DECISION MEMORANDUM

TO:COMMISSIONER NELSON

COMMISSIONER SMITH

COMMISSIONER HANSEN

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WORKING FILE

FROM:SCOTT WOODBURY

DATE:JANUARY 10, 1997

RE:CASE NO. UPL-E-96-5

PETITION FOR DECLARATORY RULING

On July 12, 1996, PacifiCorp dba Utah Power & Light Company (Utah Power; Company) in Case No. UPL-E-96-3 filed a Petition for Declaratory Ruling with the Idaho Public Utilities Commission (Commission).  Reference Commission Rules of Procedure, IDAPA 31.01.01.101.  That Petition by Commission Order No. 26595 was moved to docket No. UPL-E-96-5.

Earth Power Resources, Inc. (Earth Power) is a Nevada corporation and is the developer (individually and/or through separate subsidiaries or affiliates) of six proposed 1 megawatt (MW) geothermal generation projects, three generation projects to be located at Allen Springs and three generation projects to be located at Lee Hot Springs in Churchill County, Nevada.  Earth Power proposes to develop and sell the output of its generation projects to PacifiCorp, Idaho Power Company (Idaho Power) and Washington Water Power Company (Water Power).  As proposed, Earth Power would sell and each utility would purchase a total of 2 MW, one MW each from Allen Springs and Lee Hot Springs.  Earth Power represents that the generation projects will be qualifying small power production facilities as defined under Sections 201 and 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA), and the implementing rules and regulations of the Federal Energy Regulatory Commission (FERC).

PacifiCorp arguing that the Commission’s prior Orders limiting the availability of published avoided cost rates to projects less than 1 MW would be circumvented were it to allow a developer, such as Earth Power, to develop three projects at each site (Allen Springs and Lee Hot Springs) or to install six generation projects at a single geothermal field, requests a declaratory ruling from the Commission declaring that

(I)additional generation by Earth Power or any of its affiliates, from the same geothermal field supplying geothermal fluid to the facility, will not be entitled to published rates applicable to projects smaller than 1 MW;

(ii)if Earth Power or any affiliated entity seeks to contract with Utah Power for  the purchase of additional power and energy from a generator at the same geothermal field supplying geothermal fluid to the facility, the rates under this Agreement shall be taken into account in order to arrive at a rate for the cumulative generation which reflects Utah Power’s avoided costs.

Earth Power filed an Answer to PacifiCorp’s Petition for Declaratory Ruling on August 1, 1996.  Earth Power contends that the six proposed projects are “independent” and notes that the Commission has never required that each project be built to its fullest possible potential.  Nor has the Commission, it states, ever required all projects that use the same motive force be grouped together for purposes of entitlement to published rates.

The Commission based on filings in Case Nos. UPL-E-96-3, IPC-E-96-14, and WWP-E-96-6, determined in Order No. 26595 that The Washington Water Power Company, Idaho Power Company and Earth Power should be granted intervenor party status in the declaratory ruling Case No. UPL-E-96-5.  Reference IDAPA 31.01.01.071-.075.

A public hearing in Case No. UPL-E-96-5 was held on December 17, 1996, in Boise Idaho.  The following parties appeared and participated by and through their respective counsel:

PacifiCorp dba Utah Power & Light Company John M. Eriksson

Earth Power Resources, Inc.Peter J. Richardson

Idaho Power Company Bruce C. Jones

Barton L. Kline

Washington Water Power CompanyR. Blair Strong

Commission StaffScott D. Woodbury

As a preliminary matter at hearing the Commission took up and heard oral argument on the November 1, 1996, Motion to Strike filed by Earth Power.  Although granted intervenor status, Idaho Power elected to file no direct testimony in Case No. UPL-E-96-5.  Instead, on October 31, 1996, Idaho Power filed a document entitled “Concurrence of Idaho Power Company.”  In its Motion, Earth Power sought to strike from the record Idaho Power’s Concurrence on the ground that the Concurrence contained factual assertions not supported by the record.  Pursuant to agreement of Earth Power, Idaho Power and the Commission, the written Concurrence was treated as withdrawn by Idaho Power, and it was accepted that Idaho Power would not be presenting a direct case, but instead would be relying on the testimony and exhibits filed by Commission Staff, Water Power and Utah Power.  Tr. pp. 8, 9.

The Hearing Record

The testimony, exhibits and hearing record in Case No. UPL-E-96-5 can be summarized as follows:

Earth Power Resources, Inc. is the owner and operator of two separately qualified small production facilities (QFs) located in Churchill County, Nevada: (1)  The Lee Hot Springs Project (QF-95-1-001) and (2) the Allen Springs Project (QF-96-15-000).  Tr. p. 13; Exh. 202, 203, 301.  Both projects are located within Known Geothermal Resource Area (KGRA) No. 12 in Churchill County, Nevada, an area encompassing in excess of 225,000 acres.  Tr. p. 17; Exh. 207.  The QFs  are self-certified.  Ref. 18 C.F.R. § 292.207(a)(1) and (2).  The facilities will generate power using geothermal energy, hot fluids from the earth.

