

## 1990年度 美原電 O&M費 集計

Nucleonics Week紙 8월 15일자에 의하면 Wisconsin Electric Power사의 Point Beach 발전소가 작년에 kWh당 12.08mills의 O&M(운전보수)비를 기록해 미국 원자력발전소중에서 가장 효율이 높은 발전소가 되었다고 연방 에너지규제위원회(FERC)의 O&M비 보고서가 밝혔다. 미국 원자력발전소의 평균 O&M비는 전년에 비해 1.88% 낮아져 26.98mills/kWh를 기록했다.

1989년에 가장 효율이 높았던 Wolf Creek 원전은 12.85mills/kWh로 2위를 차지했다. Virginia Power사의 두 발전소가 10위권에 들었는데 North Anna 발전소가 12.90mills/kWh로 3위, Surry발전소가 15.71mills/kWh로 10위를 차지했다. Duke Power사의 Oconee 발전소는 4위(동사의 Catawba발전소는 15위)였고 Carolina Power & Light사의 Shearon-Harris 발전소가 5위였다. 그 다음이 Commonwealth Edison사의 Braidwood와 LaSalle발전소와 Northern States Power사의 Monticello와 Prairie Island 발전소의 순이었다.

상위 10개 발전소중 7개는 WH사 유니트였다. 평균적으로 가장 효율이 높았던 유니트는 기령이 6~11년 된 대형 WH사 PWR였는데 이러한 경향은 3년째 계속되었다. 그러나 B&W사 유니트도 작년에는 WH사 유니트와 1mill 미만의 차밖에 보이지 않았다.

1990년에 가장 효율이 높았던 10개 발전소중 8개는 1988~90년 3년간 계속 10위권에 머물렀는데 North Anna와 Point Beach발전소가

12.21mills/kWh로 동률을 기록하며 최상위였고 그 다음이 Wolf Creek, Prairie Island, Oconee, Byron, LaSalle, Shearon-Harris의 순이었다. 이외에 Maine Yankee와 Catawba 발전소가 3년 평균치에서 각각 7위와 10위를 차지했다.

1990년에 미국전력회사들은 원전 O&M비로 총 12,603,292,332달러를 사용했는데 이 값은 전년에 비해 6.25%, 1988년에 비해 9.29% 높아진 것이다. 그러나 mills/kWh 기준으로는 1989년 보다 1.88%, 1988년 보다 1.8% 낮아졌는데 이는 이용율이 높아졌음을 의미한다. 1990년의 이용율은 68.38%였는데 1989년에는 63.87, 1988년에는 65.6%였다. 1990년 O&M비의 중간치는 22.34mills/kWh였다.

1988~90 3년간의 연간 O&M비는 평균 28.52mills/kWh로 1987~89년 평균치 보다 1mill이 높았는데 1986~88년 평균치 보다는 단 0.4mill 밖에 높아지지 않았다. 1988~90년의 O&M비 중간치는 21.73mills/kWh였다.

전력회사관계자들은 좋은 실적을 올린 발전소에 대해 그 원인을 적은 인원의 숙련된 종업원과 정지시간의 단축 및 運으로 들었다.

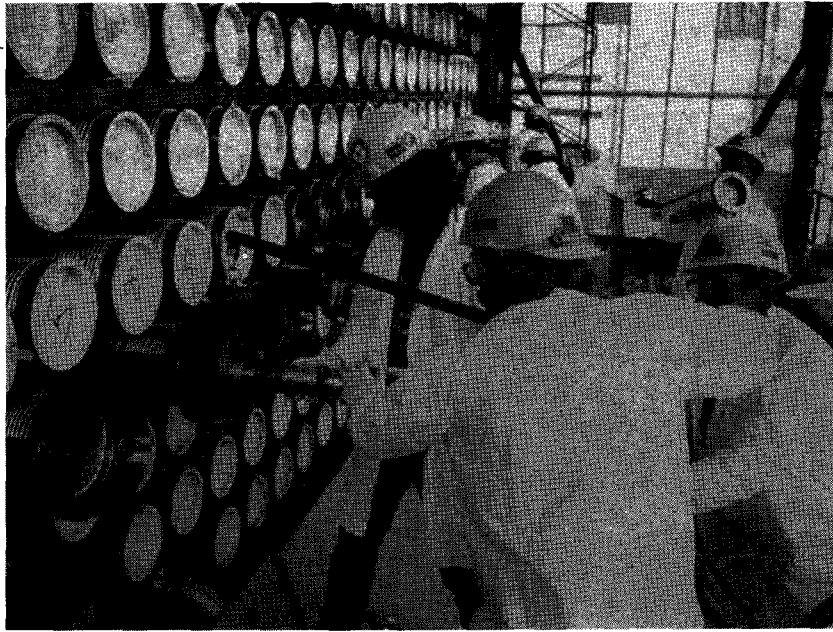
Point Beach 발전소장인 Maxfield씨는 「2기의 485MW PWR를 갖고 있는 20년 된 동발전소는 자체인원을 적게 유지하고 계약인원수도 최소한으로 억제해왔다」고 말하고 「동사의 전체 원자력관계 종업원수는 지난 6월에 450명을 넘어선 정도이고 (2기 발전소로 1,000명 이상 갖고 있는 데도 있다) 계약인원수는 현재 약 50명에 불과하다」고 했다.

