

ATTACHMENT N

Energy Analysis Worksheets

This attachment to the Colorado River Interim Surplus Criteria DEIS is a collection of worksheets with calculations used for the energy resources analysis in this DEIS.

Table 1
Average Pool Elevaton at Lake Mead (feet msl)

Surface Elevation						Comparison to Baseline			
Year	Baseline	Shortage Protect.	Six States	Flood Control	California	Shortage Protect.	Six States	Flood Control	California
2000	1,206	1,206	1,206	1,207	1,206	0	0	0	0
2001	1,201	1,200	1,200	1,202	1,200	(1)	(1)	1	(1)
2002	1,198	1,196	1,196	1,199	1,196	(2)	(1)	1	(2)
2003	1,195	1,191	1,192	1,196	1,191	(3)	(2)	1	(3)
2004	1,192	1,187	1,189	1,193	1,187	(5)	(3)	2	(5)
2005	1,190	1,183	1,185	1,191	1,184	(7)	(4)	1	(6)
2006	1,188	1,180	1,183	1,189	1,180	(8)	(5)	1	(8)
2007	1,186	1,176	1,180	1,187	1,177	(10)	(6)	1	(9)
2008	1,184	1,173	1,178	1,186	1,175	(11)	(7)	1	(9)
2009	1,183	1,170	1,176	1,184	1,172	(13)	(7)	1	(11)
2010	1,181	1,167	1,173	1,182	1,169	(14)	(8)	1	(12)
2011	1,180	1,164	1,171	1,181	1,166	(16)	(9)	1	(13)
2012	1,178	1,161	1,169	1,179	1,163	(17)	(9)	1	(15)
2013	1,176	1,159	1,167	1,178	1,161	(18)	(10)	1	(16)
2014	1,175	1,156	1,165	1,176	1,158	(18)	(10)	2	(17)
2015	1,173	1,153	1,162	1,174	1,155	(19)	(10)	2	(17)
2016	1,171	1,153	1,162	1,173	1,154	(19)	(10)	2	(17)
2017	1,170	1,153	1,161	1,172	1,154	(17)	(9)	2	(16)
2018	1,168	1,152	1,160	1,170	1,154	(16)	(9)	2	(15)
2019	1,167	1,152	1,159	1,169	1,153	(15)	(8)	2	(13)
2020	1,165	1,151	1,158	1,167	1,153	(14)	(7)	2	(12)
2021	1,164	1,151	1,157	1,166	1,152	(13)	(7)	2	(12)
2022	1,162	1,150	1,155	1,164	1,151	(12)	(7)	2	(11)
2023	1,161	1,149	1,154	1,163	1,150	(11)	(6)	2	(10)
2024	1,159	1,148	1,153	1,161	1,150	(10)	(6)	2	(9)
2025	1,158	1,148	1,152	1,160	1,149	(10)	(5)	2	(9)
2026	1,157	1,147	1,151	1,159	1,148	(10)	(5)	2	(9)
2027	1,156	1,146	1,151	1,158	1,147	(9)	(5)	2	(8)
2028	1,155	1,146	1,150	1,157	1,147	(9)	(5)	2	(8)
2029	1,154	1,145	1,149	1,156	1,146	(9)	(5)	2	(8)
2030	1,153	1,144	1,148	1,155	1,145	(9)	(5)	2	(8)
2031	1,151	1,143	1,147	1,153	1,144	(9)	(5)	2	(8)
2032	1,150	1,142	1,145	1,152	1,143	(9)	(5)	2	(8)
2033	1,149	1,140	1,144	1,151	1,141	(9)	(5)	2	(8)
2034	1,147	1,139	1,142	1,149	1,140	(9)	(5)	2	(8)
2035	1,145	1,137	1,141	1,148	1,138	(9)	(5)	2	(8)
2036	1,144	1,135	1,139	1,146	1,137	(8)	(5)	2	(7)
2037	1,143	1,134	1,138	1,144	1,135	(8)	(5)	2	(7)
2038	1,141	1,133	1,136	1,143	1,134	(8)	(5)	2	(7)
2039	1,139	1,131	1,135	1,141	1,132	(8)	(4)	2	(7)
2040	1,138	1,130	1,133	1,140	1,131	(8)	(4)	2	(7)
2041	1,136	1,129	1,132	1,138	1,130	(7)	(4)	2	(6)
2042	1,135	1,128	1,130	1,136	1,128	(6)	(4)	2	(6)
2043	1,133	1,128	1,130	1,135	1,128	(5)	(4)	2	(5)
2044	1,131	1,127	1,129	1,133	1,127	(4)	(3)	2	(4)
2045	1,130	1,127	1,128	1,132	1,127	(3)	(2)	2	(3)
2046	1,129	1,126	1,127	1,131	1,126	(3)	(2)	2	(3)
2047	1,128	1,126	1,127	1,130	1,126	(2)	(1)	2	(2)
2048	1,127	1,126	1,126	1,129	1,126	(1)	(1)	2	(1)
2049	1,126	1,125	1,125	1,128	1,125	(1)	(1)	2	(1)
2050	1,125	1,124	1,124	1,126	1,124	(1)	(0)	2	(1)
AVERAGE:									
2000-2015	1,187	1,176	1,181	1,188	1,178	(10)	(6)	1	(9)
2016-2050	1,148	1,139	1,143	1,150	1,140	(9)	(5)	2	(8)
2000-2050	1,160	1,151	1,155	1,162	1,152	(9)	(5)	2	(8)

Table 2

Average Energy at Lake Mead (GWh)

