

COMMENTS OF THE
ENVIRONMENTAL DEFENSE FUND AND THE NATIONAL WILDLIFE FEDERATION
ON THE WESTERN AREA POWER ADMINISTRATION'S
PROPOSED GENERAL POWER MARKETING CRITERIA

11/15/83

I. Introduction

The Federal Register of August 23, 1983, contained the proposed post-1989 power marketing criteria for the Salt Lake City Area ["SLCA"] (48 Fed.Reg. 38289) and for the Loveland-Fort Collins Area ["LFCA"] (48 Fed.Reg. 38279) of the Western Area Power Administration (Western). It called for comments on the criteria to be submitted to Western by November 15, 1983. The comments below are being submitted by the Environmental Defense Fund ["EDF"] and the National Wildlife Federation ["NWF"].

EDF is a charitable, non-profit, public membership organization composed of scientists, lawyers, economists, educators and other concerned citizens dedicated to the protection and enhancement of human health and the environment. EDF has 47,000 active members nationwide, thousands of whom live near and use the resources that will be affected by Western's proposed marketing criteria.

NWF is the nation's largest private conservation organization with over 4.5 million members and supporters. It is dedicated to the wise use and management of our nation's natural resources. NWF has members, and affiliate organizations, in all fifty states, including those contained in Western's marketing area. NWF, EDF and their members will suffer direct and substantial impact from implementation of the proposed marketing criteria.

II. Summary

EDF and NWF have several concerns regarding the proposed criteria. Western proposes to incorporate conservation and renewal energy requirements in a way that will promote only minimal efforts in these areas on the part of applicants for federal power. It will sell power and energy it knows will not be available from federal generation, contrary to statutory restrictions on Western's authority. Western plans to maximize capacity sales, which will result in periodic maximum system releases of water downstream, and to maximize these sales without sufficient contract restrictions to reduce wide fluctuations in water flow. And, Western proposes to integrate and establish a blended power rate for projects within an area, contrary to statutory restrictions. Most importantly, as we discuss in Section VII of these comments, Western proposes to adopt these criteria without having examined their potential environmental consequences and without having considered any alternative criteria that would be less environmentally damaging. This is a clear violation of the National Environmental Policy Act ["NEPA"], as indicated in NWF's letter to Western of October 4, 1983.

As set forth more fully below, we believe that Western must prepare an environmental impact statement ["EIS"] on its proposed marketing criteria. The EIS must consider a range of alternatives, including those Western may not presently have the authority to implement.

With respect to final marketing criteria, we believe that Western should use allottees' past and proposed efforts to

promote conservation and renewable energy sources as a basis for determining entitlement to inexpensive federal hydropower. This could substantially assist in reducing our dependence on exhaustible, non-renewable fuels, especially foreign-produced oil and gas.

In addition, we do not believe Western has the authority to sell power or energy on a long-term basis if it knows it will not be able to produce at federal facilities. Western is not a utility company. Its only function is to dispose of hydropower produced as an incident to construction of federal dams. It cannot legally contract on a long-term basis to purchase and sell non-federal electricity.

Western should not maximize capacity sales. High water flows, and wide fluctuations in flows, produce enormous impacts on resources downstream--aquatic and terrestrial plant life, wetlands, fish, wildlife, recreation. The potential harm to these important resources far outweighs any benefits which might result from high capacity availability, a fact that is completely ignored by the proposed marketing plan.

Finally, rates of various projects should not be blended. Rates to the customers of some smaller projects would be substantially lowered without a significant increase in the rates to customers of larger projects. This would encourage consumption rather than conservation of electricity, with consequent increased impacts on the environment.

