

A VISTA UTILITIES  
 Washington Electric Cost Study  
 Twelve Months Ended December 31, 1998  
 Non-Coincident Peak Calculations

**1993 Peak Study**  
**Non-Coincident Peak**

|                         | Jan              | Feb            | Mar            | Apr            | May            | Jun            | Jul            | Aug            | Sep            | Oct            | Nov            | Dec            |
|-------------------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Washington</b>       |                  |                |                |                |                |                |                |                |                |                |                |                |
| Schedule 1              | 577,190          | 515,032        | 507,269        | 405,174        | 301,466        | 280,244        | 284,028        | 306,650        | 304,056        | 383,043        | 519,237        | 463,826        |
| Schedule 11/12          | 81,423           | 95,501         | 59,016         | 69,270         | 63,245         | 60,840         | 60,840         | 67,723         | 65,728         | 70,681         | 70,681         | 76,175         |
| Schedule 21/22          | 245,209          | 242,794        | 239,874        | 228,996        | 246,169        | 228,756        | 210,277        | 259,990        | 253,386        | 235,395        | 237,279        | 237,547        |
| Schedule 25             | 104,393          | 101,195        | 93,879         | 95,256         | 97,633         | 95,784         | 95,942         | 99,415         | 96,972         | 96,150         | 95,310         | 97,267         |
| Schedule 28             | 2,280            | -              | 2,620          | 2,250          | 614            | 1,430          | 3,720          | -              | -              | 300            | 3,610          | 2,530          |
| Schedule 29 (Exchange)  | 3,804            | 4,350          | 2,994          | 3,631          | 5,766          | 7,839          | 8,190          | 5,804          | 9,269          | 5,796          | 4,091          | 2,765          |
| Schedule 31/32          | 5,146            | 4,847          | 5,160          | 8,670          | 17,677         | 28,891         | 23,189         | 18,247         | 24,227         | 16,077         | 8,483          | 5,116          |
| Schedule 41-46          | 3,818            | 3,818          | 3,818          | 3,818          | 3,818          | 3,818          | 3,818          | 3,818          | 3,818          | 3,818          | 3,818          | 3,818          |
| Schedule 47-49          | 2,472            | 2,472          | 2,472          | 2,472          | 2,472          | 2,472          | 2,472          | 2,472          | 2,472          | 2,472          | 2,472          | 2,472          |
| <b>Total Washington</b> | <b>1,025,735</b> | <b>970,009</b> | <b>917,102</b> | <b>819,537</b> | <b>738,860</b> | <b>713,959</b> | <b>692,476</b> | <b>769,119</b> | <b>761,548</b> | <b>808,779</b> | <b>944,981</b> | <b>891,516</b> |

**monthly kWh consumption**

|                         | Jan                | Feb                | Mar                | Apr                | May                | Jun                | Jul                | Aug                | Sep                | Oct                | Nov                | Dec                |
|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Washington</b>       |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Schedule 1              | 292,414,660        | 234,177,280        | 222,223,807        | 171,019,080        | 123,813,884        | 121,875,004        | 135,984,129        | 125,029,486        | 133,167,533        | 176,711,423        | 200,833,137        | 241,649,238        |
| Schedule 11/12          | 37,666,141         | 40,336,460         | 25,899,337         | 27,279,311         | 23,554,719         | 23,946,862         | 25,471,653         | 24,662,129         | 26,579,208         | 28,691,833         | 28,071,443         | 34,823,332         |
| Schedule 21/22          | 121,975,738        | 108,168,932        | 113,496,427        | 101,615,386        | 101,889,168        | 101,334,884        | 102,558,398        | 103,327,898        | 111,846,452        | 108,167,368        | 98,930,556         | 116,858,155        |
| Schedule 25             | 57,688,066         | 49,409,428         | 54,516,042         | 51,447,034         | 52,403,639         | 50,083,682         | 51,782,316         | 55,983,554         | 51,669,109         | 52,125,954         | 50,459,455         | 51,688,177         |
| Schedule 28             | 9,597              | -                  | 28,199             | 4,200              | 66,514             | 1,890              | 54,220             | -                  | -                  | 300                | 12,179             | 64,911             |
| Schedule 29 (Exchange)  | 2,106,728          | 2,067,204          | 1,522,206          | 1,931,143          | 3,174,243          | 4,434,103          | 4,425,035          | 3,190,550          | 4,948,245          | 3,089,209          | 2,004,011          | 1,598,603          |
| Schedule 31/32          | 2,942,653          | 2,621,988          | 2,915,571          | 3,417,390          | 6,865,146          | 15,068,502         | 11,887,610         | 10,581,531         | 13,985,630         | 6,550,402          | 4,144,199          | 2,518,227          |
| Schedule 41-46          | 1,750,939          | 1,440,526          | 1,400,814          | 1,154,861          | 1,021,485          | 899,867            | 974,391            | 1,129,086          | 1,281,371          | 1,350,060          | 1,651,094          | 1,798,285          |
| Schedule 47-49          | 1,133,551          | 932,590            | 906,880            | 747,656            | 661,307            | 582,576            | 630,818            | 730,977            | 829,556            | 990,551            | 1,068,912          | 1,164,201          |
| <b>Total Washington</b> | <b>517,688,073</b> | <b>439,154,408</b> | <b>422,909,283</b> | <b>358,616,061</b> | <b>313,450,105</b> | <b>318,227,370</b> | <b>333,768,570</b> | <b>324,635,211</b> | <b>344,307,104</b> | <b>377,857,100</b> | <b>387,174,986</b> | <b>452,163,129</b> |

