**Universal Service Fund**
**Loop Cost and Expense Adjustment Algorithms**

## Cost Company Loop Cost Algorithm for 1997 and Subsequent Years

| Line | Formula | Description |
|---|---|---|
| 1. | (DL255 * (DL710/DL700)) + DL820 | Cable & Wire Facilities plus C&WF portion of Capital Leases assigned to Category 1 |
| 2. | DL250 + DL810 | Central Office Equipment plus COE portion of Capital leases assigned to Category 4.13 |
| 3. | AL1/(DL255 + DL815) | "A" Factor Cable & Wire Facilities. C&WF Category 1 divided by Total C&WF |
| 4. | AL2/(DL230 + DL235 + DL240 + DL805) | "B" Factor Central Office Equipment. COE Category 4.13 divided by Total COE |
| 5. | AL1/DL160 | "C" Factor Cable & Wire Facilities (Gross Allocator) C&WF Category 1 divided by Total Plant in Service |
| 6. | AL2/DL160 | "D" Factor Central Office Equipment (Gross Allocator) COE Category 4.13 divided by Total Plant In Service |
| 7. | AL5 * DL170 | Materials & Supplies assigned to Cable & Wire Facilities Category 1 |
| 8. | AL6 * DL170 | Material & Supplies assigned to Central Office Equipment Category 4.13 |
| 9. | AL3 * ((DL280 + DL330) + (DL815/DL800) * DL195) | Accumulated Depreciation plus Accumulated Amortization plus Net Noncurrent Deferred Operating Income Taxes assigned to C&WF Category 1 |
| 10. | AL4 * ((DL260 + DL265 + DL270 + DL310 + DL315 + DL320) + (DL805/DL800) * DL195) | Accumulated Depreciation plus Accumulated Amortization plus Net Noncurrent Deferred Operating Income Taxes assigned COE Category 4.13 |
| 11. | [Reserved] | |
| 12. | [Reserved] | |
| 13. | AL3 * (DL430 - DL435 - DL440) | Cable & Wire Facilities Maintenance Expense assigned to Category 1 |

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| Line | Formula | Description |
|---|---|---|
| 14. | AL4 * (DL365 + DL380 + DL395 - DL370 - DL375 - DL385 - DL390 - DL400 - DL405) | Central Office Equipment Maintenance Expense assigned to Category 4.13 |
| 15. | (AL5 + AL6) * (DL335 + DL350 - DL340 - DL345 - DL355 - DL360) | Network Support Expenses plus General Support Expenses assigned to C&WF Category 1 and COE Category 4.13 |
| 16 | (AL5 + AL6) * (L450 - L455) | Network Operations Expenses assigned to C&WF Category 1 and COE Category 4.13 |
| 17. | AL3 * (DL530 + ((DL815/DL800) * DL830)) | Depreciation and Amortization Expense assigned to C&WF Category 1 |
| 18. | AL4 * ((DL510 + DL515 + DL520) + ((DL805/DL800) * DL830)) | Depreciation and Amortization Expense assigned to COE Category 4.13 |
| 19. | (AL5 + AL6) * (DL535 + DL550)<br>(Adjusted for Corporate Operations Expense Limitation) | Corporate Operations Expense assigned to C&WF Category 1 and COE Category 4.13, limited in accordance with §36.621(a)(4) |
| 20. | (AL5 + AL6) * DL650 | Operating Taxes assigned to C&WF Category 1 and COE Category 4.13 |
| 21. | (AL5 + AL6) * (DL600 - DL540 - DL555) | Benefits other that Corporate Operations Expense assigned to C&WF Category 1 and COE Category 4.13 |
| 22. | (AL5 + AL6) * DL610 | Rents assigned to C&WF Category 1 and COE Category 4.13 |
| 23. | (AL1 + AL7 - AL9) * 0.1125 | Return Component for C&WF Category 1 |
| 24. | (AL2 + AL8 - AL10) * 0.1125 | Return Component for COE Category 4.13 |
| 25a. | AL17 + AL18 + AL23 + AL24<br>(Adjusted for Capex Benchmark Limits) | Total Capex Costs |
| 25b. | AL13 + AL14 + AL15 + AL16 + AL19 + AL20 + AL21 + AL22<br>(Adjusted for Opex Benchmark Limits) | Total Opex Costs |

## Cost Company Loop Cost Algorithm for 1997 and Subsequent Years

| | | |
|---|---|---|
| 25c. | AL25a + AL25b<br>(Adjusted for Capex Opex Benchmark Limits) | Total Unseparated Costs |
| 26. | AL25c/DL060 | Study Area Cost per Loop (SACPL) |

## Corporate Operations Expense Limitation

The Cost Company Loop Cost Algorithm at Line 19 limits Corporate Operation Expenses in accordance with §36.621(a)(4).

Step 1: ***Total Reported Corporate Operations Expense per loop per month*** is calculated by summing DL535 (Account 6710) and DL550 (Account 6720). This resulting amount is then divided by DL060 (Total Loops) and 12 (months) to yield a per line per month number.

Step 2: ***Total Allowed Corporate Operations Expense per loop per month*** is determined for specific working line groupings as defined in the FCC Part 36.621(a)(4) rules:

- **Effective for the period January 1, 2002 through December 31, 2011**

  Total Allowed Corporate Operations Expense per loop per month is adjusted annually to reflect the percentage change in Gross Domestic Product-Chained Price Index (GDPCPI).