III. Western's failure to use conservation and renewable energy efforts as a marketing criterion.

Western does not propose to use past or proposed conservation and renewable energy efforts by applicants as a criterion for allocating post-1989 area resources. Rather, Western will require only that an allottee implement a conservation and renewable energy (C&RE) program one year after the allocation has already been made. 48 Fed.Reg. at 38293. Total failure to prepare a plan is only subject to a penalty of no more than 10 percent of the customer's allocation. Id. And under Western's Guidelines for C&RE programs, customers may satisfy their obligations by doing nothing more than complying with other state and federal requirements (e.s., establishing a Residential Conservation Service Program pursuant to the requirements of the National Energy Conservation Policy Act). 46 Fed.Reg. 56140, 56141 (1981). Thus, Western's marketing criteria do very little, if anything, beyond what other laws already do to increase conservation efforts and the use of renewable resources.

If Western's "major" objectives are, as it has stated, "increased energy production from renewable resources, reduced dependence on foreign oil, improved efficiency in energy utilization, and reduced energy consumption" (46 Fed.Reg. 5614 (1981)), then Western should use conservation and renewable energy efforts as a marketing criterion rather than as a post-contract requirement.

Under Western's current proposal, would-be allottees have no incentive to even think about conservation and renewable energy projects until after they have signed a contract, and

then their only incentive is to do the minimum level of work necessary to retain their full allocation. If Western were to look at both an applicant's past conservation and renewable energy efforts and what it proposes to do in the future to increase these efforts, it would give would-be allottees a positive incentive to develop the maximum feasible conservation and renewable energy efforts. Western should require that C&RE plans be filed with applications for federal power, and should take advantage of the fact that its new allocations will not come into effect until late 1989, by requiring that C&RE plan implementation be well under way before actual deliveries begin under any new contracts.

Using conservation and renewable efforts as an allocation criterion is not a new idea. Following the so-called Santa Clara Settlement,^{1/} Western's Sacramento Area office had 102 Mw of additional Central Valley Project ["CVP"] capacity to allocate. It reserved 30 Mw of that 102 Mw for customers whose conservation and renewable efforts were the best developed. By doing so, Western was able to create a major incentive for its customers to compete in developing C&RE plans, and there are now numerous C&RE projects either already operating or under development by customers with CVP allocations. Western should extend this approach to all the power it markets.

^{1/}See City of Santa Clara v. Andrus, 572 F.2d 660 (9th cir. 1978).

IV. Western's proposals to market non-Federal energy and capacity.

Western's proposed marketing criteria will result in the marketing of non-federal energy and capacity, since Western proposes to market energy and capacity from federal hydro projects at levels which are above their projected production capability. Specifically, energy marketing is proposed by Western to be based on average hydrologic conditions 48 Fed.Reg. at 38293 (SLCA); 48 Fed.Reg. at 38283 (LFCA). This means that one year in two, on average, generation will be below the levels Western proposes to commit itself to sell.^{2/} Moreover, under one of the options being considered by SLCA ("Option with Purchases"), Western will market about 400 GWh of energy each year in excess of what would be available at federal projects based on projected average hydrologic conditions. 48 Fed.Reg. at 58293. LFCA plans on marketing an extra 308 GWh. 48 Fed.Reg. at 38283. For capacity, Western proposes to use a 90% probability level (id.), which means that one year in ten, non-Federal capacity would have to be purchased to meet Western's contract commitments.

Contracting to sell energy and capacity which Western knows it will not have is neither desirable nor legal. The undesirability of planning to sell non-federal power results from Western's proposed accounting treatment. Western proposes to

^{2/}This assumes that Western does not drawdown reservoirs for the purpose of meeting its marketing obligations. In some years of low precipitation, Western obviously could drawdown reservoirs, assuming they were at high levels because of previous wet years. Drawdown, however, could not be sustained indefinitely over a number of dry years.

accrue the costs of firming energy and capacity over the course of the fiscal year in which they are received and then pass those costs through to customers.^{3/} 48 Fed.Reg. at 38294. The passed-through costs will be based on the average cost of Western's purchases, (Id.) which will almost surely be less than the marginal costs to society of generating the electricity. Western will thus be giving its customers an economic incentive to consume more energy than economic rationality would call for, since they will be getting energy for less than its marginal cost. This result directly contradicts Western's policy of encouraging conservation. If the passed-through costs are rolled in with Western's regular billings to produce a composite rate, as seems likely to be the case, the mispricing will be even more severe. Expensive energy and capacity purchased by Western from thermal resources will end up being priced to its customers at only slightly above the very cheap rates for federal hydropower.