The project location of the Lee Hot Springs Project is Churchill County, Nevada, approximately 18 miles south of Fallon in Section 33, Township 16 North, Range 29 East, MDM.  Exh. 202.  As reflected in the FERC filing, “the plant will begin operations at the 3 megawatt to 5 megawatt level, however, there will be expansions which may go up to 75 megawatts and beyond.”  Exh. 301.

The project location of the Allen Springs Project is Churchill County, Nevada, approximately 17 miles south of Fallon in all or parts of Section 28, Township 16 North, Range 29 East, MDM.  Exh. 203.  As reflected in the FERC filing, the project site “has locations for 10-20,000 kW power plants which will be built in modules of 1 megawatt or more each. . . . The project will begin operations at the 1 megawatt to 5 megawatt level, however, there may be expansions which may go up to, but not exceed, 80 megawatts.”  Exh. 203.

Earth Power presently has an approved Power Purchase Agreement with Utah Power for a 999 kW project to be located at Lee Hot Springs.  Ref. Case No. UPL-E-96-3, Order No. 26705 issued December 6, 1996.  In its Order, the Commission stated “Our approval of the Power Purchase Agreement in this case is not to be interpreted as establishing any precedent regarding the matters under consideration in Case No. UPL-E-96-5.”  Earth Power proposes to develop two additional under 1 MW projects at the Lee Hot Springs site and to sell the entire output of each through separate contracts to Water Power and Idaho Power.  Tr. p. 13.

Earth Power further proposes to develop three under 1 MW projects at the Allen Springs site and to sell the entire output of each through separate contracts to Utah Power, Water Power and Idaho Power.  Tr. p. 13.

The exact location of the wells and hence the exact location of the other projects, Earth Power states, cannot be known until actual drilling is completed.  Tr. p. 18.  Earth Power has developed the projects (test wells) to the point of ensuring that they are viable.  Engineering and site preparation work can only go so far, however, Earth Power states, without a Power Purchase Agreement.  Tr. pp. 19, 20.  It is estimated that each under 1 MW project will require 750 gpm.  One completed well with a 12" casing is capable of producing 1,800 gpm, an amount sufficient for 3 MW.  A slim hole with a 7" casing is capable of producing 750 gpm, which is sufficient for the already executed Utah Power contract.  Tr. pp. 19, 109.

Earth Power is planning to construct a common gathering system that will gather geothermal liquids from wells drilled at various locations and distribute those liquids to a common heat exchanger and then through separate pipelines to three separate turbine generators at each QF site.  Tr. pp. 20, 21.  Separate corporations will operate the wells, gathering systems, generators and transmission systems.  Tr. pp. 268, 269.  The generation will be separately metered at each generator at each project site for purpose of calculating gross kWh output for each utility.  Tr. p 22.  A line will be run from each project to a common electric distribution system.  Tr. p. 22.

Earth Power recommends that the Commission in this case establish a set of qualifying criteria for QF eligibility for published avoided cost rates, rates available to QFs under 1 MW.  For purpose of Commission analysis in determining whether a project is under 1 MW or should be regarded as greater than 1 MW, Earth Power proposes a test of independence, i.e., whether one project (generator) can be shut down without impacting the other projects (generators).  If the under 1 MW generators operate independently of each other, Earth Power contends, then they are separate projects and should be entitled to published rates.  Tr. pp. 26, 133.  (Compare side-by-side turbine-generator sets in a single power house at a single hydro-electric plant.  Tr. pp. 133, 134.)  See also WWP discussion re: reliability, Tr. pp. 266, 268.  It is irrelevant, Earth Power contends, whether the generators share a common well or have a common source of motive power.  Tr. pp. 25, 31.  If the common gathering system fails, then the generating projects can, Earth Power contends, always access the geothermal reserves through separate wells.  Tr. pp. 26, 27.

Through use of shared facilities (gathering, transmission, etc.)  Earth Power maintains that it will be able to realize some shared economies of scale (O&M, etc.), similar to those realized by utilities.  Tr. p. 28.  The economics of the projects, however, Earth Power reminds the Commission, are beyond the scope of permissible Commission inquiry.  Tr. p. 32.  Reference 18 C.F.R. § 292.602(c).