**1993 Study Average kW (consumption/hours)**

|                         | Jan        | Feb        | Mar        | Apr        | May        | Jun        | Jul        | Aug        | Sep        | Oct        | Nov        | Dec        |
|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Washington</b>       |            |            |            |            |            |            |            |            |            |            |            |            |
| Schedule 1              | 393,030    | 348,478    | 298,688    | 237,857    | 166,417    | 169,271    | 182,774    | 168,050    | 184,955    | 237,197    | 278,935    | 324,797    |
| Schedule 11/12          | 50,627     | 60,024     | 34,811     | 37,941     | 31,660     | 33,260     | 34,236     | 33,148     | 36,916     | 38,513     | 38,988     | 46,806     |
| Schedule 21/22          | 163,946    | 160,966    | 152,549    | 141,329    | 136,948    | 140,743    | 137,847    | 138,882    | 155,342    | 145,191    | 137,404    | 157,067    |
| Schedule 25             | 77,538     | 73,526     | 73,274     | 71,554     | 70,435     | 69,561     | 69,600     | 75,247     | 71,763     | 69,968     | 70,083     | 69,473     |
| Schedule 28             | 13         | -          | 38         | 6          | 89         | 3          | 73         | -          | -          | 0          | 17         | 87         |
| Schedule 29 (Exchange)  | 2,832      | 3,076      | 2,046      | 2,686      | 4,266      | 6,158      | 5,948      | 4,288      | 6,873      | 4,147      | 2,783      | 2,149      |
| Schedule 31/32          | 3,955      | 3,902      | 3,919      | 4,753      | 9,227      | 20,928     | 15,978     | 14,222     | 19,424     | 8,792      | 5,756      | 3,385      |
| Schedule 41-46          | 2,353      | 2,144      | 1,883      | 1,606      | 1,373      | 1,250      | 1,310      | 1,518      | 1,780      | 2,054      | 2,293      | 2,417      |
| Schedule 47-49          | 1,524      | 1,388      | 1,219      | 1,040      | 889        | 809        | 848        | 982        | 1,152      | 1,330      | 1,485      | 1,565      |
| <b>Total Washington</b> | <b>744</b> | <b>672</b> | <b>744</b> | <b>719</b> | <b>744</b> | <b>720</b> | <b>744</b> | <b>744</b> | <b>720</b> | <b>745</b> | <b>720</b> | <b>744</b> |

