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Attorney General
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OPINION	:	No. 90-507
of	:	May 7, 1990
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THE PUBLIC UTILITIES COMMISSION has requested an advisory opinion, pursuant to Public Utilities Code section 854, subdivision (b)(2), on the following questions:

(1) Will the proposed acquisition of San Diego Gas and Electric Company by SCEcorp, the parent of Southern California Edison Company, adversely affect competition?

(2) What mitigation measures could be adopted to avoid adverse effects on competition?

CONCLUSION

(1) The proposed acquisition will adversely affect competition in wholesale and retail electric power markets.

(2) Some of the adverse effects can be avoided by appropriately conditioning the merger, but some of the effects are not susceptible to relief through conditions.

Accordingly, we have concluded that the acquisition cannot be approved under section 854.

OUTLINE OF ANALYSIS

ANALYSIS

On November 30, 1988, SCEcorp, the holding company of Southern California Edison Company (SCE), and San Diego Gas and Electric Company (SDG&E) announced a merger[1] of their two firms. Public Utilities Commission (PUC) is conducting its review of the proposal under Public Utilities Code section 854.[2]

Subdivision (b) of section 854 provides in pertinent part:

> "Before authorizing the acquisition or control of any electric, gas, or telephone utility organized and doing business in this state . . ., the commission shall find that the proposal does both of the following:
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> "(1) Provide net benefits to ratepayers in both the short-term and long-term, and provide a ratemaking method that will ensure, to the fullest extent possible, that ratepayers will receive the forecasted short- and long-term benefits.
>
> "(2) Not adversely affect competition. In making this finding, the commission shall request an advisory opinion from the Attorney General regarding whether competition will be adversely affected and what mitigation measures could be adopted to avoid this result."
>
> As provided by subdivision (b)(2), the commission has requested the Attorney General's advisory opinion on the competitive effects of the merger.

[1] For purposes of this opinion, and of the PUC's review, there is no difference between an acquisition and a merger, and the terms are used interchangeably here.

[2] The Federal Energy Regulatory Commission has concurrent jurisdiction to disapprove the merger, and it is also presently conducting hearings on the proposal.

I. THE NATURE OF THIS OPINION

The requirement that the PUC seek the Attorney General's advisory opinion is the product of a 1989 amendment to the statute (Stats. 1989, ch. 484, § 1), and this is the first such opinion to be rendered under the amended statute. Therefore, before dealing with the issues presented by the merger, we pause to address a question already raised in the course of the commission's proceedings: What is the nature of the Attorney General's advisory opinion?

A. FUNCTION OF THE ADVISORY OPINION

Since the Legislature is presumed to be aware of all statutes and judicial decisions in an area in which it is legislating (e.g., *Brown* v. *Kelly Broadcasting Co.* (1989) 48 Cal.3d 711; *People* v. *Slaughter* (1984) 35 Cal.3d 629), we assume that the Legislature required the PUC to seek the Attorney General's advice because he is the state official responsible for enforcement of state and federal antitrust laws (15 U.S.C. §§ 15c–15h; Bus. & Prof. Code, §§ 16750, 16752–16754.5, 16760; *Hawaii* v. *Standard Oil Co.* (1972) 405 U.S. 251; *Georgia* v. *Pennsylvania Rd. Co.* (1945) 324 U.S. 439; *Younger* v. *Jensen* (1980) 26 Cal.3d 397) and is presumed to possess the expertise best suited to assessing the competitive effects of a utility merger.

The statute characterizes the opinion as advisory. Consequently the opinion does not control the PUC's finding under section 854, subdivision (b)(2); however, the advice is entitled to the weight commonly accorded an Attorney General's opinion (see, e.g., *Moore* v. *Panish* (1982) 32 Cal.3d 535, 544 ("Attorney General opinions are generally accorded great weight"); *Farron* v. *City and County of San Francisco* (1989) 216 Cal.App.3d 1071) and that which is given to the expert views of an administrator charged by the Legislature with implementing a statute (see, e.g., *Addison* v. *Department of Motor Vehicles* (1977) 69 Cal.App.3d 486, 493 (agency's construction of a statute it is charged with enforcing is entitled to great weight)).

B. ATTORNEY GENERAL'S STATUS AS INTERVENOR

As the commission is aware, the Attorney General has intervened in the administrative proceedings it is conducting (and those before the Federal Energy Regulatory Commission (FERC)) on this merger, as a part of his antitrust enforcement and consumer protection responsibilities.

The Legislature was aware that, at least in the present case, the Attorney General was likely to be a party to the PUC's administrative review when the advisory opinion was to be requested. In fact, both houses of the Legislature were advised, before the 1989 amendment to section 854, that the Attorney General was already examining the proposed merger and intended to take a position on its merits before the PUC.[3] Since the Legislature proceeded to enact subdivision (b)(2) as it did, with no special procedure for this merger, we conclude that the Legislature understood we would be discharging this essentially quasi-judicial function at the same time we were likely to be engaged in the administrative litigation before the PUC. Our posture is not materially different in this respect from that of the U.S. Department of Justice (USDOJ), which frequently renders advisory opinions to federal agencies on antitrust aspects of a pending matter and then participates in the agencies' administrative hearings. (See, e.g., 16 U.S.C. § 1828 (advice on proposed bank merger); 30 U.S.C. § 184 (advice to Secretary of Interior on antitrust aspects of proposed coal lease); 42 U.S.C. § 2135 (advice to Nuclear Regulatory Commission on antitrust aspects of applications for nuclear licenses).) Indeed, we note that in the ongoing FERC proceedings on this merger, USDOJ has not yet taken any formal position on the merits but is actively participating in the FERC hearings.

C. EVIDENTIARY BASIS OF THIS OPINION

We are rendering this opinion before commencement of the commission's hearings, as requested by the PUC. We appreciate the purpose of the commission's timing, to give the parties maximum time to respond to the issues we raise. We know the commission understands that this requires us to base our conclusions on less than the full record to be developed here.

The condition of the evidence does not present an obstacle to our rendering the opinion at this time. The parties have filed testimony with this commission, and there has already been substantial discovery on the competitive issues. An even larger body of evidence has already been filed with the FERC, which is further along in its process, having just concluded approximately three months of hearings. And the Attorney General has, as previously noted, been reviewing the merger for over a year, discussing the issues with the parties, examining the evidence available, and securing his own technical advice. We have therefore been able to draw on the ample information already available and thoroughly analyzed for that purpose.

In the discussion that follows, the evidentiary basis for our conclusions are noted. They draw on (1) the prefiled material before this commission, (2) the discovery materials developed in the PUC proceeding, (3) evidence and prefiled testimony in the FERC proceeding, and (4) the oral proceedings before the FERC.[4]

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[3] Remarks of Michael J. Strumwasser, Special Assistant Attorney General, Before the Senate Energy and Utilities Committee and the Assembly Utilities and Commerce Committee (Oct. 24, 1988).

[4] The following conventions are used to cite to these materials: testimony in the PUC docket is

II. THE PROPOSED MERGER

SCE and SDG&E are vertically-integrated electric utilities with adjacent retail territories. SCE, serving an area from the southern part of the Central Valley through Orange and Riverside Counties, is the second largest power utility in the nation (based on number of customers). SDG&E, with San Diego and a part of southern Orange Counties, is the twenty-first. Together they would create the largest energy utility in the U.S., with

Table 1

OVERVIEW OF THE TWO FIRMS

	SCE	**SDG&E**	**Combined**
Annual Electricity Sales (billion kWh)	67.6	13.6	81.2
Revenues (billions)	$6,127	$2,080	$8,207
Peak Demand 1989 (MW)	15,632	2,694	
Generating Capacity (MW)	18,406	3,235	21,641
Service Territory			
Population	10,089,000	2,433,000	12,522,000
Square Miles	50,000	4,100	54,100
Retail Customers	3,800,000	1,000,000	4,800,000
National Rank (by customers)	2d	21st	1st
Total Assets (billions)	$14.1	$3.6	$17.7
Employees	16,870	4,516	21,386
Capitalization (billions)	$11,256	$2,563	$13,819

Sources: Paine Webber, San Diego Gas & Electric (June 29, 1989); Paine Webber, SCEcorp (June 20, 1989); Shearson Lehman Hutton, SCEcorp (Mar. 7, 1989).

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cited by the witness's name (e.g., "Clay Testim."); exhibits in the PUC docket are identified by the exhibit number (e.g., "Exh. 10,200); depositions conducted in the PUC proceeding are identified by the deponent's name (e.g., "Mays Depo."); other discovery materials in this docket are given appropriate descriptive names; exhibits in the FERC proceeding are identified by the exhibit number (e.g., "FERC Exh. 175"); FERC prefiled testimony is identified by the witness's name and "FERC," with, where appropriate, identification of submittal (e.g., "Pace FERC Rebuttal Testim."); the oral proceedings before FERC are identified by the witness's name, "FERC," and the transcript pages (e.g., "Gaebe FERC Tr. pp. 5209–5210").

20 percent more customers than the current largest, Pacific Gas and Electric Company (PG&E). (See Table 1.)

In addition to their electric utility operations, SDG&E operates a gas utility serving roughly the same territory as the electric utility; Edison has, until now, not been a gas utility. SDG&E also has two unregulated subsidiaries: Mock Resources, which buys and sells oil and gas, and Pacific Diversified Capital, itself a holding company with subsidiaries serving the utility and real estate markets. SCEcorp owns literally scores of unregulated subsidiaries, of which the most significant, for present purposes, is the Mission Group, which in turn owns Mission Energy, a joint venturer in independent power production facilities, and several other firms active in utility-related enterprises.

III. PUBLIC UTILITIES CODE SECTION 854

Before considering the proposed merger under section 854, subdivision (b), we examine the requirements of the statute.

A. PURPOSE OF THE STATUTE

The Public Utilities Commission, as a part of the broad regulatory authority it exercises over utilities doing business in California (Cal. Const., art. XII, § 6), has the authority to approve any contract or other transaction a utility proposes to enter. (Pub. Util. Code, § 701.) That would include any merger or acquisition agreement. (Pub. Util. Code, §§ 816, 852, 854.)

At a minimum, any transaction examined by the PUC would be tested against the traditional standard, whether it appears to be in the public interest. (Pub. Util. Code, § 854, subd. (c); see also Pub. Util. Code, § 852.) One element of that standard is whether the transaction is consonant with California and United States antitrust laws and the policies underlying those laws. (*Northern California Power Agency* v. *Public Utilities Commission* (1971) 5 Cal.3d 370; see also *California* v. *Fed. Power Comm'n.* (1962) 369 U.S. 482; *Industrial Communications Systems, Inc.* v. *Pacific Tel & Tel. Co.* (9th Cir. 1974) 505 F.2d 152.) The federal law on the competitive effects of mergers is found in section 7 of the Clayton Act (15 U.S.C. § 18) and sections 1 and 2 of the Sherman Act (15 U.S.C. §§ 1, 2). California law contains no specific provisions governing mergers (*State of California* ex rel. *Van de Kamp* v. *Texaco, Inc.* (1988) 46 Cal.3d 1147), but the state's statutory policy on economic competition is contained in the Cartwright Act (Bus. & Prof. Code, § 16720 et seq.).

Thus, Public Utilities Code section 854's requirement that the commission make explicit findings on the competitive effects of a merger underscores the antitrust component of the commission's public interest inquiry and ensures that the issue will be examined, and a finding made, whether or not any party to the administrative review raises the issue. Furthermore, as we note below, the wording of the statute reflects specific requirements of the commission's review that differ from its traditional standards in a public-interest examination and from the familiar Clayton Act merger analysis.

B. MEANING OF THE PHRASE "ADVERSELY AFFECT COMPETITION"

The phrasing of the statute, requiring the PUC to find that the proposed merger does "not adversely affect competition," is uncommon to statutory law. The more familiar phrase in merger analysis is whether "the effect of such acquisition may be substantially to lessen competition or tend to create a monopoly." (Clayton Act, § 7.) Did the Legislature purposefully depart from the substantial body of Clayton Act jurisprudence in defining the issue for the PUC?

The phrase "not adversely affect competition" does not appear in any other California statute and is found only occasionally in the federal code.[5] If the Legislature had any model in mind, it probably lies in the recent jurisprudence of the PUC itself, which has, during the 1980s, had several occasions to make findings whether proposals threatened adversely to affect competition.[6] But those cases do not reveal any recurring, systematic standard for measuring the effects of a merger.

