

3.5 Section 4(h)(10)(C) Credit Calculation

Section 4(h)(10)(C) Credit calculation

This section is comprised of six pages excluding this title page and it documents the section 4(h)(10)(C) credits used in the revenue forecast for the rate period. The first page is a summary of the total section 4(h)(10)(C) credits for each FY and water condition. Pages two through six provide more detailed information behind the numbers on the first page. The pages show the separate components of the section 4(h)(10)(C) credit for each water condition in each FY.

The purchased quantities are the same in every FY, since reservoirs are assumed to start from full. The purchased amounts represent the change in power purchases due to the imposition of the 1998 Biological Opinion when compared to generation levels prior to any fish operations. Since the purchased quantities are the same in each water condition of each year, the difference in purchased power costs is due to the difference in the market price forecast. The market price changes because of inflation and changes in the market for short-term power. The prices used in this analysis are the same as the prices shown in the preceding section.

4h10c Credits (\$Million)

Water Year	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
1929	162.7	161.5	161.9	168.3	173.5
1930	161.9	161.3	161.2	166.3	170.3
1931	178.9	167.4	164.1	170.1	176.7
1932	148.7	143.2	142.1	148.8	155.1
1933	80.5	85.4	86.0	87.3	89.1
1934	41.5	44.4	44.5	44.4	44.9
1935	89.0	94.9	95.1	97.6	99.9
1936	127.5	132.0	132.1	137.3	142.3
1937	167.9	164.6	164.5	170.0	175.5
1938	52.1	55.5	56.0	55.2	55.3
1939	123.1	125.6	125.9	132.5	137.3
1940	116.1	122.1	122.6	126.7	131.0
1941	119.7	121.6	121.8	125.9	129.9
1942	70.4	73.1	72.1	73.2	74.3
1943	69.0	73.5	72.6	73.3	75.0
1944	160.2	160.2	161.9	168.1	173.2
1945	171.4	164.4	163.3	170.2	176.4
1946	59.6	63.0	62.0	62.1	63.0
1947	61.7	65.3	65.4	66.1	67.6
1948	56.7	59.9	60.4	61.1	61.9
1949	80.9	86.2	85.2	86.4	88.1
1950	70.1	74.2	73.2	74.3	75.9
1951	48.5	51.4	51.4	52.1	52.9
1952	59.1	62.4	62.7	63.4	64.9
1953	100.8	106.4	106.3	109.8	112.8
1954	72.3	77.0	77.7	78.7	80.2
1955	73.8	77.3	78.0	78.5	79.2
1956	50.6	53.6	53.6	54.0	54.8
1957	73.7	78.2	77.2	78.4	80.2
1958	78.9	84.0	82.5	84.0	85.6
1959	51.4	54.5	54.6	54.8	55.3
1960	44.9	47.6	47.5	47.8	48.2
1961	81.7	87.0	86.8	88.9	91.7
1962	99.8	105.1	103.4	105.9	109.0
1963	63.2	66.6	66.9	67.8	68.9
1964	95.1	100.7	99.0	100.7	102.7
1965	55.1	58.4	58.4	58.6	59.7
1966	71.0	75.2	75.5	76.5	78.0
1967	83.2	88.4	87.7	89.8	92.1
1968	69.7	74.0	74.3	75.1	76.3
1969	48.1	51.3	51.5	51.5	51.6
1970	89.3	95.0	93.8	96.4	99.0
1971	77.2	81.6	80.3	82.2	84.2
1972	67.4	71.7	72.5	73.1	74.3
1973	87.5	92.1	89.9	90.5	92.0
1974	53.9	57.0	57.0	57.6	58.8
1975	80.6	85.8	84.9	86.5	88.9
1976	49.3	52.0	51.9	52.3	52.6
1977	146.7	148.3	148.4	153.5	156.7
1978	64.7	68.8	68.7	70.2	71.9
Average	88.1	91.0	90.7	92.9	95.2

