

1 **UNDERTAKING J12.3**
2

3 **Undertaking**
4

5 To provide further breakout of the \$1.1B for used fuel disposal program, as it appears in
6 Ex. C2-T1-S2, Table 3.
7

8 **Response**
9

10 In order to isolate the \$1.1B for the Used Fuel Long Term Management program related
11 to the Darlington station, as it appears in Ex. C2-T1-S2, Table 3, OPG has provided
12 Attachment 3 which shows:
13

- 14 • Cash flow schedules that identify the net increase to the ARO for the entire Used
15 Fuel Long-Term Management program (\$529M).
16 • Fuel Bundle Estimates: The schedule of fuel bundles incurred to date by station as
17 well as the forecast of future used fuel bundles by station. The purpose of this
18 information is to identify the overall proportion of fuel bundles by station over the life
19 of the entire nuclear fleet.
20

21 Attachment 1 summarizes the calculations required to allocate the net ARO increase to
22 the Darlington station of \$1.1B as well as the changes to the other stations that total an
23 increase in the ARO of \$529M. The second table in Attachment 1 demonstrates how the
24 Darlington station (pre-refurbishment) was planned to produce 20.96% of all used fuel
25 bundles by OPG's fleet over its lifetime. With the extension of end-of-life of Darlington,
26 that proportion of the total lifecycle volume increases to 34.66%. It is this increased
27 percentage of total fuel bundles that causes the common / fixed program costs for the
28 Used Fuel Long-Term Management program to be more heavily weighted to Darlington
29 after the refurbishment decision.
30

31 **Cash Flow Forecasts**
32

33 Attachment 2 provides the flow chart that describes the steps to be taken to derive a
34 change in ARO. Cash flows from various reference plans in the past all need to be
35 maintained since Canadian Generally Accepted Accounting Principles ("GAAP") requires
36 different discount rates to be used in calculating the present value of any obligation. The
37 2003 reference plan uses a 5.75% discount rate as that was the rate in effect when that
38 estimate was prepared. The discount rate in 2007 was 4.6% and the rate at the start of
39 2010 when the Darlington extension was calculated was 4.8%. As the chart indicates,
40 the value of the 2003 reference plan at 5.75% and the changes from the 2007 reference
41 plan at 4.6% combine for the calculation of the ARO at the start of 2010. The impact
42 from the incremental cash flow in 2010 compared to the 2007 reference plan, discounted
43 at 4.8% becomes the ARO impact as a result of the Darlington life extension decision. It
44 is this cash flow at 4.8% that is used to derive the \$529M increase.
45

46 The first 16 pages of Attachment 3 provide the summarized cash flow schedules that
47 support the Used Fuel Long-Term Management estimates. The 2010 cash flows

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1 represent the impact on the used fuel program from the revised system plan, using the
2 baseline cost estimates as contained in the approved 2007 ONFA Reference Plan.

3
4 Page 17 of Attachment 3 is a summarized ARO impact of the Used Fuel Long Term
5 Management obligation before the Darlington extension, the impact of the extension and
6 the current net obligation position after the extension decision.
7

8 **Fuel Bundle Estimates**

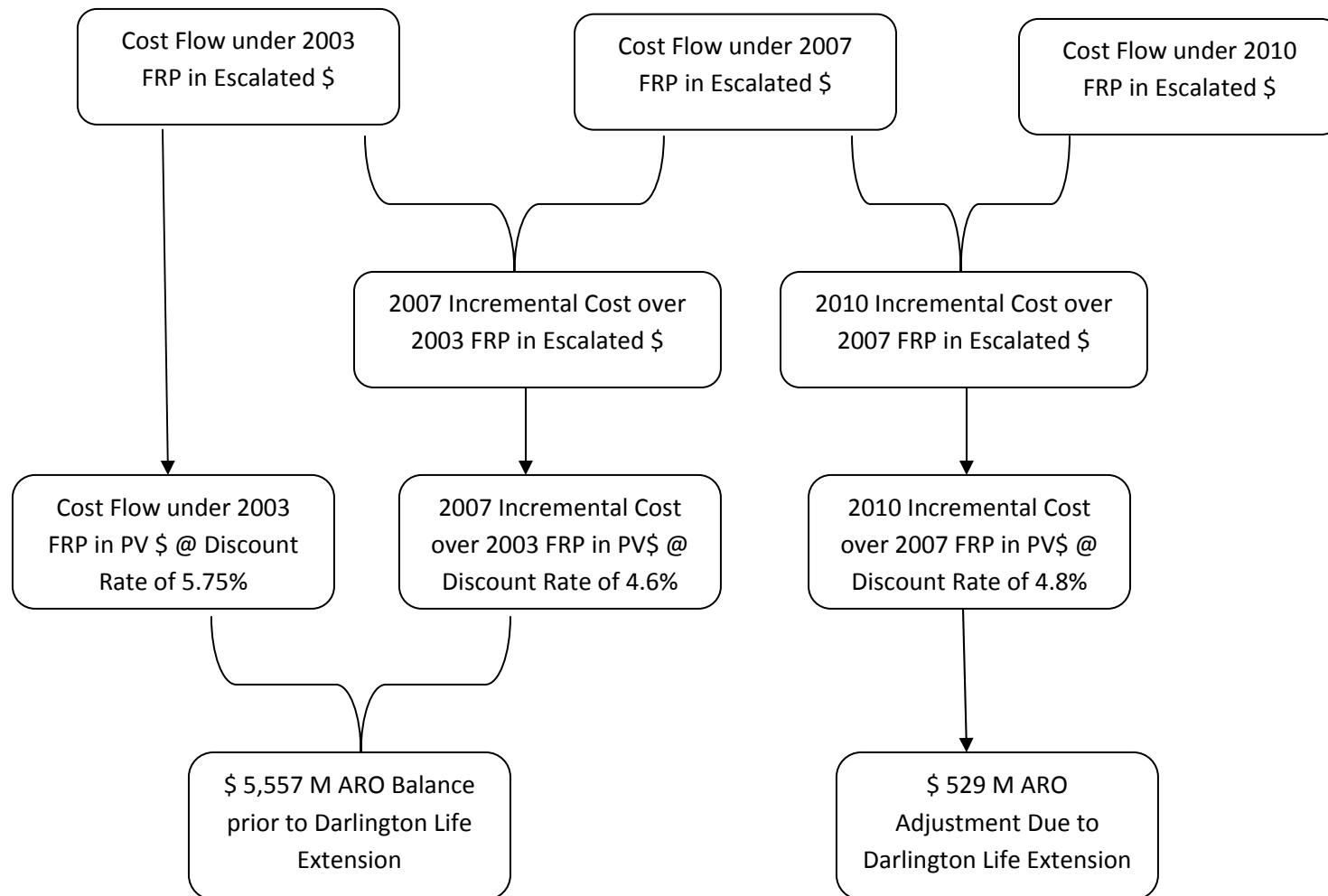
9 Pages 18 and 19 of Attachment 3 is a summarized listing of all fuel bundles (starting at
10 2006 life-to-date as calculated using the 2007 ONFA Reference Plan work) forecast to
11 end of station lives. The first table is pre-Darlington life extension assumptions. The
12 second table is the assumed number of fuel bundles post-Darlington life extension
13 decision.

Breakout of \$1.1 Billion for Used Fuel Disposal Program as it Appears in Exhibit C2, Tab 1, Schedule 2, Table 3

| Line No. | Item | Pickering A | Pickering B | Bruce A | Bruce B | Darlington | Total |
|--|--|-------------|-------------|-----------|---------|------------|-----------|
| | | (a) | (b) | (c) | (d) | (e) | (f) |
| Used Fuel Disposal Program Cost Estimate: | | | | | | | |
| 1 | Prior to Darlington Extension (2010 PV \$M) | 678 | 714 | 2,001 | 1,040 | 1,124 | 5,557 |
| 2 | Station Percentage¹ | 12.19% | 12.85% | 36.02% | 18.72% | 20.22% | 100.00% |
| 3 | After Darlington Extension (2010 PV \$M) | 522 | 564 | 1,833 | 935 | 2,232 | 6,086 |
| 4 | Station Percentage¹ | 8.57% | 9.27% | 30.11% | 15.36% | 36.68% | 100.00% |
| 5 | Impact of Darlington Refurbishment (2010 PV \$M) | (156) | (149) | (169) | (105) | 1,108 | 529 |
| | (line 3 - line 1) | | | | | | |
| LifeCycle Waste Volume - Used Fuel Bundles: | | | | | | | |
| 6 | Prior to Darlington Extension (Used Fuel Bundles) | 397,575 | 394,278 | 942,779 | 600,283 | 619,102 | 2,954,017 |
| 7 | Allocation Percentage¹ | 13.46% | 13.35% | 31.92% | 20.32% | 20.96% | 100.00% |
| 8 | After Darlington Extension (Used Fuel Bundles) | 382,914 | 387,940 | 1,009,116 | 655,316 | 1,291,558 | 3,726,845 |
| 9 | Allocation Percentage¹ | 10.27% | 10.41% | 27.08% | 17.58% | 34.66% | 100.00% |

Notes:

- 1 The minor differences between Station Percentage and Allocation Percentage are due to the use of different discount rates in each update of the used fuel management liabilities. In accordance with Generally Accepted Accounting Principles (GAAP), an updated discount rate must be used every time the ARO is updated as a result of an approved Ontario Nuclear Funds Agreement (ONFA) Reference Plan or a change in the accounting estimate. OPG has updated its ARO 3 times up to Jan. 1, 2010 with discount rates of 5.75%, 4.60%, and 4.80%. If the discount rates were held constant, there would be no difference between Station Percentage and Allocation Percentage.



Cost Flow in Escalated Dollar under 2003 Financial Reference Plan (K\$)