1990년도 미국원자력발전소 O & M비현황

| Utility               | Plant          | Vendor | 1990년          |                 |                     |            |                    |            |                        |            |                        |            | 1988-90 평균치 |  |
|-----------------------|----------------|--------|----------------|-----------------|---------------------|------------|--------------------|------------|------------------------|------------|------------------------|------------|-------------|--|
|                       |                |        | Net Generation | Capacity Factor | Cost of Maintenance | Mills /KWH | All Non-Fuel Costs | Mills /KWH | Production Total Costs | Mills /KWH | Production Total Costs | Mills /KWH |             |  |
| Wisconsin Elec. Power | Point Beach    | West   | 7,323,591      | 86.19%          | 13,750,045          | 1.88       | 53,623,896         | 7.32       | 88,449,517             | 12.08      | 89,415,027             | 12.21      |             |  |
| Kansas G&E            | Wolf Creek     | West   | 7,874,487      | 79.20%          | 29,493,595          | 3.75       | 75,914,010         | 9.64       | 101,171,940            | 12.85      | 100,275,147            | 12.86      |             |  |
| Virginia Power        | North Anna     | West   | 13,210,188     | 82.41%          | 58,201,023          | 4.41       | 111,658,406        | 8.45       | 170,392,610            | 12.90      | 149,753,076            | 12.21      |             |  |
| Duke Power            | Oconee         | BW     | 20,146,037     | 90.61%          | 92,022,618          | 4.57       | 198,526,850        | 7.87       | 265,720,520            | 13.19      | 266,261,790            | 14.01      |             |  |
| Carolina P&L          | Shearon-Harris | West   | 6,339,002      | 84.14%          | 17,034,892          | 2.69       | 56,261,396         | 8.88       | 86,629,856             | 13.67      | 93,182,835             | 16.29      |             |  |
| Commonwealth Edison   | Braidwood      | West   | 14,599,090     | 74.40%          | 32,307,676          | 2.21       | 123,325,820        | 8.45       | 205,834,855            | 14.10      | 192,098,889            | 17.12      |             |  |
| Commonwealth Edison   | LaSalle        | GE     | 14,821,165     | 81.66%          | 41,086,763          | 2.77       | 134,039,044        | 9.04       | 217,062,773            | 14.65      | 206,478,690            | 16.24      |             |  |
| Northern States Pow.  | Monticello     | GE     | 4,505,927      | 95.97%          | 6,661,592           | 1.48       | 43,935,065         | 9.75       | 67,050,345             | 14.88      | 64,426,524             | 17.52      |             |  |
| Northern States Pow.  | Prairie Island | West   | 7,633,375      | 86.88%          | 25,206,428          | 3.30       | 76,091,735         | 9.97       | 114,701,700            | 15.03      | 102,414,821            | 13.07      |             |  |
| Virginia Power        | Surry          | West   | 10,609,965     | 77.54%          | 57,588,999          | 5.43       | 105,849,959        | 9.98       | 166,704,399            | 15.71      | 146,977,953            | 23.10      |             |  |
| TVA                   | Sequoyah       | West   | 15,384,022     | 76.48%          | 40,936,584          | 2.66       | 115,562,723        | 7.51       | 253,902,289            | 16.50      | 247,166,477            | 43.20      |             |  |
