

increasing what Edison describes as "the routine net generating capability" of SONGS 1 from 380 MW to about 405 MW.

The Commission ordered that the review of the cost-effectiveness of the proposed SONGS 1 expenditures be consolidated with other resource plan issues in the Biennial Resource Plan Update. Decision (D.) 91-03-058, mimeo. That decision expressly held open the issue of "whether some aspect of the investments proposed for SONGS 1 could or should be considered deferrable by QFs." (Id., mimeo. p. 9.) The Commission said:

"By definition, a resource that already exists cannot be deferred or avoided by another resource. However, the expansion or life extension of an existing resource may be deferrable....

"Edison and SDG&E claim that the proposed investments involve neither an expansion nor a life extension of SONGS 1. If the record supports this claim, then no aspect of SONGS 1 would be considered deferrable." (Id., mimeo. pp. 9-10.)

In compliance with D.91-03-058, Edison filed a new application supporting its request for approval of the proposed expenditures. (A.91-07-004.) In the new application, Edison uses the type of resource plan analysis, including consideration of alternatives, that we require for all resource options under investigation in the Update. This application is now consolidated with the Update.¹

On July 1, 1991, together with its new application, Edison filed its motion requesting that SONGS 1 be found to be a nondeferrable resource and, therefore, not subject to be bid

¹ San Diego Gas & Electric Company (SDG&E) is the minority (20%) owner of SONGS 1. SDG&E's application for approval of its share of the proposed expenditures (A.91-02-092) has already been consolidated with the Update.

Mailed

Decision 91-09-073 September 25, 1991

SEP 26 1991

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Investigation on
the Commission's Own Motion to
Implement the Biennial Resource
Plan Update Following the
California Energy Commission's
Seventh Electricity Report.

ORIGINAL

I.89-07-004
(Filed July 6, 1989)

And Related Matters.

Application 91-02-092
Application 91-07-004
Application 91-08-028

**INTERIM OPINION (RESOURCE PLAN PHASE) ON
MOTION FOR DETERMINATION OF NONDEFERRABILITY
OF PROPOSED CAPITAL EXPENDITURES FOR SONGS 1**

In today's opinion, we conclude that certain proposed capital expenditures for Unit 1 of the San Onofre Nuclear Generating Station (SONGS 1) should be treated as nondeferrable for purposes of this proceeding. However, we affirm that the cost-effectiveness of such proposed expenditures will be tested in the resource plan phase, and that any increased generation need (if the proposed expenditures do not pass the test) may be filled by cost-effective alternative resources and subject to possible deferral through bidding by qualifying facilities (QFs).

I. Background

In its current general rate case (Application (A.) 90-12-018), Southern California Edison Company (Edison) sought to have the Commission review certain proposed capital expenditures for SONGS 1. These expenditures would serve several purposes according to Edison. Some of these expenditures would result in

against by QFs. On July 5, Administrative Law Judge (ALJ) Kotz issued a ruling setting a schedule for responses to Edison's Motion and for Edison's reply to the responses. The ALJ also identified certain issues that parties may want to address. On July 24, responses to the motion were filed by SDG&E (supporting the motion), and by Geothermal Resources Association/Independent Energy Producers Association (GRA/IEP) and the Commission's Division of Ratepayer Advocates (DRA), both opposing the motion. Edison filed its reply on August 5. The matter now stands submitted for decision.²

II. Positions of the Parties

A. Edison's Motion

Edison's motion requests confirmation that, whether or not the proposed SONGS 1 capital expenditures are found to be cost-effective, SONGS 1 is a nondeferrable resource, not subject to QF bidding. Edison also asks that the capital expenditures be declared nondeferrable.

Citing D.91-03-058, Edison believes that because SONGS 1 is an existing resource (and is so designated in the California Energy Commission's 1990 Electricity Report), it is nondeferrable. Moreover, many of the proposed expenditures are necessary to enable Edison to operate SONGS 1 beyond Fuel Cycle 11; if these expenditures are determined not to be cost-effective, some resource(s) other than SONGS 1 would have to serve as avoided cost

² SDG&E also tendered a reply, and errata to its reply, on August 5 and August 7, respectively. However, SDG&E did not join in Edison's motion when it was filed, nor has SDG&E asked to be treated as a moving party. Having previously filed a response to the motion, SDG&E cannot now also claim to be a moving party for purposes of having the last word. We therefore disregard SDG&E's reply.

benchmark in the procurement process to supply the energy and capacity SONGS 1 would otherwise have provided. Thus, regardless of whether the proposed expenditures are cost-effective, SONGS 1 would not be appropriate as an Identified Deferrable Resource for purposes of QF bidding.