| Year | PA | PB | BA | BB | DA | Total |
|------|---------|---------|---------|---------|---------|---------|
| 2010 | 48,533 | 62,751 | 50,859 | 111,567 | 104,924 | 378,634 |
| 2011 | 15,017 | 13,300 | 15,301 | 22,908 | 20,901 | 87,427 |
| 2012 | 20,893 | 18,503 | 21,287 | 31,870 | 29,079 | 121,632 |
| 2013 | 24,158 | 21,395 | 24,614 | 36,851 | 33,624 | 140,642 |
| 2014 | 16,644 | 14,740 | 16,958 | 25,389 | 23,165 | 96,897 |
| 2015 | 20,636 | 18,276 | 21,026 | 31,479 | 28,722 | 120,138 |
| 2016 | 21,938 | 19,429 | 22,352 | 33,464 | 30,533 | 127,716 |
| 2017 | 25,259 | 22,370 | 25,735 | 38,530 | 35,155 | 147,049 |
| 2018 | 31,244 | 27,670 | 31,833 | 47,660 | 43,485 | 181,892 |
| 2019 | 41,806 | 37,024 | 42,594 | 63,771 | 58,186 | 243,381 |
| 2020 | 30,073 | 26,633 | 30,640 | 45,873 | 41,856 | 175,075 |
| 2021 | 31,071 | 27,517 | 31,657 | 47,395 | 43,244 | 180,884 |
| 2022 | 33,526 | 29,691 | 34,158 | 51,141 | 46,662 | 195,178 |
| 2023 | 41,018 | 36,326 | 41,791 | 62,569 | 57,089 | 238,793 |
| 2024 | 39,292 | 34,798 | 40,033 | 59,936 | 54,687 | 228,746 |
| 2025 | 39,656 | 35,120 | 40,404 | 60,492 | 55,194 | 230,868 |
| 2026 | 52,798 | 46,759 | 53,794 | 80,539 | 73,485 | 307,375 |
| 2027 | 57,389 | 50,825 | 58,472 | 87,542 | 79,875 | 334,103 |
| 2028 | 71,497 | 63,319 | 72,845 | 109,062 | 99,510 | 416,233 |
| 2029 | 69,088 | 61,185 | 70,391 | 105,387 | 96,156 | 402,207 |
| 2030 | 74,854 | 66,292 | 76,266 | 114,183 | 104,182 | 435,777 |
| 2031 | 68,741 | 60,878 | 70,037 | 104,858 | 95,674 | 400,188 |
| 2032 | 73,045 | 64,690 | 74,423 | 111,423 | 101,664 | 425,245 |
| 2033 | 76,582 | 67,822 | 78,026 | 116,818 | 106,586 | 445,834 |
| 2034 | 54,806 | 48,537 | 55,839 | 83,601 | 76,279 | 319,062 |
| 2035 | 64,433 | 57,063 | 65,648 | 98,287 | 89,678 | 375,109 |
| 2036 | 73,155 | 64,787 | 74,535 | 111,591 | 101,817 | 425,885 |
| 2037 | 75,468 | 66,836 | 76,891 | 115,119 | 105,036 | 439,351 |
| 2038 | 77,859 | 68,953 | 79,327 | 118,766 | 108,364 | 453,268 |
| 2039 | 80,484 | 71,278 | 82,002 | 122,771 | 112,017 | 468,551 |
| 2040 | 82,861 | 73,383 | 84,423 | 126,396 | 115,325 | 482,388 |
| 2041 | 85,810 | 75,994 | 87,428 | 130,895 | 119,430 | 499,557 |
| 2042 | 88,228 | 78,136 | 89,892 | 134,583 | 122,796 | 513,634 |
| 2043 | 91,048 | 80,634 | 92,765 | 138,886 | 126,721 | 530,054 |
| 2044 | 94,067 | 83,307 | 95,841 | 143,490 | 130,922 | 547,628 |
| 2045 | 96,979 | 85,886 | 98,807 | 147,932 | 134,975 | 564,578 |
| 2046 | 100,682 | 89,166 | 102,581 | 153,581 | 140,129 | 586,138 |
| 2047 | 104,478 | 92,527 | 106,448 | 159,371 | 145,413 | 608,238 |
| 2048 | 107,350 | 95,071 | 109,374 | 163,752 | 149,410 | 624,957 |
| 2049 | 110,934 | 98,245 | 113,026 | 169,219 | 154,398 | 645,822 |
| 2050 | 113,935 | 100,903 | 116,084 | 173,798 | 158,575 | 663,295 |
| 2051 | 117,631 | 104,176 | 119,850 | 179,436 | 163,719 | 684,812 |
| 2052 | 123,286 | 109,184 | 125,611 | 188,061 | 171,589 | 717,729 |
| 2053 | 127,277 | 112,719 | 129,678 | 194,150 | 177,145 | 740,969 |
| 2054 | 102,422 | 90,707 | 104,354 | 156,236 | 142,552 | 596,271 |
| 2055 | 101,827 | 90,180 | 103,748 | 155,328 | 141,724 | 592,807 |
| 2056 | 103,568 | 91,721 | 105,521 | 157,983 | 144,146 | 602,938 |
| 2057 | 107,391 | 95,107 | 109,417 | 163,816 | 149,467 | 625,198 |
| 2058 | 110,383 | 97,757 | 112,465 | 168,379 | 153,631 | 642,614 |
| 2059 | 114,177 | 101,117 | 116,330 | 174,166 | 158,911 | 664,700 |
| 2060 | 105,823 | 93,718 | 107,818 | 161,422 | 147,284 | 616,065 |

| | | | | | | |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| 2061 | 100,415 | 88,929 | 102,308 | 153,173 | 139,757 | 584,582 |
| 2062 | 103,500 | 91,661 | 105,452 | 157,880 | 144,052 | 602,546 |
| 2063 | 114,862 | 101,724 | 117,029 | 175,212 | 159,866 | 668,692 |
| 2064 | 120,707 | 106,900 | 122,984 | 184,128 | 168,001 | 702,719 |
| 2065 | 89,423 | 79,194 | 91,109 | 136,406 | 124,459 | 520,591 |
| 2066 | 69,934 | 61,935 | 71,253 | 106,678 | 97,335 | 407,136 |
| 2067 | 66,133 | 58,569 | 67,380 | 100,880 | 92,044 | 385,007 |
| 2068 | 65,143 | 57,692 | 66,372 | 99,370 | 90,667 | 379,245 |
| 2069 | 70,429 | 62,373 | 71,757 | 107,433 | 98,023 | 410,015 |
| 2070 | 86,480 | 76,588 | 88,111 | 131,917 | 120,363 | 503,458 |
| 2071 | 88,633 | 78,495 | 90,304 | 135,201 | 123,359 | 515,992 |
| 2072 | 84,555 | 74,884 | 86,150 | 128,981 | 117,684 | 492,254 |
| 2073 | 94,047 | 83,289 | 95,820 | 143,460 | 130,895 | 547,511 |
| 2074 | 106,297 | 94,138 | 108,301 | 162,146 | 147,944 | 618,826 |
| 2075 | 108,189 | 95,814 | 110,230 | 165,033 | 150,578 | 629,845 |
| 2076 | 76,304 | 67,576 | 77,743 | 116,395 | 106,200 | 444,219 |
| 2077 | 74,626 | 66,090 | 76,033 | 113,835 | 103,865 | 434,449 |
| 2078 | 78,929 | 69,901 | 80,418 | 120,400 | 109,854 | 459,502 |
| 2079 | 62,505 | 55,356 | 63,684 | 95,346 | 86,995 | 363,886 |
| 2080 | 44,553 | 39,457 | 45,393 | 67,961 | 62,008 | 259,372 |
| 2081 | 36,488 | 32,315 | 37,177 | 55,660 | 50,785 | 212,424 |
| 2082 | 37,877 | 33,545 | 38,592 | 57,778 | 52,718 | 220,509 |
| 2083 | 38,114 | 33,754 | 38,833 | 58,139 | 53,047 | 221,887 |
| 2084 | 39,484 | 34,967 | 40,228 | 60,229 | 54,954 | 229,862 |
| 2085 | 45,916 | 40,664 | 46,782 | 70,041 | 63,906 | 267,308 |
| 2086 | 44,638 | 39,532 | 45,480 | 68,091 | 62,127 | 259,868 |
| 2087 | 52,009 | 46,060 | 52,990 | 79,335 | 72,386 | 302,780 |
| 2088 | 70,840 | 62,737 | 72,176 | 108,060 | 98,595 | 412,409 |
| 2089 | 83,998 | 74,390 | 85,582 | 128,131 | 116,909 | 489,011 |
| 2090 | 46,546 | 41,222 | 47,424 | 71,002 | 64,783 | 270,977 |
| 2091 | 27,982 | 24,781 | 28,509 | 42,684 | 38,945 | 162,901 |
| 2092 | 23,063 | 20,425 | 23,498 | 35,181 | 32,099 | 134,266 |
| 2093 | 19,538 | 17,303 | 19,907 | 29,804 | 27,193 | 113,745 |
| 2094 | 20,086 | 17,788 | 20,465 | 30,639 | 27,956 | 116,934 |
| 2095 | 13,496 | 11,953 | 13,751 | 20,588 | 18,784 | 78,572 |
| 2096 | 13,198 | 11,688 | 13,447 | 20,132 | 18,369 | 76,835 |
| 2097 | 13,396 | 11,864 | 13,648 | 20,434 | 18,644 | 77,986 |
| 2098 | 13,499 | 11,955 | 13,753 | 20,591 | 18,788 | 78,586 |
| 2099 | 2,387 | 2,114 | 2,432 | 3,641 | 3,322 | 13,897 |
| 2100 | 115,231 | 102,051 | 117,404 | 175,775 | 160,379 | 670,840 |
| Total | \$ 6,104,570 | \$ 5,426,075 | \$ 6,221,109 | \$ 9,349,492 | \$ 8,533,729 | \$ 35,634,975 |

Cost Flow in Escalated Dollar under 2007 Financial Reference Plan (K\$)

| Year | PA | PB | BA | BB | DA | Total |
|------|---------|---------|---------|---------|---------|-----------|
| 2010 | 21,343 | 32,720 | 49,310 | 55,112 | 54,884 | 213,369 |
| 2011 | 6,826 | 6,769 | 16,186 | 10,306 | 10,629 | 50,714 |
| 2012 | 11,348 | 11,254 | 26,909 | 17,133 | 17,671 | 84,314 |
| 2013 | 11,763 | 11,665 | 27,894 | 17,761 | 18,317 | 87,400 |
| 2014 | 12,108 | 12,008 | 28,712 | 18,282 | 18,855 | 89,964 |
| 2015 | 12,505 | 12,401 | 29,654 | 18,881 | 19,473 | 92,914 |
| 2016 | 13,065 | 12,957 | 30,982 | 19,727 | 20,345 | 97,076 |
| 2017 | 10,884 | 10,794 | 25,810 | 16,434 | 16,949 | 80,872 |
| 2018 | 12,542 | 12,438 | 29,741 | 18,937 | 19,530 | 93,189 |
| 2019 | 16,278 | 16,143 | 38,600 | 24,577 | 25,348 | 120,945 |
| 2020 | 17,759 | 17,611 | 42,112 | 26,813 | 27,654 | 131,949 |
| 2021 | 14,260 | 14,142 | 33,816 | 21,531 | 22,206 | 105,956 |
| 2022 | 16,490 | 16,353 | 39,103 | 24,897 | 25,678 | 122,521 |
| 2023 | 17,143 | 17,001 | 40,652 | 25,884 | 26,695 | 127,375 |
| 2024 | 32,922 | 32,649 | 78,069 | 49,708 | 51,266 | 244,613 |
| 2025 | 37,416 | 37,105 | 88,724 | 56,492 | 58,263 | 278,001 |
| 2026 | 29,224 | 28,982 | 69,300 | 44,125 | 45,508 | 217,140 |
| 2027 | 23,087 | 22,896 | 54,748 | 34,859 | 35,952 | 171,542 |
| 2028 | 32,559 | 32,289 | 77,207 | 49,159 | 50,700 | 241,914 |
| 2029 | 61,332 | 60,823 | 145,438 | 92,603 | 95,506 | 455,702 |
| 2030 | 95,324 | 94,533 | 226,044 | 143,926 | 148,438 | 708,264 |
| 2031 | 128,954 | 127,884 | 305,791 | 194,702 | 200,806 | 958,137 |
| 2032 | 135,670 | 134,545 | 321,719 | 204,844 | 211,265 | 1,008,043 |
| 2033 | 111,069 | 110,148 | 263,381 | 167,699 | 172,957 | 825,255 |
| 2034 | 73,379 | 72,771 | 174,006 | 110,793 | 114,266 | 545,215 |
| 2035 | 58,739 | 58,252 | 139,289 | 88,688 | 91,468 | 436,436 |
| 2036 | 57,958 | 57,477 | 137,436 | 87,508 | 90,251 | 430,629 |
| 2037 | 61,059 | 60,552 | 144,790 | 92,190 | 95,080 | 453,671 |
| 2038 | 62,534 | 62,015 | 148,288 | 94,417 | 97,377 | 464,632 |
| 2039 | 70,839 | 70,252 | 167,983 | 106,958 | 110,311 | 526,343 |
| 2040 | 82,423 | 81,739 | 195,451 | 124,447 | 128,348 | 612,407 |
| 2041 | 79,845 | 79,183 | 189,338 | 120,554 | 124,334 | 593,253 |
| 2042 | 79,003 | 78,348 | 187,343 | 119,284 | 123,024 | 587,002 |
| 2043 | 68,419 | 67,852 | 162,244 | 103,303 | 106,542 | 508,359 |
| 2044 | 71,438 | 70,846 | 169,404 | 107,862 | 111,244 | 530,794 |
| 2045 | 82,616 | 81,931 | 195,910 | 124,739 | 128,650 | 613,846 |
| 2046 | 81,044 | 80,372 | 192,181 | 122,365 | 126,201 | 602,162 |
| 2047 | 80,540 | 79,872 | 190,986 | 121,604 | 125,416 | 598,417 |
| 2048 | 81,046 | 80,373 | 192,185 | 122,368 | 126,204 | 602,176 |
| 2049 | 108,103 | 107,206 | 256,347 | 163,220 | 168,337 | 803,213 |
| 2050 | 113,150 | 112,212 | 268,316 | 170,842 | 176,197 | 840,718 |
| 2051 | 88,854 | 88,117 | 210,701 | 134,157 | 138,363 | 660,193 |
| 2052 | 86,529 | 85,811 | 205,188 | 130,646 | 134,742 | 642,916 |
| 2053 | 90,471 | 89,721 | 214,537 | 136,599 | 140,881 | 672,209 |
| 2054 | 91,888 | 91,126 | 217,896 | 138,738 | 143,088 | 682,737 |
| 2055 | 102,513 | 101,662 | 243,090 | 154,780 | 159,632 | 761,677 |
| 2056 | 103,597 | 102,738 | 245,662 | 156,417 | 161,321 | 769,736 |
| 2057 | 118,721 | 117,736 | 281,526 | 179,252 | 184,872 | 882,107 |
| 2058 | 106,492 | 105,609 | 252,526 | 160,788 | 165,828 | 791,242 |
| 2059 | 108,409 | 107,510 | 257,073 | 163,683 | 168,814 | 805,489 |
| 2060 | 118,793 | 117,807 | 281,696 | 179,360 | 184,983 | 882,639 |
| 2061 | 118,682 | 117,697 | 281,432 | 179,193 | 184,810 | 881,814 |

