

PacifiCorp
Supplemental Exhibit UP&L__(BNW-1S)
Docket No. 03-2035-02 (Phase IV)
Witness: Bruce N. Williams

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH**

PACIFICORP

Exhibit Accompanying Supplemental Testimony of Bruce N. Williams
Updated Embedded Cost of Long-Term Debt

OCTOBER 2003

PACIFICORP
Electric Operations
Cost of Long-Term Debt
September 30, 2003

LINE NO.	BOND INTEREST RATE	DESCRIPTION	MATURITY DATE	ORIGINAL LIFE	PRINCIPAL AMOUNT		ISSUANCE EXPENSES	REDEMPTION EXPENSES	TOTAL DOLLAR AMOUNT	NET PROCEEDS TO COMPANY PER \$100 PRINCIPAL AMOUNT	MONEY TO COMPANY (BOND TABLE BASIS)	ANNUAL DEBT SERVICE COST	LINE NO.
					(3)	(4)							
1	5.650%	Series due November 2006	11/01/06	8	\$200,000,000	\$200,000,000	(\$6,855,966)	\$0	\$193,144,034	96.572%	6.200%	\$12,400,000	1
2	6.750%	Series due Apr 2005	04/01/05	12	\$150,000,000	\$150,000,000	(\$1,373,703)	(\$4,508,091)	\$144,118,206	96.079%	7.245%	\$10,867,500	2
3	6.900%	Series due Nov 2011	11/15/11	10	\$500,000,000	\$500,000,000	(\$5,338,849)	\$0	\$494,661,151	98.932%	7.051%	\$35,255,000	3
4	7.700%	Series due Nov 2031	11/15/31	30	\$300,000,000	\$300,000,000	(\$3,701,310)	\$0	\$296,298,690	98.766%	7.807%	\$23,421,000	4
5	4.300%	Series due Sep 2008	09/15/08	5	\$200,000,000	\$200,000,000	(\$1,488,000)	(\$5,967,819)	\$192,544,181	96.272%	5.155%	\$10,310,000	5
6	5.450%	Series due Sep 2013	09/15/13	10	\$200,000,000	\$200,000,000	(\$1,532,000)	(\$5,967,819)	\$192,500,181	96.250%	5.953%	\$11,906,000	6
7	8.271%	C-U Series due Oct 2010 (a)	10/01/10	18	\$48,972,000	\$29,276,000	\$0	\$0	\$29,276,000	100.000%	8.271%	\$2,421,418	7
8	7.978%	C-U Series due Oct 2011 (a)	10/01/11	19	\$4,422,000	\$2,769,000	\$0	\$0	\$2,769,000	100.000%	7.978%	\$220,911	8
9	8.493%	C-U Series due Oct 2012 (a)	10/01/12	20	\$19,772,000	\$13,299,000	\$0	\$0	\$13,299,000	100.000%	8.493%	\$1,129,484	9
10	8.797%	C-U Series due Oct 2013 (a)	10/01/13	21	\$16,203,000	\$11,477,000	\$0	\$0	\$11,477,000	100.000%	8.797%	\$1,009,632	10
11	8.734%	C-U Series due Oct 2014 (a)	10/01/14	22	\$28,218,000	\$20,708,000	\$0	\$0	\$20,708,000	100.000%	8.734%	\$1,808,637	11
12	8.294%	C-U Series due Oct 2015 (a)	10/01/15	23	\$46,946,000	\$35,162,000	\$0	\$0	\$35,162,000	100.000%	8.294%	\$2,916,336	12
13	8.635%	C-U Series due Oct 2016 (a)	10/01/16	24	\$18,750,000	\$14,571,000	\$0	\$0	\$14,571,000	100.000%	8.635%	\$1,258,206	13
14	8.470%	C-U Series due Oct 2017 (a)	10/01/17	25	\$19,609,000	\$15,555,000	\$0	\$0	\$15,555,000	100.000%	8.470%	\$1,317,509	14
16	6.534%	Subtotal - First Mortgage Bonds			\$1,692,817,000	\$1,692,817,000	(\$20,289,828)	(\$16,443,730)	\$1,656,083,442			\$116,241,632	16

(a) Principal amortizes every October.