4h10c Credits For FY 2002

Iter. #	Water Year	Purch Cost	BPA Exp.	BPA Cap.	Total	Credit @27%
1	1929	436.3	131.7	34.7	602.7	162.7
2	1930	433.3	131.7	34.7	599.7	161.9
3	1931	496.2	131.7	34.7	662.6	178.9
4	1932	384.2	131.7	34.7	550.6	148.7
5	1933	131.8	131.7	34.7	298.2	80.5
6	1934	-12.7	131.7	34.7	153.7	41.5
7	1935	163.4	131.7	34.7	329.8	89.0
8	1936	305.8	131.7	34.7	472.2	127.5
9	1937	455.4	131.7	34.7	621.8	167.9
10	1938	26.5	131.7	34.7	192.9	52.1
11	1939	289.5	131.7	34.7	455.9	123.1
12	1940	263.6	131.7	34.7	430.0	116.1
13	1941	277.1	131.7	34.7	443.5	119.7
14	1942	94.2	131.7	34.7	260.6	70.4
15	1943	89.1	131.7	34.7	255.5	69.0
16	1944	426.8	131.7	34.7	593.2	160.2
17	1945	468.5	131.7	34.7	634.9	171.4
18	1946	54.2	131.7	34.7	220.6	59.6
19	1947	62.1	131.7	34.7	228.5	61.7
20	1948	43.7	131.7	34.7	210.1	56.7
21	1949	133.2	131.7	34.7	299.6	80.9
22	1950	93.4	131.7	34.7	259.8	70.1
23	1951	13.4	131.7	34.7	179.8	48.5
24	1952	52.6	131.7	34.7	219.0	59.1
25	1953	206.8	131.7	34.7	373.2	100.8
26	1954	101.2	131.7	34.7	267.6	72.3
27	1955	106.8	131.7	34.7	273.2	73.8
28	1956	21.0	131.7	34.7	187.4	50.6
29	1957	106.6	131.7	34.7	273.0	73.7
30	1958	125.9	131.7	34.7	292.3	78.9
31	1959	24.0	131.7	34.7	190.4	51.4
32	1960	0.0	131.7	34.7	166.4	44.9
33	1961	136.3	131.7	34.7	302.7	81.7
34	1962	203.1	131.7	34.7	369.5	99.8
35	1963	67.7	131.7	34.7	234.1	63.2
36	1964	185.9	131.7	34.7	352.3	95.1
37	1965	37.7	131.7	34.7	204.1	55.1
38	1966	96.5	131.7	34.7	262.9	71.0
39	1967	141.8	131.7	34.7	308.2	83.2
40	1968	91.9	131.7	34.7	258.3	69.7
41	1969	11.8	131.7	34.7	178.2	48.1
42	1970	164.4	131.7	34.7	330.8	89.3
43	1971	119.4	131.7	34.7	285.8	77.2
44	1972	83.4	131.7	34.7	249.8	67.4
45	1973	157.7	131.7	34.7	324.1	87.5
46	1974	33.3	131.7	34.7	199.7	53.9
47	1975	132.0	131.7	34.7	298.4	80.6
48	1976	16.2	131.7	34.7	182.6	49.3
49	1977	377.0	131.7	34.7	543.4	146.7
50	1978	73.4	131.7	34.7	239.8	64.7
Average		160.1	131.7	34.7	326.5	88.1

