

owned utilities who have primary responsibility to carry peakloads would be forced to build the same amount of peaking capacity as would have been required whether the pumped storage plants were in existence or not.

Furthermore, daily peakloads of 11 hours' duration would reduce the availability of offpeak pumping capacity below that required to refill the upper reservoirs. This condition would render the pumped storage projects virtually useless in the time of greatest need. Under these conditions, the expenditures of public funds for construction of pumped storage would be a total waste.

2. Other superior alternatives are available for the supplying of peaking capacity. For example, additional capacity for peaking purposes can be built into new high efficiency generating plants at the incremental cost of only \$40 to \$50 per kilowatt. Another alternative is the installation of gas turbines for pure peaking purposes, which can be installed for approximately \$70 per kilowatt.

In view of these lower cost alternatives, such an enormous cost for limited availability Federal hydro cannot be justified in our area.

3. Pumped storage, by its very nature, is basically inefficient because approximately three kilowatt-hours must be generated at steamplants and transmitted to the projects for pumping energy in order to produce two kilowatt-hours for use at another time. This results in a waste of natural fuel resources of 50 percent over that which would be necessary to carry the same peakloads with lower-cost fuel-fired alternatives built for that purpose.

4. The benefit-cost ratio projected by the Corps of Engineers is invalid in our judgment because it is based upon false assumptions. Investor-owned companies in the area retained a nationally known engineering consultant to independently appraise the technical and economic feasibility of these proposed projects; and these findings support a benefit-cost ratio of 0.81 instead of the 2.1 claimed by the corps.

The corps, in arriving at its estimate of benefit-cost ratio, has, in our opinion, grossly overestimated the benefits which would come from the projects and has grossly underestimated the annual cost for building and operating them. We support this judgment by the following considerations:

(a) First, the estimate of benefits is based upon the capital and operating costs for alternative steam generation by investor-owned utilities applying private financing and taxes. By this process, it was variously assumed that the value of power and energy would be between \$16.50 and \$19 per kilowatt and between 2.1 and 2.4 mills per kilowatt-hour respectively. Our first comment with regard to this is that the true value of this power and energy is only whatever those who would use it are willing to pay for it. Since the power is not dependable as applied to the load curve in critical peakload periods, then its value would certainly be far less than that of the comparable steam, which would be dependable across those periods.

Our second comment is that we question the validity of using private financing as a means of establishing value when the SPA, which apparently would market the power under section 5 of the Flood Control Act, is required by law to give preference in the sale of such