| | | | | | | |
|--------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|
| 2062 | 123,841 | 122,814 | 293,668 | 186,983 | 192,845 | 920,152 |
| 2063 | 127,906 | 126,846 | 303,307 | 193,121 | 199,175 | 950,354 |
| 2064 | 128,733 | 127,666 | 305,268 | 194,369 | 200,463 | 956,499 |
| 2065 | 34,118 | 33,836 | 80,906 | 51,514 | 53,129 | 253,503 |
| 2066 | 35,406 | 35,113 | 83,960 | 53,459 | 55,135 | 263,072 |
| 2067 | 25,181 | 24,973 | 59,713 | 38,020 | 39,212 | 187,100 |
| 2068 | 25,280 | 25,070 | 59,946 | 38,169 | 39,365 | 187,829 |
| 2069 | 26,133 | 25,916 | 61,969 | 39,457 | 40,694 | 194,168 |
| 2070 | 23,169 | 22,977 | 54,941 | 34,982 | 36,079 | 172,148 |
| 2071 | 23,848 | 23,650 | 56,551 | 36,007 | 37,136 | 177,192 |
| 2072 | 24,494 | 24,291 | 58,084 | 36,983 | 38,142 | 181,995 |
| 2073 | 25,320 | 25,110 | 60,041 | 38,229 | 39,428 | 188,127 |
| 2074 | 26,174 | 25,957 | 62,066 | 39,519 | 40,757 | 194,472 |
| 2075 | 27,057 | 26,833 | 64,162 | 40,853 | 42,133 | 201,038 |
| 2076 | 28,152 | 27,918 | 66,757 | 42,505 | 43,838 | 209,169 |
| 2077 | 28,918 | 28,678 | 68,574 | 43,662 | 45,031 | 214,862 |
| 2078 | 29,897 | 29,649 | 70,895 | 45,140 | 46,555 | 222,137 |
| 2079 | 30,910 | 30,654 | 73,298 | 46,670 | 48,133 | 229,666 |
| 2080 | 31,959 | 31,694 | 75,785 | 48,253 | 49,766 | 237,456 |
| 2081 | 33,258 | 32,982 | 78,866 | 50,215 | 51,789 | 247,111 |
| 2082 | 34,167 | 33,883 | 81,021 | 51,587 | 53,204 | 253,863 |
| 2083 | 35,329 | 35,036 | 83,776 | 53,342 | 55,014 | 262,497 |
| 2084 | 36,532 | 36,229 | 86,629 | 55,158 | 56,887 | 271,434 |
| 2085 | 37,776 | 37,463 | 89,580 | 57,037 | 58,825 | 280,682 |
| 2086 | 39,320 | 38,994 | 93,240 | 59,368 | 61,229 | 292,151 |
| 2087 | 40,398 | 40,063 | 95,797 | 60,995 | 62,908 | 300,161 |
| 2088 | 41,778 | 41,432 | 99,069 | 63,079 | 65,057 | 310,414 |
| 2089 | 43,206 | 42,848 | 102,456 | 65,235 | 67,281 | 321,026 |
| 2090 | 44,685 | 44,314 | 105,962 | 67,467 | 69,583 | 332,010 |
| 2091 | 46,519 | 46,133 | 110,311 | 70,237 | 72,439 | 345,637 |
| 2092 | 47,798 | 47,402 | 113,345 | 72,169 | 74,431 | 355,146 |
| 2093 | 49,438 | 49,028 | 117,232 | 74,644 | 76,984 | 367,325 |
| 2094 | 51,134 | 50,710 | 121,256 | 77,206 | 79,626 | 379,932 |
| 2095 | 52,891 | 52,452 | 125,421 | 79,857 | 82,361 | 392,982 |
| 2096 | 55,071 | 54,614 | 130,590 | 83,149 | 85,756 | 409,179 |
| 2097 | 56,590 | 56,121 | 134,194 | 85,444 | 88,122 | 420,471 |
| 2098 | 58,538 | 58,053 | 138,813 | 88,385 | 91,156 | 434,944 |
| 2099 | 60,555 | 60,052 | 143,595 | 91,429 | 94,295 | 449,926 |
| 2100 | 2,953,793 | 2,929,298 | 7,004,399 | 4,459,817 | 4,599,633 | 21,946,940 |
| Total | \$ 7,974,225 | \$ 7,919,651 | \$18,908,168 | \$12,062,859 | \$ 12,439,076 | \$ 59,303,978 |

Cost Flow in Escalated Dollar under 2010 Financial Reference Plan (K\$)

| Year | PA | PB | BA | BB | DA | Total |
|------|---------|---------|---------|---------|---------|-----------|
| 2010 | 5,028 | 5,094 | 13,251 | 8,605 | 16,960 | 48,938 |
| 2011 | 5,211 | 5,279 | 13,732 | 8,918 | 17,576 | 50,715 |
| 2012 | 8,663 | 8,777 | 22,830 | 14,826 | 29,220 | 84,315 |
| 2013 | 8,980 | 9,098 | 23,666 | 15,368 | 30,289 | 87,401 |
| 2014 | 9,243 | 9,365 | 24,360 | 15,819 | 31,178 | 89,964 |
| 2015 | 9,546 | 9,672 | 25,158 | 16,338 | 32,200 | 92,914 |
| 2016 | 9,974 | 10,105 | 26,285 | 17,069 | 33,642 | 97,075 |
| 2017 | 8,309 | 8,418 | 21,898 | 14,221 | 28,027 | 80,874 |
| 2018 | 9,575 | 9,701 | 25,233 | 16,386 | 32,296 | 93,191 |
| 2019 | 12,427 | 12,590 | 32,749 | 21,267 | 41,915 | 120,948 |
| 2020 | 13,557 | 13,735 | 35,728 | 23,202 | 45,728 | 131,951 |
| 2021 | 10,887 | 11,030 | 28,691 | 18,632 | 36,721 | 105,960 |
| 2022 | 12,589 | 12,754 | 33,175 | 21,544 | 42,461 | 122,523 |
| 2023 | 13,088 | 13,259 | 34,490 | 22,398 | 44,144 | 127,379 |
| 2024 | 26,047 | 26,388 | 68,642 | 44,576 | 87,854 | 253,507 |
| 2025 | 29,668 | 30,057 | 78,186 | 50,774 | 100,069 | 288,754 |
| 2026 | 22,658 | 22,955 | 59,712 | 38,777 | 76,424 | 220,526 |
| 2027 | 17,968 | 18,204 | 47,351 | 30,750 | 60,605 | 174,877 |
| 2028 | 25,998 | 26,339 | 68,514 | 44,493 | 87,691 | 253,035 |
| 2029 | 51,196 | 51,868 | 134,921 | 87,617 | 172,684 | 498,287 |
| 2030 | 80,501 | 81,558 | 212,149 | 137,769 | 271,528 | 783,505 |
| 2031 | 110,637 | 112,089 | 291,567 | 189,343 | 373,174 | 1,076,810 |
| 2032 | 116,390 | 117,918 | 306,730 | 199,189 | 392,581 | 1,132,808 |
| 2033 | 94,768 | 96,012 | 249,749 | 162,186 | 319,651 | 922,367 |
| 2034 | 61,969 | 62,783 | 163,312 | 106,054 | 209,021 | 603,139 |
| 2035 | 50,534 | 51,197 | 133,175 | 86,483 | 170,449 | 491,839 |
| 2036 | 49,888 | 50,542 | 131,472 | 85,377 | 168,270 | 485,549 |
| 2037 | 52,429 | 53,117 | 138,169 | 89,726 | 176,841 | 510,282 |
| 2038 | 54,112 | 54,822 | 142,604 | 92,606 | 182,517 | 526,661 |
| 2039 | 61,159 | 61,962 | 161,175 | 104,667 | 206,287 | 595,249 |
| 2040 | 71,205 | 72,140 | 187,652 | 121,860 | 240,173 | 693,030 |
| 2041 | 69,004 | 69,910 | 181,852 | 118,094 | 232,750 | 671,610 |
| 2042 | 68,215 | 69,111 | 179,771 | 116,743 | 230,088 | 663,928 |
| 2043 | 59,278 | 60,056 | 156,218 | 101,448 | 199,942 | 576,942 |
| 2044 | 61,914 | 62,727 | 163,166 | 105,959 | 208,835 | 602,601 |
| 2045 | 71,512 | 72,450 | 188,459 | 122,384 | 241,207 | 696,012 |
| 2046 | 70,355 | 71,279 | 185,411 | 120,405 | 237,306 | 684,755 |
| 2047 | 70,166 | 71,087 | 184,912 | 120,081 | 236,667 | 682,911 |
| 2048 | 70,658 | 71,586 | 186,210 | 120,924 | 238,328 | 687,706 |
| 2049 | 94,309 | 95,547 | 248,538 | 161,400 | 318,101 | 917,895 |
| 2050 | 98,536 | 99,829 | 259,678 | 168,634 | 332,359 | 959,037 |
| 2051 | 77,442 | 78,458 | 204,087 | 132,533 | 261,209 | 753,730 |
| 2052 | 75,464 | 76,454 | 198,875 | 129,148 | 254,538 | 734,479 |
| 2053 | 78,895 | 79,930 | 207,916 | 135,020 | 266,110 | 767,872 |
| 2054 | 80,159 | 81,211 | 211,247 | 137,183 | 270,373 | 780,172 |
| 2055 | 89,413 | 90,587 | 235,636 | 153,021 | 301,589 | 870,246 |
| 2056 | 90,385 | 91,572 | 238,197 | 154,684 | 304,867 | 879,705 |
| 2057 | 103,368 | 104,724 | 272,411 | 176,902 | 348,656 | 1,006,061 |
| 2058 | 92,918 | 94,138 | 244,873 | 159,020 | 313,411 | 904,360 |
| 2059 | 94,603 | 95,845 | 249,313 | 161,903 | 319,094 | 920,758 |
| 2060 | 103,582 | 104,942 | 272,976 | 177,270 | 349,380 | 1,008,150 |