The motion next addresses our finding in D.91-03-058 that expenditures that increase the capacity or extend the life of existing plants may be deferrable. Edison argues that, although the planned upgrade includes modifying the high-pressure turbine in order to increase the routine net generating capability of SONGS 1 by about 25 MW (from 380 to 405 MW), the plant's rated capacity of 436 MW will not change. Furthermore, the plant could, given several months' lead time for safety analysis and federal approval, operate at its rated capacity. Edison also says that the proposed expenditures will not affect the operating license end date. To support these claims, Edison submits a declaration signed by Edison Senior Vice President Harold B. Ray.

Attempted deferral of the proposed expenditures might prevent Edison from operating the existing plant in compliance with federal safety regulations beyond Fuel Cycle 11. Also, any delay due to QF bidding could postpone Fuel Cycle 12, since Edison has held off on Fuel Cycle 12 expenditures pending a Commission decision on the continued operation of SONGS 1. Edison concludes that ratepayers could be adversely affected by either of these likely consequences of treating all or part of the proposed expenditures as deferrable.

B. Responses to the Motion

1. SDG&E

In seconding Edison's motion, SDG&E says Commission decisions (especially D.91-03-058) establish the principle of nondeferrability for existing resources. That SONGS 1 is an existing resource is shown by the fact that it has remained both in Edison's and SDG&E's resource plan since beginning commercial

operation in 1968. The proposed turbine modifications will not change the plant's rated capacity, which has always been 436 MW. The plant currently is capable of operating at its rated capacity; the proposed expenditures only permit the plant to operate with a higher routine generating output. Since the plant upgrade is neither a capacity expansion nor a life extension, no aspect of the SONGS 1 is deferrable under D.91-03-058. SDG&E believes the hydro relicensing analogy, posed in the July 5, 1991 ALJ ruling, is compelling. The turbine modification cannot stand alone, separate from other SONGS 1 expenditures; they are linked and therefore both ought to be treated as nondeferrable.

2. GRA/IEP

GRA/IEP oppose Edison's motion. They want the issue of deferrability referred to hearings. The Edison motion, in their view, is a motion for summary judgment that should be denied because (1) material factual issues are disputed, and (2) Edison has not shown it is entitled to summary judgment as a matter of law. (Cf. Cal. Code of Civil Procedure Section 437c.)

GRA/IEP assert that Edison has ignored the four nondeferrability criteria outlined in D.86-07-004. (See 21 CPUC 2d 340, 380.) Further, it is both improper and unnecessary to consider the issue of nondeferrability in advance of a decision on cost-effectiveness (the first criterion).

GRA/IEP say that under D.91-03-058, Edison must at least show that the SONGS 1 project involves neither a capacity expansion nor a life extension, but its motion has failed to do so. The lack of change in "rated capacity" should not obscure the fact (which Edison concedes) that the plant's "generating capability" will increase by 25 MW. Edison also concedes that, but for the additional capital expenditures, SONGS 1 will not continue to operate. Thus, the proposed expenditures are both a life extension and a capacity expansion.

3. DRA

According to DRA, Edison's motion is anticompetitive, as it would prevent QFs from competing against SONGS 1 in some circumstances. This lost opportunity could cost ratepayers hundreds of millions of dollars.

DRA, like GRA/IEP, believes that the proposed capital expenditures both extend the life of the plant and expand its generation capacity. DRA says Edison's own analysis attributes millions of dollars of capacity value to the planned improvements. DRA accepts that a resource which is in place and operating is nondeferrable. But when new capital is required to keep a resource in operation, to extend its life, and the new capital exceeds the costs of alternative resources, such a resource should be considered nondeferrable. DRA thinks D.91-03-058 does not address this issue.

DRA notes that, with the exception of peaking resources (e.g., combustion turbines), which have no energy-related capital costs, the Commission has explicitly rejected creating "broad" categories of generically nondeferrable resources." (D.86-07-004, 21 CPUC 2d 340, 380.) Besides, few existing resources are likely to require capital expenditures exceeding the investment needed for a new combustion turbine; therefore, most existing resources are already categorically nondeferrable. (See D.90-03-060, 36 CPUC 2d 2, 45-46.)

DRA distinguishes between the hydro relicensing and SONGS 1. PG&E risked losing a cost-effective resource, but SONGS 1 simply might not be cost-effective without the upgrade; ratepayers may benefit from development of a less costly replacement resource.