PACIFICORP
Electric Operations
Cost of Long-Term Debt
September 30, 2003

LINE NO.	BOND INTEREST RATE	DESCRIPTION	MATURITY DATE	ORIGINAL LIFE	PRINCIPAL AMOUNT		ISSUANCE EXPENSES	REDEMPTION EXPENSES	NET PROCEEDS TO COMPANY		MONEY TO COMPANY (BOND TABLE BASIS)	ANNUAL DEBT SERVICE COST	LINE NO.
					ORIGINAL ISSUE	CURRENTLY OUTSTANDING			DOLLAR AMOUNT	PER \$100 PRINCIPAL AMOUNT			
Series C.M.T.N.S.													
1													1
2	7.670%	Series C due Jan 2007	01/10/07	15	\$5,724,000	\$5,724,000	(\$36,625)	(\$783,776)	\$4,903,598	85.667%	9.480%	\$542,635	2
3	9.150%	Series C due Aug 2011	08/09/11	20	\$8,000,000	\$8,000,000	(\$75,327)	\$0	\$7,924,673	99.058%	9.254%	\$740,320	3
4	8.950%	Series C due Sep 2011	09/01/11	20	\$20,000,000	\$20,000,000	(\$132,118)	\$0	\$19,867,882	99.339%	9.022%	\$1,804,400	4
5	8.920%	Series C due Sep 2011	09/01/11	20	\$20,000,000	\$20,000,000	(\$188,318)	\$0	\$19,811,682	99.058%	9.023%	\$1,804,600	5
6	8.950%	Series C due Sep 2011	09/01/11	20	\$25,000,000	\$25,000,000	(\$175,398)	\$0	\$24,824,602	99.298%	9.026%	\$2,256,500	6
7	8.290%	Series C due Dec 2011	12/30/11	20	\$3,000,000	\$3,000,000	(\$23,040)	(\$410,784)	\$2,566,175	85.539%	9.972%	\$299,160	7
8	8.260%	Series C due Jan 2012	01/10/12	20	\$1,000,000	\$1,000,000	(\$7,649)	(\$136,928)	\$855,423	85.542%	9.938%	\$99,380	8
9	8.280%	Series C due Jan 2012	01/10/12	20	\$2,000,000	\$2,000,000	(\$13,297)	(\$273,856)	\$1,712,847	85.642%	9.947%	\$198,940	9
10	8.250%	Series C due Feb 2012	02/01/12	20	\$3,000,000	\$3,000,000	(\$22,946)	(\$410,784)	\$2,566,270	85.542%	9.927%	\$297,810	10
11	8.530%	Series C due Dec 2021	12/16/21	30	\$15,000,000	\$15,000,000	(\$115,202)	(\$2,053,922)	\$12,830,877	85.539%	10.066%	\$1,509,900	11
12	8.375%	Series C due Dec 2021	12/31/21	30	\$5,000,000	\$5,000,000	(\$38,400)	(\$684,641)	\$4,276,959	85.539%	9.889%	\$494,450	12
13	8.260%	Series C due Jan 2022	01/07/22	30	\$5,000,000	\$5,000,000	(\$33,243)	(\$684,641)	\$4,282,117	85.642%	9.745%	\$487,250	13
14	8.270%	Series C due Jan 2022	01/10/22	30	\$4,000,000	\$4,000,000	(\$30,594)	(\$547,712)	\$3,421,693	85.542%	9.768%	\$390,720	14
15		Sub-Total Series C			\$116,724,000	\$116,724,000	(\$892,158)	(\$5,987,044)	\$109,844,798			\$10,926,065	15
16													16
Series D.M.I.N.S.													
17													17
18	7.860%	Series D due Feb 2004	02/16/04	12	\$2,500,000	\$2,500,000	(\$21,110)	(\$342,320)	\$2,136,570	85.463%	9.963%	\$249,075	18
19	7.750%	Series D due Feb 2004	02/16/04	12	\$3,000,000	\$3,000,000	(\$25,332)	(\$151,120)	\$2,823,548	94.118%	8.543%	\$256,290	19
20	7.790%	Series D due Feb 2004	02/16/04	12	\$6,000,000	\$6,000,000	(\$50,664)	(\$202,241)	\$5,647,095	94.118%	8.585%	\$515,100	20
21	7.810%	Series D due Feb 2004	02/16/04	12	\$20,000,000	\$20,000,000	(\$168,880)	(\$2,585,447)	\$17,245,673	86.228%	9.785%	\$1,957,000	21