| Public Service E&G    | Hope Creek     | GE     | 8,081,645      | 89.48%          | 26,671,992          | 3.30       | 84,122,439         | 10.41      | 133,716,757            | 16.55      | 130,743,615            | 18.21      |             |  |
| Northeast Utilities   | Millstone-3    | West   | 8,253,866      | 82.51%          | 24,208,049          | 2.93       | 75,849,923         | 9.19       | 136,588,314            | 16.55      | 128,626,639            | 16.79      |             |  |
| Pacific G&E           | Diablo Canyon  | West   | 16,273,963     | 86.01%          | 79,891,662          | 4.91       | 187,086,480        | 11.50      | 271,458,555            | 16.68      | 292,414,451            | 20.65      |             |  |
| Duke Power            | Catawba        | West   | 13,307,448     | 67.28%          | 83,124,968          | 6.25       | 145,528,107        | 10.94      | 223,452,035            | 16.79      | 227,522,910            | 16.51      |             |  |
| Commonwealth Edison   | Byron          | West   | 12,948,425     | 66.88%          | 51,060,846          | 3.94       | 150,423,078        | 11.62      | 219,537,484            | 16.95      | 204,324,526            | 15.18      |             |  |
| Alabama Power         | Fartey         | West   | 12,159,298     | 83.92%          | 59,311,203          | 4.88       | 133,892,915        | 11.01      | 206,249,110            | 16.96      | 207,358,853            | 16.91      |             |  |
| Houston L&P           | South Texas    | West   | 12,410,302     | 56.67%          | 73,319,357          | 5.91       | 147,637,711        | 11.90      | 224,662,390            | 18.10      | 149,878,080            | 17.65      |             |  |
| Louisiana P&L         | Waterford-3    | CE     | 8,604,229      | 91.37%          | 47,351,525          | 5.50       | 89,714,182         | 10.43      | 155,927,078            | 18.12      | 153,748,926            | 20.48      |             |  |
| Penna. P&L            | Susquehanna    | GE     | 14,726,701     | 81.21%          | 55,301,601          | 3.76       | 158,173,694        | 10.74      | 271,110,077            | 18.41      | 269,595,994            | 19.16      |             |  |
| Wisconsin Publ. Serv. | Kewaunee       | West   | 3,900,238      | 88.52%          | 17,608,536          | 4.51       | 51,543,245         | 13.22      | 72,542,740             | 18.60      | 69,801,690             | 18.12      |             |  |
| Union Electric        | Callaway       | West   | 7,998,039      | 81.67%          | 34,468,919          | 4.31       | 87,730,029         | 10.97      | 150,605,525            | 18.83      | 145,130,914            | 17.28      |             |  |
| South Carolina E&G    | Sumner         | West   | 6,120,069      | 78.94%          | 18,810,377          | 3.07       | 76,074,865         | 12.43      | 116,106,662            | 18.97      | 106,596,262            | 19.23      |             |  |
| Maine Yankee APC      | Maine Yankee   | CE     | 4,859,727      | 68.49%          | 29,899,657          | 6.15       | 68,111,681         | 14.02      | 92,239,019             | 18.98      | 82,871,258             | 15.32      |             |  |
| WPPSS                 | WNP-2          | GE     | 6,497,925      | 67.74%          | 31,542,490          | 4.85       | 92,290,911         | 14.20      | 125,241,073            | 19.27      | 114,706,403            | 18.60      |             |  |
| Commonwealth Edison   | Dresden        | GE     | 9,218,496      | 68.11%          | 36,533,167          | 3.96       | 124,968,634        | 13.56      | 181,668,846            | 19.71      | 179,072,552            | 19.56      |             |  |