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[5] E.g., 15 U.S.C. § 2008 (Environmental Protection Agency may adjust auto manufacturer's penalty for failing to meet fleet fuel economy standards upon certification by Federal Trade Commission that relief "is necessary to prevent a substantial lessening of competition"); 15 U.S.C. § 2058 (rules on consumer product safety to include findings on "minimizing adverse effects on competition"); 30 U.S.C. § 184(1)(2) (before leasing coal reserves, Secretary of Interior must consult with Attorney General on whether proposed lease "would create or maintain a situation inconsistent with the antitrust laws"); 33 U.S.C. §§ 1503, 1506 (licensing of deepwater ports to consider whether license "would adversely affect competition, restrain trade, promote monopolization, or otherwise create a situation in contravention of the antitrust laws"); 42 U.S.C. §§ 8217, 8235h (participation by utilities in residential energy conservation programs require finding that it "may not have a substantial adverse effect on competition"); 49 U.S.C. § 10705a (Interstate Commerce Commission must investigate protests that joint rates filed by railroads "will have an adverse effect on competition"); 49 U.S.C. § 11344 (in reviewing a proposed merger, ICC must consider "whether the proposed transaction would have an adverse effect on competition among rail carriers in the affected region" and cannot approve the proposal if it finds "there is likely to be substantial lessening of competition, creation of a monopoly, or restraint of trade . . . and . . . the anticompetitive effects of the transaction outweigh the public interest in meeting significant transportation needs").

[6] E.g., *Application of Airport Limousine Service of Sunnyvale, Inc. for Authority to Add Scheduled Van Service Between Points in San Francisco County and San Francisco International Airport to Its Passenger Stage Authority* (1988) Decision No. 8809068 (whether expansion of applicant's airport service would have "adverse effect on the current level of competition"); *Application of McCaw Communications of Stockton, Inc. for Authorization to Acquire Control of Stockton Cellular Telephone*

1. Must the Effects be "Substantial"?

Several of the PUC cases, and various federal statutes (see footnote , *supra*), use the phrase "substantial adverse effect," language similar to the Clayton Act's "lessen competition substantially." Omission of the word "substantial" from section 854 was presumably deliberate and indicates the legislative intent that a merger causing any reduction in competition may not be approved.[7] (*Santa Fe Transp. v. State Board of Equal.* (1959) 51 Cal.3d 531, 539 ("By failure to use any such limiting words the Legislature indicated its intention of not so limiting or circumscribing the meaning or scope of the act. . . . [T]his court may not supply any language which the Legislature must be deemed to have omitted intentionally."); *Kaiser Steel Corp. v. County of Solano* (1979) 90 Cal.App.3d 662, 667 ("Where the Legislature omits a particular provision in a later enactment related to the same subject matter, such deliberate omission indicates a different intention which may not be supplanted in the process of judicial

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Company (1988) Decision No. 8806012 ("The proposed acquisition will not adversely affect competition in the Stockton cellular market. Competition between the two cellular carriers, Cellular and Sacramento Valley Limited Partnership will continue as before."); *Application of Pacific Telesis Group for Authorization to Acquire Control of Gencom Incorporated, Tel-Page, Inc., Intrastate Radio-Telephone, Inc. of San Francisco and Delta Mobile Radio Service, Inc. Through the Acquisition of the Stock of Communications Industries, Inc.* (1986) Application No. 85–08–023 (proposed ALJ decision) ("The present state of the paging industry indicates that the proposed acquisition will have no significant adverse effect upon competition in the paging industry."); *Application of Continental Telephone Company of California for Authorization to Merge with Continental Transition Corporation* (1983) 13 C.P.U.C.2d 274 ("The merger will have no adverse [e]ffect on competition as Pacific Telesis and other telephone corporations are experiencing changes in corporate ownership and need to establish operating subsidiaries to perform nonregulated operations in the same manner as Continental."); *Petition for Rehearing of D. 82 06 051 (SoCal Edison Co.)* (1982) 9 C.P.U.C.2d 765 ("The record does not support Cities' contention that granting a certificate to Edison for the [Balsam Meadow Powerhouse] will have an adverse competitive effect.")

[7] There could, of course, easily be mergers that have no effect whatsoever on competition. Section 854 applies to acquisitions of utilities by non-utilities, or by wholly different kinds of utilities (e.g., electric utility by telephone company), where one would not expect to find any competition between the merging firms.

The fact that the Legislature amended section 854 in 1989, after hearings were held on the proposed SCE-SDG&E merger, does not illuminate this inquiry. While the Legislature is chargeable with knowledge of the case law and academic writings on the forms of competition between adjacent electric utilities, the two firms have steadfastly maintained that they are not in competition at all. Section 854 could be read as simply putting them to their word. In any event, with the reach of the section at least theoretically extending beyond this merger, we conclude the pendency of the SCE-SDG&E merger when the section was amended has no significance to this inquiry.

construction.”).) We must conclude that omission of “substantial” reflects a purposeful departure from the standard of similar statutes.[8]

It does not necessarily follow that any merger having even an “insubstantial” effect on competition must be rejected by the commission. The merging firms might both be minor participants in some market where other firms are the dominant forces; in that case, the merger would eliminate one competitor but its loss would be inconsequential and the acquiring firm would remain an unimportant force in the market. We believe the term “adversely affect” conveys a notion of effects sufficiently weighty to be characterized as harmful and that only in the absence of such effects could the merger be approved under section 854.

One implication of the absence of the word “substantial” is that this statute does not permit the PUC to dismiss an injury to competition on the ground that commerce in the good or service is small. There is no room in this statute, for example, to find that while a given market may be adversely affected by a merger the dollar volume of commerce in that market is small when compared to the overall revenues of the merging firms. If the effects on competition in a market are sufficient to be called “adverse,” those effects cannot be dismissed because the market itself is relatively small.

The conclusions we draw here about the SCE-SDG&E merger do not depend on this question. Because we find that the harmful effects of this merger are “substantial,” even as that term is used in section 7 of the Clayton Act, it is not necessary for us to determine here how much more stringent section 854 is than the Clayton Act. And because a sophisticated model for measuring the competitive effects of mergers has been developed under the Clayton Act, we avail ourselves of that analytic framework here.

2. Does the Statute Reach Incipient Injury to Competition?

A major reason for Congress passing the Clayton Act in 1914 was to proscribe acquisitions which might not actually destroy existing competition, the standard under the Sherman Act (*United States* v. *Philadelphia National Bank* (1963) 374 U.S. 356; *Northern Securities Co.* v. *United States* (1904) 193 U.S. 197), but which have a tendency to do so. (*United States* v. *Penn-Olin Co.* (1964) 378 U.S. 158; *Brown Shoe Co.* v. *United States* (1961) 370 U.S. 294.) Does deviation from the Clayton Act language reflect a desire to ignore a merger’s incipient threats to competition? We do not believe so. The language employed by the Legislature does not follow that of the Sherman Act

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[8] The present language was introduced in its final form in the original December 5, 1988, version of Senate Bill Number 52, which amended section 854. None of the committee analyses or other legislative materials on the bill discuss the specific language at issue here.

either. In our view, the word "affect" is broad enough to embrace both immediate harm and long-term effects on competition. Once again, we will apply the same notion of competitive effects found in the Clayton Act cases.

One implication of this conclusion is that we, and the commission, must consider both actual and potential competition. Thus, even if the merging firms are not now in competition in a given market, if there is evidence showing that one is a potential competitor of the other, the elimination of the potential competitor constitutes an adverse effect on competition within the meaning of section 854. (See, e.g., *United States* v. *Falstaff Brewing Corp.* (1973) 410 U.S. 526; *United States* v. *El Paso Natural Gas Co.* (1964) 376 U.S. 651.)

3. Must an Impermissible Injury to Competition Constitute an Antitrust Violation?

One clear implication of the statutory language is the intention not merely to focus on "violations" of the antitrust laws. The Legislature could simply have said that the PUC shall disapprove the merger upon a finding that it would violate the antitrust laws. Instead, it phrased the issue more generally, in terms of the competitive effects of the merger.[9]

Consequently, the commission need not find all the elements of a violation of section 7 of the Clayton Act before disapproving the merger. Certainly technical defenses like standing and equitable defenses like unclean hands have no place in the commission's review.[10] Likewise, we see no room in the statutory language for economic

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[9] Cf. *Alabama Power Company* v. *Nuclear Regulatory Commission* (11th Cir. 1982) 692 F.2d 1362, 1368 (section 105 of the Atomic Energy Act (42 U.S.C. § 2135), requiring review to determine whether license for nuclear generating facility "would create or maintain a situation inconsistent with the antitrust laws," reaches situations "which would not . . . in fact violate any antitrust law" because "a traditional antitrust enforcement scheme is not envisioned, and a wider one is put in place.").

[10] One such technical defense to be disregarded here is the distinction between a "merger" or "acquisition" and a "combination" for purposes of the Cartwright Act. In *State of California* ex rel. *Van de Kamp* v. *Texaco, Inc.* (1988) 46 Cal.3d 1147, the Supreme Court held that the 1907 Legislature drew a distinction between a combination, in which the combining parties retained their separate identities, and a merger, in which one of the parties was absorbed into the other. According to the *Texaco* court, the latter was seen, for historical reasons, to be different than a combination and therefore outside the language of Business and Professions Code section 16720. Since a technical violation of the statute is not at issue, but rather the competitive policies underlying the Cartwright Act, California antitrust policy is, in our view, appropriately considered even though the merger itself falls outside the proscriptions of the Cartwright Act. As a practical matter, we know of no articulated difference between the policies underlying the Cartwright Act and those at the foundation of the Clayton and Sherman Acts (see, e.g., *Marin County Bd. of Realtors, Inc.* v. *Palsson* (1976) 16 Cal.3d 920) that would alter the conclusions we

defenses that are sometimes raised in merger cases to argue that anticompetitive effects should be ignored—for example because easy market entry will prevent collection of monopoly rents. Indeed, because the statute separates price effects and competitive effects (see section III.C, *post*), such defenses based on the difficulties a dominant firm might have translating its dominance into higher prices are irrelevant. Since we have seen no persuasive evidence of any such meritorious defense in the merger before us, this observation is made only in the interest of a fuller explication of the statute.

4. Are Non-Competitive Antitrust Considerations Relevant?

While in some respects section 854, subdivision (b)(2), imposes a higher test for a prospective merger than the Clayton Act, in other respects the test is more limited, being specifically addressed to those antitrust policies pertaining specifically to competitive effects. The courts have long recognized that the antitrust laws in general and the Clayton Act in particular were aimed not only at preventing firms from rising prices due to market power:

> "Other goals of the law were the prevention of excessive levels of industrial concentration because of the political and social effects of concentrated economic power and the fostering of productive efficiency, organizational diversity, technological innovation and the maintenance of opportunities for small and regional businesses to compete." (National Association of Attorneys General, *Horizontal Merger Guidelines* (1987) p. 4, citing *Brown Shoe Co.* v. *United States* (1962) 370 U.S. 294, 315–16.)

While some of these goals fall within the rubric of protecting competition, others refer more broadly to the antitrust laws' role in "providing an environment conducive to the preservation of our democratic political and social institutions" (*Northern Pacific Railway Co. v. United States* (1958) 356 U.S. 1, 4, n7). Those factors must be considered in the commission's broader public interest review, but they are not implicated by subdivision (b)(2) of section 854.[11]

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reach in this opinion.

[11] For example, we understand some opposition to the merger in San Diego is based on the desire to have a local utility, civic pride in the existence of SDG&E, a feeling that a locally-based utility will be more responsive to local concerns, and hostility to regional domination from Los Angeles. None of these claims, even if they are widely felt and well founded, concerns the merger's effect on *competition*, so they have no place in our review under subdivision (b)(2) of Public Utilities Code section 854. But precisely such preferences for regional business, antagonism to economic concentration, and the desire for industrial diversity lie at the heart of the original purposes of the Clayton and Sherman Acts. (*Brown Shoe Co.* v. *United States*, *supra*, 370 U.S. 294, 315–16.) They are therefore highly pertinent to the commission's assessment of the public interest — both directly, as considerations affecting the public interest, and indirectly as values reflected in the antitrust laws. In this same connection, we note that SCE

C. RELATIONSHIP OF COMPETITIVE EFFECTS TO OTHER PUBLIC INTEREST FACTORS

The legal standard for examining a merger under section 854 is similar to the general public- interest analysis the commission routinely must employ when antitrust issues arise. However, in one respect section 854 requires departure from past practice.

Previously, when the commission found that a proposal impinged on the policies underlying state or federal antitrust law, the commission could nonetheless approve the application if it found that overall its detriments were outweighed by its benefits—for example, if it found that the proposal threatened to injure competition but promised compensating ratepayer benefits.[12] No such result is permitted by section 854. The statute plainly states its requirements in the conjunctive: the commission must find "*both* . . . [that the merger [p]rovide net benefits to ratepayers" (Pub. Util. Code, § 854, subdiv. (b), (b)(1), emphasis added) *and* that it "[n]ot adversely affect competition" (Pub. Util. Code, § 854, subdiv. (b)(2)).[13]

Thus, if the merger is found to "adversely affect competition," it cannot be approved, no matter how large the "net benefits to ratepayers."

IV. ANALYZING COMPETITIVE EFFECTS

A. HORIZONTAL ANALYSIS

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has recently committed itself to an aggressive program of affirmative action in management, workforce, and contracting, which are plainly pertinent to the commission's public interest determination. We view all such considerations as falling within the general weighing of the public interest mandated by subdivision (c) of section 854.