Even if it were desirable for Western to sell non-federal energy and capacity through long-term contracts, it would be illegal. While Western may have authority to engage in short-term transactions to avoid unanticipated shortages on its system, the marketing criteria at hand propose 10-year contracts which will not begin to take effect until 1989. Western is generally authorized to market only federal energy and capacity

^{3/}The costs will be billed to customers during the following fiscal year to the extent they were not anticipated or collected during the same fiscal year. 48 Fed.Reg. at 38294. This provides an additional subsidy to allottees.

surplus to the needs of federal water resource development projects. It is not authorized to establish a marketing plan that will inevitably require the purchase and resale of non-federal energy and capacity. Western has the ability, through suitable contract terms, to avoid in advance situations in which its contracts will obligate it to purchase non-federal resources. Western should include a clause in its contract which would tie actual deliveries to available generation, so that Western's customers, rather than Western itself, would have to acquire additional energy or capacity supplies during adverse hydrologic periods.

V. Western's proposal to market maximum levels of peaking capacity.

Western proposes to market from 1328 Mw (summer) to 1415 Mw (winter) from the SLCA Integrated Projects. 48 Fed.Reg. at 38295. This level is calculated by taking the maximum capacity at each plant, adjusting for one-year-in-ten drought conditions, then adjusting for reserves, and project use. The maximum capacity value includes generator uprate capacity at Glen Canyon Dam. Id.

Western proposes to market, for LFCA, up to 729 Mw (summer) and up to 600 Mw (winter). This level is calculated by taking maximum available capacity minus required reserves. LFCA uses its largest single unit (100Mw) as the basis for its reserves. It does not reduce its capacity to reflect adverse hydrologic conditions except in the month of May when it reduces marketable capacity by 6 Mw from the level which would otherwise have been calculated. 48 Fed.Reg. at 38287, App. A, p.4.

EDF and NWP strongly object to Western's proposal to base marketed capacity on the technically achievable maximum capacity. There is no evidence in the general power marketing criteria that Western has ever considered marketing any level of capacity less than the level shown, in order to mitigate downstream environmental impacts. There is no evidence, for example, that Western has ever considered not marketing capacity made available by the generator uprate program at Glen Canyon Dam. By choosing to market as much capacity as possible, however, Western has committed itself to a course which will cause a maximum level of environmental degradation with no compensating return in energy production or revenue.

Energy production is a function of annual water flow, not peak period flows. By emphasizing maximum capacity sales Western does not contribute one kwh to United States energy production. At the same time, Western's proposed market orientation towards maximum capacity sales will not increase its revenues by one penny. Western sets its overall rates based on a power repayment study ["PRS"] which in turn is based on actual historical costs of construction and projected future operating and maintenance costs. Because the PRS sets total revenue requirements, higher revenues from capacity sales just mean lower rates for energy. Increasing capacity sales revenue does not increase total Western revenue. It merely increases the windfall to power purchasers by increasing the amount of cheap federal capacity available for peaking purposes.

The only possible reasons for maximizing capacity sales, under Western's current rate structure, are to either subsidize energy rates or to meet a regional need for capacity. There is no economic reason, however, why Western should subsidize energy rates any more than it already does by using historic costs rather than replacement costs as the basis for its rates. As for regional capacity needs, Western itself has stated this year that the Colorado River Strage Project^{4/}["CRSP"] market area has "about 1500 Mw of surplus capacity." 48 Fed.Reg. 13081, 13083 (1983). The LFCA market area likewise presently has substantial surplus capacity. By 1989 surplus capacity in Western's market area could be even larger as numerous large units now under construction enter service (Palo Verde 1-3, 1270 Mw each, in Arizona; Springerville 1-2, 350 Mw each, in Arizona; Craig 3, 400 Mw, in Colorado; Bonanza Flat, 400 Mw, in Utah; IPP 1-2, 780 Mw each, in Utah). In any case, Western is under no obligation, statutory or otherwise, to meet a regional need for generating capacity, even if one were to exist.