| | | | | | | |
|--------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|
| 2061 | 103,566 | 104,925 | 272,933 | 177,242 | 349,325 | 1,007,990 |
| 2062 | 108,054 | 109,472 | 284,761 | 184,922 | 364,463 | 1,051,672 |
| 2063 | 111,676 | 113,142 | 294,307 | 191,122 | 376,681 | 1,086,928 |
| 2064 | 112,412 | 113,887 | 296,246 | 192,381 | 379,162 | 1,094,087 |
| 2065 | 29,413 | 29,799 | 77,515 | 50,338 | 99,210 | 286,276 |
| 2066 | 30,512 | 30,913 | 80,411 | 52,219 | 102,917 | 296,972 |
| 2067 | 21,541 | 21,824 | 56,769 | 36,865 | 72,658 | 209,656 |
| 2068 | 21,659 | 21,943 | 57,078 | 37,066 | 73,054 | 210,800 |
| 2069 | 22,390 | 22,683 | 59,005 | 38,317 | 75,519 | 217,915 |
| 2070 | 19,774 | 20,034 | 52,113 | 33,842 | 66,698 | 192,461 |
| 2071 | 20,335 | 20,602 | 53,590 | 34,801 | 68,590 | 197,919 |
| 2072 | 20,899 | 21,174 | 55,077 | 35,767 | 70,493 | 203,410 |
| 2073 | 21,604 | 21,887 | 56,933 | 36,972 | 72,868 | 210,264 |
| 2074 | 22,332 | 22,625 | 58,853 | 38,219 | 75,326 | 217,356 |
| 2075 | 23,086 | 23,389 | 60,840 | 39,510 | 77,869 | 224,695 |
| 2076 | 24,005 | 24,320 | 63,262 | 41,082 | 80,968 | 233,637 |
| 2077 | 24,674 | 24,998 | 65,024 | 42,226 | 83,224 | 240,146 |
| 2078 | 25,509 | 25,844 | 67,226 | 43,656 | 86,042 | 248,277 |
| 2079 | 26,374 | 26,720 | 69,504 | 45,136 | 88,958 | 256,692 |
| 2080 | 27,268 | 27,626 | 71,862 | 46,667 | 91,976 | 265,399 |
| 2081 | 28,359 | 28,732 | 74,737 | 48,534 | 95,655 | 276,017 |
| 2082 | 29,152 | 29,535 | 76,827 | 49,891 | 98,330 | 283,736 |
| 2083 | 30,144 | 30,540 | 79,440 | 51,588 | 101,675 | 293,388 |
| 2084 | 31,170 | 31,579 | 82,145 | 53,345 | 105,137 | 303,376 |
| 2085 | 32,232 | 32,655 | 84,944 | 55,162 | 108,719 | 313,713 |
| 2086 | 33,528 | 33,968 | 88,359 | 57,380 | 113,089 | 326,324 |
| 2087 | 34,469 | 34,922 | 90,839 | 58,990 | 116,264 | 335,484 |
| 2088 | 35,647 | 36,115 | 93,942 | 61,006 | 120,235 | 346,944 |
| 2089 | 36,865 | 37,349 | 97,154 | 63,091 | 124,346 | 358,805 |
| 2090 | 38,127 | 38,627 | 100,478 | 65,250 | 128,600 | 371,082 |
| 2091 | 39,666 | 40,187 | 104,535 | 67,885 | 133,794 | 386,067 |
| 2092 | 40,784 | 41,319 | 107,479 | 69,797 | 137,562 | 396,941 |
| 2093 | 42,182 | 42,736 | 111,165 | 72,190 | 142,280 | 410,554 |
| 2094 | 43,630 | 44,203 | 114,981 | 74,668 | 147,163 | 424,645 |
| 2095 | 45,129 | 45,721 | 118,930 | 77,233 | 152,217 | 439,230 |
| 2096 | 46,959 | 47,575 | 123,753 | 80,365 | 158,390 | 457,042 |
| 2097 | 48,285 | 48,919 | 127,249 | 82,635 | 162,865 | 469,955 |
| 2098 | 49,948 | 50,603 | 131,630 | 85,480 | 168,472 | 486,132 |
| 2099 | 51,668 | 52,346 | 136,164 | 88,424 | 174,275 | 502,877 |
| 2100 | 2,514,994 | 2,548,006 | 6,627,914 | 4,304,141 | 8,483,005 | 24,478,060 |
| Total | \$ 6,804,402 | \$ 6,893,717 | \$17,932,048 | \$11,644,999 | \$ 22,951,059 | \$ 66,226,225 |

2007 Incremental Costs over 2003 FRP in Escalated Dollar (K\$)

| Year | PA | PB | BA | BB | DA | Total |
|-------------|-----------|-----------|-----------|-----------|-----------|--------------|
| 2010 | (27,190) | (30,030) | (1,549) | (56,456) | (50,041) | (165,265) |
| 2011 | (8,192) | (6,531) | 885 | (12,602) | (10,273) | (36,713) |
| 2012 | (9,545) | (7,249) | 5,622 | (14,737) | (11,408) | (37,317) |
| 2013 | (12,395) | (9,730) | 3,280 | (19,091) | (15,306) | (53,242) |
| 2014 | (4,536) | (2,733) | 11,754 | (7,108) | (4,311) | (6,933) |
| 2015 | (8,131) | (5,874) | 8,628 | (12,598) | (9,249) | (27,224) |
| 2016 | (8,873) | (6,472) | 8,630 | (13,738) | (10,188) | (30,640) |
| 2017 | (14,374) | (11,575) | 75 | (22,096) | (18,206) | (66,177) |
| 2018 | (18,702) | (15,232) | (2,092) | (28,723) | (23,955) | (88,703) |
| 2019 | (25,528) | (20,881) | (3,995) | (39,194) | (32,838) | (122,436) |
| 2020 | (12,314) | (9,022) | 11,472 | (19,060) | (14,202) | (43,126) |
| 2021 | (16,810) | (13,375) | 2,159 | (25,864) | (21,038) | (74,928) |
| 2022 | (17,036) | (13,338) | 4,944 | (26,244) | (20,984) | (72,657) |
| 2023 | (23,875) | (19,325) | (1,140) | (36,685) | (30,394) | (111,418) |
| 2024 | (6,370) | (2,149) | 38,036 | (10,229) | (3,421) | 15,867 |
| 2025 | (2,241) | 1,985 | 48,320 | (4,000) | 3,069 | 47,133 |
| 2026 | (23,574) | (17,777) | 15,506 | (36,414) | (27,977) | (90,236) |
| 2027 | (34,302) | (27,929) | (3,724) | (52,683) | (43,923) | (162,561) |
| 2028 | (38,938) | (31,030) | 4,362 | (59,903) | (48,809) | (174,319) |
| 2029 | (7,756) | (362) | 75,047 | (12,784) | (651) | 53,495 |
| 2030 | 20,470 | 28,241 | 149,778 | 29,743 | 44,256 | 272,488 |
| 2031 | 60,213 | 67,006 | 235,754 | 89,844 | 105,132 | 557,949 |
| 2032 | 62,625 | 69,856 | 247,296 | 93,420 | 109,601 | 582,798 |
| 2033 | 34,488 | 42,326 | 185,355 | 50,881 | 66,370 | 379,421 |
| 2034 | 18,574 | 24,234 | 118,167 | 27,192 | 37,987 | 226,154 |
| 2035 | (5,694) | 1,189 | 73,641 | (9,599) | 1,790 | 61,327 |
| 2036 | (15,197) | (7,310) | 62,901 | (24,083) | (11,566) | 4,744 |
| 2037 | (14,409) | (6,283) | 67,899 | (22,929) | (9,956) | 14,320 |
| 2038 | (15,325) | (6,937) | 68,961 | (24,349) | (10,986) | 11,364 |
| 2039 | (9,644) | (1,026) | 85,982 | (15,813) | (1,707) | 57,792 |
| 2040 | (438) | 8,357 | 111,028 | (1,949) | 13,023 | 130,020 |
| 2041 | (5,965) | 3,188 | 101,910 | (10,340) | 4,904 | 93,696 |
| 2042 | (9,224) | 212 | 97,451 | (15,299) | 228 | 73,368 |
| 2043 | (22,629) | (12,782) | 69,478 | (35,582) | (20,179) | (21,694) |
| 2044 | (22,628) | (12,461) | 73,563 | (35,628) | (19,679) | (16,834) |
| 2045 | (14,362) | (3,955) | 97,103 | (23,193) | (6,325) | 49,268 |
| 2046 | (19,638) | (8,794) | 89,600 | (31,216) | (13,928) | 16,023 |
| 2047 | (23,938) | (12,655) | 84,538 | (37,768) | (19,996) | (9,820) |
| 2048 | (26,304) | (14,697) | 82,811 | (41,385) | (23,206) | (22,781) |
| 2049 | (2,831) | 8,961 | 143,321 | (5,999) | 13,939 | 157,391 |
| 2050 | (785) | 11,309 | 152,232 | (2,956) | 17,622 | 177,423 |
| 2051 | (28,777) | (16,059) | 90,852 | (45,279) | (25,357) | (24,620) |
| 2052 | (36,757) | (23,372) | 79,577 | (57,414) | (36,847) | (74,813) |
| 2053 | (36,806) | (22,998) | 84,859 | (57,551) | (36,263) | (68,760) |
| 2054 | (10,534) | 419 | 113,542 | (17,498) | 536 | 86,466 |
| 2055 | 685 | 11,482 | 139,343 | (549) | 17,909 | 168,870 |
| 2056 | 30 | 11,017 | 140,142 | (1,565) | 17,176 | 166,798 |
| 2057 | 11,330 | 22,629 | 172,109 | 15,437 | 35,404 | 256,908 |
| 2058 | (3,891) | 7,852 | 140,062 | (7,591) | 12,197 | 148,628 |
| 2059 | (5,767) | 6,394 | 140,743 | (10,483) | 9,903 | 140,789 |
| 2060 | 12,970 | 24,089 | 173,877 | 17,938 | 37,699 | 266,573 |
| 2061 | 18,267 | 28,769 | 179,124 | 26,019 | 45,053 | 297,232 |

| | | | | | | |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| 2062 | 20,341 | 31,153 | 188,216 | 29,103 | 48,793 | 317,607 |
| 2063 | 13,044 | 25,122 | 186,279 | 17,909 | 39,309 | 281,662 |
| 2064 | 8,026 | 20,765 | 182,284 | 10,241 | 32,462 | 253,779 |
| 2065 | (55,304) | (45,359) | (10,203) | (84,892) | (71,330) | (267,088) |
| 2066 | (34,528) | (26,822) | 12,707 | (53,220) | (42,200) | (144,064) |
| 2067 | (40,952) | (33,596) | (7,667) | (62,860) | (52,832) | (197,907) |
| 2068 | (39,864) | (32,622) | (6,426) | (61,202) | (51,302) | (191,415) |
| 2069 | (44,296) | (36,457) | (9,788) | (67,976) | (57,329) | (215,846) |
| 2070 | (63,311) | (53,611) | (33,169) | (96,935) | (84,284) | (331,310) |
| 2071 | (64,785) | (54,844) | (33,753) | (99,194) | (86,223) | (338,800) |
| 2072 | (60,061) | (50,592) | (28,066) | (91,998) | (79,542) | (310,259) |
| 2073 | (68,727) | (58,180) | (35,779) | (105,231) | (91,467) | (359,384) |
| 2074 | (80,123) | (68,182) | (46,235) | (122,627) | (107,187) | (424,354) |
| 2075 | (81,132) | (68,981) | (46,068) | (124,180) | (108,445) | (428,807) |
| 2076 | (48,152) | (39,658) | (10,986) | (73,890) | (62,363) | (235,049) |
| 2077 | (45,708) | (37,412) | (7,460) | (70,173) | (58,834) | (219,587) |
| 2078 | (49,032) | (40,252) | (9,523) | (75,259) | (63,299) | (237,365) |
| 2079 | (31,595) | (24,702) | 9,614 | (48,676) | (38,862) | (134,220) |
| 2080 | (12,594) | (7,763) | 30,392 | (19,708) | (12,242) | (21,915) |
| 2081 | (3,230) | 668 | 41,689 | (5,445) | 1,005 | 34,687 |
| 2082 | (3,710) | 339 | 42,429 | (6,191) | 487 | 33,353 |
| 2083 | (2,785) | 1,282 | 44,944 | (4,797) | 1,967 | 40,611 |
| 2084 | (2,952) | 1,261 | 46,400 | (5,071) | 1,933 | 41,572 |
| 2085 | (8,140) | (3,201) | 42,798 | (13,003) | (5,081) | 13,374 |
| 2086 | (5,318) | (538) | 47,761 | (8,723) | (898) | 32,282 |
| 2087 | (11,611) | (5,997) | 42,807 | (18,340) | (9,479) | (2,619) |
| 2088 | (29,062) | (21,306) | 26,893 | (44,981) | (33,539) | (101,994) |
| 2089 | (40,792) | (31,542) | 16,874 | (62,896) | (49,628) | (167,984) |
| 2090 | (1,862) | 3,092 | 58,538 | (3,534) | 4,800 | 61,033 |
| 2091 | 18,537 | 21,352 | 81,801 | 27,553 | 33,493 | 182,736 |
| 2092 | 24,735 | 26,977 | 89,847 | 36,988 | 42,332 | 220,880 |
| 2093 | 29,899 | 31,724 | 97,326 | 44,840 | 49,791 | 253,581 |
| 2094 | 31,048 | 32,922 | 100,791 | 46,567 | 51,671 | 262,999 |
| 2095 | 39,394 | 40,499 | 111,670 | 59,270 | 63,577 | 314,410 |
| 2096 | 41,873 | 42,926 | 117,143 | 63,017 | 67,387 | 332,344 |
| 2097 | 43,194 | 44,257 | 120,546 | 65,009 | 69,478 | 342,485 |
| 2098 | 45,039 | 46,098 | 125,060 | 67,794 | 72,368 | 356,359 |
| 2099 | 58,168 | 57,938 | 141,163 | 87,788 | 90,973 | 436,029 |
| 2100 | 2,838,562 | 2,827,247 | 6,886,995 | 4,284,042 | 4,439,254 | 21,276,100 |
| Total | \$ 1,869,655 | \$ 2,493,576 | \$12,687,059 | \$ 2,713,366 | \$ 3,905,347 | \$ 23,669,003 |