  For study areas with 6,000 or fewer USF Loops (DL070):
  [$33.30853 – ($0.00246 x DL070)] x GDPCPI or
  [50,000 / DL070] x GDPCPI, whichever is or greater

  For study areas with more than 6,000 but fewer than 18,006 USF Loops (DL070):
  [$3.83195 + (88,429.20 / DL070)] x GDPCPI

  For study areas with 18,006 or more USF Loops (DL070):
  $8.74472 x GDPCPI

- **Effective January 1, 2012**

  The GDPCPI factor for 2012 was re-indexed to 1 to reflect the use of a modified formula. Beginning January 1, 2013 the monthly per loop limit shall be adjusted annually to reflect the percentage change in GDPCPI.

  For study areas with 6,000 or fewer Total Loops (DL060):
  [$42.337 – ($0.00328 x DL060)] x GDPCPI or
  [63,000 / DL060] x GDPCPI, whichever is or greater

  For study areas with more than 6,000 but fewer than 17,887 Total Loops (DL060):
  [$3.007 + (117,990 / DL060)] x GDPCPI

  For study areas with 17,887 or more Total Loops (DL060):
  $9.562 x GDPCPI

Note: §36.621(a)(4) uses the terms Working Loops and Total Working Loops, with Working Loops = USF Loops (DL070) and with Total Working Loops = Total Loops (DL060).

The GDPCPI values currently in effect are as follows:

| | |
|---|---|
| January 1, 2009 through December 31, 2009 (Applies to 2008-1, -2, -3, -4) | 1.207662 |
| January 1, 2010 through December 31, 2010 (Applies to 2009-1, -2, -3, -4) | 1.233356 |
| January 1, 2011 through December 31, 2011 (Applies to 2010-1, -2, -3, -4) | 1.244940 |
| January 1, 2012 through December 31, 2012 (Applies to 2011-1, -2, -3, -4) | 1.000000 |
| January 1, 2013 through December 31, 2013 (Applies to 2012-1, -2, -3, -4) | 1.021324 |
| January 1, 2014 through December 31, 2014 (Applies to 2013-1, -2, -3, -4) | 1.039187 |

**Step 3:** ***Limitation Test*** – compare the Total Reported Corporate Operations Expense per loop per month to the Total Allowed Corporate Operations Expense per loop per month.

- If the limitation is not exceeded, the Total Reported Corporate Operations Expense as reported for the study area is used in the cost per loop algorithm.

- If the limitation is exceeded, the Total Allowed Corporate Operations Expense is calculated by multiplying the Total Allowed Corporate Operations Expense per loop per month by DL060 (Total Loops) and 12 (months).

**Limits on Capital and Operating Expenses**

Beginning July 1, 2012 there is a limitation on allowable Capital Expenses (Capex) and Operating Expenses (Opex). Algorithm Line 25 has been split into separate Capex and Opex amounts which are compared to benchmark limit values published by the FCC and the lesser of the calculated value and limit value will be used in the calculation. The impact of the limits will be phased in. For the period July – December 2012, support will be reduced by 25% of the difference between support calculated using the study area's reported data and the support as calculated using the Capex Opex limits (unless that reduction would exceed 10% of support). For the period January – March 2013 support will be reduced by 50% of the difference between support calculated using the study area's reported data and the support as calculated using the Capex Opex limits.

For the period April – December 2014 the Capex and Opex limits will be summed and compared to the sum of the reported capex and opex amounts, support will be reduced by 50% of the difference between support calculated using the study area's reported data and the support as calculated using the Capex Opex limit (unless that reduction would exceed 15% of the difference between support calculated using the study area's reported data and the support as calculated using the Capex Opex limit). Beginning January 2015 a single benchmark combining Capex and Opex will be used, and support will be limited in full by the benchmarks.

## National Average Cost Per Loop Algorithm

- **Cost Study Area USF Unseparated Costs** =

  Cost Study Area Total Unseparated Costs * (Study Area USF Loops/Study Area Total Loops)

- **Nationwide USF Unseparated Costs** =

  Sum of Cost Study Area USF Unseparated Costs
  + Sum of Average Schedule Study Area USF Unseparated Costs

- **Nationwide Average Cost Per Loop (NACPL)** =

  (Nationwide USF Unseparated Costs) / (Nationwide USF Loops)

**Universal Service Fund**
**Loop Cost and Expense Adjustment Algorithms**

**Expense Adjustment Algorithm**

- **Study Areas Reporting 200,000 or Fewer Loops**
  - SACPL less than or equal to 115% NACPL: 0
  - SACPL in excess of 115% NACPL, but not greater than 150% NACPL:
    - ( .65 * (SACPL – 115% of NACPL)) * USF Loops
  - SACPL in excess of 150% NACPL:
    - ((.65 * (150% of NACPL – 115% of NACPL)) + (.75 * (SACPL – 150% of NACPL))) * USF Loops

- **Study Areas Reporting More Than 200,000 Loops**
  - SACPL less than or equal to 115% NACPL: 0
  - SACPL in excess of 115% NACPL, but not greater than 160% NACPL:
    - (.10 * (SACPL – 115% of NACPL)) * USF Loops
  - SACPL in excess of 160% NACPL, but not greater than 200% NACPL:
    - ((.10 * (160% of NACPL – 115% of NACPL)) + (.30 * (SACPL – 160% of NACPL))) * USF Loops
  - SACPL in excess of 200% NACPL, but not greater than 250% NACPL:
    - ((.10 * (160% of NACPL – 115% of NACPL)) + (.30 * (200% of NACPL – 160% of NACPL)) + (.60 * (SACPL – 200% of NACPL))) * USF Loops
  - SACPL in excess of 250% NACPL:
    - ((.10 * (160% of NACPL – 115% of NACPL)) + (.30 * (200% of NACPL – 160% of NACPL)) + (.60 * (250% of NACPL – 200% of NACPL)) + (.75 * (SACPL – 250% of NACPL)))* USF Loops