[12] " 'Although the Commission is not bound by the dictates of the antitrust laws, it is clear that antitrust concepts are intimately involved in a determination of what action is in the public interest, . . . Nor are the agencies strictly bound by the dictates of these laws, for they can and do approve actions which violate antitrust policies where other economic, social and political considerations are found to be of overriding importance.' " (*Northern California Power Agency* v. *Public Utilities Commission*, *supra*, 5 Cal.3d 370, 377–78, quoting *Northern Natural Gas Co.* v. *Federal Power Com'n* (1968) 399 F.2d 953, 958, 960; see also *Gulf States Utilities* v. *F.P.C.* (1973) 411 U.S. 747.)

[13] In contrast, subdivision (c) of section 854 expressly prescribes such a balancing in considering seven other factors pertinent to the public interest:

> "Before authorizing the acquisition or control of any . . . utility . . . the commission shall consider each of the criteria listed in paragraphs (1) to (7), inclusive, and find, on balance, that the acquisition or control proposal is in the public interest."

Traditionally, the antitrust implications of a proposed merger are analyzed by a well-developed model that seeks to measure the market power of each of the merging firms and of the proposed consolidated company. The model begins with characterization of each *relevant product market* affected by the merger. The product market refers to the range of products or services that are relatively interchangeable, so that pricing decisions by one firm are influenced by the range of alternative suppliers available to the purchaser. The utility industry is one of the service industries where the courts tend to group a "cluster of services" into a single market. (E.g., *United States* v. *Connecticut National Bank* (1974) 418 U.S. 656; *United States* v. *Phillipsburg Nat. Bank* (1970) 399 U.S. 350; *United States* v. *Grinnell Corp.* (1966) 384 U.S. 563.)

The analysis then proceeds to determination of the *relevant geographic market* for each product market. The relevant geographic market is defined as the area in which the sellers compete and in which buyers can practicably turn for supply. (*United States* v. *Connecticut National Bank*, *supra*, 418 U.S. 656; *FTC* v. *Procter & Gamble Co.* (1967) 386 U.S. 568; *United States* v. *Pabst Brewing Company* (1966) 384 U.S. 546.) In drawing the boundaries of the geographic market, courts look to industry recognition of distinct marketing patterns. (*United States* v. *Phillipsburg National Bank*, *supra*, 399 U.S. 350; *United States* v. *Connecticut National Bank*, *supra*, 418 U.S. 656.)

Within a relevant product or geographic market may be found several relevant sub-markets, "which, in themselves, constitute product markets for antitrust purposes." (*Brown Shoe Co.* v. *United States*, *supra*, 370 U.S. 294, 325; see also *United States* v. *Continental Can Co.* (1964) 378 U.S. 411; *United States* v. *Aluminum Co. of America* (1964) 377 U.S. 271 (1964).) A relevant sub-market is identified by "practical indicia such as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors." (*Brown Shoe Co.* v. *United States*, *supra*, 370 U.S. at 325.)

These two steps define the "area of effective competition." (*Id.*, at p. 324.) The merger's effect in each such market is then assessed by examining the market power of each firm and of the merged company. A merger which gives the merging firms the power to control prices or to exclude competition is unlawful. (*United States* v. *Grinnell Corp.*, *supra*, 384 U.S. 563, 571; *United States* v. *E.I. Du Pont De Nemours & Co.* (1961) 351 U.S. 777, 791.)

The market power derived from the merger of two competitors is traditionally measured in terms of concentration, or market shares. (See, e.g., *United States v. General Dynamics Corp.* (1974) 415 U.S. 486, 497; *Federal Trade Commission v. PPG Industries, Inc.* (D.C. Cir. 1986) 798 F.2d 1500.) The concentration of the market and the contribution of the merger to that concentration is measured by use of the Herfindahl-Hirschman Index (HHI), which calculates the sum of the squares of each firm's market share.[14] (*Ibid.*) The U.S. Department of Justice periodically promulgates Merger Guidelines stating its enforcement policy in reviewing proposed mergers. The current version, published in 1984, states the general policy that a merger resulting in a market with an HHI over 1800, to which the merger contributed at least 50, will ordinarily be challenged as unlawful, as will a merger resulting in a market with an HHI between 1200 and 1800, to which the merger contributed at least 100.[15] (United States Department of Justice, *Merger Guidelines* (1984) reprinted in 4 Trade Reg. Rep. (CCH) ¶ 13,103.) The fifty state Attorneys General have promulgated their own standards, which are somewhat more restrictive, accepting a merger adding only half as large an increment to the HHI in markets experiencing concentration over the preceding three years. (National Association of Attorneys General, *Horizontal Merger Guidelines* (1987) reprinted in 52 Antitrust & Trade Reg. Rep. (BNA) No. 1306 (Special Supp.) ("*NAAG Guidelines*").) Both the USDOJ and NAAG policies emphasize that HHI calculations are very strong evidence of a violation. However, even in the absence of high HHIs, other factors may support the finding of a violation.

The issue of market share or the level of concentration is only important in the absence of direct evidence of the power to control prices or exclude competition. Where such direct evidence is presented, it is not necessary to prove any specific market share. (*Moore* v. *Jas. H. Matthews & Co.* (9th Cir. 1977) 550 F.2d 1207, 1219 ("Even in the absence of empirical proof of market shares (usually the best indicator of monopoly power) the requisite power can also be demonstrated by evidence of the exercise of actual control over prices or exclusion of competitors."; *In re IBM Peripheral EDP Devices, etc.* (N.D. Cal. 1979) 481 F.Supp. 965, 976 ("If defendant has, in the past, successfully controlled price or excluded competition, that is direct and convincing evidence that it had the power to do so."); *Power Replacements Corp.* v. *Air Preheater Co., Inc.* (E.D.Pa. 1973) 356 F.Supp. 872, 896 (Failure of plaintiff to provide actual market share evidence "is no comfort to the defendants, however, since we have concluded that Air Preheater's power to exclude the competition of Power Replacements has been proven directly, so that no inference from a market share percentage is necessary").)

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[14] Thus, a three-firm market in which the respective shares are 50%, 30%, and 20%, the HHI is .25 (i.e., $50\%^2$) plus .09 plus .04, or .37, which by convention is multiplied by 10,000 for convenience, yielding 3700.

[15] An HHI of 1800 reflects market concentration roughly comparable to four firms controlling 70% of a market, and an HHI of 1000 to a market in which four firms control 50%. The department adds a proviso that it will likely challenge any merger of a dominant firm (over 35%) with any firm having at least a 1% market share.

B. VERTICAL MERGERS

This familiar model addresses only *horizontal* effects of a merger—the effects from consolidation of two firms' operations at a single level of the chain of markets from production to ultimate sale (e.g., two manufacturers or two retailers). In industries where firms have *vertically integrated*—conducting operations at several levels—a merger potentially presents an independent set of problems, of foreclosure of competitors' access to suppliers or customers. (*Ford Motor Co.* v. *United States* (1972) 405 U.S. 562; *Standard Oil Co. of California* v. *United States* (1949) 337 U.S. 293.) These problems are assessed not by calculation of market shares but from a realistic assessment of the potential for market manipulation to the disadvantage of competitors or consumers. (*Brown Shoe Co.* v. *United States*, *supra*, 370 U.S. 294, 328–31; *United States* v. *American Cyanimid Co.* (2d Cir. 1983) 719 F.2d 558.) The U.S. Supreme Court has consistently recognized the serious problems inherent in vertical mergers. Each such merger to reach the Court was voided. (*Ford Motor Co.* v. *United States*, *supra*, 405 U.S. 562; *Brown Shoe Co.* v. *United States*, *supra*, 370 U.S. 294; *United States* v. *E.I. Du Pont De Nemours & Co.*, *supra*, 351 U.S. 777; *United States* v. *Yellow Cab Co.* (1947) 332 U.S. 218.)

Vertical mergers present special problems when the merging parties control an essential, or "bottleneck" resource, which can be abused to exclude competitors or otherwise gain advantage in other markets. (E.g., *United States* v. *Griffith* (1948) 334 U.S. 100; *Associated Press* v. *United States* (1945) 326 U.S. 1; *United States* v. *St. Louis Terminal* (1912) 224 U.S. 383.) In the electric utility industry, the transmission grid has often been found to be a bottleneck resource. (E.g., *Otter Tail Power Co.* v. *United States* (1973) 410 U.S. 366; *Utah Power & Light* (1988) 45 F.E.R.C. ¶ 61,095.)

The proposed SCE-SDG&E merger is both a horizontal and a vertical merger. Each firm is itself vertically integrated. The merger of the two firms' operations at a given level (e.g., bulk power production) must be analyzed horizontally. Additionally, the acquisition must be examined to determine whether SCE is acquiring any bottleneck resources that can be used to disadvantage competitors in other markets.

One other distinction to be kept in mind is the different roles a firm may play as both buyer and seller. Antitrust analysis of mergers typically focuses on the combining firms' capacity to manipulate selling price—to raise the price others must pay for the combined firms' products. But there is no less concern for those cases where a merger gives the resulting entity unfair power to control purchase prices by eliminating competition between the merging firms in the bidding for up-stream resources. This kind of power is technically referred to as "monopsony power," as contrasted to "monopoly power," although the terms "buyer market power" and "seller market power" are more descriptive.

V. THE COMPETITIVE SETTING

Electric utilities were once thought to be "natural monopolies," with the fixed costs of service so high that there was no role for competition. At retail, every state has enacted laws providing for a state-conferred exclusive franchise for electric utility territories. There remains a role for competition even in retail electric services, within the confines of the state's franchise and regulatory laws. And at wholesale—in the extensive purchasing, selling, and exchanging of power—there is no natural or governmentally conferred monopoly and one finds the kind of brisk competition familiar to other industries.

Given the vast cost of power facilities and the economic and strategic importance of the most efficient possible allocation of resources in the production of electric power, there is enormous value in commerce among utilities, permitting the low-cost producer to provide needed power. In California, the three private utilities—SCE, PG&E, and SDG&E—have long recognized that value, forming the California Power Pool, engaging in numerous sales and exchanges of energy and capacity both within and outside the pool, and developing elaborate reserve-sharing relationships to reciprocally supplement the reliability of their respective systems.

The California electric power industry has historically been dominated by the three private utilities. There is one large municipal utility, the City of Los Angeles; the remaining electric utilities are substantially smaller municipalities, and each has historically depended to a large degree on either Edison or PG&E for its power,[16] although some have recently begun developing their own generating resources to meet part of their loads. In recent years, non-utility independent power producers have, with the assistance of the Public Utilities Regulatory Policy Act (PURPA),[17] been able to play a role in the production and sale of electricity. Out-of-state utilities are another major source of power for California utilities.

[16] The exceptions are Burbank and Glendale, which operate within the control area of LADWP and rely more on LA than on Edison.

[17] 16 U.S.C. § 2601, et seq.

VI. THE HISTORIC ANTITRUST PROBLEM IN THE CALIFORNIA WHOLESALE POWER MARKETS

The history of the investor-owned utilities' dominance of the California power markets has been well chronicled, by the federal enforcement agencies and others.[18] In 1971 the U.S. Department of Justice found a history of anticompetitive conduct by SCE and recommended that the Atomic Energy Commission hold an antitrust hearing before licensing San Onofre Units 2 and 3. (36 Fed. Reg. 17886 (1971).) The advice letter noted that Edison has "pursued a policy of acquiring the systems of its competitors," has "in the past acted to block efforts of its all-requirements wholesale customers to receive bulk-power through alternative sources through wheeling over Edison's transmission facilities," specifically noting the difficulties of the Anza Electric Cooperative, the City of Colton, and the Cities of Anaheim and Riverside, and has used provisions in its agreements with wholesale customers "forbidding the operation of the customer's system in parallel with Edison's and the provisions precluding the resale or use outside of the customer's system of the purchased power." (*Id*., pp. 3, 4-6, 10.) The department concluded that "consideration of the totality of Edison's conduct makes it actually impossible to conclude that the applicant's activities under this license, if granted, would not maintain a situation inconsistent with the antitrust laws."

Despite the long attention of federal regulators to the competitive conditions in the California electricity markets, the problems persist. Notwithstanding Edison's commitment to a series of conditions on transmission (known as the SONGS Commitments), in 1987 an FERC administrative law judge found SCE continues to pursue anticompetitive transmission practices. (*Southern California Edison Co.* (1987) 39 F.E.R.C. ¶63,045 (finding SCE had failed to offer the City of Vernon transmission on just and reasonable conditions, imposing curtailment terms that reserved to Edison "discretion . . . to . . . trigger a curtailment . . . in an arbitrary or unfair manner," rendering "Edison's transmission offer . . . an empty gesture.").[19])

[18] See, e.g., *Southern California Edison Co.* (1987) 39 F.E.R.C. ¶63,045; *Pacific Gas and Electric Co.* (1988) 45 F.E.R.C. ¶ 61,061; *Southern California Edison Co.*, San Onofre Nuclear Generating Station, Units 2 & 3 ("SONGS")), AEC Docket Nos. 50–361–A & 50–362–A; *Pacific Gas & Electric Co.*, (Stanislaus Nuclear Project, Unit No. 1), NRC Docket No. LBP–77–45; *Pacific Gas & Electric Co.*, FERC Docket No. E–7777(II).