2010 Incremental Costs over 2007 FRP in Escalated Dollar (K\$)

| Year | PA | PB | BA | BB | DA | Total |
|------|----------|----------|----------|----------|----------|-----------|
| 2010 | (16,315) | (27,626) | (36,059) | (46,507) | (37,924) | (164,431) |
| 2011 | (1,615) | (1,490) | (2,453) | (1,388) | 6,947 | 1 |
| 2012 | (2,685) | (2,477) | (4,079) | (2,308) | 11,549 | 0 |
| 2013 | (2,783) | (2,568) | (4,228) | (2,392) | 11,972 | 1 |
| 2014 | (2,865) | (2,643) | (4,353) | (2,463) | 12,323 | (0) |
| 2015 | (2,959) | (2,730) | (4,495) | (2,543) | 12,727 | (0) |
| 2016 | (3,091) | (2,852) | (4,697) | (2,657) | 13,297 | (1) |
| 2017 | (2,575) | (2,376) | (3,912) | (2,213) | 11,078 | 2 |
| 2018 | (2,967) | (2,737) | (4,508) | (2,550) | 12,765 | 2 |
| 2019 | (3,851) | (3,553) | (5,851) | (3,310) | 16,567 | 3 |
| 2020 | (4,201) | (3,876) | (6,383) | (3,611) | 18,075 | 2 |
| 2021 | (3,374) | (3,112) | (5,125) | (2,900) | 14,515 | 4 |
| 2022 | (3,901) | (3,599) | (5,927) | (3,353) | 16,783 | 2 |
| 2023 | (4,056) | (3,742) | (6,162) | (3,486) | 17,449 | 4 |
| 2024 | (6,875) | (6,261) | (9,427) | (5,132) | 36,588 | 8,894 |
| 2025 | (7,748) | (7,048) | (10,539) | (5,719) | 41,806 | 10,753 |
| 2026 | (6,566) | (6,027) | (9,589) | (5,348) | 30,916 | 3,386 |
| 2027 | (5,120) | (4,692) | (7,397) | (4,109) | 24,653 | 3,335 |
| 2028 | (6,561) | (5,949) | (8,693) | (4,666) | 36,991 | 11,122 |
| 2029 | (10,136) | (8,955) | (10,517) | (4,986) | 77,178 | 42,585 |
| 2030 | (14,823) | (12,976) | (13,894) | (6,157) | 123,090 | 75,241 |
| 2031 | (18,317) | (15,795) | (14,224) | (5,360) | 172,368 | 118,673 |
| 2032 | (19,280) | (16,627) | (14,989) | (5,654) | 181,315 | 124,765 |
| 2033 | (16,301) | (14,136) | (13,632) | (5,513) | 146,695 | 97,113 |
| 2034 | (11,410) | (9,988) | (10,695) | (4,739) | 94,755 | 57,924 |
| 2035 | (8,205) | (7,055) | (6,114) | (2,204) | 78,981 | 55,403 |
| 2036 | (8,070) | (6,934) | (5,964) | (2,130) | 78,019 | 54,920 |
| 2037 | (8,630) | (7,435) | (6,621) | (2,464) | 81,761 | 56,611 |
| 2038 | (8,422) | (7,193) | (5,684) | (1,811) | 85,140 | 62,029 |
| 2039 | (9,681) | (8,290) | (6,808) | (2,291) | 95,976 | 68,906 |
| 2040 | (11,217) | (9,599) | (7,799) | (2,587) | 111,825 | 80,623 |
| 2041 | (10,840) | (9,272) | (7,486) | (2,461) | 108,416 | 78,357 |
| 2042 | (10,788) | (9,238) | (7,571) | (2,541) | 107,064 | 76,925 |
| 2043 | (9,141) | (7,796) | (6,025) | (1,856) | 93,401 | 68,583 |
| 2044 | (9,524) | (8,119) | (6,237) | (1,903) | 97,591 | 71,808 |
| 2045 | (11,105) | (9,481) | (7,451) | (2,355) | 112,557 | 82,165 |
| 2046 | (10,689) | (9,093) | (6,770) | (1,960) | 111,105 | 82,594 |
| 2047 | (10,374) | (8,785) | (6,074) | (1,523) | 111,250 | 84,494 |
| 2048 | (10,387) | (8,788) | (5,976) | (1,444) | 112,124 | 85,530 |
| 2049 | (13,794) | (11,659) | (7,809) | (1,821) | 149,764 | 114,682 |
| 2050 | (14,614) | (12,383) | (8,638) | (2,208) | 156,162 | 118,319 |
| 2051 | (11,412) | (9,659) | (6,614) | (1,624) | 122,846 | 93,538 |
| 2052 | (11,065) | (9,357) | (6,313) | (1,498) | 119,796 | 91,563 |
| 2053 | (11,576) | (9,791) | (6,620) | (1,579) | 125,229 | 95,663 |
| 2054 | (11,729) | (9,915) | (6,650) | (1,555) | 127,285 | 97,435 |
| 2055 | (13,099) | (11,075) | (7,454) | (1,758) | 141,956 | 108,569 |
| 2056 | (13,212) | (11,167) | (7,465) | (1,733) | 143,545 | 109,969 |
| 2057 | (15,353) | (13,012) | (9,115) | (2,350) | 163,784 | 123,954 |
| 2058 | (13,573) | (11,471) | (7,653) | (1,768) | 147,583 | 113,118 |
| 2059 | (13,806) | (11,665) | (7,760) | (1,780) | 150,279 | 115,268 |
| 2060 | (15,210) | (12,866) | (8,719) | (2,091) | 164,397 | 125,511 |
| 2061 | (15,116) | (12,772) | (8,499) | (1,951) | 164,514 | 126,176 |

| | | | | | | |
|--------------|-----------------------|-----------------------|---------------------|---------------------|----------------------|---------------------|
| 2062 | (15,788) | (13,342) | (8,907) | (2,061) | 171,617 | 131,519 |
| 2063 | (16,230) | (13,703) | (9,000) | (1,999) | 177,506 | 136,574 |
| 2064 | (16,321) | (13,778) | (9,022) | (1,988) | 178,699 | 137,589 |
| 2065 | (4,705) | (4,036) | (3,391) | (1,176) | 46,081 | 32,772 |
| 2066 | (4,894) | (4,200) | (3,549) | (1,240) | 47,783 | 33,900 |
| 2067 | (3,640) | (3,149) | (2,945) | (1,155) | 33,445 | 22,557 |
| 2068 | (3,621) | (3,127) | (2,868) | (1,102) | 33,689 | 22,971 |
| 2069 | (3,743) | (3,233) | (2,964) | (1,139) | 34,826 | 23,746 |
| 2070 | (3,395) | (2,943) | (2,829) | (1,140) | 30,620 | 20,313 |
| 2071 | (3,513) | (3,048) | (2,961) | (1,206) | 31,454 | 20,727 |
| 2072 | (3,595) | (3,117) | (3,007) | (1,216) | 32,351 | 21,416 |
| 2073 | (3,716) | (3,223) | (3,108) | (1,257) | 33,441 | 22,137 |
| 2074 | (3,841) | (3,331) | (3,213) | (1,299) | 34,569 | 22,884 |
| 2075 | (3,971) | (3,444) | (3,321) | (1,343) | 35,736 | 23,657 |
| 2076 | (4,147) | (3,598) | (3,495) | (1,423) | 37,130 | 24,467 |
| 2077 | (4,244) | (3,680) | (3,549) | (1,435) | 38,193 | 25,284 |
| 2078 | (4,388) | (3,805) | (3,670) | (1,484) | 39,486 | 26,140 |
| 2079 | (4,536) | (3,934) | (3,794) | (1,534) | 40,825 | 27,026 |
| 2080 | (4,690) | (4,067) | (3,923) | (1,586) | 42,210 | 27,943 |
| 2081 | (4,899) | (4,251) | (4,129) | (1,681) | 43,866 | 28,905 |
| 2082 | (5,014) | (4,348) | (4,193) | (1,696) | 45,126 | 29,874 |
| 2083 | (5,185) | (4,496) | (4,336) | (1,754) | 46,661 | 30,890 |
| 2084 | (5,361) | (4,649) | (4,484) | (1,813) | 48,250 | 31,942 |
| 2085 | (5,544) | (4,808) | (4,636) | (1,875) | 49,894 | 33,030 |
| 2086 | (5,792) | (5,026) | (4,882) | (1,988) | 51,861 | 34,174 |
| 2087 | (5,929) | (5,141) | (4,958) | (2,005) | 53,356 | 35,323 |
| 2088 | (6,131) | (5,317) | (5,127) | (2,073) | 55,179 | 36,530 |
| 2089 | (6,341) | (5,499) | (5,302) | (2,144) | 57,065 | 37,779 |
| 2090 | (6,558) | (5,687) | (5,484) | (2,218) | 59,018 | 39,072 |
| 2091 | (6,852) | (5,946) | (5,775) | (2,352) | 61,355 | 40,430 |
| 2092 | (7,015) | (6,083) | (5,866) | (2,372) | 63,131 | 41,795 |
| 2093 | (7,255) | (6,292) | (6,067) | (2,453) | 65,296 | 43,228 |
| 2094 | (7,504) | (6,508) | (6,275) | (2,538) | 67,537 | 44,712 |
| 2095 | (7,762) | (6,731) | (6,491) | (2,625) | 69,857 | 46,248 |
| 2096 | (8,112) | (7,039) | (6,837) | (2,784) | 72,635 | 47,863 |
| 2097 | (8,305) | (7,202) | (6,945) | (2,808) | 74,743 | 49,484 |
| 2098 | (8,591) | (7,450) | (7,183) | (2,905) | 77,316 | 51,187 |
| 2099 | (8,887) | (7,706) | (7,431) | (3,005) | 79,979 | 52,951 |
| 2100 | (438,799) | (381,292) | (376,485) | (155,676) | 3,883,372 | 2,531,120 |
| Total | \$ (1,169,823) | \$ (1,025,934) | \$ (976,120) | \$ (417,859) | \$ 10,511,984 | \$ 6,922,247 |