| Utility               | Plant               | 1990년  |                |                 |                     |            |                    |            |                        |            |                        | 1988~90 평균치 |  |
|-----------------------|---------------------|--------|----------------|-----------------|---------------------|------------|--------------------|------------|------------------------|------------|------------------------|-------------|--|
|                       |                     | Vendor | Net Generation | Capacity Factor | Cost of Maintenance | Mills /KWH | All Non-Fuel Costs | Mills /KWH | Production Total Costs | Mills /KWH | Production Total Costs | Mills /KWH  |  |
| Commonwealth Edison   | Quad Cities         | GE     | 9,542,489      | 70.83%          | 46,724,411          | 4.90       | 123,058,059        | 13.52      | 191,770,460            | 20.10      | 178,195,958            | 18.33       |  |
| Carolina P&L          | Brunswick           | GE     | 8,371,147      | 60.48%          | 45,931,166          | 5.49       | 123,251,417        | 14.72      | 168,543,102            | 20.13      | 173,000,382            | 20.66       |  |
| Nebraska PPD          | Cooper              | GE     | 5,111,380      | 76.37%          | 17,400,190          | 3.40       | 74,287,470         | 14.53      | 103,356,110            | 20.22      | 91,051,230             | 19.35       |  |
| TUEC                  | Comanche Peak-1     | West   | 2,513,514      | 66.86%          | 11,575,928          | 4.61       | 40,545,450         | 16.13      | 51,082,674             | 20.32      | 51,082,674             | 20.32       |  |
| NHY                   | Seabrook            | West   | 3,959,025      | 77.54%          | 10,501,543          | 2.65       | 49,460,157         | 12.49      | 82,660,759             | 20.88      | 82,660,759             | 20.88       |  |
| Georgia Power         | Vogtle              | West   | 14,195,322     | 74.81%          | 72,693,757          | 5.12       | 160,467,274        | 11.30      | 299,502,322            | 21.10      | 245,413,017            | 22.09       |  |
| GPU Nuclear           | Three Mile Island-1 | BW     | 5,302,940      | 74.92%          | 28,798,672          | 5.43       | 80,828,001         | 15.24      | 114,868,178            | 21.66      | 113,980,697            | 19.25       |  |
| Indiana Michigan Pow. | Cook                | West   | 11,114,954     | 61.00%          | 71,568,764          | 6.44       | 171,619,321        | 15.44      | 242,881,277            | 21.85      | 214,162,510            | 19.54       |  |
| Portland Gen. Elec.   | Trojan              | West   | 6,073,797      | 63.32%          | 35,636,946          | 5.87       | 104,499,196        | 17.20      | 133,054,151            | 21.91      | 124,404,374            | 20.90       |  |
| Florida P&L           | St. Lucie           | CE     | 9,746,348      | 66.30%          | 69,192,890          | 7.10       | 151,157,190        | 15.51      | 217,067,594            | 22.27      | 191,561,478            | 16.54       |  |
| Arkansas P&L          | Arkansas Nuclear 1  | BW     | 11,252,053     | 75.83%          | 64,695,407          | 5.75       | 162,643,557        | 14.45      | 250,723,077            | 22.28      | 224,919,651            | 23.36       |  |
| Duke Power            | McGuire             | West   | 11,195,170     | 56.60%          | 113,214,477         | 10.11      | 178,266,946        | 15.92      | 250,057,055            | 22.34      | 247,256,859            | 18.13       |  |