C. Edison's Reply

Edison believes that DRA misunderstands the nature, cost, and scope of the SONGS 1 upgrade, as well as prior Commission decisions on the issue of deferrability. The existing resource and principles of D.91-03-058 follow a long line of Commission decisions supporting the precept that resource additions, not existing resources, are deferrable by QFs. (See, e.g., D.87-05-060.

and D.86-07-004.) All existing generating facilities may require capital expenditures enabling them to continue operating; the Commission has never found such expenditures to be deferrable.

Edison opposes DRA's idea that existing resources having upgrade costs greater than alternative resources warrant treatment as deferrable. Existing resources are not and should not be subject to bid by QFs. GRA/IEP's reference to the four-part nondeferrability test in D.86-07-004 is inappropriate, since the test does not apply to existing units.

Edison denies that its motion is anticompetitive. On the contrary, DRA's and GRA/IEP's conception of deferrability ignores the current regulatory structure. Unlike QFs, utilities have a legal obligation to serve. In exchange, they are permitted a reasonable and fair return on their investment, a principle which would be undermined were QFs allowed to bid to retire cost-effective existing utility resources.

Edison believes the SONGS 1 upgrade is directly analagous to the hydro relicensing situation addressed in D.88-03-079. In both cases, allowing QFs to defer or avoid an improvement to an existing resource could cause the utility to lose, not only the opportunity to invest in a cost-effective improvement, but also the ability to continue to operate the existing resource.

III. Discussion

We grant Edison's motion for a finding that the proposed capital expenditures are nondeferrable. However, although the finding applies to all of the expenditures, our reasoning differentiates between those expenditures serving to maintain the plant in service for the rest of its operating license, and those expenditures intended to increase the plant's generating capability. We begin our discussion with the latter.

A. Nondeferrability of the Increase in Generating Capability

1. A Project to Increase the Generating Capability of an Existing Resource May Be Deferrable

The Commission has held that the category of deferrable resources includes projects to add generating capacity, whether in the form of new power plants or expansion of existing power plants. (D.91-03-058.) Edison and SDG&E contend that, because SONGS 1 would still operate at less than its rated capacity, the proposed increase in routine generating capability cannot be considered an expansion. We disagree.

"Rated capacity" is an engineering term of art referring to a machine's output under (generally) an optimal set of operating conditions. "Rated capacity" does not tell us how often the machine could reach that output, or how long it could sustain that output. "Rated capacity" of a power plant has some relevance to plant performance but other factors could be more important for resource planning purposes.

Here, Edison has indicated that it could run SONGS 1 at rated capacity only with "several months of lead time ... to update related safety analysis and obtain NRC approval." (Motion at p. 5, note 11.) Moreover, Edison now runs SONGS at 56 MW less than rated capacity in order to minimize corrosion of steam generator tubes. A substantial part of the proposed expenditures is for improvements needed to allow higher capacity operation without wear-and-tear.

We conclude that for Edison's own planning purposes, the governing criterion for SONGS 1 is "routine net generating capability", and not the plant's rated capacity. The keystone of all our decisions on alternative generation and long-run resource planning is that the utility may not use one set of criteria for its own projects and another set when QFs enter the picture. The proposed expenditures would increase the routine net generating capability of SONGS 1 by about 25 MW. This increase constitutes

an "expansion" of an existing resource" (D.91-03-058).³ However, as we explain below, this expansion is not deferrable by QFs.

2. Improvements That Are Incidental to Necessary Repairs or Safety Upgrades of an Existing Plant Are Generally Nondeferrable

The decision on when and how much to expand an existing plant (e.g., by repowering) is typically governed by resource planning, that is, projections of future system needs for energy and capacity. In other words, the decision process is the same as that for new power plants. But sometimes the utility does not have complete control over the timing of capital expenditures, for example, when a power plant requires major investments to meet new safety standards or to repair damage resulting from an accident or natural disaster. Such a forced outage provides the utility an opportunity to simultaneously make other improvements to the plant. These improvements may increase plant efficiency or output, and may also be critical to the cost-effectiveness of the repair or safety upgrade. We expect utilities to take advantage of such opportunities.