[19] The ALJ also noted that the record contained evidence of other Edison attempts to impose similar conditions in other transmission contracts.

VII. ANALYSIS OF THE COMPETITIVE EFFECTS OF THIS MERGER

To take advantage of the wholesale commerce among electric utilities, firms must have access to markets in which the components of electric power are marketed. They require transmission between power sources and loads, access to prospective buyers and sellers, and generating resources and contractual arrangements to ensure prudent reserve margins. This has led the courts to a recurring pattern of market definitions, based on a functional breakdown of the electric utility industry. In wholesale electricity, the courts have identified separate markets for at least three different functions: generation of power, transmission of power between generating facilities and loads, and distribution to customers. (See generally Fairman & Scott, *Competition in the Electric Utility Industry* (1977) 28 Hast.L.J. 1159; Meeks, *Concentration in the Electric Power Industry: The Impact of Antitrust Policy* (1972) 72 Colum.L.Rev. 64.)

A. TRANSMISSION

1. Horizontal Analysis

a. Market definition

(1) Product market

The experts' disagreement over transmission begins with the question whether it represents a separate product market. On one side are those who identify transmission as a separate product. (E.g., Owen FERC Direct Testim. at 112-178; Exh. 10,200 at II-6, ch. III.) Others dispute the claim, arguing that the only product that matters is delivered power, combining the capacity, energy, and their delivery. (Bower FERC Rebuttal Testim. at 5; Pace FERC Direct Testim. at 14-29; Joskow FERC Direct Testim. at 27-43.) It is worth noting that virtually every reported case in this industry recognizes the importance of the separate transmission market to a proper antitrust analysis of wholesale electricity markets.[20]

[20] E.g., *Otter Tail Power Co.* v. *United States* (1973) 410 U.S. 366 (electric utility having " 'strategic dominance in the transmission of power in most of its service area' and that use[s] this dominance . . . 'to destroy threatened competition" ' violates section 2 of the Sherman Act); *Conway Corporation* v. *Federal Power Commission* (D.C. Cir. 1975) 510 F.2d 1264 (dominant utility " 'can virtually control the performance of [neighboring] municipal system through its control over the wholesale price of power. . . . Such control by selling systems is probably very common and very effective, primarily because of the almost universal control over transmission by the dominant selling system in an area. This kind of "unfair" competition is usually directed at municipals and cooperatives but also occasionally at small private systems, particularly when the seller is seeking to absorb the smaller system by merger' " quoting Meeks, *Concentration in the Electric Power Industry: The Impact of Antitrust Policy*, *supra*, 72 Colum.L.Rev. 64); *Utah Power & Light* (1988) 45 F.E.R.C. ¶ 61,095.

Some of the dispute among the experts revolves around the way in which transactions are characterized. A former SDG&E scheduling supervisor points out that SDG&E's revenues from interruptible transmission service (i.e., wheeling) amounted to only $28,000 in 1987 and 1988. (Gaebe FERC Direct Testim. at 40.) On the other hand, the record is replete with examples of SDG&E "brokering" power by purchase and immediate resale.[21] The fact that, in some sense, title to the power passed to SDG&E is immaterial to the true character of these transactions. The value SDG&E was adding to the power, and the service for which it was being compensated, was unquestionably transmission.[22]

The fundamental point for purposes of determining whether transmission is a separate product is that transmission services can be and routinely are offered for sale separately from power. (Exh. 10,200 at II-6; Roach FERC Direct Testim. at 30.) Transmission service is essential to the ability of firms to gain access to all other power product markets simply because one cannot deliver power without transmission. Thus, as courts have routinely recognized, transmission can and should be treated as a separate product market.

(2) Geographic Market

Virtually all of the witnesses to discuss the relevant geographic markets for transmission service agree, at a minimum, that it is appropriate to separate transmission between California and the Pacific Northwest and transmission between California and the Southwest.[23] (Owen FERC Direct Testim. at 167-72; Roach FERC Direct Testim. at 33-38; Pace FERC Direct Testim. at 30-72; cf. Marcus PUC Direct, Table 1.) The reason is basic—transmission between California and the Southwest is simply not a substitute for transmission between California and the Pacific Northwest. (Roach FERC Direct Testim. at 34; Exh. 10,200 at II-13 to II-16.) There are limited connections between the

[21] Owen FERC Direct Testim. at 140–45 ; Mays Depo. at 31–33.

[22] In a sense, SDG&E was providing two services: actual delivery over transmission lines and "access" to the market. Where, as the testimony suggests (Mays Depo. at 63–64; Pace FERC Rebuttal Testim. at 31–33), SDG&E controllers were actually providing expertise in wholesale power marketing, it may make sense to distinguish between actual delivery and market access. But historically, the only reason why prospective purchasers lacked access was that they lacked a transmission path.

[23] Some witnesses have suggested other relevant transmission markets, such as between the Pacific Northwest and the Southwest, or transmission across Edison's service territory. (E.g., Owen FERC Direct Testim. at 174–178.) By not addressing these markets here, we do not suggest that those analyses are incorrect. We simply address those markets about which there seems to be little disagreement as to the appropriateness of concluding that they are relevant for purposes of this case and where serious adverse consequences are threatened by the proposed merger.

Pacific Northwest and the Southwest, so the regions are separated by the lack of transmission paths. (*Id*., at II-16.) Moreover, the cost for transmission service from the two regions varies significantly due to differing levels of transmission losses. (*Id*., at II-14 to II-15.) These factors compel the conclusion that there are separate geographic markets for transmission service between California and the Pacific Northwest and the Southwest. (*Id*., at II-16.)

b. Market power

(1) *California/Southwest*. An analysis of total capacity[24] over transmission lines connecting California and the Southwest shows that concentration as measured by HHIs is and will remain highly concentrated even without the merger. In the years 1989 through 2000, the HHIs for transmission rights will average 2911 without the merger. (Owen FERC Direct Testim., Exh. BMO-3, Sched. 6.) Post-merger HHIs will increase to an average of 3604 over that same period. (*Ibid*.) This represents an average increase in the HHIs of 693. (*Ibid*.) These figures indicate that the merger would unlawfully increase concentration in this market.

A portion of each utility's transmission capacity is typically committed to transmission of power from a firm power resource—either a power plant or a point at which the utility has a contractual right to receive power from another utility. To the extent that such commitments preclude use of the capacity for other purposes (whether wheeling for others or transmission for the utility itself from other resources), the committed capacity has a different competitive significance than capacity not so committed. Of course, even "committed" transmission capacity becomes free, for example when the resource to which it is committed is not generating. Nevertheless, it makes sense to talk about total transmission capacity and, separately, about "available" capacity—that capacity not committed to any firm resource. Such capacity is particularly important in the vertical analysis, when assessing the transmission available to obtain bulk power.

When limited to "available" capacity, the market is even more highly concentrated as a result of the proposed merger than when examining all transmission capacity. (Marcus PUC Direct Testim., Tab. I.) Transmission available for purchases from the Southwest is highly concentrated today, and the concentration will increase greatly every year over the next decade due to the merger. (*Ibid.*) For example, non-firm transfer capability from the Southwest in 1991 averages 3378 MW, with an HHI of 2300 without the merger. The proposed merger would increase the HHI by 678, to 2978. Even larger increases are observed in later years. (See Table 2.)

[24] This includes both firm and non-firm contractual entitlements, as well as ownership of lines.

Table 2

CONCENTRATION OF "AVAILABLE" TRANSMISSION BETWEEN CALIFORNIA AND SOUTHWEST

	1991	**1995**	**1998**	**2001**
Pre-Merger	2300	2505	2882	2001
Post-Merger	2978	3581	3902	3928
Increase Due To Merger	678	979	1020	10214

Source: Marcus Testim., Tab. 1.
Note: All figures reflect average of all days and hours.

Thus, measured both by absolute control of transmission capacity and by available supply of uncommitted capacity, the proposed merger can only be described as posing severe threats to competition in the market for transmission between California and the Southwest, and in the markets depending on that capacity.

(2) *California/Northwest.* An analysis of transmission capacity from the Northwest into California reveals a similar pattern of high concentrations—though less highly concentrated than the extremes found in the California/Southwest market. (See Table 3.)

Table 3

TRANSMISSION CONCENTRATION BETWEEN CALIFORNIA AND THE NORTHWEST

Year	**1989**	**1990**	**1992**	**2000**
Pre-Merger	2282	2265	2052	2069
Post-Merger	2792	2749	2498	2550
Increase Due to Merger	509	484	446	482

Source: Owen FERC Direct Testim., Exh. BMO-3, Sched. 7

Edison claims the merger will create additional transmission capacity for other utilities. (E.g., Pace FERC at 32.) However, taking into account the additional capacity

Edison projects, and assuming the new capacity goes to parties other than SCE or SDG&E, the merger continues to have adverse effects on competition in this market.
With the Edison proviso, the merger increases HHIs from already highly concentrated levels by amounts ranging from 62 to 110 points, exceeding both USDOJ and state enforcement guidelines. (Owen FERC Testim., Exh. BMO–3, Sched. 12.)

SDG&E has historically, and will continue to have, entitlements over the Pacific Intertie equalling approximately 4% of the total line capacity to the Northwest available to all utilities. (Owen FERC Direct Testim. at 169.) SDG&E has consistently utilized 100% of its Intertie capacity during the peak hours since 1985. (Gaebe Exh. GPG–6, FERC Exh. 175.) Edison's share of the transmission capacity to the Northwest will range from 25.2% to 29.3% between 1989 and the year 2000. (Owen FERC Direct Testim. at 169.) SDG&E will control from 4% to 4.3% during the same time. (*Ibid.*)

Thus, over the next decade, the merger will increase concentration in this market as well. Given the strategic importance of transmission in enabling firms to participate in bulk power transactions, and given SDG&E's emergence as a firm more and more willing to act as a broker in transactions between other utilities who do not have access to transmission paths (Mays Depo. at 44–46), the loss of SDG&E as an independent source of transmission is even more significant.

2. Vertical Analysis

The foregoing evaluation of the horizontal effects on the transmission markets revealed substantial adverse effects on competition from the merger. The evidence discloses even more dramatic competitive harm in the vertical effects of the merger.

Edison competes with other utilities as both a buyer and a seller of bulk power. Because transmission determines a firm's access to the markets for power, Edison's control of transmission raises concerns about the use of that control to exclude competing buyers and sellers from bulk power markets.

And, in fact, the record demonstrates that SCE has used its control over transmission to gain advantages in other markets. For example:

- A former dispatcher for SCE testifies that when he was employed by Edison the standing procedure was whenever Anaheim requested transmission service SCE would buy and schedule as much power as possible over the line in order to refuse the transmission; only if they couldn't purchase enough energy to fill the line would Anaheim get the service. He also describes how SCE would try to buy economy energy to interrupt cities' nonfirm service, knowing that would make other utilities reluctant to deal with the cities. (McCann FERC Direct Testim. at 21–22 & 29–30.)

- SCE prevented Riverside from selling its excess energy to Azusa, Banning, and Colton and terminated transmission service to Riverside for alleged technical reasons. (Greenwalt FERC Direct Testim. at 17–19.)

- SCE refused to provide SDG&E transmission service northward that would have enabled SDG&E to sell power to Vernon and other Southern Cities—despite an internal SCE document showing transmission capacity existed. (Russell FERC Direct Testim. at 68–74.) SCE falsely claimed line-loading problems to prevent Nevada Power from selling power to Vernon. (*Id.*, at 100–101.) SCE refused to give timely agreement to a request for wheeling to Southern Cities from Arizona Power's Cholla plant, then obtained the power itself. (*Id.*, at 116.) SCE refuses to schedule nonfirm transmission more than an hour in advance, precluding Southern Cities from getting Northwest power, which is scheduled a day in advance. (*Id.*, at 133–35.)

- SCE has consistently refused, since 1985, to provide Arizona Electric Power Cooperative (AEPCO) with transmission service of more than 10 MW to one of its customers, the Anza Electric Cooperative, leaving Anza in the position of serving its growing needs even though AEPCO is willing to provide the power for those needs. (Rein FERC Direct Testim. at 8–18.)

These are precisely the kinds of exclusionary practices that the antitrust laws prohibit.[25]

Edison has not offered convincing evidence to rebut these claims and simply fails to respond at all to others. Rather, it argues that the merger will make things no worse. In essence, it claims that SDG&E today does not provide an independent transmission path between any of the entities complaining of SCE practices and outside markets; in each case, even if SDG&E wished to provide transmission service to one of the utilities, it could not do so without enlisting the aid of SCE for some portion of the delivery.

[25] The relevance of these exclusionary practices lies in what they show about the potential vertical effects of the merger. SCE's acquisition of SDG&E's transmission grid represents a *horizontal* consolidation. However, the evidence of SCE's use of transmission to exclude competition in other markets is probative of whether the merger will increase the opportunity for abuse of market power in transmission to gain advantage in other markets, a vertical effect that must be considered.