4h10c Credits For FY 2003

Iter. #	Water Year	Purch Cost	BPA Exp.	BPA Cap.	Total	Credit @27%
1	1930	421.1	138.0	38.3	597.4	161.3
2	1931	443.7	138.0	38.3	620.0	167.4
3	1932	353.9	138.0	38.3	530.2	143.2
4	1933	139.8	138.0	38.3	316.1	85.4
5	1934	-12.0	138.0	38.3	164.3	44.4
6	1935	175.1	138.0	38.3	351.4	94.9
7	1936	312.5	138.0	38.3	488.8	132.0
8	1937	433.4	138.0	38.3	609.7	164.6
9	1938	29.1	138.0	38.3	205.4	55.5
10	1939	288.8	138.0	38.3	465.1	125.6
11	1940	275.8	138.0	38.3	452.1	122.1
12	1941	274.0	138.0	38.3	450.3	121.6
13	1942	94.5	138.0	38.3	270.8	73.1
14	1943	95.8	138.0	38.3	272.1	73.5
15	1944	417.1	138.0	38.3	593.4	160.2
16	1945	432.8	138.0	38.3	609.1	164.4
17	1946	57.0	138.0	38.3	233.3	63.0
18	1947	65.5	138.0	38.3	241.8	65.3
19	1948	45.6	138.0	38.3	221.9	59.9
20	1949	142.8	138.0	38.3	319.1	86.2
21	1950	98.4	138.0	38.3	274.7	74.2
22	1951	13.9	138.0	38.3	190.2	51.4
23	1952	54.9	138.0	38.3	231.2	62.4
24	1953	217.8	138.0	38.3	394.1	106.4
25	1954	108.8	138.0	38.3	285.1	77.0
26	1955	110.0	138.0	38.3	286.3	77.3
27	1956	22.3	138.0	38.3	198.6	53.6
28	1957	113.5	138.0	38.3	289.8	78.2
29	1958	134.8	138.0	38.3	311.1	84.0
30	1959	25.5	138.0	38.3	201.8	54.5
31	1960	0.0	138.0	38.3	176.3	47.6
32	1961	145.9	138.0	38.3	322.2	87.0
33	1962	212.8	138.0	38.3	389.1	105.1
34	1963	70.3	138.0	38.3	246.6	66.6
35	1964	196.6	138.0	38.3	372.9	100.7
36	1965	39.9	138.0	38.3	216.2	58.4
37	1966	102.2	138.0	38.3	278.5	75.2
38	1967	151.2	138.0	38.3	327.5	88.4
39	1968	97.9	138.0	38.3	274.2	74.0
40	1969	13.5	138.0	38.3	189.8	51.3
41	1970	175.5	138.0	38.3	351.8	95.0
42	1971	126.1	138.0	38.3	302.4	81.6
43	1972	89.1	138.0	38.3	265.4	71.7
44	1973	164.7	138.0	38.3	341.0	92.1
45	1974	34.6	138.0	38.3	210.9	57.0
46	1975	141.3	138.0	38.3	317.6	85.8
47	1976	16.4	138.0	38.3	192.7	52.0
48	1977	373.1	138.0	38.3	549.4	148.3
49	1978	78.5	138.0	38.3	254.8	68.8
50	1929	422.0	138.0	38.3	598.3	161.5
Average		160.8	138.0	38.3	337.1	91.0

4h10c Credits For FY 2004

Iter. #	Water Year	Purch Cost	BPA Exp.	BPA Cap.	Total	Credit @27%
1	1931	431.9	140.1	35.8	607.8	164.1
2	1932	350.6	140.1	35.8	526.5	142.1
3	1933	142.7	140.1	35.8	318.6	86.0
4	1934	-10.9	140.1	35.8	165.0	44.5
5	1935	176.3	140.1	35.8	352.2	95.1
6	1936	313.4	140.1	35.8	489.3	132.1
7	1937	433.4	140.1	35.8	609.3	164.5
8	1938	31.3	140.1	35.8	207.2	56.0
9	1939	290.2	140.1	35.8	466.1	125.9
10	1940	278.1	140.1	35.8	454.0	122.6
11	1941	275.2	140.1	35.8	451.1	121.8
12	1942	91.0	140.1	35.8	266.9	72.1
13	1943	92.9	140.1	35.8	268.8	72.6
14	1944	423.6	140.1	35.8	599.5	161.9
15	1945	429.1	140.1	35.8	605.0	163.3
16	1946	53.7	140.1	35.8	229.6	62.0
17	1947	66.2	140.1	35.8	242.1	65.4
18	1948	47.7	140.1	35.8	223.6	60.4
19	1949	139.5	140.1	35.8	315.4	85.2
20	1950	95.1	140.1	35.8	271.0	73.2
21	1951	14.5	140.1	35.8	190.4	51.4
22	1952	56.5	140.1	35.8	232.4	62.7
23	1953	218.0	140.1	35.8	393.9	106.3
24	1954	112.0	140.1	35.8	287.9	77.7
25	1955	113.1	140.1	35.8	289.0	78.0
26	1956	22.5	140.1	35.8	198.4	53.6
27	1957	110.0	140.1	35.8	285.9	77.2
28	1958	129.7	140.1	35.8	305.6	82.5
29	1959	26.2	140.1	35.8	202.1	54.6
30	1960	0.0	140.1	35.8	175.9	47.5
31	1961	145.7	140.1	35.8	321.6	86.8
32	1962	207.2	140.1	35.8	383.1	103.4
33	1963	72.0	140.1	35.8	247.9	66.9
34	1964	190.9	140.1	35.8	366.8	99.0
35	1965	40.3	140.1	35.8	216.2	58.4
36	1966	103.9	140.1	35.8	279.8	75.5
37	1967	148.9	140.1	35.8	324.8	87.7
38	1968	99.1	140.1	35.8	275.0	74.3
39	1969	14.8	140.1	35.8	190.7	51.5
40	1970	171.6	140.1	35.8	347.5	93.8
41	1971	121.6	140.1	35.8	297.5	80.3
42	1972	92.7	140.1	35.8	268.6	72.5
43	1973	157.2	140.1	35.8	333.1	89.9
44	1974	35.4	140.1	35.8	211.3	57.0
45	1975	138.6	140.1	35.8	314.5	84.9
46	1976	16.5	140.1	35.8	192.4	51.9
47	1977	373.8	140.1	35.8	549.7	148.4
48	1978	78.6	140.1	35.8	254.5	68.7
49	1929	423.7	140.1	35.8	599.6	161.9
50	1930	421.3	140.1	35.8	597.2	161.2
Average		160.1	140.1	35.8	336.0	90.7