Year	Energy					Comparison to Baseline			
	Baseline	Shortage Protect.	Six States	Flood Control	California	Shortage Protect.	Six States	Flood Control	California
2000	473	473	473	468	473	0	0	(5)	0
2001	449	457	455	446	457	9	6	(3)	9
2002	439	448	445	437	448	8	6	(2)	8
2003	424	437	433	425	437	13	8	0	12
2004	421	434	430	421	432	13	9	0	11
2005	419	431	426	422	429	12	7	3	10
2006	414	423	418	413	421	10	4	(1)	7
2007	412	420	415	412	416	8	3	0	4
2008	406	413	408	405	411	8	2	(1)	5
2009	404	411	406	406	409	7	1	2	5
2010	401	405	403	402	405	4	2	1	4
2011	400	403	401	400	404	3	1	0	4
2012	397	396	396	396	398	(1)	(1)	(1)	1
2013	395	392	392	394	393	(4)	(3)	(1)	(2)
2014	394	389	391	394	389	(5)	(3)	(0)	(5)
2015	392	386	387	393	386	(6)	(5)	1	(5)
2016	390	369	379	390	372	(21)	(10)	0	(18)
2017	385	368	375	385	370	(17)	(10)	0	(15)
2018	387	371	377	387	373	(16)	(10)	(0)	(14)
2019	381	366	373	381	367	(15)	(8)	(0)	(14)
2020	382	368	375	382	368	(14)	(7)	0	(13)
2021	378	367	372	381	368	(11)	(6)	3	(10)
2022	378	365	371	377	367	(12)	(6)	(0)	(11)
2023	376	365	369	376	366	(11)	(6)	1	(10)
2024	374	364	368	375	364	(11)	(7)	0	(10)
2025	370	361	365	372	362	(9)	(5)	2	(8)
2026	368	360	364	369	362	(8)	(4)	1	(7)
2027	366	358	362	367	359	(8)	(3)	1	(7)
2028	366	359	362	368	360	(7)	(4)	2	(7)
2029	365	357	360	367	358	(7)	(4)	3	(7)
2030	365	358	361	365	359	(7)	(4)	0	(6)
2031	362	356	358	364	356	(6)	(3)	3	(6)
2032	359	353	356	361	354	(6)	(3)	2	(6)
2033	361	355	358	362	356	(6)	(4)	0	(5)
2034	357	351	354	358	352	(6)	(3)	1	(5)
2035	356	350	353	356	351	(6)	(3)	(0)	(5)
2036	355	348	351	357	349	(7)	(4)	2	(6)
2037	353	347	350	354	347	(6)	(3)	2	(5)
2038	353	342	348	355	346	(11)	(4)	2	(6)
2039	349	335	345	350	342	(14)	(4)	1	(7)
2040	348	327	344	348	335	(21)	(4)	(0)	(13)
2041	348	323	338	349	330	(25)	(10)	1	(18)
2042	346	320	329	348	321	(26)	(16)	2	(24)
2043	340	314	325	341	315	(25)	(15)	1	(25)
2044	337	317	324	339	317	(21)	(14)	1	(21)
2045	328	312	316	330	312	(16)	(12)	2	(16)
2046	323	310	314	323	310	(13)	(9)	0	(13)
2047	320	308	315	324	309	(12)	(5)	4	(12)
2048	319	310	313	319	310	(9)	(6)	1	(9)
2049	317	310	313	318	310	(6)	(4)	2	(6)
2050	308	304	305	310	305	(4)	(3)	2	(3)
AVERAGE:									
2000-2015	415	420	417	415	419	5	2	(0)	4
2016-2050	356	344	350	357	346	(12)	(6)	1	(11)
2000-2050	375	368	371	375	369	(7)	(4)	1	(6)

Table 3

Average Surface Elevation at Lake Powell (feet msl)

Year	Surface Elevation					Comparison to Baseline			
	Baseline	Shortage Protect.	Six States	Flood Control	California	Shortage Protect	Six States	Flood Control	California
2000	3,685	3,685	3,685	3,685	3,685	0	0	0	0
2001	3,682	3,682	3,682	3,682	3,682	(0)	(0)	0	(0)
2002	3,679	3,679	3,679	3,679	3,679	(1)	(0)	0	(1)
2003	3,677	3,676	3,677	3,678	3,676	(1)	(1)	0	(1)
2004	3,676	3,674	3,674	3,676	3,674	(2)	(2)	0	(2)
2005	3,674	3,670	3,672	3,675	3,671	(4)	(2)	0	(3)
2006	3,672	3,668	3,669	3,673	3,668	(5)	(3)	1	(4)
2007	3,671	3,665	3,667	3,672	3,666	(6)	(4)	1	(5)
2008	3,670	3,662	3,665	3,670	3,664	(7)	(4)	1	(6)
2009	3,668	3,660	3,663	3,669	3,661	(9)	(5)	1	(7)
2010	3,667	3,657	3,662	3,668	3,659	(10)	(5)	1	(8)
2011	3,665	3,655	3,659	3,666	3,656	(11)	(6)	1	(9)
2012	3,664	3,652	3,657	3,665	3,654	(12)	(7)	1	(10)
2013	3,662	3,650	3,656	3,663	3,652	(12)	(7)	1	(11)
2014	3,661	3,648	3,654	3,662	3,650	(12)	(7)	1	(11)
2015	3,660	3,647	3,652	3,660	3,648	(13)	(7)	1	(11)
2016	3,658	3,646	3,651	3,659	3,647	(12)	(7)	1	(11)
2017	3,657	3,646	3,651	3,658	3,647	(12)	(7)	1	(10)
2018	3,656	3,645	3,650	3,657	3,646	(11)	(6)	1	(10)
2019	3,655	3,645	3,650	3,656	3,646	(10)	(6)	1	(9)
2020	3,655	3,645	3,649	3,656	3,646	(9)	(5)	1	(9)
2021	3,654	3,645	3,649	3,655	3,646	(9)	(5)	1	(8)
2022	3,653	3,645	3,648	3,654	3,646	(8)	(5)	1	(7)
2023	3,652	3,644	3,648	3,653	3,645	(8)	(4)	1	(7)
2024	3,651	3,644	3,647	3,652	3,645	(7)	(4)	1	(7)
2025	3,651	3,644	3,647	3,652	3,645	(7)	(4)	1	(6)
2026	3,650	3,644	3,647	3,651	3,644	(6)	(3)	1	(6)
2027	3,650	3,644	3,646	3,651	3,644	(6)	(3)	1	(5)
2028	3,649	3,644	3,646	3,650	3,644	(5)	(3)	1	(5)
2029	3,649	3,644	3,646	3,650	3,644	(5)	(3)	1	(4)
2030	3,648	3,644	3,646	3,649	3,645	(4)	(2)	1	(4)
2031	3,648	3,644	3,646	3,649	3,645	(4)	(2)	1	(4)
2032	3,648	3,645	3,646	3,649	3,645	(3)	(2)	1	(3)
2033	3,648	3,645	3,646	3,649	3,645	(3)	(2)	1	(3)
2034	3,648	3,645	3,646	3,648	3,645	(3)	(2)	1	(3)
2035	3,648	3,645	3,646	3,648	3,645	(3)	(1)	1	(2)
2036	3,648	3,646	3,647	3,649	3,646	(2)	(1)	1	(2)
2037	3,648	3,646	3,647	3,649	3,646	(2)	(1)	1	(2)
2038	3,648	3,646	3,647	3,649	3,646	(2)	(1)	1	(2)
2039	3,648	3,646	3,647	3,649	3,646	(2)	(1)	1	(2)
2040	3,648	3,646	3,647	3,649	3,646	(2)	(1)	1	(2)
2041	3,648	3,646	3,647	3,648	3,646	(2)	(1)	1	(2)
2042	3,648	3,646	3,647	3,649	3,646	(2)	(1)	1	(2)
2043	3,648	3,646	3,647	3,648	3,646	(2)	(1)	1	(2)
2044	3,648	3,646	3,647	3,648	3,646	(2)	(1)	1	(2)
2045	3,648	3,646	3,647	3,648	3,646	(2)	(1)	1	(1)
2046	3,648	3,646	3,647	3,648	3,646	(2)	(1)	1	(1)
2047	3,647	3,646	3,646	3,648	3,646	(1)	(1)	1	(1)
2048	3,647	3,645	3,646	3,647	3,645	(1)	(1)	1	(1)
2049	3,646	3,645	3,646	3,647	3,645	(1)	(1)	0	(1)
2050	3,646	3,645	3,645	3,646	3,645	(1)	(1)	0	(1)