Because Edison is correct that there does not today exist a complete long-term transmission path between SDG&E and any of the utilities SCE encircles, this claim represents a substantial defense. But the claim ignores the realities of the current market and the potential for a more open market in the future.

While SCE's cooperation can be withheld from transmission requests, under existing SCE commitments the company must tender a reason for doing so. As noted above, SCE has been willing to devise such an excuse from time to time. But the ability to construct such a claim is not limitless, and the less SCE cooperation is required the more likely the transaction can be consummated. The availability of capacity on a short link is easier to verify and less susceptible to manipulation than the availability of capacity for long-distance transmission across the grid—the extent of SCE cooperation that would be required after the merger.

Furthermore, to the extent that SCE is constrained by either the potential of legal action or the pressures of opinion in the industry, the constraint depends on the existence of a party positioned and equipped to detect and verify the sham claim. As a large, sophisticated utility with a demonstrated interest in a vibrant commerce in wholesale power, SDG&E represents the best such party. Were SCE to absorb SDG&E, SCE would necessarily be less constrained in refusing to make transmission available to other utilities.

And it would be a mistake to assess the competitive effects of a merger solely on the basis of the existing configuration of the transmission grids. Each utility's transmission system is dynamic, and the potential for expansion (either by SDG&E or by another utility reaching out to SDG&E) cannot be disregarded. A merger that forecloses such possibilities in perpetuity certainly adversely affects competition.

It would also be inappropriate to assume that the kinds of exclusionary practices engaged in by SCE will forever escape effective enforcement. If access over a relatively short link can be shown to be an impediment to open competition, a court or administrative agency may well be able to enter an appropriate order to remedy the problem. The court's or agency's ability to fashion and enforce an effective order regarding the entire integrated transmission system of a combined SCE-SDG&E would necessarily be much more doubtful.

B. BULK POWER

1. Long-Term, Firm Power

a. Market definition

(1) Product market

Firm power is power sold with a charge for capacity (commonly called a "demand charge"). This is power committed to a particular purchaser. (Exh. 10,200, p. II–9.) Long-term firm power is defined as power which is committed for a period longer than one year. (Roach FERC Direct Testim. p. 21.) Firm power is a separate product market because non-firm sales are not an adequate substitute for firm sales. (*Ibid.*) As Roach notes:

> ". . . a utility cannot rely on non-firm sales to fill its capacity needs. Non-firm sales are made to take advantage of lower cost sources of *energy*. Firm sales are used to meet a utility's *capacity* needs, and take advantage of lower cost sources of both energy and capacity." (*Ibid.*, emphasis in original.)

Within the product market called "firm power," one can distinguish at least three separate sub-markets: Northwest power, Southwest power, and California power. While their names suggest that they are geographic sub-markets, they are in fact distinguished by the unique characteristics of the power produced in the three regions. Northwest power, when it is available, is typically the lowest-cost power available. (FERC Exh. 1160.) However, the supply of Northwest power is seasonal, with the greatest supply obtainable at different times of year than power from other regions. (*Ibid.*)

As Taylor states:

> "In most years, the Pacific Northwest has energy that is surplus to the region's needs, and California is the primary market for this surplus. There is seasonal diversity between the Pacific Northwest, which is winter peaking, and southern California, which is summer peaking. This diversity makes the Pacific Northwest a source of capacity to supply Southern California summer peak loads. There is not the same seasonal diversity between southern California and the Inland Southwest, which also is summer peaking." (Taylor FERC Direct Testim., pp. 55–57.)

SCE itself pays careful attention to these differences in its own resource planning, separately planning for power from the Northwest, Southwest, and California because of the different price and availability characteristics of power from the three regions. (See FERC Exh. 1160.)

(2) Geographic market

SDG&E and Edison both purchase and sell firm power over the entire area of the Western Systems Coordinating Council ("WSCC") member systems, an area comprising the Western United States, portions of western Canada and northern Mexico (Baja). (Taylor FERC Direct Testim. at 55.) However, transportation constraints define separate markets for power in the Northwest, the Southwest, and California. As the Division of Ratepayer Advocates (DRA) convincingly argues:

> "The connection between utilities in the Southwest and Northwest is largely via California, and through Edison and SDG&E in particular. If the merged firm acted to depress prices for purchase of wholesale electricity from the Southwest, the alternative market for this power would be utilities to the North. However, access to these utilities is largely via transmission lines of the merged firm. It is unlikely that the merged firm would grant unlimited access to utilities in the Southwest that are seeking alternative customers for their bulk power. A similar argument applies to transactions between utilities in the Northwest and other buyers to the South." (Exh. 10,200 at II–16.)

Accordingly, it is appropriate to treat the Pacific Northwest and the Southwest as distinct geographic markets for the purchase of bulk power, whether long-term or short-term.

b. Market power

Whether the merger will confer market power on the merged company can be analyzed separately for the purchase and sale of each form of firm power in the Southwest and the Northwest geographic markets. However, since neither SCE nor SDG&E sell significant amounts of firm power to the Northwest and little, if any, firm power is sold from the Northwest, the merger will have little effect in that geographic market for firm power purchases or sales. (Exh. 10,200, Tables II-19 & II-21.) Likewise, SDG&E has sold almost no firm power in the Southwest market (Exh. 10,200 at II-56), and there is no evidence that SDG&E is likely to become a significant seller of long-term firm power in that market.[26] Therefore, we limit our examination of the firm-power markets to purchases from the Southwest.

[26] DRA calculated HHI for these respective markets using figures that were derived from FERC form 1 for each utility in the markets. Their analysis excluded sales characterized as "requirements transactions" because such power is not made available as surplus to other market participants. Also excluded were Bonneville Power Administration sales to public entities because of the lower preferential rates charged to such entities and because this power is not available to all market participants. Colorado River Storage Project power was not included because of its very low price. Finally, sales by three large public utility districts in the Northwest were not included because their sales were only available to contiguous utilities. (Exh. 10,200 at II–51–52.)

Both SCE and SDG&E buy significant amounts of firm power from the Southwest. From 1985 to 1988, the two companies purchased on average more than 36% of all firm power sold in the Southwest.[27] (Exh. 10,200, Table II-15.) In 1988, they accounted for more than 45% of the firm power purchases in the Southwest. (*Ibid*.) Based on 1988 sales, the pre-merger HHI for purchases of firm power from the Southwest was 1456. (*Ibid*.) The merger will increase the HHI by 1014 to 2470. (See Table 4.) These figures far exceed those considered by both federal and state enforcement officials to constitute a violation of the Clayton Act.

Table 4

CONCENTRATION IN SOUTHWEST FIRM-POWER PURCHASER MARKET

	1985	**1987**	**1988**
Pre-Merger HHI	1169	1169	1456
Post-Merger HHI	1738	1687	2470
Increase Due to Merger	569	518	1014

Source: Exh. 10,200, Tab. II-14, p. II-52.

DRA acknowledges that these figures are cause for at least "moderate concern" over the increase in market power for firm purchases in the Southwest. (Exh.10,200 at II–54.) However, DRA suggests that the high elasticity of firm power supply, coupled with the "option of providing power for own use as an alternative to selling firm power in the wholesale market," should temper such concern. (*Ibid.*) We cannot agree.

While there is some evidence suggesting high elasticity in the supply of firm power,[28] any increase in SCE's market power caused by the merger remains a concern.

[27] The DRA calculations appear to be based on sale transactions it could identify as firm, excluding certain sales made to requirements customers of the reporting utilities. Thus, DRA did not include power used by the selling utilities to serve their own long-term firm loads for purposes of calculating concentration figures. (Exh. 10,200 at II–50 to II–51.)

[28] The principal evidence is the success of PURPA in developing new generation sources at rates unanticipated when the statute was enacted. However, there is no assurance that that success will continue in light of proposed changes to the rules governing utilities' obligations to buy the capacity from new sources. Moreover, the long lead times necessary for development of new generation sources, together with the environmental difficulties associated with new plant siting issues, particularly for SCE and SDG&E, suggests that they will continue to be significant buyers of firm capacity.

Even if sellers can, in the long term, adjust to exercises of market power, the immediate effects unquestionably constitute an adverse effect on competition.

Second, we do not agree that the option of providing power for one's own use could minimize the merger's effect of increasing the merged company's *purchaser* market power. The ability to find alternative *sources* of power, including self-generation, may ameliorate the effects on other purchasers,[29] but the issue in analyzing purchaser market power is whether the merger will adversely affect the sellers. Accordingly, we remain convinced that the evidence demonstrates the merger will have adverse effects on competition in the market for the purchase of firm power in the Southwest.

2. Short-term Bulk Power

a. Market definition

(1) Product market

Electric utilities buy and sell a variety of short-term power products that they use to meet their loads. These products include non-firm economy energy, short-term firm capacity and energy, unit commitments, and exchange agreements.[30] Effective management of short-term purchases, mixed with a utility's own generation and long-term firm purchases, provide an efficient method of meeting the utility's load at the lowest possible cost.[31] (Mays Depo. at 21-22.) These products can be viewed as comprising a single product market we will call short-term bulk power. (Mays Depo at

[29] If alternative supplies exist, they would be expected to temper SCE's increased market power as a seller, which would be relevant to determining whether the merger has adverse effects on competition in markets where SCE and SDG&E sell (presumably Southern California). As noted above, however, we do not find the merger to have an adverse effect on those markets.

[30] . Exchange agreements are barter arrangements for power—capacity, energy, or both. The agreements can be creatively structured to provide for complementary needs of the exchanging utilities. For example, summer peaking utilities such as SDG&E can exchange their off-peak winter capacity and energy with winter-peaking utilities such as Portland General Electric (PGE) for summer peaking capacity and energy that PGE has in abundance during its lower peaking spring and summer months due to the snow melt. (Gaebe FERC Direct Testim. at 5174.)

[31] Most long-term capacity and energy purchase contracts permit the buying utility not to take energy if it so chooses. (Gaebe FERC Direct Testim. at 5147.) So the buying utility always has the option of purchasing short-term products to substitute for energy it could demand under one of its long-term contracts if the economics of a particular transaction make it desireable to do so. Likewise, utilities can choose to buy short-term products in lieu of turning on one of their own generating units when the economics of fuel prices and availability of short-term power make it economical to buy rather than burn, for example, fuel oil.

17.) Effective participation in the short-term bulk power market creates opportunities for utilities to sell short-term bulk power products to other utilities, producing revenue to reduce their own rates and to increase profits for their shareholders. (Mays Depo. at 22, 46; Boettcher Depo. at 67-68.)

Some utilities, including SDG&E, provide for substantial portions of their load by purchasing these short-term products. Many utilities, also including SDG&E, sell short-term bulk power profitably to other utilities. (Mays Depo. at 44; Boettcher Depo. at 76.) Recent developments in the Western United States, including initiating service over SDG&E's Southwest Power Link (SWPL) and the emergence of the Western Systems Power Pool (WSPP), have effectively created a burgeoning marketplace for short-term bulk power transactions. (Mays Depo. at 48, 81.) Since most utilities in the Western United States buy and sell short-term bulk power and participate in the WSPP, the SCE/SDG&E merger must be analyzed in terms of its impact on this developing market.[32]

Again, the different price and supply characteristics of power in the Northwest, the Southwest, and California require us to distinguish between power produced in the three regions. Edison has noted this difference particularly with respect to economy energy, one form of short-term bulk-power:

> "The forecast quantity of economy energy is a function of transmission capability and availability of cost-effective economy energy from each of the three markets. As can be expected, [Northwest] and California economy energy availability is highly weather-dependent, while [Southwest] availability is primarily a function of 'excess' installed capacity compared to loads in the region.
>
> ". . . . .
>
> "Historically, energy from the [Northwest] is abundantly available only during the spring runoff period of April through June.
>
> ". . . . .

[32] Because SDG&E's participation in bulk power markets as a buyer and seller to any significant degree is a relatively recent phenomenon, coinciding with the advent of SWPL and the WSPP, the merger must also be analyzed for its impact on the potential for competition in the future. Historical data is relevant to this analysis and suggests that the merger raises competitive concerns in some short-term bulk power geographic markets as discussed below. However, the potential for competition in short-term bulk power markets in the future is probably best analyzed by examining available transmission to determine the future ability of firms to engage in short-term bulk power transactions.

> “Historically, economy energy purchases from the [Northwest] region have been favorably priced in comparison to [Southwest] and California markets due to predominantly hydroelectric baseload resources.” (Exh. 1160, pp. 3–70 to 3–71.)

(2) Geographic market

A firm’s ability to buy or sell short-term bulk power to other utilities depends not only on the willingness of other utilities to purchase or sell power, but also on a number of other factors. Access to buyers and sellers via transmission paths is a principal constraint on the ability to participate in the short-term bulk power markets. (Exh. 10,200 at II-5 to II-8.) Another important constraint is the seasonal diversity of supply and demand that largely defines the geographic areas where there are buyers and sellers at any given time. These two factors play a large, if not dispositive, role in defining the geographic markets in which buyers and sellers compete.