22		Sub-Total Series D				\$31,500,000	(\$265,986)	(\$3,381,128)	\$27,852,886			\$2,977,465	22
23													23
Series E.M.I.N.S.													
24													24
25	7.030%	Series E due Oct 2003	10/15/03	11	\$5,000,000	\$5,000,000	(\$33,788)	(\$335,843)	\$4,630,369	92.607%	8.056%	\$402,800	25
26	7.270%	Series E due Oct 2003	10/21/03	11	\$2,000,000	\$2,000,000	(\$13,515)	(\$134,337)	\$1,852,147	92.607%	8.308%	\$166,160	26
27	7.390%	Series E due Oct 2003	10/21/03	11	\$5,000,000	\$5,000,000	(\$33,788)	(\$335,843)	\$4,630,369	92.607%	8.434%	\$421,700	27
28	7.300%	Series E due Oct 2003	10/22/03	11	\$2,000,000	\$2,000,000	(\$13,515)	(\$134,337)	\$1,852,147	92.607%	8.340%	\$166,800	28
29	7.320%	Series E due Sep 2004	09/03/04	12	\$7,500,000	\$7,500,000	(\$56,361)	(\$77,801)	\$7,065,838	94.211%	8.083%	\$606,225	29
30	7.110%	Series E due Sep 2004	09/24/04	12	\$6,500,000	\$6,500,000	(\$48,846)	(\$734,745)	\$5,716,409	87.945%	8.753%	\$568,945	30
31	7.660%	Series E due Oct 2004	10/22/04	12	\$5,000,000	\$5,000,000	(\$32,745)	(\$335,843)	\$4,631,411	92.628%	8.660%	\$433,000	31
32	7.300%	Series E due Oct 2004	10/22/04	12	\$10,000,000	\$10,000,000	(\$67,576)	(\$671,687)	\$9,260,737	92.607%	8.284%	\$828,400	32
33	7.300%	Series E due Oct 2004	10/22/04	12	\$10,000,000	\$10,000,000	(\$67,576)	(\$671,687)	\$9,260,737	92.607%	8.284%	\$828,400	33
34	7.530%	Series E due Oct 2004	10/26/04	12	\$750,000	\$750,000	(\$5,068)	(\$50,377)	\$694,555	92.607%	8.526%	\$63,945	34
35	7.710%	Series E due Oct 2004	10/27/04	12	\$3,000,000	\$3,000,000	(\$20,273)	(\$201,506)	\$2,778,221	92.607%	8.716%	\$261,480	35
36	7.710%	Series E due Oct 2004	10/27/04	12	\$3,250,000	\$3,250,000	(\$21,962)	(\$218,298)	\$3,009,740	92.607%	8.716%	\$283,270	36
37	7.600%	Series E due Nov 2004	11/01/04	12	\$1,000,000	\$1,000,000	(\$6,549)	(\$67,169)	\$926,282	92.628%	8.597%	\$85,970	37
38	7.720%	Series E due Nov 2004	11/02/04	12	\$1,500,000	\$1,500,000	(\$9,824)	(\$100,753)	\$1,389,423	92.628%	8.597%	\$85,970	38
39	7.430%	Series E due Jan 2005	01/24/05	12	\$1,000,000	\$1,000,000	(\$6,333)	(\$67,169)	\$926,499	92.650%	8.415%	\$84,150	39
40	7.430%	Series E due Jan 2005	01/24/05	12	\$1,000,000	\$1,000,000	(\$6,333)	(\$67,169)	\$926,499	92.650%	8.415%	\$84,150	40
41	7.340%	Series E due Oct 2005	10/17/05	13	\$5,000,000	\$5,000,000	(\$15,832)	(\$167,922)	\$4,830,369	92.607%	8.279%	\$413,950	41
42	7.360%	Series E due Oct 2005	10/17/05	13	\$5,000,000	\$5,000,000	(\$33,788)	(\$335,843)	\$4,630,369	92.607%	8.279%	\$413,950	42
43	7.430%	Series E due Sep 2007	09/11/07	15	\$2,000,000	\$2,000,000	(\$15,530)	(\$226,075)	\$1,758,395	87.920%	8.905%	\$178,100	43
44	7.220%	Series E due Sep 2007	09/18/07	15	\$2,500,000	\$2,500,000	(\$19,412)	(\$282,594)	\$2,197,994	87.920%	8.675%	\$216,875	44
45	7.270%	Series E due Sep 2007	09/24/07	15	\$4,000,000	\$4,000,000	(\$31,059)	(\$452,151)	\$3,516,790	87.920%	8.730%	\$349,200	45