| Public Service E&G    | Salem               | West   | 11,301,432     | 58.32%          | 82,406,938          | 7.29       | 175,235,298        | 15.51      | 252,481,712            | 22.34      | 251,630,948            | 19.70       |  |
| Duquesne Light        | Beaver Valley-1     | West   | 6,162,002      | 86.84%          | 18,397,640          | 2.99       | 70,459,872         | 11.43      | 139,018,821            | 22.56      | 132,548,124            | 27.53       |  |
| PECO                  | Limerick            | GE     | 12,853,807     | 70.31%          | 78,348,634          | 6.10       | 184,282,950        | 14.34      | 291,603,396            | 22.69      | 229,991,041            | 30.80       |  |
| Georgia Power         | Hatch               | GE     | 10,601,562     | 79.88%          | 71,859,020          | 6.78       | 150,217,932        | 14.17      | 241,770,914            | 22.81      | 220,073,699            | 22.21       |  |
| Rochester G&E         | Ginna               | West   | 3,440,205      | 83.56%          | 17,803,941          | 5.18       | 62,930,175         | 18.29      | 80,691,960             | 23.46      | 73,873,141             | 22.30       |  |
| Northeast Utilities   | Millstone 1,-2      | GE     | 10,425,549     | 78.45%          | 64,277,902          | 6.17       | 147,088,034        | 14.11      | 254,626,093            | 24.42      | 247,468,386            | 23.90       |  |
| PECO                  | Peach Bottom        | GE     | 14,191,392     | 77.66%          | 59,707,177          | 4.21       | 216,524,493        | 15.26      | 352,215,300            | 24.82      | 326,832,202            | 49.08       |  |
| Arizona NPP           | Palo Verde          | CE     | 20,597,689     | 64.19%          | 123,895,625         | 6.02       | 348,157,787        | 16.90      | 514,957,055            | 25.00      | 449,865,298            | 31.42       |  |
| So. Cal Edison        | San Onofre          | West   | 16,120,022     | 71.16%          | 96,755,465          | 6.00       | 238,330,805        | 14.78      | 404,898,771            | 25.12      | 399,136,934            | 25.22       |  |
| Vermont Yankee        | Vermont Yankee      | GE     | 3,616,268      | 81.91%          | 26,550,117          | 7.34       | 70,218,751         | 19.42      | 92,329,082             | 25.53      | 81,262,505             | 21.67       |  |
| Consolidated Edison   | Indian Point-2      | West   | 5,189,168      | 69.77%          | 48,849,726          | 9.41       | 100,100,697        | 19.29      | 132,712,891            | 25.57      | 128,826,765            | 25.40       |  |
| SERI                  | Grand Gulf          | GE     | 7,407,120      | 74.04%          | 35,103,153          | 4.74       | 107,639,238        | 14.53      | 195,381,872            | 26.38      | 207,368,587            | 25.18       |  |
| Commonwealth Edison   | Zion                | West   | 7,042,941      | 38.65%          | 45,774,109          | 6.50       | 144,028,184        | 20.45      | 186,195,358            | 26.44      | 192,162,067            | 18.95       |  |
| Boston Edison         | Pilgrim             | GE     | 4,243,224      | 72.30%          | 25,712,136          | 6.06       | 87,393,484         | 20.60      | 113,307,382            | 26.70      | 115,012,551            | 47.17       |  |