AVERAGE:

2000-2015	3,671	3,664	3,667	3,671	3,665	(6)	(4)	1	(6)
2016-2050	3,650	3,645	3,647	3,651	3,646	(5)	(3)	1	(4)
2000-2050	3,656	3,651	3,653	3,657	3,652	(5)	(3)	1	(5)

Table 4

Average Energy at Lake Powell (GWh)

Year	Energy					Comparison to Baseline			
	Baseline	Shortage Protect.	Six States	Flood Control	California	Shortage Protect.	Six States	Flood Control	California
2000	401	401	401	401	401	0	0	(0)	0
2001	419	419	419	418	419	1	0	(0)	1
2002	409	411	410	408	411	2	2	(0)	2
2003	404	408	407	404	408	4	2	(1)	3
2004	401	407	405	401	407	6	4	(1)	5
2005	400	404	403	399	403	4	3	(1)	3
2006	397	400	399	397	400	3	2	0	3
2007	394	397	396	394	396	3	2	(0)	2
2008	394	396	394	394	395	2	1	0	1
2009	391	393	392	392	393	2	0	0	2
2010	388	388	388	388	388	(0)	0	0	1
2011	386	385	386	387	386	(1)	(0)	0	(0)
2012	384	381	383	385	382	(3)	(1)	0	(2)
2013	383	378	380	383	379	(5)	(2)	(0)	(3)
2014	380	375	378	381	376	(5)	(2)	1	(4)
2015	379	373	376	379	374	(6)	(3)	0	(5)
2016	377	367	372	377	369	(10)	(6)	(0)	(9)
2017	375	366	369	375	368	(9)	(6)	0	(7)
2018	372	364	368	372	365	(9)	(5)	(0)	(8)
2019	372	363	367	371	364	(9)	(5)	(0)	(8)
2020	371	363	366	371	363	(8)	(4)	0	(8)
2021	368	360	363	369	361	(8)	(5)	1	(7)
2022	368	361	364	369	362	(7)	(5)	1	(7)
2023	366	360	362	367	360	(7)	(4)	0	(6)
2024	365	359	362	366	360	(6)	(3)	0	(6)
2025	364	358	361	365	359	(6)	(3)	1	(5)
2026	363	357	360	363	358	(6)	(3)	0	(5)
2027	362	357	360	363	357	(6)	(3)	1	(5)
2028	362	357	359	362	357	(5)	(3)	1	(5)
2029	359	355	357	360	355	(5)	(3)	1	(4)
2030	359	355	357	359	355	(4)	(2)	1	(3)
2031	357	353	355	358	354	(4)	(2)	1	(3)
2032	357	353	355	358	354	(3)	(2)	1	(3)
2033	356	353	355	357	354	(3)	(2)	1	(3)
2034	355	352	353	355	352	(3)	(1)	1	(3)
2035	355	353	354	356	353	(2)	(1)	1	(2)
2036	354	352	353	354	352	(2)	(1)	0	(2)
2037	354	352	352	354	352	(2)	(1)	0	(2)
2038	351	350	351	352	350	(2)	(1)	1	(1)
2039	351	349	351	352	350	(2)	(1)	0	(2)
2040	352	350	351	353	350	(2)	(1)	1	(2)
2041	351	349	350	351	349	(2)	(1)	0	(2)
2042	348	347	348	348	347	(1)	(1)	(0)	(1)
2043	349	347	348	349	348	(1)	(1)	0	(1)
2044	348	347	348	348	347	(1)	(1)	(0)	(1)
2045	348	347	347	348	347	(1)	(0)	0	(1)
2046	346	345	345	347	345	(1)	(1)	1	(1)
2047	346	345	345	346	345	(1)	(0)	1	(1)
2048	345	344	345	345	344	(1)	(0)	1	(1)
2049	345	344	344	345	344	(1)	(1)	0	(1)
2050	341	340	340	341	340	(1)	(1)	0	(1)
AVERAGE:									
2000-2015	394	395	395	394	395	0	0	(0)	1
2016-2050	357	354	355	358	354	(4)	(2)	0	(4)
2000-2050	369	366	368	369	367	(3)	(1)	0	(2)