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						ORIGINAL ISSUE	CURRENTLY OUTSTANDING							
SECURED POLLUTION CONTROL REVENUE BONDS														
1	5.650%	Emery County due Nov 2023	11/15/93	11/01/23	30	\$46,500,000	\$46,500,000	(\$1,624,793)	(\$2,842,053)	\$42,033,154	90.394%	6.372%	\$2,962,980	1
2	5.625%	Emery County due Nov 2023	11/15/93	11/01/23	30	\$16,400,000	\$16,400,000	(\$1,015,051)	(\$8,139,557)	\$14,565,392	88.813%	6.475%	\$1,061,900	2
3	5.625%	Lincoln County due Nov 2021	11/15/93	11/01/21	28	\$8,300,000	\$8,300,000	(\$426,105)	(\$414,778)	\$7,459,117	89.869%	6.634%	\$550,622	3
4	3.900%	Converse 88 due Jan 2014	01/01/88	01/01/14	30	\$17,000,000	\$17,000,000	(\$153,970)	(\$579,849)	\$16,264,181	95.672%	4.246%	\$71,820	4
5	3.900%	Sweetwater 84C due Dec 2014	12/12/84	12/01/14	30	\$15,000,000	\$15,000,000	(\$227,887)	\$0	\$14,772,113	98.481%	4.378%	\$656,700	5
6	3.400%	Lincoln 91 due Jan 2016	01/17/91	01/01/16	25	\$45,000,000	\$45,000,000	(\$771,836)	(\$2,578,602)	\$41,649,562	92.555%	3.991%	\$1,795,950	6
7	4.125%	Forsyth 86A due Dec 2016 (a)	12/29/86	12/01/16	30	\$8,500,000	\$8,500,000	(\$304,824)	\$0	\$8,195,176	96.414%	4.407%	\$374,595	7
8	4.125%	Converse 95 due Nov 2025 (a)	11/17/95	11/01/25	30	\$5,300,000	\$5,300,000	(\$132,043)	\$0	\$5,167,957	97.509%	4.700%	\$249,100	8
9	1.150%	Lincoln 95 due Nov 2025 (a) (b)	11/17/95	11/01/25	30	\$22,000,000	\$19,941,475	(\$404,262)	\$0	\$19,537,214	97.973%	4.337%	\$864,862	9
10	1.300%	Carbon County due Nov 2024	11/17/94	11/01/24	30	\$9,365,000	\$9,365,000	(\$206,519)	(\$58,574)	\$9,099,907	97.169%	1.741%	\$163,045	10
11	1.300%	Emery County due Nov 2024	11/17/94	11/01/24	30	\$8,190,000	\$8,190,000	(\$209,778)	(\$86,323)	\$7,893,899	96.385%	1.929%	\$157,985	11
12	1.250%	Emery County due Nov 2024	11/17/94	11/01/24	30	\$121,940,000	\$121,940,000	(\$3,274,246)	(\$1,925,767)	\$116,739,987	95.736%	2.060%	\$2,511,964	12
13	1.300%	Lincoln County due Nov 2024	11/17/94	11/01/24	30	\$15,060,000	\$15,060,000	(\$422,858)	(\$81,427)	\$14,555,715	96.651%	2.002%	\$301,501	13
14	1.300%	Moffat County due May 2013	05/01/13	05/01/13	19	\$40,655,000	\$40,655,000	(\$874,159)	(\$74,912)	\$39,705,929	97.666%	1.763%	\$716,748	14
15	1.300%	Sweetwater County due Nov 2024	11/17/94	11/01/24	30	\$21,260,000	\$21,260,000	(\$510,479)	(\$88,352)	\$20,661,169	97.183%	1.893%	\$402,452	15