| Utility               | Plant              | 1990년  |                |                 |                     |            |                    |            |                        |            |                        | 1988-90 평균치 |  |
|-----------------------|--------------------|--------|----------------|-----------------|---------------------|------------|--------------------|------------|------------------------|------------|------------------------|-------------|--|
|                       |                    | Vendor | Net Generation | Capacity Factor | Cost of Maintenance | Mills /KWH | All Non-Fuel Costs | Mills /KWH | Production Total Costs | Mills /KWH | Production Total Costs | Mills /KWH  |  |
| N.Y. Power Authority  | Indian Point-3     | West   | 5,031,769      | 59.52%          | 32,955,677          | 6.55       | 111,708,179        | 22.20      | 138,616,826            | 27.55      | 116,144,540            | 21.73       |  |
| Detroit Edison        | Fermi              | GE     | 7,089,841      | 74.05%          | 38,973,951          | 5.50       | 108,725,059        | 15.34      | 196,042,129            | 27.65      | 203,830,904            | 38.87       |  |
| N.Y. Power Authority  | FitzPatrick        | GE     | 4,601,925      | 69.40%          | 34,449,227          | 7.49       | 101,519,029        | 22.06      | 132,341,287            | 28.76      | 120,607,447            | 24.50       |  |
| Carolina P&L          | Robinson-2         | West   | 3,313,241      | 56.88%          | 38,181,090          | 11.52      | 78,259,071         | 23.62      | 95,942,603             | 28.96      | 81,167,108             | 26.15       |  |
| Iowa Electric L&P     | Duane Arnold       | GE     | 3,011,572      | 63.90%          | 25,348,493          | 8.42       | 66,692,987         | 22.15      | 88,033,892             | 29.23      | 75,692,826             | 24.36       |  |
| Florida Power Corp.   | Crystal River-3    | BW     | 4,142,918      | 57.60%          | 49,679,371          | 11.99      | 95,910,246         | 23.15      | 125,131,981            | 30.20      | 121,321,173            | 30.51       |  |
| Duquesne Light        | Beaver Valley-2    | West   | 4,373,472      | 59.93%          | 30,112,598          | 6.89       | 84,061,114         | 19.22      | 133,024,993            | 30.42      | 132,142,475            | 26.44       |  |
| Consumers Power       | Palisades          | CE     | 2,981,355      | 46.62%          | 27,288,213          | 9.15       | 71,360,200         | 23.94      | 91,798,080             | 30.79      | 96,843,998             | 29.18       |  |
| GPU Nuclear           | Oyster Creek       | GE     | 4,305,385      | 79.27%          | 42,213,411          | 9.80       | 101,253,151        | 23.52      | 133,916,962            | 31.10      | 127,951,382            | 39.68       |  |
| Gulf States Util.     | River Bend         | GE     | 5,592,554      | 68.21%          | 58,222,066          | 10.41      | 109,109,233        | 19.51      | 180,854,039            | 32.34      | 186,931,531            | 32.77       |  |
| Florida P&L           | Turkey Point       | West   | 7,822,828      | 67.04%          | 74,226,782          | 9.49       | 200,437,560        | 25.62      | 254,030,055            | 32.47      | 244,102,190            | 36.42       |  |
| CEI                   | Perry              | GE     | 6,618,183      | 66.21%          | 58,395,117          | 8.82       | 156,310,877        | 23.62      | 244,544,509            | 36.95      | 235,932,286            | 37.38       |  |
| Omaha PPD             | Fort Calhoun       | CE     | 2,399,918      | 57.31%          | 11,535,597          | 4.81       | 78,185,692         | 32.58      | 98,401,334             | 41.00      | 108,024,677            | 38.90       |  |
| Toledo Edison         | Davis-Besse        | BW     | 4,168,659      | 55.33%          | 33,787,573          | 8.11       | 120,725,509        | 28.96      | 171,398,586            | 41.12      | 191,371,894            | 75.35       |  |
| Niagara Mohawk Power  | Nine Mile Point-2  | GE     | 4,129,966      | 43.98%          | 43,008,483          | 10.41      | 130,701,185        | 31.65      | 183,178,222            | 44.35      | 136,684,891            | 37.45       |  |
| Illinois Power        | Clinton            | GE     | 3,572,487      | 43.85%          | 47,341,948          | 13.25      | 118,531,841        | 33.18      | 160,695,297            | 44.98      | 143,029,787            | 37.96       |  |
| Consumers Power Co.   | Big Rock Point     | GE     | 424,350        | 72.30%          | 5,858,587           | 13.81      | 17,731,808         | 41.79      | 20,084,773             | 47.33      | 19,320,339             | 47.39       |  |
| Yankee Atomic Power   | Yankee             | West   | 831,089        | 56.81%          | 5,472,139           | 6.58       | 42,193,689         | 50.77      | 49,904,376             | 60.05      | 46,933,794             | 45.06       |  |
| Northeast Utilities   | Connecticut Yankee | West   | 1,153,919      | 23.31%          | 25,197,352          | 21.84      | 72,151,367         | 62.53      | 84,021,215             | 72.81      | 98,611,243             | 46.99       |  |
| Niagara Mohawk Power  | Nine Mile Point-1  | GE     | 1,281,458      | 23.98%          | 29,831,482          | 23.28      | 103,816,593        | 81.01      | 113,013,218            | 88.19      | 97,078,045             | 88.19       |  |
| Baltimore G&E         | Calvert Cliffs     | CE     | 1,251,416      | 8.66%           | 51,197,533          | 40.91      | 166,566,323        | 133.10     | 174,752,531            | 139.64     | 151,760,736            | 67.09       |  |
| NO GENERATION:<br>TVA | Browns Ferry       | GE     | 0              | 0.00%           | 20,957,901          |            | 42,712,971         |            | 57,061,592             |            | 107,330,304            |             |  |
| Sacramento MUD        | Rancho Seco        | BW     |                |                 |                     |            |                    |            |                        |            | 109,625,333            | 50.29       |  |
| Publ. Serv. Colorado  | Fort St. Vrain     | GA     | 0              | 0.00%           |                     |            |                    |            |                        |            | 88,386,815             | 139.26      |  |
| TOTAL:                |                    |        | 577,475,985    |                 | 3,251,004,920       |            | 8,435,292,209      |            | 12,603,292,332         |            | 12,153,411,855         |             |  |
| AVERAGE:              |                    |        | 15,249,332     |                 | 86,990,736          | 6.90       | 113,990,435        | 19.70      | 170,314,761            | 26.98      | 159,913,314            | 28.52       |  |



