demand)-1.

[5] Based on CA ISO data.

[6] Does not include Demand Response/Interruptible Programs due to Reserve Margins in excess of 5% (Stage 2).

[7] Operating Reserve calculation ((Operating Generation-**Imports with Reserves**)/(Demand-**Imports with Reserves**))-1. See Footnote 2.

[8] Demand Response and Interruptibles added to Operating Generation in Reserve Margin formula from Footnote 7.

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