4h10c Credits For FY 2005

Iter. #	Water Year	Purch Cost	BPA Exp.	BPA Cap.	Total	Credit @27%
1	1932	374.3	142.9	34.0	551.2	148.8
2	1933	146.3	142.9	34.0	323.2	87.3
3	1934	-12.6	142.9	34.0	164.3	44.4
4	1935	184.4	142.9	34.0	361.3	97.6
5	1936	331.5	142.9	34.0	508.4	137.3
6	1937	452.6	142.9	34.0	629.5	170.0
7	1938	27.7	142.9	34.0	204.6	55.2
8	1939	314.0	142.9	34.0	490.9	132.5
9	1940	292.2	142.9	34.0	469.1	126.7
10	1941	289.4	142.9	34.0	466.3	125.9
11	1942	94.1	142.9	34.0	271.0	73.2
12	1943	94.6	142.9	34.0	271.5	73.3
13	1944	445.6	142.9	34.0	622.5	168.1
14	1945	453.7	142.9	34.0	630.6	170.2
15	1946	52.9	142.9	34.0	229.8	62.1
16	1947	67.9	142.9	34.0	244.8	66.1
17	1948	49.5	142.9	34.0	226.4	61.1
18	1949	143.3	142.9	34.0	320.2	86.4
19	1950	98.2	142.9	34.0	275.1	74.3
20	1951	16.0	142.9	34.0	192.9	52.1
21	1952	57.8	142.9	34.0	234.7	63.4
22	1953	229.8	142.9	34.0	406.7	109.8
23	1954	114.8	142.9	34.0	291.7	78.7
24	1955	114.0	142.9	34.0	290.9	78.5
25	1956	23.2	142.9	34.0	200.1	54.0
26	1957	113.4	142.9	34.0	290.3	78.4
27	1958	134.1	142.9	34.0	311.0	84.0
28	1959	26.0	142.9	34.0	202.9	54.8
29	1960	0.0	142.9	34.0	176.9	47.8
30	1961	152.5	142.9	34.0	329.4	88.9
31	1962	215.3	142.9	34.0	392.2	105.9
32	1963	74.3	142.9	34.0	251.2	67.8
33	1964	196.2	142.9	34.0	373.1	100.7
34	1965	40.3	142.9	34.0	217.2	58.6
35	1966	106.5	142.9	34.0	283.4	76.5
36	1967	155.6	142.9	34.0	332.5	89.8
37	1968	101.1	142.9	34.0	278.0	75.1
38	1969	13.9	142.9	34.0	190.8	51.5
39	1970	180.2	142.9	34.0	357.1	96.4
40	1971	127.4	142.9	34.0	304.3	82.2
41	1972	93.9	142.9	34.0	270.8	73.1
42	1973	158.4	142.9	34.0	335.3	90.5
43	1974	36.6	142.9	34.0	213.5	57.6
44	1975	143.5	142.9	34.0	320.4	86.5
45	1976	16.7	142.9	34.0	193.6	52.3
46	1977	391.5	142.9	34.0	568.4	153.5
47	1978	83.0	142.9	34.0	259.9	70.2
48	1929	446.3	142.9	34.0	623.2	168.3
49	1930	438.9	142.9	34.0	615.8	166.3
50	1931	453.0	142.9	34.0	629.9	170.1
Average		167.1	142.9	34.0	344.0	92.9