Table 5
Glen Canyon Dam
Elevation and Discharge Multiplier

Elevation	Multiplier	Elevation	Output (MW)
3701	23.80692	3701	1.050
3700	23.84850	3700	1.048
3699	23.89344	3699	1.046
3698	23.93840	3698	1.044
3697	23.98306	3697	1.042
3696	24.02769	3696	1.040
3695	24.07231	3695	1.039
3694	24.11692	3694	1.037
3693	24.16154	3693	1.035
3692	24.20538	3692	1.033
3691	24.25000	3691	1.031
3690	24.29384	3690	1.029
3689	24.33846	3689	1.027
3688	24.38231	3688	1.025
3687	24.42615	3687	1.023
3686	24.47000	3686	1.022
3685	24.51384	3685	1.020
3684	24.55769	3684	1.018
3683	24.60076	3683	1.016
3682	24.64461	3682	1.014
3681	24.68846	3681	1.013
3680	24.73153	3680	1.011
3679	24.78000	3679	1.009
3678	24.82846	3678	1.007
3677	24.87692	3677	1.005
3676	24.92461	3676	1.003
3675	24.97307	3675	1.001
3674	25.02077	3674	999
3673	25.06846	3673	997
3672	25.11615	3672	995
3671	25.16385	3671	993
3670	25.21154	3670	992
3669	25.25923	3669	990
3668	25.30692	3668	988
3667	25.35385	3667	986
3666	25.40154	3666	984
3665	25.44846	3665	982
3664	25.49539	3664	981
3663	25.54231	3663	979
3662	25.58923	3662	977
3661	25.63615	3661	975
3660	25.68308	3660	973
3659	25.73539	3659	971
3658	25.78770	3658	969
3657	25.83923	3657	968
3656	25.89154	3656	966
3655	25.94385	3655	964
3654	25.99539	3654	962
3653	26.04692	3653	960
3652	26.09846	3652	958
3651	26.15000	3651	956
3650	26.20153	3650	954
3649	26.25307	3649	952
3648	26.30384	3648	950
3647	26.35538	3647	949
3646	26.40615	3646	947
3645	26.45692	3645	945
3644	26.50769	3644	943
3643	26.55846	3643	941
3642	26.60923	3642	940
3641	26.66000	3641	938
3640	26.71000	3640	936
3639	26.76692	3639	934
3638	26.82384	3638	932
3637	26.88000	3637	930
3636	26.93692	3636	928
3635	26.99307	3635	926
3634	27.04923	3634	924
3633	27.10538	3633	922
3632	27.16076	3632	920
3631	27.21692	3631	919
3630	27.27307	3630	917
3629	27.32846	3629	915
3628	27.38384	3628	913
3627	27.43923	3627	911
3626	27.49461	3626	909
3625	27.55000	3625	907
3624	27.60461	3624	906
3623	27.66000	3623	904
3622	27.71461	3622	902
3621	27.76923	3621	900
3620	27.82384	3620	899
3619	27.88538	3619	897
3618	27.94692	3618	895
3617	28.00846	3617	893
3616	28.07000	3616	891
3615	28.13076	3615	889
3614	28.19230	3614	887
3613	28.25307	3613	885
3612	28.31384	3612	883
3611	28.37461	3611	881
3610	28.43538	3610	879
3609	28.49538	3609	877
3608	28.55538	3608	875
3607	28.61615	3607	874
3606	28.67615	3606	872
3605	28.73538	3605	870
3604	28.79538	3604	868
3603	28.85538	3603	866
3602	28.91461	3602	865
3601	28.97384	3601	863
3600	29.03307	3600	861

Table 6
Hoover Dam
Elevation and Output

ELEVATION	OUTPUT (MW)
1117	1.888
1118	1.889
1119	1.891
1120	1.893
1121	1.894
1122	1.896
1123	1.898
1124	1.900
1125	1.901
1126	1.903
1127	1.905
1128	1.906
1129	1.908
1130	1.910
1131	1.911
1132	1.913
1133	1.915
1134	1.916
1135	1.918
1136	1.920
1137	1.929
1138	1.946
1139	1.948
1140	1.949
1141	1.951
1142	1.953
1143	1.955
1144	1.956
1145	1.974
1146	1.983
1147	1.986
1148	2.015
1149	2.016
1150	2.018
1151	2.020
1152	2.022
1153	2.024
1154	2.025
1155	2.027
1156	2.029
1157	2.031
1158	2.036
1159	2.038
1160	2.039
1161	2.041
1162	2.043
1163	2.045
1164	2.046
1165	2.048
1166	2.050
1167	2.052
1168	2.055
1169	2.056
1170	2.058
1171	2.060
1172	2.062
1173	2.063
1174	2.065
1175	2.067
1176	2.069
1177	2.070
1178	2.070
1179	2.071
1180	2.072
1181	2.072
1182	2.073
1183	2.073
1184	2.073
1185	2.073
1186	2.073
1187	2.073
1188	2.074
1189	2.074
1190	2.074
1191	2.074
1192	2.074
1193	2.074
1194	2.074
1195	2.074
1196	2.074
1197	2.074
1198	2.074
1199	2.074
1200	2.074
1201	2.074
1202	2.074
1203	2.074
1204	2.074
1205	2.074
1206	2.074
1207	2.074
1208	2.074
1209	2.074
1210	2.074
1211	2.074
1212	2.074
1213	2.074
1214	2.074
1215	2.074
1216	2.074
1217	2.074
1218	2.074
1219	2.074
1220	2.074
1221	2.074
1222	2.074
1223	2.074
1224	2.074
1225	2.074
1226	2.074
1227	2.074
1228	2.074
1229	2.074
1230	2.074
1231	2.074
1232	2.074
1233	2.074
1234	2.074
1235	2.074
1236	2.074
1237	2.074