Given that there is neither an energy benefit nor a revenue benefit from maximizing capacity sales, environmental considerations should be given considerable weight in determining Western's proposed level of marketing of capacity. They cannot be completely ignored, as they are in the proposed marketing criteria.

^{4/}CRSP is by far the largest component of the SLCA system.

VI. Western's proposed integration of projects and blending of power rates.

Western proposes to integrate, for operational purposes, the four SLCA projects--CRSP, Collbran, Provo River and Rio Grande-- and to establish a common rate for all these projects. 48 Fed.Reg. 38289. The effect of this composite rate would be to increase the CRSP rate by only about 0.1 mills, but to significantly reduce the Collbran and Rio Grande rates.^{5/} These rates would fall about 10 mills and 20 mills respectively. Id. The result is an enormous subsidy to the customers of the Collbran and Rio Grande projects, who will be encouraged to increase their overall consumption of electricity. There will be no corresponding encouragement to CRSP customers to reduce consumption because the slight increase in their rates will not be noticeable. Moreover, the reduced rates to Collbran and Rio Grande customers will bear no relationship at all to the cost of producing the electricity for these customers, thus promoting economic inefficiency.

Western also proposes, for the LFCA area, to integrate and establish a blended rate for the Pick-Sloan Missouri Basin Program-Western Division ["P-SMBP-WD"] project and the Fryingpan-Arkansas project ["Fry-Ark"]. 48 Fed.Reg. at 38279. The effect of blending the rates for these two systems would be to significantly lower the rates charged to Fry-Ark customers and to only slightly raise the rates charged to present P-SMBP-WD customers.

^{5/}Provo River is not marketed separately and does not have an established commercial rate. Id.

As noted above, this leads to increased consumption of electricity and economic inefficiency in the allocation of resources.

In addition, any attempt to blend Fry-Ark and P-SMBP-WD rates will result in a number of difficulties in rate setting. For example, the Fry-Ark power is generated by the Mt. Elbert pumped storage plant. Customers are charged only for capacity and "pay" for energy by returning off-peak power to pump water back into the reservoir. Pick-Sloan customers purchase their energy. Thus, it would be difficult to determine which customers should replace the energy if the systems were integrated. In addition, rate determination for Pick-Sloan is exceedingly difficult to determine and presently in a shambles.^{6/} The addition of the Fry-Ark account would exacerbate the problem, perhaps confusing Fry-Ark's repayment status, and certainly making it more difficult to unwind P-SMBP-WD's confused finances.^{7/} Moreover, we question whether such a merger would be lawful.^{8/}

^{6/}Audits by the Department of Interior's Office of Audit and Investigation (now Inspector General) have concluded that the Pick-Sloan power is not being sold consistent with sound business principles. The Interior audit concluded that "the financial posture of Pick-Sloan is, at best, based on an uncertainty. At worst, it is based on an unreality. The net effect is that no one knows, within reasonable limits of accuracy, what rates to charge power users and M&I water users to repay Pick-Sloan costs." Review of Repayment Status of Pick-Sloan Missouri Basin Program and Individually Authorized Projects, Department of Interior, Office of Audit and Investigation, July 1978.

^{7/}One of the main problems with the Pick-Sloan rates is that the repayment studies for the Pick-Sloan include phantom investments. These are power and irrigation facilities "envisioned" to be constructed (but not yet authorized for construction) through the 21st century and to be repaid well into the 22nd century. A large portion of the costs of existing facilities is allocated to these future p[rojects, notwithstanding the fact that most of them will never be built. The effect is to substantially extend [Footnotes continued on next page]

In sum, while it may be administratively convenient for Western to consolidate various projects and establish a common, blended rate, it will not promote the best use of our natural resources. In addition, we question whether Western can legally make a decision directly affecting rates in the context of proposing an allocation plan. Rate decisions should be made in the context of rate-making proceedings where complex issues peculiar to rate-making can be fully aired.