We conclude that, for both purchaser and seller short-term bulk power markets, differences between the firms that can buy and sell at various times of the year provide clear definition to two distinct geographic markets for transactions with California utilities, the Pacific Northwest, and the Southwest. These geographic markets for short-term bulk power are distinct because, in large measure, the utilities in the Pacific Northwest that can engage in transactions with utilities in California cannot buy from or sell to utilities in the Southwest. (Exh. 10,200 at II-13 to II-16.) Likewise, utilities in the Southwest that can engage in transactions with utilities in California cannot buy from or sell to utilities in the Pacific Northwest.[33] Moreover, on the average, when short-term bulk power is available from the Pacific Northwest, it tends to be less available from the Southwest because of the seasonal diversity between the peak loads of those two regions. The reverse is also true. (Russell FERC Direct Testim. at 33-38; Mays Depo. at 35.) Thus, the competitive effects of the proposed merger must be analyzed in terms of the merger’s effect on the ability of firms in California to sell to and buy from utilities in the Pacific Northwest, as well as its effect on the ability of firms in California to transact business with utilities in the Southwest.

b. Market power

(1) Southwest short-term bulk power

[33] This is true because there is very limited transmission access between the Southwest and the Pacific Northwest. (Exh. 10,200 at II–15 to II–16.) On the other hand, there are major interties between both the Southwest and California and the Pacific Northwest and California. (*Ibid.*)

(a) Seller market power

(i) *In the Southwest.* Measured by historical sales in the Southwest, the role of SCE and SDG&E as sellers of short-term bulk power has not been large. (Exh. 10,200 at II–39 to II–41.) This has been true mainly because of the recent surplus in capacity in the Southwest. (Gaebe FERC Direct Testim. at 5209–5210.) Accordingly, the significant impact of the merger will be on its removal of SDG&E as a potential supplier in that market, for which there is concrete evidence. SDG&E has, by its own description, developed an "aggressive" attitude towards pursuing sales that can reduce its ratepayers costs and produce revenue for its shareholders. (Mays Depo. at 43–46.) Coupled with a corporate "culture" of opportunistically competing for sales (Mays Depo. at 76), SDG&E represents a significant source of potential competition in the market for short-term bulk power sales in the Southwest. The merger would eliminate that competition.

(ii) *In California.* However, Southwest non-firm power is economically attractive for California utilities. Because we have found that the proposed merger will permit SCE to control access to such power beyond, it would perforce also give SCE market power over sale of Southwest power in California.

(b) Buyer market power

Evidence concerning the effects of the proposed merger on the buying side of the short-term bulk power market between the Southwest and California demonstrates that substantial adverse effects on competition are likely. DRA has shown that, based on recent figures for non-firm energy purchases in the Southwest market as they define it,[34] the merger will increase concentration as measured by the increase in HHI levels. (Exh. 10,200 at II-36 to II-39.) Figures for 1988, for example, show that the merger will increase the HHI by 704, to 1741. The 1988 figure calculated by DRA does not appear to be idiosyncratic in light of the trend data DRA presents. That data calculated the effect of the proposed merger for the years 1985, 1987 and 1988 showing comparable results in each year.

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[34] DRA defines the Southwest market to include all purchases and sales between the utilities it has included in the Southwest market. (Exh. 10,200 at II–29 to II–36.) DRA also describes firm and non-firm product markets within the Southwest market. (*Id.*, p. II–29.) The DRA analysis includes some short-term firm sales in the non-firm or economy energy market; it may also include some short-term firm sales in the firm market for purposes of its analysis. (*Ibid.*) Moreover, DRA makes no attempt to account for the seasonal variations in buying and selling, and thus understates the competitive impact of the merger in both its buyer market power and seller market power analyses. (*Id.*, p. II–36 to II–41.) Nonetheless, the DRA's buyer market analysis for the firm and non-firm markets in the Southwest suggests serious competitive harm from this merger, (cf. Exh. 10,200 at II–36 to II–39 with II–52 to II–54), especially in light of its failure to account for the importance of seasonal diversity in the non-firm market.

Thus, the merger will increase concentration in the short-term bulk power market. Moreover, because DRA analyzed market shares without accounting for seasonal variations in purchases, its figures likely understate the effects of the merger for times when SCE and SDG&E are most likely competing to buy Southwest short-term bulk power.

Table 5

CONCENTRATION IN SOUTHWEST NON-FORM ENERGY BUYER MARKET

	1985	**1987**	**1988**
Pre-Merger HHI	1384	773	1037
Post-Merger HHI	1736	1139	1741
Increase Due to Merger	352	366	704

Source: Exh. 10,200, p. II-36 to II-39.

The evidence of increasing concentration in the market for "available" transmission between California and the Southwest in the coming years suggests that the trend will be toward increasing concentration in this market as well. The concentration in the non-firm power market, already substantially greater than permitted by the antitrust laws, appears even more serious against the backdrop of a market for transmission that is increasingly concentrated in the hands of Edison.

(2) Pacific Northwest non-firm bulk power

(a) Seller market power

While SDG&E has historically made a substantial share of its bulk power sales to the Northwest (Pace Workpapers Supporting Response to Surrebuttal Testim. of Owen, March 26, 1990 ("Pace Workpapers") at 13–14), there is no evidence that the volumes sold by SDG&E and Edison into the Northwest are sufficient to have any effect on competition in this market.

(b) Buyer market power

From 1984 through 1988, SDG&E purchased almost 2 billion kWh of economy energy from the Northwest, 20% of its economy energy purchases. (FERC Exh. 1203 at II–42.) More recent data confirm the existence of substantial continuing purchases. (*Ibid.*)

The concentration figures that have been calculated thus far are ambiguous about the effects of the merger. DRA computes HHIs in the "moderately concentrated" range (1400–1600 post-merger for the 1985–88 period), with the merger responsible for increases ranging from the negligible to substantial. (Exh. 10,200, Tab. II–10.) From this, DRA concludes that "there are some potential buyer market power concerns." (*Id.*, p. II–48.)

We agree with DRA that there is a basis for concern in these figures, particularly in light of the fact that the merger would substantially increase concentration for transmission to the Northwest. It may well be that the effects of this merger are masked by the fact that the DRA figures are aggregated on an annual basis. California utilities' purchases are typically seasonal (reflecting the different time of year of maximum load and hydroelectric generation). The merger may confer buyer market power on a seasonal basis. But at this point, that is merely conjecture; all that can be said on the basis of the present record is that which DRA says, that the evidence properly gives rise to some concerns about competitive effects.

(3) The emerging short-term bulk power markets

In 1987, the FERC approved operations under an experimental pooling agreement known as the Western Systems Power Pool (WSPP).[35] (FERC Exh. 1203 at II-12.) The WSPP has become the largest power pool in the nation. (*Ibid.*) SDG&E has made economy energy purchases and sales, as well as transmission service arrangements under the WSPP, since its inception, resulting in lower operating costs. (FERC Exh. 1203 at II-14.) SDG&E has, as a result of a "corporate culture" developed in recent years of viewing itself as an aggressive "energy management company," come to view the WSPP as a marketplace for transactions which can both lower its ratepayers costs and improve its shareholders profits. (Mays Depo. at 46.) As experience by SDG&E and other utilities has improved, SDG&E has developed a role of "middleman" in making economic arrangements between utilities under the WSPP. (Mays Depo. at 63.) Other utilities, particularly municipal utilities with limited transmission access such as MSR and TID, have begun to look to SDG&E as a broker for power purchases and sales under the WSPP, a role which SDG&E has willingly filled. (Mays Depo. at 62-65.) The SDG&E employee responsible for supervising SDG&E's short-term purchases and sales on a day-to-day basis from December 1987 through December 1989 has described SDG&E's role as follows:

[35] Originally, the WSPP was approved as a two-year experiment in market based pricing, but the agreement has been extended for at least two more years and SDG&E supports its further extension. (FERC Exh 1203 at II–12 to II–13; Gaebe FERC Direct Testim. at 5228.)

> "But [municipal utilities are] new to the marketplace, and don't have all the contracts in place we do. They don't have the schedulers with the knowledge ours do of the marketplace. And there seems to be a market almost for a service—it's sort of like training wheels on a bike—that we can provide for people in that category, of helping them. And it takes quite a bit of time and effort.
>
> "We're not getting the greatest profit out of it. It takes time. In fact, we added a third scheduler because we were doing this. We have a salary involved there that helps us support the additional sales and purchases that we make.
>
> "And we have—we seem to have recently stepped in and filled a void in that marketplace of assistance." (Mays Depo. at 63–64.)

This market may well grow under the WSPP (*id.*, at 76), and it is certain to continue in some form. To the extent it does, SDG&E will continue to play an aggressive role in the market whatever form it takes. (*Id.*, at 76–77.) One result of SDG&E's participation in this burgeoning market has been the dramatic growth in SDG&E's sales since 1986. (Gaebe Testim., GPG–1, FERC Exh. 181; Mays Depo. at 80–81.)

SDG&E's emergence as an aggressive competitor in this emerging market raises special concerns that further demonstrate the merger's adverse effects on competition.

C. RETAIL ELECTRIC SERVICE

Because retail electric service is typically provided through exclusive utility franchises, most customers do not have the day-to-day option of buying their electricity from the utility of their choice. Yet utilities are not free of competitive pressures, even in retail service. There is occasionally actual competition for customers, either in new territories, on the occasions when franchises become open to competition, and when customers choose to take new business to one territory or another. Perhaps most important in the regulated environment of retail electricity service, regulatory decisions are made in part by comparison of similarly situated utilities. (See Taylor FERC Direct Testim., pp. 33–35; Owen FERC Direct Testim., pp. 178–79.) Economists have identified these various forms of competition as "franchise," "fringe," and "yardstick" competition.

1. Yardstick Competition

"Yardstick competition" refers to the pressures to lower rates to levels that are competitive with those maintained by other utilities. Utility managers feel this pressure in a very real sense when their rates get out of line with those being charged by neighboring utilities. SDG&E Chairman Page emphatically acknowledged that his company keenly felt the competitive pressures of SCE prices:

> "[W]e keep working at trying to keep the rates down because we get no pleasure, I will tell you, out of being 70 percent [or] six cents above . . . Edison." (Page FERC Tr. at 967.)

SDG&E reacted to this competitive pressure in the early 1980s by implementing a program to reduce its retail rates, a program which culminated successfully in mid-1989 with SDG&E achieving—for the first time in years—lower average retail rates than those charged by SCE. (Page FERC Tr. at 952–54.)

Regulators apply pressure by utilizing the performance of other utilities as a benchmark to determine whether costs were prudently incurred. (Taylor, p. 33.) A clear example of yardstick competition is found in the comparisons of California utilities' performance levels used by the PUC itself. In a DRA report on management performance of PG&E, the staff makes it plain that PG&E's performance was being evaluated against the performance of Edison and SDG&E and that the point of the comparison was to "maintain the utility's interest in cutting costs and increasing efficiency." (Taylor FERC Direct Testim., p. 35; Owen FERC Direct Testim., p. 183.)

> "Regulation can hold prices down to costs, but has a more difficult time determining reasonable cost and performance levels. A regulatory commission can compare costs and performance among utilities, however. If a neighboring utility has lower costs and better performance, then a utility attempting to pass through higher costs may have them disallowed . . . Thus, for regulated industries, the counterpart of the threat of entry by other private companies is yardstick comparisons, the threat of regulatory disallowance of costs based on comparisons to other utilities." (Taylor FERC Direct Testim., p. 45.)

Edison dismisses the relevance of yardstick competition to this case on two grounds: First, it argues that there are numerous utilities in the United States against which to compare SCE. Second, SCE asserts that the merger will save more in rates than yardstick competition. (Pace FERC Direct Testim. at 101–102.)

We find neither argument persuasive. There will, it is true, be other systems after the merger, but there can be no doubt that for SCE, SDG&E is the most pertinent, and most compelling, example because it is easily the most comparable system. (Taylor FERC Direct Testim. at pp. 46–47.) After the proposed merger there would be only one other California-based private utility, PG&E. Its loads are quite different, and its resource base, with a large share of cheap hydroelectric generation, makes its system fundamentally incomparable to SCE's. The municipal systems have markedly different cost structures, making them a remote comparison in ratemaking. And because the PUC regulates neither the municipal systems nor out-of-state private utilities, the commission is far less likely to be able to draw appropriate inferences from their proposals—or to respond authoritatively to efforts by SCE to distinguish discomfiting examples.

The second argument, that the merger will save ratepayers more than yardstick competition between SCE and SDG&E, is simply a conclusory claim. SCE claims rate savings from the merger of between one and two percent over ten years. Even were we to accept that claim, Edison's witnesses tender no evidence on the magnitude of savings from vigorous yardstick competition between the two systems and no basis for concluding that those savings would be smaller than those claimed by the merger. And, as noted above, claimed savings are no justification, under Public Utilities Code section 854, for approving a merger that eliminates competition.