Table 7
Glen Canyon Dam
Summary of Average Annual Capacity and Energy

YEAR	Baseline Conditions		Shortage Protection		Six States		Flood Control		California	
	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)
2000	1,020	4,809	1,020	4,809	1,020	4,809	1,020	4,808	1,020	4,809
2001	1,014	5,022	1,014	5,030	1,014	5,027	1,014	5,019	1,014	5,030
2002	1,009	4,906	1,009	4,932	1,009	4,925	1,009	4,900	1,009	4,932
2003	1,005	4,851	1,003	4,893	1,005	4,880	1,007	4,844	1,003	4,891
2004	1,003	4,818	999	4,886	999	4,865	1,003	4,812	999	4,881
2005	999	4,799	992	4,850	995	4,832	1,001	4,791	993	4,841
2006	995	4,763	988	4,804	990	4,785	997	4,766	988	4,794
2007	993	4,729	982	4,770	986	4,752	995	4,723	984	4,757
2008	992	4,723	977	4,749	982	4,732	992	4,726	981	4,740
2009	988	4,696	973	4,717	979	4,702	990	4,701	975	4,717
2010	986	4,651	968	4,651	977	4,655	988	4,652	971	4,659
2011	982	4,635	964	4,625	971	4,631	984	4,638	966	4,631
2012	981	4,613	958	4,572	968	4,598	982	4,618	962	4,587
2013	977	4,592	954	4,538	966	4,563	979	4,591	958	4,550
2014	975	4,559	950	4,503	962	4,537	977	4,568	954	4,514
2015	973	4,548	949	4,479	958	4,508	973	4,550	950	4,491
2016	969	4,530	947	4,408	956	4,460	971	4,529	949	4,425
2017	968	4,495	947	4,393	956	4,429	969	4,500	949	4,412
2018	966	4,468	945	4,365	954	4,414	968	4,467	947	4,378
2019	964	4,460	945	4,354	954	4,403	966	4,457	947	4,367
2020	964	4,446	945	4,350	952	4,394	966	4,452	947	4,356
2021	962	4,416	945	4,325	952	4,360	964	4,426	947	4,329
2022	960	4,419	945	4,331	950	4,365	962	4,427	947	4,340
2023	958	4,396	943	4,317	950	4,347	960	4,400	945	4,324
2024	956	4,383	943	4,308	949	4,345	958	4,389	945	4,317
2025	956	4,363	943	4,293	949	4,329	958	4,375	945	4,304
2026	954	4,351	943	4,283	949	4,319	956	4,356	943	4,292
2027	954	4,347	943	4,281	947	4,315	956	4,353	943	4,285
2028	952	4,340	943	4,279	947	4,305	954	4,348	943	4,281
2029	952	4,313	943	4,259	947	4,278	954	4,324	943	4,262
2030	950	4,307	943	4,263	947	4,280	952	4,313	945	4,265
2031	950	4,285	943	4,241	947	4,260	952	4,300	945	4,243
2032	950	4,280	945	4,241	947	4,258	952	4,292	945	4,245
2033	950	4,275	945	4,239	947	4,255	952	4,287	945	4,242
2034	950	4,258	945	4,225	947	4,240	950	4,265	945	4,227
2035	950	4,261	945	4,233	947	4,245	950	4,269	945	4,236
2036	950	4,245	947	4,219	949	4,231	952	4,246	947	4,220
2037	950	4,243	947	4,220	949	4,229	952	4,244	947	4,222
2038	950	4,217	947	4,198	949	4,207	952	4,226	947	4,199
2039	950	4,217	947	4,194	949	4,206	952	4,222	947	4,196
2040	950	4,226	947	4,203	949	4,215	952	4,233	947	4,204
2041	950	4,216	947	4,190	949	4,199	950	4,216	947	4,191
2042	950	4,178	947	4,164	949	4,170	952	4,176	947	4,164
2043	950	4,182	947	4,170	949	4,175	950	4,188	947	4,170
2044	950	4,181	947	4,168	949	4,173	950	4,179	947	4,168
2045	950	4,172	947	4,161	949	4,167	950	4,177	947	4,162
2046	950	4,150	947	4,141	949	4,143	950	4,158	947	4,141
2047	949	4,148	947	4,139	947	4,145	950	4,155	947	4,140
2048	949	4,139	945	4,129	947	4,135	949	4,145	945	4,130
2049	947	4,142	945	4,127	947	4,131	949	4,144	945	4,127
2050	947	4,086	945	4,075	945	4,079	947	4,091	945	4,076

AVERAGE:

2000-2015	993	4,732	981	4,738	986	4,738	994	4,732	983	4,739
2016-2050	954	4,290	945	4,242	949	4,263	955	4,295	946	4,247
2000-2050	966	4,428	957	4,398	961	4,412	968	4,432	957	4,401

Table 8
Glen Canyon Dam
Comparison to Baseline Conditions
(average annual)

YEAR	Shortage Protection		Six States		Flood Control		California	
	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)
2000	0	0	0	0	0	(1)	0	0
2001	0	8	0	5	0	(3)	0	8
2002	0	27	0	19	0	(6)	0	27
2003	(2)	42	0	29	2	(7)	(2)	40
2004	(4)	68	(4)	47	0	(6)	(4)	63
2005	(8)	51	(4)	33	2	(8)	(6)	42
2006	(8)	41	(6)	22	2	3	(8)	31
2007	(11)	41	(7)	23	2	(5)	(9)	28
2008	(15)	26	(9)	9	0	3	(11)	17
2009	(14)	21	(9)	6	2	5	(13)	20
2010	(19)	(1)	(9)	4	2	0	(15)	7
2011	(19)	(10)	(11)	(4)	2	3	(17)	(4)
2012	(23)	(42)	(13)	(15)	2	5	(19)	(26)
2013	(23)	(55)	(11)	(29)	2	(1)	(19)	(42)
2014	(25)	(56)	(13)	(22)	2	9	(21)	(45)
2015	(25)	(69)	(15)	(40)	0	2	(23)	(57)
2016	(23)	(122)	(13)	(69)	2	(1)	(21)	(105)
2017	(21)	(102)	(11)	(66)	2	5	(19)	(83)
2018	(21)	(104)	(11)	(54)	2	(1)	(19)	(90)
2019	(19)	(106)	(9)	(57)	2	(3)	(17)	(93)
2020	(19)	(96)	(11)	(52)	2	6	(17)	(91)
2021	(17)	(91)	(9)	(56)	2	10	(15)	(87)
2022	(15)	(88)	(9)	(54)	2	8	(13)	(79)
2023	(15)	(79)	(7)	(49)	2	4	(13)	(72)
2024	(13)	(76)	(7)	(39)	2	5	(11)	(66)
2025	(13)	(71)	(7)	(35)	2	11	(11)	(59)
2026	(11)	(68)	(6)	(32)	2	5	(11)	(59)
2027	(11)	(66)	(7)	(33)	2	6	(11)	(62)
2028	(9)	(61)	(6)	(35)	2	8	(9)	(59)
2029	(9)	(54)	(6)	(35)	2	11	(9)	(51)
2030	(7)	(44)	(4)	(27)	2	7	(5)	(42)
2031	(7)	(44)	(4)	(25)	2	14	(5)	(42)
2032	(5)	(39)	(4)	(23)	2	11	(5)	(35)
2033	(5)	(36)	(4)	(20)	2	12	(5)	(33)
2034	(5)	(33)	(4)	(18)	0	7	(5)	(31)
2035	(5)	(28)	(4)	(16)	0	8	(5)	(26)
2036	(4)	(26)	(2)	(14)	2	1	(4)	(25)
2037	(4)	(23)	(2)	(13)	2	2	(4)	(21)
2038	(4)	(19)	(2)	(10)	2	9	(4)	(18)
2039	(4)	(24)	(2)	(11)	2	5	(4)	(21)
2040	(4)	(23)	(2)	(11)	2	7	(4)	(22)
2041	(4)	(26)	(2)	(17)	0	0	(4)	(24)
2042	(4)	(15)	(2)	(8)	2	(3)	(4)	(14)
2043	(4)	(12)	(2)	(7)	0	5	(4)	(12)
2044	(4)	(13)	(2)	(8)	0	(2)	(4)	(13)
2045	(4)	(11)	(2)	(5)	0	5	(4)	(10)
2046	(4)	(10)	(2)	(7)	0	8	(4)	(9)
2047	(2)	(9)	(2)	(2)	2	7	(2)	(7)
2048	(4)	(10)	(2)	(4)	0	6	(4)	(9)
2049	(2)	(16)	0	(11)	2	2	(2)	(15)
2050	(2)	(11)	(2)	(7)	0	5	(2)	(10)