In Commission Order Nos. 25882, 25883 and 25884 issued January 31, 1995, the Commission lowered the threshold availability for published avoided cost rates from 10 MW to 1 MW.  Tr. p. 70.  The Commission in its Orders stated:

Ratepayers should not be asked to subsidize the QF industry through the establishment of avoided cost rates that exceed utility costs that would result from an effective least cost planning process.  Reducing the threshold correspondingly reduces the risks associated with the published rates being set either too high or too low.

. . .

Lowering the threshold, along with adopting a least cost planning based methodology . . . will help to ensure that a greater number of QF projects are cost effective by market standards before they are acquired by our utilities.

Tr. pp. 168, 191-193, 294, 295.  Staff contends that if the under 1 MW methodology is used, resulting levelized rates will be in the range of about 40 mills/kWh.  If the greater than 1 MW IRP methodology is used, resulting levelized rates would likely be in the range of 25 mills/kWh or less.  Tr. p. 295.  Earth Power admits that it is proposing multiple under 1 MW units solely for the benefit of obtaining published prices.  Tr. p. 35.  Staff contends that the IRP methodology more accurately reflects true avoided costs.  Tr. p. 320.  Water Power contends that Earth Power’s proposals to divide a 3 MW project into three 1 MW projects, if approved, would “defeat the Commission’s policy” (Tr. p. 270); Utah Power contends that it would “violate the Commission’s intent” (Tr. p. 191); and Staff contends that it would “circumvent the Commission’s IRP methodology” (Tr. p. 300).  Tr. pp. 70, 71, 170.  Earth Power posits that the spirit and intent of the Commission in lowering the threshold from 10 MW to 1 MW was to kill QFs totally, to discourage them.  Tr. p. 170.  Earth Power contends that it is complying with the spirit and the letter of the Commission’s directive.  Tr. pp. 53, 54, 169.  Earth Power queries whether it should be denied published rates, simply because its proposed projects could have been designed to be larger.  Tr. p. 37.  If its proposal for separate generation units does not qualify for published rates, what changes in configuration are necessary?  Tr. pp. 49, 135.  Earth Power recommends that the Commission answer this question.

Earth Power disputes Utah Power’s contention that “projects that use common facilities should be considered the same project.”  Tr. pp. 55, 56.  In this case, common facilities are proposed for motive force, distribution and ancillary support.  Tr. p. 57; see also Tr. pp. 148, 150; Tr. pp. 210-212; see discussions re: common facilities—one project; Tr. pp. 245-253; Tr. pp. 308-310.

Water Power in its prefiled testimony recommends or proposes a policy that all generat­ing units located at a single QF site be lumped together for purposes of entitlement to receive administratively determined avoided cost rates.  Tr. pp. 65, 258; Water Power on cross-examination, however, limits suggested criteria to the facts presented (i.e., two QF sites, three 1 MW projects at each site); pp. 278, 282.  Earth Power contends that all six generators can be separately qualified as QFs.  Tr. pp. 65, 98.  See concerns raised by Utah Power Tr. pp. 218, 219; Idaho Power Tr. pp. 273-276.

Under FERC Rules 18 C.F.R. § 292.303(a), electric utilities are obligated to purchase energy and capacity from QFs.  Pursuant to 18 C.F.R. § 292.304(a)(2), electric utilities are not required to pay more than the avoided cost for purchases, i.e., the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the QF, such utility would generate itself or purchase from another source (18 C.F.R. § 292.101(b)(6)).  In subparagraph 18 C.F.R. § 292.304(a)(1)(I), rates for purchases are required to be just and reasonable to the electric consumer of the electric utility, and in the public interest.

Staff contends that the rates which a utility should be obligated to offer Earth Power in this case should be based on the greater than1 MW IRP methodology, reasoning that the aggregate sizes of both the Lee and Allen QFs are larger than 1 MW, and that the three projects at each site are not truly independent.  Staff contends that the public interest would not be served by requiring utility customers to pay more than they would otherwise pay if only one contract for the full capacity to be developed at each QF site were proposed.  Tr. pp. 299, 300.  If there truly were three separate, independent projects at each of the two sites, Staff posits that Earth Power would have certified six different QFs and requested six different contracts from the one utility with the highest avoided cost rates.  Tr. p. 301.  Separate QF certification, Staff later argues, is not the only factor that should be considered.  Tr. p. 312.

Commission Decision

Re: PCp request for Declaratory Ruling

◆re: eligibility of future Earth Power projects at Lee Hot Springs and Allen Springs for under 1 MW published rates

◆re: consideration of existing PCp contract in calculation of rates for additional generation

Re: Establishing eligibility criteria for <1 MW rates

◆QF status

Multiple generation units at one QF site

◆common or shared facilities

◆degree of corporate separateness/sameness

◆

other criteria

Re: Lowering of threshold from 10 MW to 1 MW

Re: Public interest.

Scott Woodbury

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