Yardstick competition, the spur to competitive pricing that forced SDG&E to embark on a decade long and ultimately successful battle to bring its rates below those of SCE, would be substantially reduced by the loss of SDG&E as a retail seller of electricity. The record makes it clear that the merger would adversely affect yardstick competition.

2. Franchise Competition

Municipalities facing high utility rates can seek to take over gas and electric distribution within their boundaries. (Owen FERC Direct Testim., p. 180.) Municipalities may also seek to switch from one utility to another. (*Ibid.*) In a May 1986 report, SDG&E observed that:

> "[S]ome municipalities claim they could take over the gas and/or electricity as a wholesale customer from another utility with more competitive rates. Two cities in our service territory have already discussed the subject, though no serious effort has been made yet." (*Ibid.*)

Despite such fragmentary evidence and some academic commentary on the potential for franchise competition (e.g., Meeks, *Concentration in the Electric Power Industry: The Impact of Antitrust Policy*, *supra*, 72 Colum.L.R. 64), there is insufficient evidence of such actual or potential franchise competition between SCE and SDG&E to make it a relevant consideration in this case.

3. Fringe Competition

"Fringe competition is competition to serve at retail a customer or customers located where they could have alternative suppliers. In fringe area competition, the focus is on who will be successful in serving a customer or a group of customers either already located in or which plan to locate in a particular area, typically in border areas between utilities." (Taylor FERC Direct Testim., p. 32.)

Such competition has occurred between SCE and SDG&E in the past. In 1988 SDG&E and Edison competed for the right to serve the community of South Laguna Beach, which is in SDG&E's service territory. Evidence of the intensity and bitterness of that competition is reflected in a letter from SDG&E Chairman Tom Page to Edison Chairman Howard Allen, objecting to Edison's "aggression" in the form of "attacks on SDG&E and attempts to expand into our service territory in Orange County." (Taylor FERC Direct Testim., pp. 33–34.)

SCE also competed with SDG&E for the right to serve two new subdivisions on the boundary between SDG&E and Edison. The landowner for the Coto de Caza development filed a petition for a boundary change (D.88–09–022), which petition was dismissed on procedural grounds. Likewise, the property owners for Rancho Santa Margarita have sought a boundary change as well. That petition has been stayed pending a decision on the merger. (Bryson, p. 30.)

Edison asserts that any past franchise competition cannot be repeated because of a recently adopted PUC policy. (Pace FERC Direct Testim., p. 81.) We are reluctant to dismiss in perpetuity the potential for competition on the basis of current PUC policy not reflected in any statute. However, in light of present policy, we cannot conclude that the merger would adversely affect any realistic prospects for fringe competition in the foreseeable future.

We therefore conclude that the proposed merger would adversely affect yardstick competition in retail sales but that there is no evidence of fringe or franchise competition that would be adversely affected.

C. DEALINGS WITH UNREGULATED AFFILIATES

SCE and SDG&E are both vertically integrated already; both SCE and SDG&E currently produce, as well as distribute and sell, electricity. The merger would not create vertical integration where none existed before. However, the record reveals that vertical integration has had significantly different effects on the ratepayers of the two systems and on the competitors of the two utilities' unregulated affiliates.

The heart of the issue is the claim that SCE has been guilty of favoritism in its dealings with its own affiliates to the disadvantage of ratepayers and competing firms. There is substantial evidence of such favoritism. Because there is no similar allegation of unfair self-dealing by SDG&E with its affiliates, the assertion is that this merger will extend the harmful effects of SCE's self-dealing to new customers and firms previously unaffected by such practices.

SCE's parent corporation, SCEcorp, also owns the Mission Group, which in turn owns four Mission companies dealing with energy and real estate development in various ways. Among the second tier subsidiaries is Mission Energy, one of the nation's largest independent energy producers. (Weisenmiller FERC Direct Testim., p. 4.) Mission Energy participates in a large number of qualifying facilities (QFs) and small power-producing projects. One of the nation's largest independent power producers, Mission jointly owns[36] seventeen operational projects with a combined capacity of 1930 MW. Of this total capacity, Mission Energy sold 1468 MW to Edison. In 1989, Mission Energy sold 76% of its output to Edison, selling to Edison even when the Mission Energy projects were in PG&E's territory. Sales from projects in whose ownership Mission Energy shares make up 54% of the projected 1990 SCE purchases from QFs, and 90% of the projected 1990 SCE cogeneration purchases. (Weisenmiller FERC Direct Testim., p. 8; see also Exh. 10,300, pp. I-4 to I-7 and II-4 to II-5.)

DRA claims, and an administrative law judge has found, considerable evidence of abusive practices in self-dealing between SCE and Mission. (*Application of Southern California Edison Company* (1990) Application No. 88-02-016 (Proposed Decision).) One consequence of this self-dealing has been for SCE to purchase so much power from its own unregulated affiliate that it had an oversupply of capacity and no longer was in the market for additional QF generation. Therefore, beyond the adverse effects on ratepayers, the self-dealing adversely affected competitors and competition.

The record indicates SCE contracted for capacity and power from Mission Energy projects when SCE already had excess capacity. SCE concedes that "during the past several years, a significant quantity of non-dispatchable baseload QF capacity has been developed on the Edison system causing Edison to have excess generation capacity available." (Budhraja FERC Direct Testim., p. 7.)[37] SCE entered into contracts for the

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[36] PURPA forbids a utility or utility affiliate from owning more than 50% of a QF. (See 16 U.S.C. § 796, subd. (17)(C)(ii); 18 C.F.R. § 292.206.)

[37] See also SCE Executive Vice-President Michael Peevey's statement in the December 10, 1987, issue of *Public Utilities Fortnightly* that "[w]e have managed to become so awash with excess qualifying facility capacity that, if electricity were water, the Pacific Ocean would now be lapping at the Sierra Nevada Mountains." As noted above, approximately 54% of SCE's projected 1990 QF purchases from QFs come from QFs in which Mission Energy is a partner.

purchase of QF capacity from Mission Energy QFs at a time (the early to mid-1980s) when SCE was already projecting excess capacity on its system for the late 1980s. (Clay FERC Answering Testim., pp. 150-55.) That such capacity developed is evident from SEC's 1987 resource schedule, which showed SCE having a reserve margin of 35.2% for 1988, including a newly created category called "standby reserve." (*Id*., p. 150.) In 1988, SCE was required to have a reserve of only 16% (*id*., p. 151), indicating that it had significant surplus capacity.[38] Further, SCE denied capacity credit to Vernon for Vernon's interest in SONGS in 1981, and denied capacity credit for other resources to Anaheim and Azusa for interests they were considering purchasing in the Arizona Public Service project Cholla Generating Station. In each case, the reason given by SCE for denial of capacity credits was excess capacity on the SCE system.[39]

SCE claims that its overcapacity was entirely the result of regulatory policies requiring it to contract with QFs on excessively favorable terms. (Bryson FERC Rebuttal Testim., pp. 5-8.)[40] However, the record shows that SCE failed to take opportunities to obtain a change in regulatory policy until it had fully taken advantage of the opportunities to purchase major blocks of power from its own unregulated affiliates.

In 1984 PG&E reported to the PUC that, due to the large number of QF contracts it was signing, the utility was in danger of acquiring a substantial amount of excess capacity. In response the PUC issued a decision on October 17, 1984 (D-84-10-098), suspending all terms and conditions of Payment Option 3 of PG&E's Standard Offer 4 contract for QF projects larger than 50 MW. This decision was reviewed by the PUC en banc on November 4, 1984, with SCE participating in the proceeding. SCE did not recommend any limitation on QF contracts in its own service area (but had expressed some concerns about excess capacity to PUC staff a few months before). On December 5, 1984, the PUC affirmed the suspension as to PG&E, but took no action as to SCE. Then, less than two months later, on January 31, 1985, SCE moved the Commission for an "emergency ex parte order" to limit SCE's obligation to purchase QF capacity. The

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[38] In fact, when one subtracts SCE's QF capacity from its reserve margins, the result is a margin of around 15%, typical for electric utilities. (See Response of SCE to USDOJ Data Request DOJ–E3.)

[39] While we focus on independent QFs as the competitors of Mission injured by the self-dealing, these denials of capacity credit demonstrate that other utilities are also competitors of Mission and are also injured by those practices. Joskow has noted that since purchases of economy energy are passed through to ratepayers without contributing to the utility's profit, the utility has no incentive to meet its load through power purchases. (See Joskow, *Regulatory Failure, Regulatory Reform, and Structural Change in the Electric Power Industry*, in M. Baily & C. Winston, MICROECONOMICS 1989 Brookings Inst., quoted in Owen FERC Direct Testim. at 31.)

[40] But see 18 C.F.R. § 292.303 (FERC regulation providing that utilities are not obligated to purchase QF power not needed by their systems).

requested order was issued on February 21, 1985, three weeks after SCE asked for it. (Clay FERC Direct Testim., p.158.)

Between the time that SCE refrained from advising the PUC that it might have excess QF capacity and the time, less than three months later, that it moved for an emergency order to limit its QF purchases, SCE purchased 640 MW of capacity from Mission's Sycamore and ARCO-Watson projects.[41] Only after those contracts were signed did SCE suddenly have a QF "emergency" requiring immediate PUC relief.

In addition to vigorously disputing the charges of unfair self-dealing, SCE argues that any such practices have no relevance to the merger. They point out that the new PUC policy requires competitive bidding by QFs on utility resource additions and bans non-standard contracts of the type which Edison has almost universally signed with Mission and which are alleged to have been highly favorable to Mission. (Jurewitz FERC Rebuttal Testim., pp. 125-26, 179-80.) Furthermore, SCE argues that any advantage it unfairly gains from such practices will have to be disgorged under PUC oversight of Edison power contracts. A recent ALJ decision in the Kern River Cogeneration Company proceeding found merit in claims of SCE unfair self-dealing and recommended disallowing $48 million in SCE payments to Mission. (*Application of Southern California Edison Company, supra*, Application No. 88-02-016 (Proposed Decision).)[42]

While the tightened regulatory policy reduces the potential for such abuses, it does not eliminate that potential.[43] Although competitors presumably will be given the opportunity to bid against Mission for resource additions, SCE will continue to control the terms and conditions of that bidding—establishing the kinds of QFs eligible to bid, setting the scoring basis for comparing bids, determining the conditions for interconnection or integration of the facility, and specifying the operating characteristics of the project. (See, e.g., Owen FERC Direct Testim. at 88-90; Exh. 10,300, IV-43.) There is a substantial body of evidence tending to show that SCE has a long history of "negotiating" with Mission terms excessively favorable to the unregulated affiliate. Examples of such terms are:

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[41] "By the time Edison executed the KRCC contract, it already had over 3300 MW of QF capacity under contract, far exceeding its goal of 2241 MW by the end of 1984." (Exh. 10,300, App. A, p. 65.)

[42] The fact that this proceeding took two years to get to an ALJ decision illustrates the limits of regulation in detecting and correcting abusive self-dealing practices.

[43] We assume for present purposes that the PUC policies to reduce the opportunity for unfair self-dealing are permanent. It is, however, worth noting in passing that SCE is already pressing the PUC for changes in the SO4 bidding process to permit multi-attribute evaluations of bids, which would give SCE increased opportunity to favor its unregulated affiliates. (See Owen Direct Testim., App. BMO-Z.)

- A provision allowing the QF to terminate the contract upon 90 days' notice if it becomes unprofitable to the QF (compared to the corresponding standard contract provision for termination only on five years' notice. (Exh. 10,300, pp. IV–16 to IV–18 and Appendix A; Clay FERC Direct Testim. at 161–63.)

- Provisions requiring Edison to baseload the QF affiliate's energy, guaranteeing sales that would not be made under Standard Offer 4 and displacing potential competing sales. (Clay FERC Answering Testim., p. 161.)

- A nonstandard contract provision allowing the affiliated QF the unilateral right to increase its minimum contract capacity and to increase or decrease its additional contract capacity, allowing the unregulated affiliate to set the volume of sales and the price at which sales will be made. (Exh. 10,300, App. A, p. 48.)

These favorable terms to the Edison unregulated affiliate can be explained in part by the fact that the same people responsible for representing SCE ratepayer interests in the negotiation of QF contracts were also high officials of the QFs themselves. For example, the officials of SCE responsible for the utility's contract with the Kern River Cogeneration Project were also president and vice-president of an SCEcorp wholly-owned QF subsidiary. (Exh. 10,300, App. A, pp. 22, 85; Owen FERC Direct Testim. at 81–82.)

The intimate relationship between SCE and Mission also creates the opportunity for Mission to displace its costs onto the regulated utility—thereby obtaining a subsidy of the unregulated business from utility ratepayers and giving the unregulated business a cost advantage over competitors. One example of this phenomenon is the displacement of Mission personnel, recruiting, and training costs onto SCE. Several officers of Mission are also on the payroll of SCE, such as the president and CEO of the Mission Group, who is also executive vice-president of SCEcorp and executive vice-president of SCE. (Clay FERC Answering Testim., p. 142.) Corporate executives have traveled from SCE to Mission Energy in numbers that have disquieted DRA and allowed Mission Energy to reap the benefits of corporate recruitment and training conducted by SCE. (See Exh. 10,300, pp. II–15 to II–18.)