AVERAGE:

2000-2015	(12)	6	(7)	5	1	(0)	(10)	7
2016-2050	(9)	(47)	(5)	(27)	1	5	(8)	(43)
2000-2050	(10)	(31)	(6)	(17)	1	4	(9)	(27)

Table 9
Hoover Powerplant
Summary of Average Annual Capacity and Energy

YEAR	Baseline		Shortage Protection		Six States		Flood Control		California	
	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)
2000	2,074	5,675	2,074	5,675	2,074	5,675	2,074	5,620	2,074	5,675
2001	2,074	5,385	2,074	5,490	2,074	5,457	2,074	5,348	2,074	5,490
2002	2,074	5,272	2,074	5,374	2,074	5,341	2,074	5,245	2,074	5,374
2003	2,074	5,094	2,074	5,246	2,074	5,194	2,074	5,097	2,074	5,240
2004	2,074	5,054	2,073	5,210	2,074	5,162	2,074	5,055	2,073	5,188
2005	2,074	5,029	2,073	5,176	2,073	5,113	2,074	5,061	2,073	5,150
2006	2,074	4,962	2,072	5,080	2,073	5,014	2,074	4,956	2,072	5,049
2007	2,073	4,940	2,069	5,035	2,072	4,977	2,073	4,946	2,070	4,994
2008	2,073	4,867	2,063	4,959	2,070	4,896	2,073	4,854	2,067	4,927
2009	2,073	4,850	2,058	4,930	2,069	4,867	2,073	4,872	2,062	4,906
2010	2,072	4,809	2,052	4,858	2,063	4,832	2,073	4,821	2,056	4,861
2011	2,072	4,799	2,046	4,839	2,060	4,814	2,072	4,804	2,050	4,842
2012	2,070	4,761	2,041	4,749	2,056	4,749	2,071	4,750	2,045	4,773
2013	2,069	4,743	2,038	4,700	2,052	4,707	2,070	4,728	2,041	4,715
2014	2,067	4,730	2,029	4,673	2,048	4,696	2,069	4,730	2,036	4,672
2015	2,063	4,700	2,024	4,631	2,043	4,638	2,065	4,712	2,027	4,637
2016	2,060	4,678	2,024	4,426	2,043	4,553	2,063	4,683	2,025	4,463
2017	2,058	4,623	2,024	4,415	2,041	4,502	2,062	4,625	2,025	4,444
2018	2,055	4,645	2,022	4,456	2,039	4,525	2,058	4,639	2,025	4,476
2019	2,052	4,573	2,022	4,392	2,038	4,474	2,056	4,568	2,024	4,409
2020	2,048	4,580	2,020	4,416	2,036	4,496	2,052	4,581	2,024	4,421
2021	2,046	4,536	2,020	4,404	2,031	4,467	2,050	4,572	2,022	4,417
2022	2,043	4,531	2,018	4,383	2,027	4,454	2,046	4,525	2,020	4,401
2023	2,041	4,508	2,016	4,375	2,025	4,432	2,045	4,517	2,018	4,386
2024	2,038	4,493	2,015	4,364	2,024	4,411	2,041	4,496	2,018	4,372
2025	2,036	4,444	2,015	4,336	2,022	4,383	2,039	4,463	2,016	4,349
2026	2,031	4,419	1,986	4,324	2,020	4,373	2,038	4,430	2,015	4,340
2027	2,029	4,388	1,983	4,297	2,020	4,346	2,036	4,399	1,986	4,308
2028	2,027	4,393	1,983	4,306	2,018	4,350	2,031	4,415	1,986	4,314
2029	2,025	4,377	1,974	4,289	2,016	4,325	2,029	4,409	1,983	4,293
2030	2,024	4,380	1,956	4,301	2,015	4,333	2,027	4,380	1,974	4,308
2031	2,020	4,342	1,955	4,268	1,986	4,300	2,024	4,373	1,956	4,275
2032	2,018	4,313	1,953	4,239	1,974	4,274	2,022	4,337	1,955	4,246
2033	2,016	4,338	1,949	4,264	1,956	4,296	2,020	4,339	1,951	4,274
2034	1,986	4,287	1,948	4,212	1,953	4,247	2,016	4,298	1,949	4,222
2035	1,974	4,278	1,929	4,203	1,951	4,239	2,015	4,273	1,946	4,212
2036	1,956	4,258	1,918	4,175	1,948	4,212	1,983	4,282	1,929	4,186
2037	1,955	4,231	1,916	4,162	1,946	4,199	1,956	4,254	1,918	4,169
2038	1,951	4,233	1,915	4,105	1,920	4,181	1,955	4,256	1,916	4,157
2039	1,948	4,185	1,911	4,017	1,918	4,140	1,951	4,202	1,913	4,099
2040	1,946	4,173	1,910	3,921	1,915	4,124	1,949	4,171	1,911	4,022
2041	1,920	4,176	1,908	3,874	1,913	4,058	1,946	4,189	1,910	3,956
2042	1,918	4,147	1,906	3,838	1,910	3,954	1,920	4,173	1,906	3,855
2043	1,915	4,077	1,906	3,774	1,910	3,899	1,918	4,087	1,906	3,780
2044	1,911	4,049	1,905	3,803	1,908	3,883	1,915	4,064	1,905	3,802
2045	1,910	3,938	1,905	3,745	1,906	3,796	1,913	3,961	1,905	3,747
2046	1,908	3,876	1,903	3,714	1,905	3,769	1,911	3,877	1,903	3,716
2047	1,906	3,841	1,903	3,700	1,905	3,776	1,910	3,886	1,903	3,702
2048	1,905	3,827	1,903	3,721	1,903	3,758	1,908	3,834	1,903	3,715
2049	1,903	3,799	1,901	3,723	1,901	3,752	1,906	3,818	1,901	3,722
2050	1,901	3,698	1,900	3,652	1,900	3,662	1,903	3,722	1,900	3,658

