



Summary

PacifiCorp Capacity Sale

Final Environmental Impact Statement (EIS)

Purpose of and Need for the Action

The Bonneville Power Administration (BPA) must respond to the need for power as represented by PacifiCorp's request for a continued supply of firm capacity.

BPA has surplus electrical capacity (peakload energy) that BPA projects will not be required to meet its existing obligations. Such obligations include those to meet the loads of firm power customers, pursuant to the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act), and previously committed capacity contracts.

BPA is authorized under the Northwest Power Act to sell system capacity and/or energy that is surplus to its needs, with the obligation to offer any available surplus capacity/energy first to customers in the Pacific Northwest region. PacifiCorp had a contract with BPA providing for PacifiCorp's purchase of 1127.3 MW of peaking capacity ending August 31, 1991. BPA and PacifiCorp have entered into short-term surplus firm capacity sale agreements under which BPA provides capacity service to PacifiCorp.

BPA and PacifiCorp (formerly doing business as Pacific Power & Light Company, a.k.a. PP&L, a Pacific Northwest private utility) have negotiated a long-term contract for peaking capacity. The proposed long-term contract is for 1100 megawatts (MW) of contract demand limited to no more than 10 megawatt hours (MWh) per day and 50 MWh per week per megawatt of contract demand. The proposed contract would expire August 31, 2011.

Currently, BPA could serve up to 2000 MW of long-term capacity contracts using capacity available from BPA resources that is surplus to other needs. However, as preference loads grow, capacity that is available on the Federal Columbia River Power System (FCRPS) now may be required to serve preference loads later.

The purposes are to:

1. Assist PacifiCorp in meeting its need for long-term firm peaking capacity.
2. Use surplus capacity available on the BPA system to raise revenue to enhance BPA's ability to repay its debt, and to help hold down electric power rates.
3. Take advantage of the complementary characteristics of the largely hydro-based BPA system and PacifiCorp's largely thermal-based system.
4. Protect BPA's ability to serve its existing contractual obligations and remain able to meet the needs of its customers in accord with the Northwest Power Act as existing contracts expire.
5. Meet BPA's obligations under the Northwest Power Act to protect, mitigate, and enhance fish and wildlife.

The Scope of This EIS

This EIS will not focus on changes in hydropower operations, because the PacifiCorp contract and marketing decisions in general are not decisions on particular hydropower operations. The proposed contract would be a system operational obligation to be met with all of the resources at BPA's disposal. Hydropower operation decisions are deferred to the System Operation Review (SOR) EIS. This EIS focuses on the mix of resources that may be used to meet the contract

obligation. It analyzes alternatives that could rely exclusively on thermal resources and/or acquisition of additional resources if made necessary by changes in hydrosystem operations.

Alternatives and Environmental Consequences

Preferred Alternative (Alternative 1, Proposed Action)

The proposed long-term contract with PacifiCorp, Alternative 1, will expire August 31, 2011. The maximum contract demand would be 1100 MW of capacity and associated peaking energy provided up to a maximum of 10 hours per day and limited to no more than 50 hours per week. Returns of replacement peaking energy normally are to be made by PacifiCorp within 168 hours of delivery by BPA.

The proposed contract includes operational provisions that would permit BPA to limit hourly rates of return of replacement peaking energy in the months of March through October. PacifiCorp is to preschedule deliveries each workday for each hour of the following day or days until the next regular workday. PacifiCorp would have a right to change these schedules with 30 minutes' notice but the total changes from prescheduled deliveries during heavy load hours (HLH) would be limited to 6 hours per day per megawatt of contract demand. This is consistent with normal scheduling procedures now in use by BPA and scheduling utilities.

The proposed price for the capacity is to be escalated to reflect changes in BPA's average system cost (base) as determined in each successive BPA general rate case after September 1, 1991. Both parties have certain conditioned rights to reduce contract demand, and BPA has certain conditioned obligations to restore contract demand once it has exercised its rights to reduce it.

Once BPA has reduced contract demand, it must offer to restore contract demand under certain conditions. PacifiCorp also has certain limited rights to reduce contract demand upon 5 years' written notice, or under special conditions, upon 1 year's notice. (See section 7 of the proposed contract, located in Appendix A of this document, for details on the two parties' respective rights to reduce or restore contract demand.)

This alternative is the Preferred Alternative because it:

1. Secures a long-term source of revenue through a sale of capacity surplus to BPA's current and foreseen needs at a price well above what BPA could achieve through spot market sales. This will help stabilize BPA's wholesale power rates and BPA's revenues, thus helping to assure timely repayment of debt. Currently, BPA is not aware of an equivalent market for long-term firm capacity.
2. Enables BPA and PacifiCorp to benefit from the complementary characteristics of their respective systems. PacifiCorp's principally base-loaded thermal system is less accommodating to large load swings than BPA's principally hydro-based system, which can accommodate rapid load swings.
3. Has the potential for avoiding substantial resource development by PacifiCorp with the attendant risks, adverse rate effects on PacifiCorp's customers, and adverse environmental impacts.

BPA could serve the proposed capacity contract with surplus capacity from its resources 96 to 98 percent of the time. BPA would need additional capacity to meet the proposed long-term contract only in the winter months for relatively short periods. BPA would make up this additional capacity with resources beginning with those of lowest cost: conservation acquisitions, efficiency improvements, and purchases of surplus energy generated from largely thermal facilities in the Pacific Southwest. Purchasing energy in this way defers the long-term acquisition of resources by BPA to serve the proposed contract.

The sale of surplus capacity to PacifiCorp may allow PacifiCorp to defer construction of new thermal resources that it may otherwise need in the absence of this contract.