To try, for purposes of QF bidding, to separate the incidental improvements from the associated upgrades or repairs could have perverse results. It may be impossible, or it may not,

3 Our reliance here on "routine net generating capability" in preference to "rated capacity" has a close analogy in D.86-07-004. There, we found that utilities tended to overestimate the future availability of their own troubled plants, which they portrayed as suffering from peculiar, nonrecurring problems that were not fairly indicative of later performance. We directed the utilities to use rolling historical averages in projecting plant availability. (21 CPUC 2d 340, 381-82.) Today's decision and D.86-07-004 are consistent in preferring a planning approach that accords greater weight to what seems likely to happen than to what is theoretically possible.

be cost-effective, to make the improvement unless the work is undertaken together with the repairs or upgrades; and the utility may not be able to delay the latter while awaiting the outcome of QF bidding. Thus, the opportunity to make the improvement could be lost.

Another, graver consequence would be possible loss of the existing resource. In this instance, federal safety standards require certain upgrades if SONGS 1 is to operate for the fuel cycles remaining under its operating license. These upgrades are sufficiently expensive to cast doubt on whether continued operation of SONGS 1 after the current fuel cycle is cost-effective. Edison claims the increase in routine net generating capability is highly cost-effective. Hypothetically, deferring that increase could shift the balance of cost-effectiveness in favor of retiring the existing unit, so that by putting 25 MW up to bid, we would create an additional need for 380 MW (the current net generating capability of SONGS 1).⁴ That would not be good resource planning.

The category of nondeferrability that we create in today's decision is narrow. Most capacity expansions or life extensions of existing plants are not linked to repairs or safety upgrades, and should be treated as potential deferrable resources, akin to new power plants.

3. Some Utility Projects May Be Too Small to Be Deferrable

Our program to foster competition in electric generation was prompted by several concerns, one of which was that utility resource plans had traditionally favored large, capital-intensive

⁴ In this respect, the SONGS 1 situation is analogous to improvements proposed in the course of the relicensing of hydroelectric projects, which we have designated as generically nondeferrable by QFs. (See D.88-03-079, 26 CPUC 2d 559, 565.)

central station power projects. We noted that a better mix of smaller projects could reduce ratepayer risk by diversifying supply sources and mitigating the impact of delays and cost-overruns at individual projects.

This major concern is not present when the utility itself pursues a small project. Furthermore, preparing a solicitation and holding an auction is expensive and not necessarily proportional to the size of the deferrable resource. It is at least questionable whether the gains to competition and the possible discount from the benchmark price would justify the expenditures of regulatory and utility effort in identifying and deferring a very small project.

The case in point, a 25 MW expansion of SONGS 1, is not clearly de minimis for either Edison or SDG&E, but it is small enough to warrant noting the issue. We will not expect to hold auctions to defer projects in the 1-2 MW range or less.

B. Nondeferrability of the Existing Plant

Existing resources have always been nondeferrable. No party disputes this. However, there are occasionally circumstances (typically, safety upgrades and major repairs, as discussed in Section III.A.2 above) where a utility puts large amounts of capital into an existing resource to maintain it during its planned useful life. The capital outlay may be so large that the utility, for the same outlay, could build an entirely new plant (such as a combustion turbine, which typically is cheap to build but has high fuel costs). In such circumstances, the utility should test the proposed capital expenditures through the Update resource planning methodology to ensure that running the existing plant is indeed superior to new resource options. (This was our holding in D.91-03-058.)

The issue here is what to do if the proposed expenditures for the existing resource pass the test, i.e., are shown to be cost-effective over the remaining useful life of the existing plant. DRA and GRA/IEP believe that QFs should be permitted to bid

to defer those expenditures. However, we agree with Edison and SDG&E that expenditures that do not expand the capacity or extend the life of an existing plant are nondeferrable, even where the expenditures would exceed the capital cost of a combustion turbine.

D.91-03-058 does not expand final Standard Offer 4 bidding, which was and is limited to new or additional capacity.⁵ D.91-03-058 stands for the proposition that when capital outlays to maintain an existing plant exceed the capital required to build at least some types of new generating capacity, the utility should make its decision (maintain the existing plant or retire it and acquire new capacity) using the same values, assumptions, and methods that it uses to make other resource planning decisions in the Update. Should the decision be to retire the existing plant, QFs would certainly be among the resource options from which the utility would get replacement capacity.

Expansion of final Standard Offer 4 bidding to include repairs or safety upgrades of existing plants is a theoretical possibility that we do not intend to pursue at this time. The Update and the auction are new processes. We believe they have been carefully thought through, but any new process will have problems. There will be time enough to consider refinements as we gain more experience and have worked out implementation problems in the current processes.