16	2.727%	Total - Secured Pollution Control Revenue Bonds				\$398,411,475	\$398,411,475	(\$10,560,810)	(\$9,550,194)	\$378,300,472			\$13,492,223	16
UNSECURED POLLUTION CONTROL REVENUE BONDS														
17	1.230%	Sweetwater 88B due Jan 2014	01/01/88	01/01/14	30	\$11,500,000	\$11,500,000	(\$84,822)	(\$392,250)	\$11,022,928	95.852%	2.278%	\$261,970	17
18	2.100%	Sweetwater 90A due Jul 2015	07/24/90	07/01/15	25	\$70,000,000	\$70,000,000	(\$660,750)	(\$795,122)	\$68,544,128	97.920%	2.845%	\$1,991,500	18
19	1.150%	Emery 91 due Jan 2015	05/22/91	01/01/15	25	\$45,000,000	\$45,000,000	(\$872,505)	(\$2,568,859)	\$41,558,636	92.353%	2.356%	\$1,030,500	19
20	0.897%	Sweetwater 88A due Jan 2017	01/01/88	01/01/17	30	\$50,000,000	\$50,000,000	(\$422,443)	(\$882,101)	\$48,695,456	97.391%	2.061%	\$1,000,500	20
21	1.230%	Forsyth 88B due Jan 2018	01/01/88	01/01/18	30	\$45,000,000	\$45,000,000	(\$380,198)	(\$1,013,283)	\$43,606,519	96.903%	2.238%	\$1,002,600	21
22	2.070%	Gillette 88 due Jan 2018	01/01/88	01/01/18	30	\$63,000,000	\$63,000,000	(\$351,905)	(\$1,006,013)	\$59,842,082	96.704%	2.838%	\$1,169,256	22
23	2.250%	Converse 92 due Jul 2006	09/29/92	07/01/06	14	\$22,485,000	\$22,485,000	(\$194,271)	(\$303,303)	\$21,987,426	97.787%	2.765%	\$621,710	23
24	2.250%	Sweetwater 92A due Apr 2005	09/29/92	04/01/05	13	\$9,335,000	\$9,335,000	(\$147,642)	(\$134,094)	\$9,053,264	96.982%	2.852%	\$266,234	24
25	2.250%	Sweetwater 92B due Dec 2005	09/29/92	12/01/05	13	\$6,305,000	\$6,305,000	(\$138,478)	(\$97,735)	\$6,068,787	96.254%	2.921%	\$184,169	25
26	1.300%	Sweetwater 95 due Nov 2025 (a)	11/17/95	11/01/25	30	\$24,400,000	\$24,400,000	(\$23,000)	(\$428,469)	\$23,746,531	97.322%	2.148%	\$24,112	26
27	6.150%	Emery 96 due Sep 2030	09/24/96	09/30/30	34	\$12,675,000	\$12,675,000	(\$735,013)	\$0	\$11,939,987	94.201%	6.579%	\$833,888	27
28	1.757%	Total - Unsecured Pollution Control Revenue Bonds				\$359,700,000	\$359,700,000	(\$4,213,027)	(\$7,621,229)	\$326,065,743			\$8,946,140	28
29														29
30														30
31														31
32														32
33														33
34														34
35														35

(a) Subject to Alternative Minimum Tax.
Annual Debt Service (column 10) includes remarketing fees and credit enhancement fees.
(b) Currently outstanding amounts are shown net of construction fund balances.