Cost Flow in 2010 PV Dollar under 2003 Financial Reference Plan (K\$)

| Year | PA | PB | BA | BB | DA | Total |
|------|--------|--------|--------|---------|--------|---------|
| 2010 | 45,894 | 59,339 | 48,094 | 105,501 | 99,219 | 358,046 |
| 2011 | 13,429 | 11,893 | 13,682 | 20,484 | 18,690 | 78,178 |
| 2012 | 17,667 | 15,646 | 18,000 | 26,949 | 24,589 | 102,850 |
| 2013 | 19,317 | 17,108 | 19,682 | 29,467 | 26,886 | 112,459 |
| 2014 | 12,585 | 11,146 | 12,823 | 19,198 | 17,516 | 73,267 |
| 2015 | 14,755 | 13,068 | 15,034 | 22,508 | 20,537 | 85,901 |
| 2016 | 14,833 | 13,137 | 15,113 | 22,627 | 20,645 | 86,354 |
| 2017 | 16,150 | 14,303 | 16,455 | 24,635 | 22,478 | 94,020 |
| 2018 | 18,890 | 16,730 | 19,247 | 28,816 | 26,292 | 109,974 |
| 2019 | 23,902 | 21,168 | 24,353 | 36,460 | 33,267 | 139,150 |
| 2020 | 16,259 | 14,399 | 16,566 | 24,801 | 22,629 | 94,654 |
| 2021 | 15,885 | 14,068 | 16,185 | 24,231 | 22,109 | 92,477 |
| 2022 | 16,208 | 14,354 | 16,514 | 24,724 | 22,559 | 94,360 |
| 2023 | 18,752 | 16,607 | 19,106 | 28,604 | 26,099 | 109,168 |
| 2024 | 16,986 | 15,043 | 17,307 | 25,911 | 23,642 | 98,889 |
| 2025 | 16,212 | 14,357 | 16,517 | 24,729 | 22,563 | 94,379 |
| 2026 | 20,411 | 18,076 | 20,795 | 31,134 | 28,407 | 118,824 |
| 2027 | 20,979 | 18,579 | 21,375 | 32,002 | 29,199 | 122,133 |
| 2028 | 24,715 | 21,888 | 25,181 | 37,700 | 34,398 | 143,883 |
| 2029 | 22,584 | 20,000 | 23,010 | 34,449 | 31,432 | 131,475 |
| 2030 | 23,138 | 20,491 | 23,574 | 35,295 | 32,204 | 134,703 |
| 2031 | 20,093 | 17,795 | 20,472 | 30,650 | 27,966 | 116,976 |
| 2032 | 20,190 | 17,881 | 20,571 | 30,798 | 28,101 | 117,541 |
| 2033 | 20,017 | 17,727 | 20,394 | 30,534 | 27,859 | 116,532 |
| 2034 | 13,546 | 11,997 | 13,802 | 20,663 | 18,854 | 78,862 |
| 2035 | 15,060 | 13,337 | 15,344 | 22,972 | 20,960 | 87,673 |
| 2036 | 16,169 | 14,319 | 16,474 | 24,664 | 22,504 | 94,129 |
| 2037 | 15,773 | 13,969 | 16,070 | 24,060 | 21,953 | 91,825 |
| 2038 | 15,388 | 13,628 | 15,678 | 23,473 | 21,417 | 89,583 |
| 2039 | 15,042 | 13,321 | 15,325 | 22,945 | 20,935 | 87,568 |
| 2040 | 14,644 | 12,969 | 14,920 | 22,338 | 20,381 | 85,252 |
| 2041 | 14,340 | 12,700 | 14,611 | 21,875 | 19,959 | 83,486 |
| 2042 | 13,943 | 12,348 | 14,206 | 21,269 | 19,406 | 81,171 |
| 2043 | 13,606 | 12,050 | 13,863 | 20,755 | 18,937 | 79,211 |
| 2044 | 13,293 | 11,773 | 13,544 | 20,277 | 18,501 | 77,388 |
| 2045 | 12,959 | 11,477 | 13,204 | 19,768 | 18,037 | 75,445 |
| 2046 | 12,723 | 11,267 | 12,963 | 19,407 | 17,707 | 74,067 |
| 2047 | 12,484 | 11,056 | 12,720 | 19,044 | 17,376 | 72,681 |
| 2048 | 12,130 | 10,743 | 12,359 | 18,503 | 16,883 | 70,618 |
| 2049 | 11,854 | 10,498 | 12,077 | 18,082 | 16,498 | 69,008 |
| 2050 | 11,512 | 10,195 | 11,729 | 17,561 | 16,023 | 67,021 |
| 2051 | 11,240 | 9,954 | 11,451 | 17,145 | 15,643 | 65,433 |
| 2052 | 11,139 | 9,865 | 11,349 | 16,992 | 15,504 | 64,849 |
| 2053 | 10,875 | 9,631 | 11,080 | 16,588 | 15,135 | 63,309 |
| 2054 | 8,275 | 7,329 | 8,431 | 12,623 | 11,517 | 48,176 |
| 2055 | 7,780 | 6,890 | 7,926 | 11,867 | 10,828 | 45,291 |
| 2056 | 7,482 | 6,627 | 7,624 | 11,414 | 10,414 | 43,561 |
| 2057 | 7,337 | 6,498 | 7,475 | 11,192 | 10,211 | 42,713 |
| 2058 | 7,131 | 6,316 | 7,266 | 10,878 | 9,925 | 41,516 |
| 2059 | 6,975 | 6,177 | 7,107 | 10,640 | 9,708 | 40,608 |
| 2060 | 6,113 | 5,414 | 6,229 | 9,325 | 8,509 | 35,590 |
| 2061 | 5,486 | 4,858 | 5,589 | 8,368 | 7,635 | 31,935 |

| | | | | | | |
|--------------|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|
| 2062 | 5,347 | 4,735 | 5,447 | 8,156 | 7,441 | 31,126 |
| 2063 | 5,611 | 4,969 | 5,717 | 8,559 | 7,809 | 32,665 |
| 2064 | 5,576 | 4,938 | 5,681 | 8,505 | 7,761 | 32,461 |
| 2065 | 3,906 | 3,459 | 3,980 | 5,958 | 5,437 | 22,740 |
| 2066 | 2,889 | 2,558 | 2,943 | 4,407 | 4,021 | 16,817 |
| 2067 | 2,583 | 2,288 | 2,632 | 3,940 | 3,595 | 15,039 |
| 2068 | 2,406 | 2,131 | 2,452 | 3,670 | 3,349 | 14,008 |
| 2069 | 2,460 | 2,179 | 2,506 | 3,752 | 3,424 | 14,321 |
| 2070 | 2,856 | 2,530 | 2,910 | 4,357 | 3,975 | 16,629 |
| 2071 | 2,768 | 2,452 | 2,820 | 4,223 | 3,853 | 16,116 |
| 2072 | 2,497 | 2,212 | 2,544 | 3,809 | 3,476 | 14,539 |
| 2073 | 2,627 | 2,326 | 2,676 | 4,007 | 3,656 | 15,291 |
| 2074 | 2,807 | 2,486 | 2,860 | 4,282 | 3,907 | 16,343 |
| 2075 | 2,702 | 2,393 | 2,753 | 4,122 | 3,761 | 15,730 |
| 2076 | 1,802 | 1,596 | 1,836 | 2,749 | 2,508 | 10,491 |
| 2077 | 1,667 | 1,476 | 1,698 | 2,542 | 2,320 | 9,702 |
| 2078 | 1,667 | 1,476 | 1,698 | 2,543 | 2,320 | 9,704 |
| 2079 | 1,248 | 1,105 | 1,272 | 1,904 | 1,737 | 7,267 |
| 2080 | 841 | 745 | 857 | 1,283 | 1,171 | 4,898 |
| 2081 | 652 | 577 | 664 | 994 | 907 | 3,793 |
| 2082 | 640 | 566 | 652 | 976 | 890 | 3,724 |
| 2083 | 609 | 539 | 620 | 928 | 847 | 3,543 |
| 2084 | 596 | 528 | 607 | 909 | 830 | 3,471 |
| 2085 | 656 | 581 | 668 | 1,000 | 913 | 3,817 |
| 2086 | 603 | 534 | 614 | 919 | 839 | 3,509 |
| 2087 | 664 | 588 | 677 | 1,013 | 924 | 3,866 |
| 2088 | 855 | 757 | 871 | 1,305 | 1,190 | 4,979 |
| 2089 | 959 | 849 | 977 | 1,463 | 1,335 | 5,583 |
| 2090 | 503 | 445 | 512 | 767 | 699 | 2,926 |
| 2091 | 286 | 253 | 291 | 436 | 398 | 1,663 |
| 2092 | 223 | 197 | 227 | 340 | 310 | 1,296 |
| 2093 | 178 | 158 | 182 | 272 | 248 | 1,038 |
| 2094 | 173 | 154 | 177 | 265 | 241 | 1,010 |
| 2095 | 110 | 98 | 112 | 168 | 153 | 641 |
| 2096 | 102 | 90 | 104 | 155 | 142 | 593 |
| 2097 | 98 | 87 | 100 | 149 | 136 | 569 |
| 2098 | 93 | 83 | 95 | 142 | 130 | 542 |
| 2099 | 16 | 14 | 16 | 24 | 22 | 91 |
| 2100 | 711 | 630 | 725 | 1,085 | 990 | 4,141 |
| Total | \$ 857,136 | \$ 777,788 | \$ 874,636 | \$ 1,342,976 | \$ 1,228,308 | \$ 5,080,844 |