⁵ DRA, citing D.87-11-024, Finding 22, contends we have previously held that "existing resources may be displaced by QFs." DRA misreads that finding and its reasoning. The finding relates to reinstatement of Standard Offer 2; a short-run offer with variable energy payments. Adding a Standard Offer 2 QF enables the purchasing utility to use less energy from high operating cost units, typically peaking resources; it does not enable the utility to retire those units.

Findings of Fact

1. In D.91-03-058, we ordered that the review of the cost-effectiveness of the proposed SONGS 1 expenditures be consolidated with the Biennial Resource Plan Update. We expressly held open the issue of "whether some aspect of the investments proposed for SONGS 1 could or should be considered deferrable by QFs."

2. In compliance with D.91-03-058, Edison filed a new application supporting its request for approval of the proposed expenditures for SONGS 1 (A.91-07-004). Edison also filed a motion requesting that, whether or not the proposed SONGS 1 capital expenditures are found to be cost-effective, SONGS 1 be found to be a nondeferrable resource, not subject to QF bidding. Edison also asked that the proposed expenditures be found to be nondeferrable.

3. On July 24, 1991, responses to Edison's motion were filed by SDG&E, which supported the motion, as well as by GRA/IEP and DRA, which both opposed the motion.

4. "Rated capacity" of a power plant has some relevance for plant performance but other factors could be more important for resource planning purposes.

5. Edison has demonstrated that, for its own planning purposes, SONGS 1's "routine net generating capacity", and not the plant's "rated capacity", is the governing criterion.

6. Edison's and SDG&E's proposed expenditures, which would increase the routine net generating capability of SONGS 1 by about 25 MW, constitute an expansion of an existing resource.

7. Utilities can and should take advantage of an opportunity to make improvements to increase a plant's efficiency or output when they can be made cost-effectively in conjunction with necessary repairs or safety upgrades.

8. Edison's and SDG&E's proposed expenditures for SONGS 1 constitute improvements which are incidental to necessary repairs or safety upgrades of an existing facility.

9. Perverse results could occur from separating, for purposes of QF bidding, incidental improvements of an existing resource from the associated repairs or safety upgrades.

10. Some utility generation projects (new plants or expansions of existing plants) may be too small to be deferrable.

Conclusions of Law

1. The proposed capital expenditures for SONGS 1 should be treated as nondeferrable for purposes of this proceeding.

2. The category of nondeferrability created in today's decision is narrow. Most capacity expansions or life extensions of existing plants are not linked to repairs or safety upgrades, and should be treated as potential deferrable resources.

3. Where a utility's capital expenditures to maintain an existing plant exceeds the capital required to build some type of new generating capacity, the utility should test the proposed capital expenditures through the Update resource planning methodology to ensure running the existing plant is superior to new resource options.

4. Expenditures which do not expand the capacity or extend the life of an existing plant are nondeferrable, even where the expenditures would exceed the capital cost of a combustion turbine.

5. Edison and SDG&E should test their proposed capital expenditures for SONGS 1 in the resource plan phase of the Update to determine their cost-effectiveness. If these expenditures do not pass the test, any increased generation need may be filled by cost-effective alternative resources and are subject to possible deferral through bidding by QFs.

6. Repairs or safety upgrades necessary to maintain an existing plant in service during (but not beyond) its planned useful life do not constitute a life extension.

7. Because hearings in the resource plan phase of the Update are imminent, this order should be effective today.

INTERIM ORDER

IT IS ORDERED that:

1. The capital expenditures proposed by Southern California Edison Company (Edison) and San Diego Gas & Electric Company (SDG&E) for Unit 1 of the San Onofre Nuclear Generating Station (SONGS 1) will be treated as nondeferrable for purposes of this proceeding.

2. The proposed SONGS 1 expenditures will be tested for cost-effectiveness in the resource plan phase of the Biennial Resource Plan Update. If the proposed expenditures do not pass the test, any increased generation need for Edison and SDG&E may be filled by cost-effective alternative resources and is subject to final Standard Offer 4 bidding.

This order is effective today.

Dated September 25, 1991, at San Francisco, California.

PATRICIA M. ECKERT
President
JOHN B. OHANIAN
DANIEL Wm. FESSLER
NORMAN D. SHUMWAY
Commissioners

I abstain.

/s/ G. Mitchell Wilk
Commissioner

I CERTIFY THAT THIS DECISION
WAS APPROVED BY THE ABOVE
COMMISSIONERS TODAY


NEAL J. SHULMAN, Executive Director
20