**Ratio of Non-Coincident Peak kW to Average kW**

|                        | Jan    | Feb  | Mar   | Apr    | May  | Jun    | Jul   | Aug  | Sep  | Oct    | Nov    | Dec   |
|------------------------|--------|------|-------|--------|------|--------|-------|------|------|--------|--------|-------|
| <b>Washington</b>      |        |      |       |        |      |        |       |      |      |        |        |       |
| Schedule 1             | 1.47   | 1.48 | 1.70  | 1.70   | 1.81 | 1.66   | 1.55  | 1.82 | 1.64 | 1.61   | 1.86   | 1.43  |
| Schedule 11/12         | 1.61   | 1.59 | 1.70  | 1.83   | 2.00 | 1.95   | 1.78  | 2.19 | 1.82 | 1.71   | 1.81   | 1.63  |
| Schedule 21/22         | 1.50   | 1.51 | 1.57  | 1.62   | 1.80 | 1.63   | 1.53  | 1.87 | 1.63 | 1.62   | 1.73   | 1.51  |
| Schedule 25            | 1.35   | 1.38 | 1.28  | 1.33   | 1.39 | 1.38   | 1.38  | 1.32 | 1.35 | 1.37   | 1.36   | 1.40  |
| Schedule 28            | 176.76 | -    | 69.13 | 385.18 | 6.87 | 544.76 | 51.05 | -    | -    | 745.00 | 213.42 | 29.00 |
| Schedule 29 (Exchange) | 1.34   | 1.41 | 1.46  | 1.35   | 1.35 | 1.27   | 1.38  | 1.35 | 1.35 | 1.40   | 1.47   | 1.29  |
| Schedule 31/32         | 1.30   | 1.24 | 1.32  | 1.82   | 1.92 | 1.38   | 1.45  | 1.28 | 1.25 | 1.83   | 1.51   | 1.47  |
| Schedule 41-46         | 1.62   | 1.78 | 2.03  | 2.38   | 2.78 | 3.05   | 2.92  | 2.52 | 2.15 | 1.86   | 1.66   | 1.58  |
| Schedule 47-49         | 1.62   | 1.78 | 2.03  | 2.38   | 2.78 | 3.06   | 2.92  | 2.52 | 2.15 | 1.86   | 1.67   | 1.58  |

A VISTA UTILITIES  
 Washington Electric Cost Study  
 Twelve Months Ended December 31, 1998  
 Non-Coincident Peak Calculations