1990년 및 1988~90년 발전소 비용

|                            | Average<br>Production<br>Costs | 1990<br>Mills<br>/KWH | Average<br>Production<br>Costs | 1988-90<br>Mills<br>/KWH | Average<br>Maintenance<br>Costs | 1990<br>Mills<br>/KWH | Average<br>Maintenance<br>Costs | 1988-90<br>Mills<br>/KWH |
|----------------------------|--------------------------------|-----------------------|--------------------------------|--------------------------|---------------------------------|-----------------------|---------------------------------|--------------------------|
| <b>BY VENDOR :</b>         |                                |                       |                                |                          |                                 |                       |                                 |                          |
| Westinghouse               | 106,727,602                    | 21.46                 | 102,472,733                    | 21.40                    | 28,999,470                      | 5.63                  | 26,377,557                      | 5.58                     |
| GE                         | 118,465,580                    | 26.81                 | 115,219,919                    | 28.94                    | 28,999,470                      | 6.60                  | 27,109,231                      | 6.91                     |
| C-E                        | 124,516,653                    | 40.31                 | 115,797,445                    | 30.87                    | 28,999,470                      | 10.91                 | 29,239,590                      | 8.27                     |
| B&W                        | 114,640,115                    | 22.12                 | 114,377,589                    | 30.10                    | 28,999,470                      | 6.43                  | 32,994,902                      | 8.55                     |
| <b>BY SIZE IN NET MW :</b> |                                |                       |                                |                          |                                 |                       |                                 |                          |
| Below 600                  | 74,748,372                     | 28.01                 | 73,819,676                     | 31.18                    | 28,999,470                      | 6.10                  | 16,083,277                      | 7.17                     |
| 600-900                    | 106,965,980                    | 29.92                 | 101,525,004                    | 26.90                    | 28,999,470                      | 8.44                  | 27,585,057                      | 7.61                     |
| 900-1100                   | 123,784,407                    | 24.08                 | 121,044,934                    | 27.65                    | 28,999,470                      | 5.95                  | 30,017,703                      | 6.69                     |
| Over 1100                  | 137,351,885                    | 19.90                 | 131,173,499                    | 22.44                    | 28,999,470                      | 5.33                  | 32,127,910                      | 5.76                     |
| <b>BY COMMERCIAL AGE :</b> |                                |                       |                                |                          |                                 |                       |                                 |                          |
| Before 1975                | 94,107,612                     | 26.66                 | 90,687,198                     | 27.27                    | 28,999,470                      | 6.68                  | 23,727,791                      | 6.98                     |
| 75 thru 79                 | 106,545,742                    | 35.45                 | 101,355,823                    | 34.67                    | 28,999,470                      | 10.02                 | 26,758,253                      | 9.51                     |
| 80 thru 84                 | 121,583,528                    | 19.38                 | 116,519,817                    | 21.68                    | 28,999,470                      | 5.21                  | 29,576,921                      | 5.68                     |
| Since 84                   | 138,376,924                    | 22.13                 | 134,038,242                    | 23.29                    | 28,999,470                      | 5.50                  | 31,470,487                      | 5.58                     |
| <b>ALL UNITS</b>           | <b>113,543,174</b>             | <b>25.80</b>          | <b>109,115,826</b>             | <b>26.73</b>             | <b>29,288,333</b>               | <b>6.72</b>           | <b>27,444,009</b>               | <b>6.88</b>              |

비용 및 실적

| Average<br>1988-90 Capacity | 1990 Average<br>Unit Cost | Mills<br>/KWH | Average Unit<br>1988-90 Cost | Mills<br>/KWH | Number<br>of Units |
|-----------------------------|---------------------------|---------------|------------------------------|---------------|--------------------|
| Above 80%                   | 137,339,797               | 18.56         | 133,348,579                  | 17.67         | 14                 |
| 65-80%                      | 173,749,693               | 23.83         | 164,918,720                  | 23.05         | 34                 |
| 50-65%                      | 194,498,745               | 26.49         | 181,577,534                  | 30.67         | 19                 |
| Below 50%                   | 153,938,494               | 66.09         | 136,591,347                  | 65.69         | 9                  |