VII. Western's failure to prepare an EIS.

Western has not yet decided "what level documentation under NEPA is required" for its post-1989 marketing plans. 48 Fed.Reg. at 38282 (LFCA); 48 Fed.Reg. at 38292(SLCA). NEPA requires, however, that an EIS be prepared prior to any major Federal action. Western cannot proceed to establish post-1989 marketing criteria without first deciding whether this constitutes a major Federal action significantly affecting the environment. The draft criteria indicate that Western has already reached

the repayment schedule for existing projects. And since interest is not included in the repayment calculations for irrigation projects, the result is an enormous subsidy to existing projects--one far in excess of that envisioned by Congress in authorizing construction of these projects.

8/Current Department of the Interior financial policies for power marketing provide that power rate requirements be based upon current, rather than ultimate, development concepts. 730 Department Manual section 4. The blending of Fry-Ark power rates into Pick-Sloan rates would violate this administrative procedure. More importantly, the Fry-Ark's enabling legislation (Public Law 87-590), provides no authority for merger, and if the Fry-Ark and P-SMBP-WD rates are blended, the Fry-Ark costs may not be repaid within 50 years from the completion date of each unit of the project as required by the statute. Subsection 2(b) of Public Law 87-590.

preliminary conclusions as to how it intends to market post-1989 capacity. They are thus premature absent an EIS or a formal Western declaration that no EIS is required.

In our view, the adoption of marketing criteria for post-1989 power clearly constitutes a major Federal action significantly affecting the environment. Western makes numerous explicit and implicit decisions within the marketing criteria which would, if implemented, have significantly different environmental impacts from other decisions it could have made. These include decisions as to the level of capacity to be marketed, the level of energy to be marketed, the summer/winter distribution of energy to be marketed, the North/South distribution of energy to be marketed, the old customer/new customer distribution of both energy and capacity, and the use of C&RE programs as a marketing criterion. The following discussion shows briefly how in each of these instances Western could have made choices other than those it has made, and how those choices could have different environmental impacts. The cumulative impact of all Western's choices will be one particular set of environmental impacts. Other choices would have significantly different impacts. An EIS must be prepared which examines different options.

The level of capacity marketed by Western has very direct environmental consequences. The power marketed by Western is energy limited. Western can increase its capacity sales up to a maximum level by increasing the rate at which water is released from various dams. Any such increase, however, has to be offset by a decrease at some other time, because the

total amount of water available is not under Western's control. The more capacity Western markets, the more it forces the dam system to be operated in a peaking mode in which periods of very high flows alternate with periods of very low flows. By choosing to market as much capacity as possible, in both summer and winter, Western has chosen one extreme of possible operation modes. The other extreme would be to try to minimize variations, marketing a lower level of capacity but at a much higher capacity factor.

In particular, for the SLCA integrated projects Western has chosen to market capacity from the uprating of the generators at Glen Canyon Dam (48 Fed.Reg. at 38295), a measure which is likely to result in higher peak releases than have been seen at any time over the last 20 years except during peak runoff periods in 1980 and 1983. The Bureau of Reclamation has done an Environmental Assessment ["EA"] of the upratings at Glen Canyon Dam which showed numerous potential environmental impacts if the dispatch pattern of the Dam were changed to take full advantage of the potential capacity available after uprating. Commenters on that EA have pointed out additional impacts. Further studies are currently under way. The Bureau did not proceed with an EIS on the theory that the mere fact of the uprates did not change the operation of the dam and hence had no significant environmental impacts. Western's proposal to market the capacity made available by the uprates, however, means that operating changes at the dam will occur, with their

consequent environmental impacts, so that Western is obligated to perform an EIS before marketing such capacity.