2007 Incremental Costs over 2003 FRP in 2010 PV Dollar (K\$)

| Year | PA | PB | BA | BB | DA | Total |
|------|----------|----------|---------|----------|----------|-----------|
| 2010 | (25,994) | (28,710) | (1,481) | (53,973) | (47,840) | (157,997) |
| 2011 | (7,487) | (5,969) | 809 | (11,518) | (9,389) | (33,555) |
| 2012 | (8,340) | (6,334) | 4,913 | (12,877) | (9,968) | (32,607) |
| 2013 | (10,355) | (8,128) | 2,740 | (15,948) | (12,786) | (44,476) |
| 2014 | (3,623) | (2,182) | 9,387 | (5,676) | (3,443) | (5,537) |
| 2015 | (6,208) | (4,485) | 6,588 | (9,618) | (7,061) | (20,786) |
| 2016 | (6,476) | (4,724) | 6,299 | (10,027) | (7,437) | (22,365) |
| 2017 | (10,031) | (8,078) | 53 | (15,419) | (12,705) | (46,180) |
| 2018 | (12,477) | (10,162) | (1,396) | (19,162) | (15,981) | (59,177) |
| 2019 | (16,282) | (13,318) | (2,548) | (24,998) | (20,944) | (78,090) |
| 2020 | (7,509) | (5,501) | 6,995 | (11,622) | (8,659) | (26,296) |
| 2021 | (9,799) | (7,796) | 1,259 | (15,077) | (12,264) | (43,678) |
| 2022 | (9,494) | (7,433) | 2,755 | (14,626) | (11,694) | (40,492) |
| 2023 | (12,720) | (10,296) | (607) | (19,546) | (16,193) | (59,363) |
| 2024 | (3,245) | (1,094) | 19,374 | (5,210) | (1,742) | 8,082 |
| 2025 | (1,091) | 967 | 23,530 | (1,948) | 1,495 | 22,952 |
| 2026 | (10,975) | (8,276) | 7,219 | (16,952) | (13,024) | (42,009) |
| 2027 | (15,267) | (12,430) | (1,657) | (23,448) | (19,549) | (72,351) |
| 2028 | (16,568) | (13,203) | 1,856 | (25,489) | (20,768) | (74,172) |
| 2029 | (3,155) | (147) | 30,528 | (5,200) | (265) | 21,761 |
| 2030 | 7,961 | 10,983 | 58,248 | 11,567 | 17,211 | 105,970 |
| 2031 | 22,387 | 24,913 | 87,652 | 33,404 | 39,088 | 207,442 |
| 2032 | 22,260 | 24,830 | 87,900 | 33,206 | 38,957 | 207,152 |
| 2033 | 11,719 | 14,383 | 62,986 | 17,290 | 22,553 | 128,932 |
| 2034 | 6,034 | 7,873 | 38,389 | 8,834 | 12,341 | 73,470 |
| 2035 | (1,768) | 369 | 22,872 | (2,981) | 556 | 19,047 |
| 2036 | (4,512) | (2,171) | 18,677 | (7,151) | (3,434) | 1,409 |
| 2037 | (4,090) | (1,784) | 19,274 | (6,509) | (2,826) | 4,065 |
| 2038 | (4,159) | (1,883) | 18,715 | (6,608) | (2,981) | 3,084 |
| 2039 | (2,502) | (266) | 22,308 | (4,103) | (443) | 14,994 |
| 2040 | (109) | 2,073 | 27,539 | (484) | 3,230 | 32,250 |
| 2041 | (1,414) | 756 | 24,166 | (2,452) | 1,163 | 22,218 |
| 2042 | (2,091) | 48 | 22,092 | (3,468) | 52 | 16,633 |
| 2043 | (4,904) | (2,770) | 15,058 | (7,712) | (4,373) | (4,702) |
| 2044 | (4,689) | (2,582) | 15,242 | (7,382) | (4,077) | (3,488) |
| 2045 | (2,845) | (783) | 19,235 | (4,594) | (1,253) | 9,759 |
| 2046 | (3,719) | (1,665) | 16,968 | (5,912) | (2,638) | 3,034 |
| 2047 | (4,334) | (2,291) | 15,305 | (6,838) | (3,620) | (1,778) |
| 2048 | (4,553) | (2,544) | 14,333 | (7,163) | (4,017) | (3,943) |
| 2049 | (468) | 1,483 | 23,716 | (993) | 2,307 | 26,044 |
| 2050 | (124) | 1,789 | 24,083 | (468) | 2,788 | 28,068 |
| 2051 | (4,352) | (2,429) | 13,740 | (6,848) | (3,835) | (3,724) |
| 2052 | (5,315) | (3,379) | 11,506 | (8,302) | (5,328) | (10,817) |
| 2053 | (5,088) | (3,179) | 11,730 | (7,955) | (5,013) | (9,505) |
| 2054 | (1,392) | 55 | 15,005 | (2,312) | 71 | 11,427 |
| 2055 | 87 | 1,451 | 17,605 | (69) | 2,263 | 21,335 |
| 2056 | 4 | 1,331 | 16,927 | (189) | 2,075 | 20,147 |
| 2057 | 1,308 | 2,613 | 19,874 | 1,783 | 4,088 | 29,666 |
| 2058 | (430) | 867 | 15,462 | (838) | 1,347 | 16,408 |
| 2059 | (609) | 675 | 14,854 | (1,106) | 1,045 | 14,859 |
| 2060 | 1,309 | 2,431 | 17,544 | 1,810 | 3,804 | 26,897 |
| 2061 | 1,762 | 2,775 | 17,279 | 2,510 | 4,346 | 28,671 |

| | | | | | | |
|--------------|---------------------|--------------------|---------------------|---------------------|---------------------|-------------------|
| 2062 | 1,876 | 2,873 | 17,357 | 2,684 | 4,500 | 29,289 |
| 2063 | 1,150 | 2,215 | 16,423 | 1,579 | 3,466 | 24,832 |
| 2064 | 676 | 1,750 | 15,364 | 863 | 2,736 | 21,390 |
| 2065 | (4,456) | (3,655) | (822) | (6,841) | (5,748) | (21,522) |
| 2066 | (2,660) | (2,066) | 979 | (4,100) | (3,251) | (11,098) |
| 2067 | (3,016) | (2,474) | (565) | (4,630) | (3,891) | (14,576) |
| 2068 | (2,807) | (2,297) | (452) | (4,309) | (3,612) | (13,477) |
| 2069 | (2,982) | (2,454) | (659) | (4,576) | (3,859) | (14,529) |
| 2070 | (4,074) | (3,450) | (2,135) | (6,238) | (5,424) | (21,321) |
| 2071 | (3,986) | (3,374) | (2,077) | (6,103) | (5,305) | (20,844) |
| 2072 | (3,533) | (2,976) | (1,651) | (5,411) | (4,678) | (18,249) |
| 2073 | (3,865) | (3,271) | (2,012) | (5,917) | (5,143) | (20,208) |
| 2074 | (4,307) | (3,665) | (2,486) | (6,592) | (5,762) | (22,812) |
| 2075 | (4,170) | (3,545) | (2,368) | (6,382) | (5,573) | (22,038) |
| 2076 | (2,366) | (1,949) | (540) | (3,630) | (3,064) | (11,549) |
| 2077 | (2,147) | (1,757) | (350) | (3,296) | (2,764) | (10,315) |
| 2078 | (2,202) | (1,808) | (428) | (3,380) | (2,843) | (10,659) |
| 2079 | (1,356) | (1,060) | 413 | (2,090) | (1,668) | (5,762) |
| 2080 | (517) | (319) | 1,247 | (809) | (502) | (899) |
| 2081 | (127) | 26 | 1,636 | (214) | 39 | 1,361 |
| 2082 | (139) | 13 | 1,592 | (232) | 18 | 1,251 |
| 2083 | (100) | 46 | 1,612 | (172) | 71 | 1,456 |
| 2084 | (101) | 43 | 1,591 | (174) | 66 | 1,425 |
| 2085 | (267) | (105) | 1,403 | (426) | (167) | 438 |
| 2086 | (167) | (17) | 1,497 | (273) | (28) | 1,012 |
| 2087 | (348) | (180) | 1,282 | (549) | (284) | (78) |
| 2088 | (832) | (610) | 770 | (1,288) | (961) | (2,921) |
| 2089 | (1,117) | (864) | 462 | (1,722) | (1,359) | (4,600) |
| 2090 | (49) | 81 | 1,532 | (93) | 126 | 1,598 |
| 2091 | 464 | 534 | 2,047 | 690 | 838 | 4,573 |
| 2092 | 592 | 645 | 2,150 | 885 | 1,013 | 5,285 |
| 2093 | 684 | 726 | 2,226 | 1,026 | 1,139 | 5,800 |
| 2094 | 679 | 720 | 2,204 | 1,018 | 1,130 | 5,751 |
| 2095 | 824 | 847 | 2,335 | 1,239 | 1,329 | 6,573 |
| 2096 | 837 | 858 | 2,341 | 1,259 | 1,347 | 6,643 |
| 2097 | 825 | 846 | 2,303 | 1,242 | 1,328 | 6,544 |
| 2098 | 823 | 842 | 2,285 | 1,238 | 1,322 | 6,510 |
| 2099 | 1,016 | 1,012 | 2,465 | 1,533 | 1,589 | 7,615 |
| 2100 | 47,393 | 47,204 | 114,986 | 71,527 | 74,119 | 355,229 |
| Total | \$ (179,585) | \$ (63,947) | \$ 1,126,859 | \$ (303,031) | \$ (104,487) | \$ 475,809 |

2010 Incremental Costs over 2007 FRP in 2010 PV Dollar (K\$)

| Year | PA | PB | BA | BB | DA | Total |
|------|----------|----------|----------|----------|----------|-----------|
| 2010 | (15,568) | (26,361) | (34,408) | (44,377) | (36,187) | (156,900) |
| 2011 | (1,470) | (1,356) | (2,234) | (1,264) | 6,325 | 1 |
| 2012 | (2,333) | (2,152) | (3,544) | (2,005) | 10,034 | 0 |
| 2013 | (2,307) | (2,129) | (3,505) | (1,983) | 9,925 | 1 |
| 2014 | (2,266) | (2,091) | (3,443) | (1,948) | 9,748 | (0) |
| 2015 | (2,233) | (2,060) | (3,393) | (1,920) | 9,606 | (0) |
| 2016 | (2,226) | (2,054) | (3,383) | (1,914) | 9,577 | (1) |
| 2017 | (1,770) | (1,633) | (2,689) | (1,521) | 7,613 | 1 |
| 2018 | (1,946) | (1,795) | (2,956) | (1,672) | 8,371 | 1 |
| 2019 | (2,410) | (2,223) | (3,661) | (2,071) | 10,367 | 2 |
| 2020 | (2,509) | (2,314) | (3,811) | (2,156) | 10,792 | 1 |
| 2021 | (1,922) | (1,773) | (2,920) | (1,652) | 8,269 | 2 |
| 2022 | (2,121) | (1,957) | (3,222) | (1,823) | 9,124 | 1 |
| 2023 | (2,104) | (1,941) | (3,196) | (1,808) | 9,051 | 2 |
| 2024 | (3,403) | (3,099) | (4,666) | (2,540) | 18,110 | 4,402 |
| 2025 | (3,659) | (3,329) | (4,977) | (2,701) | 19,745 | 5,079 |
| 2026 | (2,959) | (2,716) | (4,321) | (2,410) | 13,933 | 1,526 |
| 2027 | (2,202) | (2,018) | (3,181) | (1,767) | 10,601 | 1,434 |
| 2028 | (2,692) | (2,441) | (3,567) | (1,915) | 15,178 | 4,564 |
| 2029 | (3,968) | (3,506) | (4,118) | (1,952) | 30,218 | 16,674 |
| 2030 | (5,538) | (4,848) | (5,191) | (2,300) | 45,987 | 28,110 |
| 2031 | (6,530) | (5,631) | (5,071) | (1,911) | 61,448 | 42,306 |
| 2032 | (6,558) | (5,656) | (5,099) | (1,923) | 61,677 | 42,441 |
| 2033 | (5,291) | (4,588) | (4,425) | (1,790) | 47,615 | 31,521 |
| 2034 | (3,534) | (3,093) | (3,312) | (1,468) | 29,347 | 17,940 |
| 2035 | (2,425) | (2,085) | (1,807) | (651) | 23,342 | 16,373 |
| 2036 | (2,276) | (1,955) | (1,682) | (601) | 22,001 | 15,487 |
| 2037 | (2,322) | (2,001) | (1,782) | (663) | 22,000 | 15,233 |
| 2038 | (2,162) | (1,847) | (1,459) | (465) | 21,860 | 15,926 |
| 2039 | (2,372) | (2,031) | (1,668) | (561) | 23,514 | 16,882 |
| 2040 | (2,622) | (2,244) | (1,823) | (605) | 26,142 | 18,848 |
| 2041 | (2,418) | (2,068) | (1,670) | (549) | 24,184 | 17,479 |
| 2042 | (2,296) | (1,966) | (1,612) | (541) | 22,789 | 16,374 |
| 2043 | (1,857) | (1,583) | (1,224) | (377) | 18,970 | 13,929 |
| 2044 | (1,846) | (1,573) | (1,209) | (369) | 18,913 | 13,916 |
| 2045 | (2,054) | (1,753) | (1,378) | (435) | 20,815 | 15,194 |
| 2046 | (1,886) | (1,605) | (1,195) | (346) | 19,605 | 14,574 |
| 2047 | (1,747) | (1,479) | (1,023) | (256) | 18,732 | 14,226 |
| 2048 | (1,669) | (1,412) | (960) | (232) | 18,014 | 13,741 |
| 2049 | (2,115) | (1,787) | (1,197) | (279) | 22,959 | 17,581 |
| 2050 | (2,138) | (1,811) | (1,264) | (323) | 22,844 | 17,308 |
| 2051 | (1,593) | (1,348) | (923) | (227) | 17,147 | 13,056 |
| 2052 | (1,474) | (1,246) | (841) | (200) | 15,955 | 12,195 |
| 2053 | (1,471) | (1,244) | (841) | (201) | 15,915 | 12,158 |
| 2054 | (1,422) | (1,202) | (806) | (189) | 15,435 | 11,816 |
| 2055 | (1,516) | (1,282) | (863) | (203) | 16,426 | 12,563 |
| 2056 | (1,459) | (1,233) | (824) | (191) | 15,849 | 12,142 |
| 2057 | (1,618) | (1,371) | (960) | (248) | 17,256 | 13,059 |
| 2058 | (1,365) | (1,153) | (769) | (178) | 14,837 | 11,372 |
| 2059 | (1,324) | (1,119) | (744) | (171) | 14,416 | 11,057 |
| 2060 | (1,392) | (1,178) | (798) | (191) | 15,048 | 11,488 |
| 2061 | (1,320) | (1,116) | (742) | (170) | 14,369 | 11,020 |