BPA's purchase of alternative resources and PacifiCorp's deferral of construction/operation of additional thermal resources as described above are expected to preclude potential impacts to air quality, water quality, and other

environmental components that could otherwise occur.

The ability provided by the proposed contract to restrict the rate of returns during certain months gives BPA flexibility to deal with problems in accepting returns during light load hours (LLH).

Alternative 2: No Action

The No Action Alternative is not entering into a long-term capacity contract with PacifiCorp. BPA expects that it would use the flexibility on the system in the absence of a long-term PacifiCorp capacity contract to support additional short-term energy sales, to perform more seasonal storage transactions, and to make short-term or spot capacity sales or exchanges. There would be no potential need for BPA to acquire resources to support this alternative. Hydro operations will be consistent, as they would under any of the alternatives, with the outcome of the SOR process and interim operations, as documented by the 1992 Flow EIS and later supplements. Some of the purposes, such as securing revenues through the sale of surplus capacity, may be met to a lesser degree than under other alternatives. In the near term, PacifiCorp may purchase some capacity (up to 800 average megawatts (aMW) plus 15 percent reserves) on a short-term or nonfirm basis from BPA in the absence of a long-term contract, but would eventually secure its own resources and/or make long-term capacity arrangements with other utilities to meet its capacity needs.

The No Action Alternative is expected to result in substantial impacts on air quality and resource consumption (particularly natural gas) related to the expected construction by PacifiCorp of combustion turbine projects to meet its peaking capacity needs.

Alternative 3: Larger Capacity Sale

Under this alternative, BPA would contract for an additional 900 MW of contract demand with PacifiCorp and/or other utilities under terms similar to the proposed contract. Based on current forecasts, BPA could serve the additional 900 MW by using surplus capacity that is available from BPA resources 90 percent or more of the time, assuming a medium load forecast, except in February, March, and April. In those months, BPA could serve it about 80 percent of the time. However, FCRPS operations may be redefined in the SOR process, and interim annual operating schemes being formulated through supplements to the 1992 Flow EIS. In addition, as preference loads grow, capacity that is now available on the FCRPS may be required to serve preference loads later. The issue for this alternative is what are the future resource implications of contracting to supply PacifiCorp and/or other utilities with a total of 2000 MW of capacity.

This alternative is expected to have the least impact on air quality and resource consumption because it would be expected to result in the least amount of new resource construction and operation.

Alternative 4: Stricter Return Provisions

This alternative is the same as the proposed action except BPA would impose stricter return provisions. In lieu of the 168-hour return in the proposed contract, BPA would either (1) require a 24-hour return (i.e., PacifiCorp would have to return energy associated with the delivery of peaking capacity within 24 hours of delivery instead of within 168 hours), or (2) impose an end-of-week return deadline, whereby all peaking replacement energy must be returned by the 2400 hour on Sunday.

Either of these stricter return provisions would give BPA greater control of its loads and achieve greater efficiencies in use of its resources. This could lead to environmental benefits related to operation of BPA's system. However, either if these stricter return provisions would be much less operationally advantageous to PacifiCorp.

Alternative 5: Variations in Hours of Peak Demand Available

This alternative provides more flexibility to PacifiCorp in exercising its rights under the contract by relaxing some terms of the proposed contract.

First, BPA would make a greater amount of peaking energy available to PacifiCorp each day for the week while

keeping the contract demand the same as in the proposed contract (i.e., 1100 MW). The proposed contract limits the amount of peaking energy to 50 hours of peak demand of 1100 MW for a total of 55,000 MWh per week. Under this alternative, BPA would allow PacifiCorp the additional flexibility to increase the number of hours of peak demand and thus increase the amount of peaking energy available for the week. This alternative assumes that BPA increases the amount of peaking energy available to PacifiCorp to an amount equal to the proposed contract demand of 1100 MW times 72 peak hours, a common hourly amount offered in some short-term BPA contracts. Total peaking energy would thus be 79,200 MWh.

Second, the special restrictions specified in §5(b)(3) and §5(b)(4) of the proposed contract on return of peak energy (peak replacement) during the fish flow augmentation months of March through October are deleted.

This alternative could result in drastic load swings on both BPA's and PacifiCorp's systems, which may be operationally undesirable and, potentially, environmentally harmful. Also, increased returns of peaking replacement energy associated with this alternative may be undesirable during LLH or when BPA is in a situation where it must purchase energy.

Cumulative Impacts

Cumulative impacts related to the range of alternatives considered in this EIS are mostly associated with the No Action Alternative. For that alternative there are identifiable cumulative impacts associated with the substantial resource development expected by PacifiCorp to meet their capacity needs. It is impossible to address some cumulative impacts definitively because it is not known precisely where these resources would be built, but there would be cumulative impacts related to global warming, competition for sites for generating facilities, air quality, and consumption of resources, particularly natural gas.

The other alternatives analyzed in this EIS do not have the generating resource development implications of the No Action Alternative. To the extent some resources in California might sometimes be operated to meet a BPA purchase, there may be small cumulative impacts related to air quality, global warming, and fuel consumption, but these would be expected to be negligible.

Use of BPA resources to serve the contract, or to provide capacity in accord with any of the other alternatives analyzed, will contribute to the overall effects associated with BPA's system. However, these effects are beyond the scope of this EIS since the decision on the PacifiCorp contract is not a decision on FCRPS operations; these decisions are taking place in the SOR process.

Endangered and Threatened Species and Critical Habitat

Consultations regarding the effects of Federal hydropower operations on endangered or threatened Columbia River salmon species are done on annual operating plans. BPA's actions to implement power-related activities such as these capacity sale alternatives will not conflict with the outcomes of such Endangered Species Act consultations. No specific consultation is therefore planned on these alternatives.