AVERAGE:

2000-2015	2,072	4,979	2,058	5,039	2,066	5,008	2,072	4,975	2,060	5,031
2016-2050	1,985	4,275	1,955	4,131	1,970	4,198	1,992	4,289	1,958	4,149
2000-2050	2,012	4,496	1,987	4,416	2,000	4,452	2,017	4,504	1,990	4,426

Table 10
Hoover Powerplant
Comparison to Baseline
(average annual)

YEAR	Shortage Protection		Six States		Flood Control		California	
	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)	CAPACITY (MW)	ENERGY (GWH)
2000	0	0	0	0	0	(55)	0	0
2001	0	104	0	72	0	(37)	0	104
2002	0	102	0	69	0	(27)	0	102
2003	0	152	0	100	0	3	0	146
2004	(1)	156	0	108	0	2	(1)	135
2005	(1)	147	(1)	83	0	32	(1)	120
2006	(2)	118	(1)	52	0	(6)	(2)	87
2007	(4)	95	(1)	37	(0)	6	(3)	53
2008	(10)	92	(3)	29	0	(13)	(6)	59
2009	(15)	80	(4)	17	0	22	(11)	56
2010	(20)	49	(9)	24	1	12	(16)	52
2011	(26)	40	(12)	15	0	5	(22)	43
2012	(29)	(12)	(13)	(12)	1	(12)	(25)	11
2013	(31)	(43)	(17)	(36)	1	(15)	(28)	(29)
2014	(38)	(57)	(19)	(34)	2	(0)	(31)	(58)
2015	(40)	(68)	(21)	(61)	2	13	(36)	(62)
2016	(36)	(252)	(17)	(125)	4	5	(35)	(215)
2017	(35)	(208)	(17)	(121)	4	2	(33)	(179)
2018	(33)	(189)	(15)	(120)	4	(5)	(29)	(169)
2019	(30)	(182)	(14)	(99)	4	(5)	(28)	(165)
2020	(28)	(164)	(12)	(85)	4	1	(25)	(159)
2021	(26)	(132)	(16)	(69)	4	36	(25)	(119)
2022	(25)	(148)	(16)	(77)	4	(5)	(23)	(130)
2023	(25)	(133)	(16)	(76)	4	10	(23)	(121)
2024	(23)	(129)	(14)	(82)	4	2	(19)	(121)
2025	(21)	(108)	(14)	(60)	4	19	(19)	(95)
2026	(45)	(95)	(11)	(46)	7	11	(16)	(79)
2027	(46)	(91)	(9)	(42)	7	11	(43)	(80)
2028	(44)	(87)	(9)	(43)	4	22	(41)	(78)
2029	(51)	(88)	(9)	(52)	4	33	(43)	(83)
2030	(67)	(79)	(9)	(47)	4	1	(49)	(72)
2031	(65)	(74)	(34)	(42)	4	31	(64)	(67)
2032	(65)	(74)	(44)	(39)	4	24	(64)	(67)
2033	(67)	(73)	(60)	(42)	4	2	(65)	(64)
2034	(38)	(75)	(33)	(40)	31	11	(36)	(65)
2035	(46)	(75)	(23)	(38)	40	(5)	(28)	(65)
2036	(38)	(82)	(9)	(46)	26	25	(28)	(72)
2037	(38)	(69)	(9)	(32)	2	23	(36)	(62)
2038	(36)	(128)	(31)	(51)	3	23	(35)	(76)
2039	(36)	(168)	(30)	(44)	3	17	(35)	(85)
2040	(36)	(252)	(31)	(49)	3	(2)	(35)	(151)
2041	(12)	(302)	(7)	(118)	26	12	(10)	(220)
2042	(12)	(309)	(8)	(193)	2	26	(12)	(292)
2043	(8)	(303)	(5)	(178)	3	10	(8)	(297)
2044	(7)	(246)	(3)	(166)	3	15	(7)	(248)
2045	(5)	(192)	(3)	(142)	3	24	(5)	(191)
2046	(5)	(162)	(3)	(107)	3	1	(5)	(160)
2047	(3)	(141)	(2)	(65)	3	46	(3)	(138)
2048	(2)	(107)	(2)	(69)	3	6	(2)	(113)
2049	(2)	(77)	(2)	(47)	3	19	(2)	(77)
2050	(2)	(46)	(2)	(36)	2	25	(2)	(40)

AVERAGE:

2000-2015	(14)	60	(6)	29	0	(4)	(11)	51
2016-2050	(30)	(144)	(15)	(77)	7	13	(27)	(126)
2000-2050	(25)	(80)	(13)	(44)	5	8	(22)	(70)