4h10c Credits For FY 2006

Iter. #	Water Year	Purch Cost	BPA Exp.	BPA Cap.	Total	Credit @27%
1	1933	151.5	144.4	34.2	330.1	89.1
2	1934	-12.4	144.4	34.2	166.2	44.9
3	1935	191.6	144.4	34.2	370.2	99.9
4	1936	348.3	144.4	34.2	526.9	142.3
5	1937	471.5	144.4	34.2	650.1	175.5
6	1938	26.1	144.4	34.2	204.7	55.3
7	1939	329.9	144.4	34.2	508.5	137.3
8	1940	306.7	144.4	34.2	485.3	131.0
9	1941	302.3	144.4	34.2	480.9	129.9
10	1942	96.6	144.4	34.2	275.2	74.3
11	1943	99.0	144.4	34.2	277.6	75.0
12	1944	463.1	144.4	34.2	641.7	173.2
13	1945	474.6	144.4	34.2	653.2	176.4
14	1946	54.7	144.4	34.2	233.3	63.0
15	1947	71.9	144.4	34.2	250.5	67.6
16	1948	50.5	144.4	34.2	229.1	61.9
17	1949	147.6	144.4	34.2	326.2	88.1
18	1950	102.5	144.4	34.2	281.1	75.9
19	1951	17.2	144.4	34.2	195.8	52.9
20	1952	61.8	144.4	34.2	240.4	64.9
21	1953	239.2	144.4	34.2	417.8	112.8
22	1954	118.3	144.4	34.2	296.9	80.2
23	1955	114.7	144.4	34.2	293.3	79.2
24	1956	24.3	144.4	34.2	202.9	54.8
25	1957	118.6	144.4	34.2	297.2	80.2
26	1958	138.6	144.4	34.2	317.2	85.6
27	1959	26.2	144.4	34.2	204.8	55.3
28	1960	0.0	144.4	34.2	178.6	48.2
29	1961	161.2	144.4	34.2	339.8	91.7
30	1962	225.0	144.4	34.2	403.6	109.0
31	1963	76.7	144.4	34.2	255.3	68.9
32	1964	201.6	144.4	34.2	380.2	102.7
33	1965	42.6	144.4	34.2	221.2	59.7
34	1966	110.3	144.4	34.2	288.9	78.0
35	1967	162.7	144.4	34.2	341.3	92.1
36	1968	104.0	144.4	34.2	282.6	76.3
37	1969	12.5	144.4	34.2	191.1	51.6
38	1970	188.2	144.4	34.2	366.8	99.0
39	1971	133.2	144.4	34.2	311.8	84.2
40	1972	96.7	144.4	34.2	275.3	74.3
41	1973	162.2	144.4	34.2	340.8	92.0
42	1974	39.2	144.4	34.2	217.8	58.8
43	1975	150.7	144.4	34.2	329.3	88.9
44	1976	16.3	144.4	34.2	194.9	52.6
45	1977	401.8	144.4	34.2	580.4	156.7
46	1978	87.9	144.4	34.2	266.5	71.9
47	1929	464.1	144.4	34.2	642.7	173.5
48	1930	452.2	144.4	34.2	630.8	170.3
49	1931	475.7	144.4	34.2	654.3	176.7
50	1932	395.8	144.4	34.2	574.4	155.1
Average		173.9	144.4	34.2	352.5	95.2