Even if SCE is right that the PUC can disallow the fruits of self-dealing, SCE ignores the inherent limits on the effectiveness of such regulation. There are examples of effective regulation, but we agree with DRA itself that neither it nor the commission can reasonably be expected fully to compensate for the absence of arm's-length negotiations between independent parties. (Exh. 10,300, pp. I–8 through I–10; Owen FERC Direct Testim. at 74–75.)

The USDOJ has described these problems in the following terms, which we find pertinent to the proposed merger:

> "Nonhorizontal mergers may be used by monopoly public utilities subject to rate regulation as a tool for circumventing that regulation. The clearest example is the acquisition by a regulated utility of a supplier of its fixed or variable inputs. After the merger, the utility would be selling to itself and might be able arbitrarily to inflate the prices of internal transactions. Regulators may have great difficulty in policing these practices, particularly if there is no independent market for the product . . . purchased from the affiliate.[*] As a result, inflated prices could be passed along to consumers as `legitimate' costs. In extreme cases, the regulated firm may effectively preempt the adjacent market, perhaps for the purpose of suppressing observable market transactions, and may distort resource allocation in that adjacent market as well as in the regulated market."

"[*] . . . . The use of common facilities and managers may create an insoluble cost allocation problem and provide the opportunity to charge utility customers for nonutility costs, consequently distorting resource allocation in the adjacent as well as the regulated market." (USDOJ Merger Guidelines, § 4.23.)

We conclude that the proposed merger would adversely affect competition by giving SCE's unregulated affiliates unfair advantages over their competitors in meeting the generating demands of the SDG&E load.

E. SUMMARY

We have found that the proposed merger of SCE and SDG&E would adversely affect competition in several markets.

In the competition among electric utilities, the merger would have serious adverse effects on transmission markets that connect California to the Southwest and, to a lesser extent, to the Northwest. These effects are especially significant because of vertical effects of the merger, smothering SDG&E's emerging role as a broker of wholesale power that represented an important counterforce to Edison's historic exploitation of its power in the transmission markets.

The proposed merger also adversely affects competition by increasing concentration in several bulk power markets. It would eliminate significant competition between SCE and SDG&E for the purchase of both long-term firm and short-term firm and non-firm bulk power in the Southwest. Although the evidence is less strong, there are grounds for concern that the merger would also injure future competition by eliminating SDG&E as a competing seller in the Southwest and Northwest short-term bulk power markets.

Although the competition in retail electric service is more limited than at the wholesale level, such competition does exist. We conclude that the proposed merger would eliminate at least one recognized form of such competition, yardstick competition between SCE and SDG&E.

Finally, we have concluded that the proposed merger would injure competition among QFs by giving unregulated affiliates of SCE increased opportunity to take advantage of their relationship to SCE to foreclose competitors.

VIII. MITIGATION MEASURES

Having found that the proposed merger will adversely affect competition, Public Utilities Code section 854, subdivision (b)(2), requires us to determine "what mitigation measures could be adopted to avoid this result." We therefore examine each of the markets in which we find adverse effects on competition and consider possible mitigation measures.

Theoretically, there exists an unlimited list of potential mitigation measures, which we make no effort to exhaust. Rather, we discuss here those remedies traditionally applied to antitrust injuries and those that have been suggested by the parties.

A. TRANSMISSION

We have found that the proposed merger will impermissibly increase the concentration in transmission markets between California and both the Southwest and, to a lesser extent, between California and the Northwest. In so doing, the proposed merger would not only increase SCE's power in the transmission markets but would also increase its power in bulk power markets in the Southwest and the Northwest. We have found that SCE has a history of abusing its control over transmission to disadvantage competitors in bulk power markets and that this merger would eliminate SDG&E, which has emerged as a broker in those markets.

The typical remedy for a merger that violates the antitrust laws is divestiture. (*California* v. *American Stores Co.* (1990) __ U.S. __ (Slip Opn. at 7); *United States* v. *E. I. du Pont de Nemours & Co.*, *supra*, 366 U.S. 316, 329–31 ("Divestiture has been called the most important of antitrust remedies. . . . It should always be in the forefront of a court's mind when a violation of § 7 has been found."); *FTC* v. *Western Meat Co.* (1926) 272 U.S. 554, 559.) Divestiture of the wrongfully acquired company is, of course, not an issue here, since SDG&E has not yet been acquired; such divestiture would be equivalent to disapproving the proposed merger and is therefore not a mitigation measure. However, one could fashion a divestiture order that permits SCE to acquire parts of SDG&E in exchange for divesting other assets.

Specifically, SCE could be required, as a condition of the merger, to divest itself of SDG&E's high-voltage and extra-high-voltage transmission system. Those assets would be sold to an unaffiliated buyer, either a new entity or one or more existing utilities. That would eliminate the merged company's opportunities to take advantage of market power over the SDG&E transmission lines to acquire advantages in the bulk power market. This would fully mitigate the vertical anticompetitive effects of the merger, and if the sale were to a new entrant or to parties having relatively small market shares, it would resolve the horizontal concerns raised by the additional concentration in the transmission markets the proposed merger would otherwise cause.

SCE has not raised any such possibility, but instead has proposed a series of conditions under which it says it will make its transmission system available to other utilities and which it states will avert any anticompetitive effects of the merger. (See Fogarty FERC Direct Testim. at 20–28; FERC Exh. 151.) Edison has previously stated its willingness to wheel power for competing systems whenever the transmission capacity is not needed by SCE for its own load. (Fogarty FERC Direct Testim. at 12.) To this commitment, SCE now adds the offer to construct transmission facilities upon request of a neighboring system or QF, at the expense of the requestor. (*Id.*, at p. 22.) This, SCE asserts, will provide any other utility with access to transmission and to bulk power markets dependent on that transmission.

Initially, we note that this offer, even if it has the effects SCE claims, will only address the vertical adverse effects of the merger. It would not alter the market shares of the various parties in the foreseeable future. The merger would still substantially increase SCE's market share and eliminate SDG&E as a competitor for transmission services. This is not merely an academic observation. Absent SDG&E, a party wishing to avail itself of SCE's offer will be required to negotiate the price and other conditions of transmission service and of any system additions. Absent a competing system, SCE will possess nearly unchecked power to set the price and terms.

But more fundamentally, we believe that the long history of anticompetitive SCE practices in the wholesale power markets renders any such "commitments" wholly insufficient to provide other utilities meaningful access to the SCE transmission system.

Nearly two decades of such commitments has proven inadequate to assure competing utilities equal access to SCE's transmission system. The inadequacy lies in the nature of such promises themselves and the manner in which SCE has implemented them.

SCE has reserved to itself the right to specify the conditions under which it will interconnect with another system. SCE has a legitimate need to specify such conditions to protect the integrity of its system. However, the record reflects repeated abuses of that right, with SCE claims that range from the dubious to the plainly spurious, in an effort to defeat competing utilities' bulk power transactions.

These are not problems that can be dealt with through further, or more elaborate, conditions, particularly when the requested service is short-term transmission. Even in long-term wheeling arrangements, where presumably one could tighten the terms of the commitments and specify a mechanism to arbitrate or adjudicate conflicting claims about SCE practices, it is doubtful that such a cumbersome arrangement could effectively resolve the myriad technical issues. But bulk power markets are dynamic, with opportunities for purchases and sales arising without advance notice and expiring in minutes or hours. There is simply no time for a mechanism for a neutral party to hear and resolve SCE claims of technical reasons why a given request cannot be accommodated, to hear and resolve disputes over pricing, to hear and resolve SCE claims of capacity shortages and line-loadings that SCE can itself create through creative scheduling on its own system. Indeed, the evidence indicates Edison's keen awareness of the ephemeral nature of these opportunities and suggests Edison has sought to make it cumbersome for other utilities to deal with utilities dependent on SCE for transmission.

We also note that Edison's commitments themselves contain limitations that reserve to Edison continued market power in transmission to obtain advantage in bulk power markets. In particular, SCE has asserted that it would *not* make transmission available whenever it has a use for the capacity itself. Thus, for example, if SCE finds itself in competition for a supply of bulk power that comes available in the Southwest and the competing system needs SCE transmission to wheel the power, SCE can eliminate the competitor by asserting its own need for the transmission capacity to deliver the same power to its own system.

We conclude that neither the commitments made by SCE nor any adjustment to those commitments can mitigate the adverse effects of this merger on transmission markets.

B. BULK POWER

Because we have concluded there is no way to avoid the proposed merger's adverse effects on competition in transmission, we are compelled to conclude as well that the adverse effects on the bulk power markets dependent on transmission also cannot be avoided. As long as Edison maintains effective control of competitors' access to interregional markets, the injury to the bulk power markets cannot be effectively mitigated.

Separate from the anticompetitive effects from the transmission market on bulk power markets, we have also found the merger, when viewed simply as a horizontal merger, adversely affects bulk power markets by increasing concentration and eliminating competition between SCE and SDG&E for the purchase of both long-term firm and short-term firm and non-firm bulk power in the Southwest, and, to a lesser extent, by eliminating SDG&E as a competing seller in the Southwest and Northwest short-term bulk power markets. We can identify no mitigation measures that could avoid this result, and none have been proposed. The ineluctible fact is that this merger eliminates competition that cannot be replaced.

We therefore find that the adverse effects of the merger on competition in the bulk power markets cannot be prevented by any mitigation measures.

C. RETAIL SERVICE

We know of no mitigation measures that would avoid the loss of yardstick competition from this proposed merger. We conclude that this merger would eliminate the single competing system most appropriate for comparison to SCE in retail ratemaking.

Unquestionably, measures could be taken to strengthen the PUC's own ratemaking apparatus. We note that the proposed combined company would have an array of employees dedicated to regulatory affairs that would substantially outnumber the number of PUC employees devoted to examining SCE rate filings and making counterproposals on behalf of ratepayers. Adjustments in that balance of power, and doubtless other steps to fortify the PUC regulatory process, could improve regulatory performance. But the point of yardstick competition is that it gives regulators a clearly comparable, familiar system against which to judge the utility, and that simply cannot be replaced were this proposed merger to be approved.

And more fundamentally, this is not an instance in which regulation functions as a substitute for competition. The general principle guiding the relationship between regulation and competition is that the two are intended to coexist and be reconciled absent a clear legislative intent to displace one for the other. (E.g., *National Gerimedical Hospital and Gerontology Center v. Blue Cross of Kansas City* (1981) 452 U.S. 378, 392-93; *Silver v. New York Stock Exchange* (1963) 373 U.S. 341, 357.) In this case, to the contrary, the Legislature has indicated, in Public Utilities Code section 854, a clear intent that competition and regulation supplement one another and that the commission ensure the continued effectiveness of competition notwithstanding the fact that Edison's wholesale and retail businesses remain regulated. We therefore conclude that under section 854, subdivision (b)(2), regulation, viewed as a substitute for competition, does not constitute a mitigation measure to avoid a merger's adverse effects on competition.[44]

Thus, we conclude that there are no mitigation measures available that can avoid the adverse effects of the proposed merger on retail competition.

D. DEALINGS WITH UNREGULATED AFFILIATES

The competitive injury we have found in SCE's dealings with its unregulated affiliates lies in the opportunities the relationship with those affiliates gives SCE for self-dealing that disadvantages competitors' QFs and other prospective power suppliers. That is an effect that can, indeed, be entirely avoided.

DRA has proposed that SCE be required to divest its unregulated affiliates doing business with SCE. We agree that would avoid the anticompetitive effects arising from Edison's relationship to those affiliates. SCE would no longer have the economic incentive to favor the former affiliates, and competing power suppliers would be on an even footing in bidding for contracts with SCE.

We do not believe a condition short of divestiture could successfully be crafted to deal specifically with the SDG&E load, which the proposed merger would subject to the self-dealing. In theory, one might merely proscribe SCE affiliates from contracting to meet the SDG&E load. In fact, once the two systems are integrated, there is no way effectively to identify which portion of the load, or load growth, is attributable to the former SDG&E system, and we believe any such condition would not be effective.

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[44] Regulation *can* constitute a mitigation measure where the regulation is expected to prevent an injury to competition. For example, where regulation could preserve a competitor who would otherwise be eliminated from a market, that certainly would be an effective mitigation measure under the statute. But regulation *cannot* satisfy the statute by purporting to substitute for competition, for example by purporting to set prices at their theoretical competitive level.

IX. CONCLUSION

The electric utility industry is already highly concentrated. It has a long history of serious impediments to effective competition, in part from a course of conduct followed by SCE over many years that has exploited its market power to the disadvantage of competitors. The proposed merger would inflict further injury on competition. We find that the merger does not meet the requirements of Public Utilities Code section 854, subdivision (b)(2), either as proposed or as it might be conditioned by the PUC.

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