| | | | | | | |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|
| 2062 | (1,316) | (1,112) | (742) | (172) | 14,303 | 10,961 |
| 2063 | (1,291) | (1,090) | (716) | (159) | 14,116 | 10,861 |
| 2064 | (1,238) | (1,045) | (685) | (151) | 13,560 | 10,440 |
| 2065 | (341) | (292) | (246) | (85) | 3,337 | 2,373 |
| 2066 | (338) | (290) | (245) | (86) | 3,301 | 2,342 |
| 2067 | (240) | (208) | (194) | (76) | 2,205 | 1,487 |
| 2068 | (228) | (197) | (180) | (69) | 2,119 | 1,445 |
| 2069 | (225) | (194) | (178) | (68) | 2,090 | 1,425 |
| 2070 | (194) | (169) | (162) | (65) | 1,754 | 1,163 |
| 2071 | (192) | (167) | (162) | (66) | 1,719 | 1,133 |
| 2072 | (187) | (163) | (157) | (63) | 1,687 | 1,117 |
| 2073 | (185) | (160) | (155) | (63) | 1,664 | 1,102 |
| 2074 | (182) | (158) | (153) | (62) | 1,641 | 1,087 |
| 2075 | (180) | (156) | (150) | (61) | 1,619 | 1,072 |
| 2076 | (179) | (156) | (151) | (62) | 1,605 | 1,058 |
| 2077 | (175) | (152) | (146) | (59) | 1,575 | 1,043 |
| 2078 | (173) | (150) | (144) | (58) | 1,554 | 1,029 |
| 2079 | (170) | (148) | (142) | (58) | 1,533 | 1,015 |
| 2080 | (168) | (146) | (141) | (57) | 1,513 | 1,001 |
| 2081 | (168) | (145) | (141) | (57) | 1,500 | 988 |
| 2082 | (164) | (142) | (137) | (55) | 1,472 | 975 |
| 2083 | (161) | (140) | (135) | (55) | 1,453 | 962 |
| 2084 | (159) | (138) | (133) | (54) | 1,433 | 949 |
| 2085 | (157) | (136) | (131) | (53) | 1,414 | 936 |
| 2086 | (157) | (136) | (132) | (54) | 1,403 | 924 |
| 2087 | (153) | (133) | (128) | (52) | 1,377 | 912 |
| 2088 | (151) | (131) | (126) | (51) | 1,359 | 900 |
| 2089 | (149) | (129) | (125) | (50) | 1,341 | 888 |
| 2090 | (147) | (128) | (123) | (50) | 1,323 | 876 |
| 2091 | (147) | (127) | (124) | (50) | 1,313 | 865 |
| 2092 | (143) | (124) | (120) | (48) | 1,289 | 853 |
| 2093 | (141) | (123) | (118) | (48) | 1,272 | 842 |
| 2094 | (140) | (121) | (117) | (47) | 1,256 | 831 |
| 2095 | (138) | (119) | (115) | (47) | 1,239 | 820 |
| 2096 | (137) | (119) | (116) | (47) | 1,229 | 810 |
| 2097 | (134) | (116) | (112) | (45) | 1,207 | 799 |
| 2098 | (132) | (115) | (111) | (45) | 1,192 | 789 |
| 2099 | (131) | (113) | (109) | (44) | 1,176 | 779 |
| 2100 | (6,157) | (5,350) | (5,283) | (2,184) | 54,492 | 35,517 |
| Total | \$ (155,845) | \$ (149,396) | \$ (168,842) | \$ (104,889) | \$ 1,108,449 | \$ 529,477 |

ARO Balance for Used Fuel Long-Term Management Program in 2010 PV K\$

| | PA | PB | BA | BB | DA | Total |
|--------------------------|-----------|-----------|-----------|-----------|-----------|--------------|
| Before Adjustment | 677,551 | 713,841 | 2,001,495 | 1,039,945 | 1,123,821 | 5,556,653 |
| Adjustment | (155,845) | (149,396) | (168,842) | (104,889) | 1,108,449 | 529,477 |
| After Adjustment | 521,706 | 564,445 | 1,832,652 | 935,056 | 2,232,271 | 6,086,130 |

| | Life Cycle Used Fuel Bundle Projection (2007 ONFA Reference Plan - Pre-A3) | | | | | |
|--------------------------|---|----------------|----------------|----------------|----------------|------------------|
| | BA | BB | PA | PB | DA | Total |
| 2006 Life to Date | 392,379 | 467,820 | 303,720 | 287,766 | 326,365 | 1,778,050 |
| 2007 | 7,886 | 23,712 | 6,257 | 14,706 | 22,245 | 74,806 |
| 2008 | 16,716 | 22,895 | 6,257 | 13,601 | 22,541 | 82,010 |
| 2009 | 15,714 | 22,895 | 6,257 | 13,601 | 22,541 | 81,008 |
| 2010 | 21,954 | 22,895 | 6,257 | 13,601 | 22,541 | 87,248 |
| 2011 | 20,952 | 22,895 | 6,257 | 13,601 | 22,541 | 86,246 |
| 2012 | 20,952 | 11,447 | 6,257 | 13,601 | 22,541 | 74,798 |
| 2013 | 20,952 | 5,724 | 6,257 | 13,601 | 22,541 | 69,075 |
| 2014 | 20,952 | | 6,257 | 6,800 | 22,541 | 56,550 |
| 2015 | 24,881 | | 6,257 | 3,400 | 22,541 | 57,079 |
| 2016 | 24,881 | | 6,257 | | 22,541 | 53,679 |
| 2017 | 24,900 | | 6,257 | | 22,541 | 53,698 |
| 2018 | 18,660 | | 6,257 | | 22,541 | 47,458 |
| 2019 | 18,660 | | 6,257 | | 16,906 | 41,823 |
| 2020 | 18,660 | | 6,257 | | 5,635 | 30,552 |
| 2021 | 18,660 | | 6,257 | | | 24,917 |
| 2022 | 18,660 | | | | | 18,660 |
| 2023 | 18,660 | | | | | 18,660 |
| 2024 | 18,660 | | | | | 18,660 |
| 2025 | 18,660 | | | | | 18,660 |
| 2026 | 18,660 | | | | | 18,660 |
| 2027 | 18,660 | | | | | 18,660 |
| 2028 | 18,660 | | | | | 18,660 |
| 2029 | 18,660 | | | | | 18,660 |
| 2030 | 18,660 | | | | | 18,660 |
| 2031 | 18,660 | | | | | 18,660 |
| 2032 | 18,660 | | | | | 18,660 |
| 2033 | 18,660 | | | | | 18,660 |
| 2034 | 18,660 | | | | | 18,660 |
| 2035 | 6,220 | | | | | 6,220 |
| 2036 | 6,220 | | | | | 6,220 |
| 2037 | | | | | | - |
| 2038 | | | | | | - |
| 2039 | | | | | | - |
| 2040 | | | | | | - |
| 2041 | | | | | | - |
| 2042 | | | | | | - |
| 2043 | | | | | | - |
| 2044 | | | | | | - |
| 2045 | | | | | | - |
| 2046 | | | | | | - |
| 2047 | | | | | | - |
| 2048 | | | | | | - |
| 2049 | | | | | | - |
| 2050 | | | | | | - |
| Total | 942,779 | 600,283 | 397,575 | 394,278 | 619,102 | 2,954,017 |

| | Life Cycle Used Fuel Bundle Projection (Darlington Refurb Scenario - A3) | | | | | |
|--------------------------|---|----------------|----------------|----------------|------------------|------------------|
| | BA | BB | PA | PB | DA | Total |
| 2009 Life to Date | 434,385 | 535,471 | 314,855 | 323,090 | 392,424 | 2,000,225 |
| 2010 | 19,301 | 23,209 | 5,239 | 12,503 | 22,648 | 82,900 |
| 2011 | 14,673 | 24,159 | 5,785 | 14,032 | 23,549 | 82,198 |
| 2012 | 22,506 | 24,159 | 6,023 | 14,213 | 23,648 | 90,549 |
| 2013 | 22,506 | 24,159 | 5,668 | 13,773 | 21,895 | 88,001 |
| 2014 | 22,506 | 24,159 | 5,668 | 6,886 | 21,895 | 81,114 |
| 2015 | 23,120 | | 5,668 | 3,443 | 22,535 | 54,765 |
| 2016 | 16,880 | | 5,668 | | 23,141 | 45,688 |
| 2017 | 22,506 | | 5,668 | | 16,901 | 45,075 |
| 2018 | 22,506 | | 5,668 | | 23,141 | 51,315 |
| 2019 | 22,506 | | 5,668 | | 16,901 | 45,075 |
| 2020 | 22,506 | | 5,668 | | 23,141 | 51,315 |
| 2021 | 22,506 | | 5,668 | | 16,901 | 45,075 |
| 2022 | 22,506 | | | | 23,141 | 45,647 |
| 2023 | 22,506 | | | | 16,901 | 39,407 |
| 2024 | 22,506 | | | | 16,901 | 39,407 |
| 2025 | 22,506 | | | | 22,535 | 45,041 |
| 2026 | 22,506 | | | | 22,535 | 45,041 |
| 2027 | 22,506 | | | | 22,535 | 45,041 |
| 2028 | 22,506 | | | | 22,535 | 45,041 |
| 2029 | 22,506 | | | | 22,535 | 45,041 |
| 2030 | 22,506 | | | | 22,535 | 45,041 |
| 2031 | 22,506 | | | | 22,535 | 45,041 |
| 2032 | 22,506 | | | | 22,535 | 45,041 |
| 2033 | 22,506 | | | | 22,535 | 45,041 |
| 2034 | 22,506 | | | | 22,535 | 45,041 |
| 2035 | 11,253 | | | | 22,535 | 33,788 |
| 2036 | 11,253 | | | | 22,535 | 33,788 |
| 2037 | 5,627 | | | | 22,535 | 28,161 |
| 2038 | | | | | 22,535 | 22,535 |
| 2039 | | | | | 22,535 | 22,535 |
| 2040 | | | | - | 22,535 | 22,535 |
| 2041 | | | | - | 22,535 | 22,535 |
| 2042 | | | | - | 22,535 | 22,535 |
| 2043 | | | | - | 22,535 | 22,535 |
| 2044 | | | | - | 22,535 | 22,535 |
| 2045 | | | | - | 22,535 | 22,535 |
| 2046 | | | | - | 22,535 | 22,535 |
| 2047 | | | | - | 22,535 | 22,535 |
| 2048 | | | | - | 16,901 | 16,901 |
| 2049 | | | | - | 16,901 | 16,901 |
| 2050 | | | | | 11,267 | 11,267 |
| 2051 | | | | | 11,267 | 11,267 |
| 2052 | | | | | 5,634 | 5,634 |
| 2053 | | | | | 5,634 | 5,634 |
| Total | 1,009,116 | 655,316 | 382,914 | 387,940 | 1,291,558 | 3,726,845 |