An EIS should consider the environmental impacts of a variety of different capacity marketing levels, including (a) restricting capacity sales to the level supportable under the most adverse conditions, which for SLCA would reduce capacity sales by 135 Mw in the winter and 116 Mw in the summer (48 Fed.Reg. at 38295) and for LFCA by an amount depending on both the adverse capacity level and the associated reserve requirements, (b) not marketing capacity made available by the Glen Canyon generator uprates, and (c) restricting capacity sales to a level consistent with a maximum level of protection for the recreational, wilderness, and other values downstream.^{9/}

The level of energy marketed by Western will clearly have important environmental consequences. For example, if Western proceeds with its "Option with Purchases," it will have to purchase non-Federal power, most likely from coal plants, on a regular basis. This will result in air quality impacts which may be very different in both time and location from those which would occur if Western's customers had to provide the energy for themselves.

Several of Western's marketing decisions affect who will get post-1989 power and energy. In every case, these decisions

^{9/}Grand Canyon National Park, one of the nation's treasures, lies downstream of Glen Canyon Dam, by far the largest project in the CRSP. Since Glen Canyon Dam was not constructed for the generation of hydroelectric power (see 43 U.S.C. Section 620), any plan to market Glen Canyon power must consider non-power values.

have environmental consequences. Because the Western projects are all hydro resources, and because virtually all other generation in the market area is thermal, with very different environmental impacts, shifting use of the output of federal projects output causes corresponding shifts in the use of thermal resources. For example, in SLCA Western proposes to shift some energy production from the summer to the winter season "to equitably distribute energy reductions among existing customers." 48 Fed.Reg. at 38296. This means that summer water releases will be reduced, and winter flows increased, with environmental consequences which Western has not addressed. It also means that some thermal generation which would have occurred in the winter will instead occur in the summer, in order to offset the shift in Western's energy sales. This could exacerbate summer air pollution in the Phoenix area or it could diminish winter air pollution in the Rockies. Without an EIS, there is no way to know what the environmental effects will be, except to say that some will certainly exist.^{10/}

Besides proposing to shift the summer/winter energy distribution, Western plans, for the SLCA, to change the ratio of energy sold to the southern and northern portions of the

^{10/} Parenthetically, we note that Western's claim of an equity basis for its decision to shift energy production from summer to winter is without foundation. Existing customers have no legal right whatsoever to renewal of their contracts after 1989, so there is no "equitable" distribution issue. To argue otherwise is equivalent to saying that holders of 50-year federal hydro permits acquire an equity right to renewal of their permits at the end of 50 years, a position which Western's preference customers have vociferously opposed in the past. The simple fact is that Western has broad discretion in reallocating post-1989 power, and current allocatees have no continuing right to power superior to the rights of qualified new applicants.

marketing area, as well as to change the boundaries of the marketing area itself. 48 Fed.Reg. at pp. 38290, 38297. Both of these changes would require more thermal generation in the southern area, and less in the northern area, compared to the situation if no change occurred. Again, there will be environmental consequences which Western has not addressed. Similarly, with respect to both SLCA and LFCA, Western proposes to reserve the great majority of marketed energy and capacity for current customers. 48 Fed.Reg. at 38297 (SLCA); 48 Fed.Reg. at 38289 (LFCA). Other possible allocations (e.g., allocating power to preference customers in proportion to the extent of their conservation and renewable energy efforts rather than their historic contract levels) would have very different results.

VIII. Conclusion

Western has proposed marketing criteria which result in minimal emphasis on conservation and renewable energy programs, which ensure that Western will have to market non-federal resources, and which maximize capacity sales, producing serious downstream impacts without any compensating financial, electrical or environmental benefits. Western has made numerous choices regarding how much energy and capacity will be marketed, and to whom--choices whose environmental impacts will be significant but have not been identified. In our view Western is required to prepare an EIS which examines a number of alternative marketing options including lower capacity sales, use of conservation and renewable energy efforts as a marketing criterion, and other options which Western may not presently have the

authority to implement. Only after it has examined a full range of options and their environmental consequences can Western proceed with marketing post-1989 energy and capacity.

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