Table 11
Change in SNWA Pumping Costs

Lake Mead Average Surface Elevation						Change in Surface Elevation Compared to Baseline				Change in Pumping Cost Compared to Baseline (in dollars, based on \$28,000 per foot incremental cost)			
Year	Baseline	Shortage Protect.	Six States	Flood Control	California	Shortage Protect.	Six States	Flood Control	California	Shortage Protect.	Six States	Flood Control	California
2000	1,206	1,206	1,206	1,207	1,206	0	0	0	0	0	0	(10,554)	0
2001	1,201	1,200	1,200	1,202	1,200	(1)	(1)	1	(1)	20,704	14,402	(25,343)	20,704
2002	1,198	1,196	1,196	1,199	1,196	(2)	(1)	1	(2)	53,419	37,605	(37,124)	53,419
2003	1,195	1,191	1,192	1,196	1,191	(3)	(2)	1	(3)	94,129	64,531	(39,744)	93,261
2004	1,192	1,187	1,189	1,193	1,187	(5)	(3)	2	(5)	138,637	95,240	(42,421)	133,107
2005	1,190	1,183	1,185	1,191	1,184	(7)	(4)	1	(6)	183,970	123,811	(34,989)	170,794
2006	1,188	1,180	1,183	1,189	1,180	(8)	(5)	1	(8)	233,311	151,982	(32,386)	211,270
2007	1,186	1,176	1,180	1,187	1,177	(10)	(6)	1	(9)	272,602	171,966	(32,960)	238,951
2008	1,184	1,173	1,178	1,186	1,175	(11)	(7)	1	(9)	311,077	188,651	(37,549)	264,510
2009	1,183	1,170	1,176	1,184	1,172	(13)	(7)	1	(11)	354,084	204,583	(34,541)	295,823
2010	1,181	1,167	1,173	1,182	1,169	(14)	(8)	1	(12)	396,217	223,133	(32,277)	333,712
2011	1,180	1,164	1,171	1,181	1,166	(16)	(9)	1	(13)	435,532	245,522	(31,619)	373,791
2012	1,178	1,161	1,169	1,179	1,163	(17)	(9)	1	(15)	465,866	261,444	(35,048)	410,658
2013	1,176	1,159	1,167	1,178	1,161	(18)	(10)	1	(16)	492,473	272,865	(41,264)	442,866
2014	1,175	1,156	1,165	1,176	1,158	(18)	(10)	2	(17)	516,529	283,342	(45,767)	465,638
2015	1,173	1,153	1,162	1,174	1,155	(19)	(10)	2	(17)	543,014	290,261	(44,955)	488,743
2016	1,171	1,153	1,162	1,173	1,154	(19)	(10)	2	(17)	524,634	278,433	(45,395)	475,006
2017	1,170	1,153	1,161	1,172	1,154	(17)	(9)	2	(16)	479,972	260,900	(46,464)	441,279
2018	1,168	1,152	1,160	1,170	1,154	(16)	(9)	2	(15)	442,823	239,829	(50,371)	407,897
2019	1,167	1,152	1,159	1,169	1,153	(15)	(8)	2	(13)	413,692	221,097	(54,387)	377,573
2020	1,165	1,151	1,158	1,167	1,153	(14)	(7)	2	(12)	383,278	205,080	(56,921)	346,205
2021	1,164	1,151	1,157	1,166	1,152	(13)	(7)	2	(12)	362,310	194,355	(56,290)	328,663
2022	1,162	1,150	1,155	1,164	1,151	(12)	(7)	2	(11)	344,701	191,703	(58,689)	313,828
2023	1,161	1,149	1,154	1,163	1,150	(11)	(6)	2	(10)	316,002	177,921	(60,044)	287,606
2024	1,159	1,148	1,153	1,161	1,150	(10)	(6)	2	(9)	292,235	161,785	(61,712)	263,391
2025	1,158	1,148	1,152	1,160	1,149	(10)	(5)	2	(9)	278,856	149,954	(60,184)	248,538
2026	1,157	1,147	1,151	1,159	1,148	(10)	(5)	2	(9)	266,915	144,241	(58,955)	238,162
2027	1,156	1,146	1,151	1,158	1,147	(9)	(5)	2	(8)	260,553	142,073	(59,338)	232,326
2028	1,155	1,146	1,150	1,157	1,147	(9)	(5)	2	(8)	250,507	139,613	(60,039)	224,285
2029	1,154	1,145	1,149	1,156	1,146	(9)	(5)	2	(8)	247,261	138,605	(55,394)	220,225
2030	1,153	1,144	1,148	1,155	1,145	(9)	(5)	2	(8)	242,979	136,056	(56,186)	214,977
2031	1,151	1,143	1,147	1,153	1,144	(9)	(5)	2	(8)	240,985	134,048	(55,386)	212,442
2032	1,150	1,142	1,145	1,152	1,143	(9)	(5)	2	(8)	239,927	134,106	(53,593)	210,725
2033	1,149	1,140	1,144	1,151	1,141	(9)	(5)	2	(8)	240,649	134,770	(54,894)	210,777
2034	1,147	1,139	1,142	1,149	1,140	(9)	(5)	2	(8)	240,980	134,235	(57,416)	211,231
2035	1,145	1,137	1,141	1,148	1,138	(9)	(5)	2	(8)	240,476	135,109	(61,733)	210,633
2036	1,144	1,135	1,139	1,146	1,137	(8)	(5)	2	(7)	236,851	134,402	(62,128)	207,157
2037	1,143	1,134	1,138	1,144	1,135	(8)	(5)	2	(7)	233,057	134,174	(55,562)	203,464
2038	1,141	1,133	1,136	1,143	1,134	(8)	(5)	2	(7)	226,220	131,307	(52,908)	196,947
2039	1,139	1,131	1,135	1,141	1,132	(8)	(4)	2	(7)	216,991	125,208	(50,834)	189,152
2040	1,138	1,130	1,133	1,140	1,131	(8)	(4)	2	(7)	212,172	121,277	(53,274)	184,168
2041	1,136	1,129	1,132	1,138	1,130	(7)	(4)	2	(6)	201,924	120,179	(54,056)	181,215
2042	1,135	1,128	1,130	1,136	1,128	(6)	(4)	2	(6)	180,411	113,250	(50,791)	169,685
2043	1,133	1,128	1,130	1,135	1,128	(5)	(4)	2	(5)	153,814	100,365	(46,765)	147,648
2044	1,131	1,127	1,129	1,133	1,127	(4)	(3)	2	(4)	123,514	80,485	(48,374)	118,865
2045	1,130	1,127	1,128	1,132	1,127	(3)	(2)	2	(3)	94,962	61,983	(44,432)	91,729
2046	1,129	1,126	1,127	1,131	1,126	(3)	(2)	2	(3)	75,231	48,182	(48,123)	72,993
2047	1,128	1,126	1,127	1,130	1,126	(2)	(1)	2	(2)	57,464	35,327	(47,430)	55,910
2048	1,127	1,126	1,126	1,129	1,126	(1)	(1)	2	(1)	40,758	24,412	(47,616)	39,766
2049	1,126	1,125	1,125	1,128	1,125	(1)	(1)	2	(1)	28,179	16,762	(48,343)	27,094
2050	1,125	1,124	1,124	1,126	1,124	(1)	(0)	2	(1)	18,992	13,168	(46,652)	17,867
AVERAGE:													
2000-15	1,187	1,176	1,181	1,188	1,178	(10)	(6)	1	(9)	281,973	164,334	(34,909)	249,828
2016-50	1,148	1,139	1,143	1,150	1,140	(9)	(5)	2	(8)	240,294	134,697	(53,734)	216,555
2000-50	1,160	1,151	1,155	1,162	1,152	(9)	(5)	2	(8)	253,369	143,995	(47,828)	226,994