| 1998 Average kW (consumption/hours)              | Jan        | Feb     | Mar     | Apr     | May     | Jun     | Jul     | Aug       | Sep     | Oct     | Nov       | Dec     |
|--|------------|---------|---------|---------|---------|---------|---------|-----------|---------|---------|-----------|---------|
| <b>Washington</b>                                | 744        | 696     | 744     | 719     | 744     | 720     | 744     | 744       | 720     | 745     | 720       | 744     |
| Schedule 1/3/15/81                               | 358,281    | 327,844 | 265,938 | 238,466 | 198,450 | 195,597 | 182,237 | 216,964   | 213,051 | 193,449 | 239,687   | 298,019 |
| Schedule 11/12/82                                | 52,618     | 50,556  | 43,652  | 39,092  | 36,486  | 37,372  | 36,067  | 41,526    | 42,769  | 38,910  | 41,332    | 48,060  |
| Schedule 21/22/83 Secondary                      | 206,953    | 135,355 | 147,441 | 141,655 | 143,154 | 150,146 | 144,039 | 157,127   | 168,111 | 155,053 | 156,429   | 166,956 |
| Schedule 21 Primary                              | 8,057      | 7,444   | 9,176   | 10,242  | 6,646   | 12,250  | 9,448   | 9,883     | 9,557   | 8,859   | 8,740     | 6,504   |
| Schedule 31/32/84                                | 4,530      | 4,504   | 4,020   | 6,373   | 12,472  | 16,336  | 21,118  | 23,612    | 23,953  | 13,892  | 5,729     | 4,328   |
| <b>Estimate 12 Monthly Non-Coincident Peaks</b>  |            |         |         |         |         |         |         |           |         |         |           |         |
| <b>Washington</b>                                | 526,159    | 484,536 | 451,649 | 406,211 | 359,495 | 323,829 | 283,193 | 395,905   | 350,244 | 312,396 | 446,177   | 425,585 |
| Schedule 1/81                                    | 84,626     | 80,436  | 74,005  | 71,373  | 72,886  | 72,728  | 64,093  | 91,103    | 78,027  | 66,406  | 74,930    | 78,217  |
| Schedule 11/12/82                                | 309,533    | 204,163 | 231,842 | 229,524 | 257,325 | 244,039 | 219,722 | 294,145   | 274,214 | 251,384 | 270,133   | 252,503 |
| Schedule 21/22/83 Secondary                      | 12,051     | 11,229  | 14,429  | 16,596  | 11,947  | 19,911  | 14,413  | 18,500    | 15,588  | 14,363  | 15,092    | 9,836   |
| Schedule 21 Primary                              | 5,894      | 5,595   | 5,294   | 11,625  | 23,892  | 22,551  | 30,649  | 30,294    | 29,875  | 25,401  | 8,443     | 6,542   |
| Schedule 31/32/84                                | 3,947      | 3,947   | 3,947   | 3,947   | 3,947   | 3,947   | 3,947   | 3,947     | 3,947   | 3,947   | 3,947     | 3,947   |
| Street Lights                                    | 16,980,066 |         |         |         |         |         |         |           |         |         |           |         |
| Area Lights                                      | 10,446,458 |         |         |         |         |         |         |           |         |         |           |         |
| Schedule 25                                      | 107,445    | 109,150 | 107,153 | 113,241 | 114,792 | 111,924 | 116,973 | 116,002   | 118,969 | 112,528 | 112,571   | 111,964 |
| Schedule 28                                      | 2,050      | -       | 1,740   | -       | -       | -       | 2,560   | -         | -       | 2,240   | -         | 2,540   |
| <b>Estimated Non-Coincident Peak with Losses</b> |            |         |         |         |         |         |         |           |         |         |           |         |
| <b>Washington</b>                                | 565,621    | 520,876 | 485,522 | 436,677 | 386,457 | 348,117 | 304,433 | 425,598   | 376,512 | 335,826 | 479,640   | 457,504 |
| Schedule 1/81                                    | 90,973     | 86,469  | 79,556  | 76,726  | 78,352  | 78,183  | 68,900  | 97,936    | 83,879  | 71,387  | 80,550    | 84,083  |
| Schedule 11/12/82                                | 332,748    | 219,476 | 249,230 | 246,738 | 276,624 | 262,342 | 236,201 | 316,206   | 294,780 | 270,238 | 290,393   | 271,441 |
| Schedule 21/22/83 Secondary                      | 12,678     | 11,812  | 15,179  | 17,459  | 12,568  | 20,946  | 15,162  | 19,462    | 16,399  | 15,110  | 15,877    | 10,348  |
| Schedule 21 Primary                              | 6,336      | 6,015   | 5,691   | 12,497  | 25,684  | 24,243  | 32,948  | 32,566    | 32,115  | 27,306  | 9,077     | 7,033   |
| Schedule 31/32/84                                | 4,243      | 4,243   | 4,243   | 4,243   | 4,243   | 4,243   | 4,243   | 4,243     | 4,243   | 4,243   | 4,243     | 4,243   |
| Street Lights                                    | 1,075      | 1,075   | 1,075   | 1,075   | 1,075   | 1,075   | 1,075   | 1,075     | 1,075   | 1,075   | 1,075     | 1,075   |
| Area Lights                                      | 2,610      | 2,610   | 2,610   | 2,610   | 2,610   | 2,610   | 2,610   | 2,610     | 2,610   | 2,610   | 2,610     | 2,610   |
| Schedule 25                                      | 113,032    | 114,826 | 112,725 | 119,130 | 120,761 | 117,744 | 123,056 | 122,034   | 125,155 | 118,379 | 118,425   | 117,786 |
| Schedule 28                                      | 2,112      | -       | 1,792   | -       | -       | -       | 2,637   | -         | -       | 2,307   | -         | 2,616   |
| <b>Total</b>                                     | 1,130,353  | 966,328 | 956,549 | 916,080 | 907,301 | 858,427 | 790,190 | 1,020,656 | 935,695 | 847,407 | 1,000,815 | 957,664 |
| <b>Washington</b>                                |            |         |         |         |         |         |         |           |         |         |           |         |
| 12 Month Average                                 | 426,899    |         |         |         |         |         |         |           |         |         |           |         |
| Schedule 1/81                                    | 81,416     |         |         |         |         |         |         |           |         |         |           |         |
| Schedule 11/12/82                                | 272,201    |         |         |         |         |         |         |           |         |         |           |         |
| Schedule 21/22/83 Secondary                      | 15,250     |         |         |         |         |         |         |           |         |         |           |         |
| Schedule 21 Primary                              | 18,459     |         |         |         |         |         |         |           |         |         |           |         |
| Schedule 31/32/84                                | 4,243      |         |         |         |         |         |         |           |         |         |           |         |
| Street Lights                                    | 2,610      |         |         |         |         |         |         |           |         |         |           |         |
| Area Lights                                      | 118,588    |         |         |         |         |         |         |           |         |         |           |         |
| Schedule 25                                      | 955        |         |         |         |         |         |         |           |         |         |           |         |
| Schedule 28                                      | 940,622    |         |         |         |         |         |         |           |         |         |           |         |