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ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY for a certificate that the present and future public convenience and necessity require or will require construction and operation by applicant of a 500 kV transmission line between Devers and Valley Substations, a 500 kV transmission line between Serrano and Valley Substations and a 220 kV transmission line between Serrano and Villa Park Substations.	Application 59982 (Filed October 1, 1980; amended November 14, 1980 and June 12, 1981)

(For appearances see Decision 82-02-082.)

I N D E X

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O P I N I O N

By this application, filed October 1, 1980 and accepted as complete on November 17, 1980, Southern California Edison Company (Edison or applicant) seeks a certificate of public convenience and necessity to construct and operate a 500 kilovolt (kV) transmission line between its Devers and Valley substations, a 500 kV transmission line between its Serrano and Valley substations, and a 220 kV transmission line between its Serrano and Villa Park substations.

1. Decision Summary

This decision authorizes Edison to construct the proposed transmission lines over routes substantially as outlined in a stipulation filed by Edison and The Western Riverside County Energy Coalition (Coalition)[1] on September 10, 1984. The authorized route from Devers Substation to Valley Substation follows closely that proposed by Edison with some deviation as it nears the Valley Substation to accommodate objections of Coalition. From Valley to Serrano the authorized route follows the environmentally preferred route which is north of Edison's proposed route until the line enters Cleveland National Forest where, from there to Serrano, the Edison and environmentally preferred routes generally coincide. The approval by the Commission is subject to all mitigation measures described in the final environmental document, where applicable. The decision also provides for a mitigation monitoring program and a cost control system.

2. Procedural Background and Proceeding History

The Commission's General Order (GO) 131-B and its Rules of Practice and Procedure (Rules) contain rules governing the filing of applications of this nature.

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[1] Coalition is a group of individuals and organizations which would be affected by one or more of the proposed transmission line routes.

GO 131-B provides that no electric public utility shall begin construction in this State of any new major electric transmission line facilities which are designed for immediate or eventual operation at any voltage in excess of 200 kV without this Commission's having first found that said facilities are necessary to promote the safety, health, comfort, and convenience of the public, and that they are required by public convenience and necessity. Construction of facilities shall not commence without a Final Environmental Impact Report (EIR) or Negative Declaration. Where this Commission is the lead agency for a project under the California Environmental Quality Act (CEQA), applicant must also comply with Rule 17.1 of our Rules, Special Procedure for Implementation of CEQA of 1970 (Preparation of EIRs).

If only state permits are needed for a project, CEQA and our Rules require a final decision within one year after filing or the project is deemed approved. With Commission approval, the Executive Director on November 5, 1981 advised Edison that, in accordance with the provisions of CEQA, the time in which a final decision must be issued in Application (A.) 59982 had been extended from one year after filing of the application to 60 days after completion of the final environmental document. This extension met the requirements for a joint federal-state environmental document.

GO 131-B requires that the application contain, among other things:

1. A detailed description of the proposed transmission facilities, including the proposed transmission line route and alternate routes, if any; proposed transmission equipment, such as tower design and appearance, heights, conductor sizes, voltages, capacities, substations, switchyards, etc.; and a proposed schedule for certification, construction, and commencement of operation of the facilities.

2. A map of suitable scale of the proposed routing showing details of the right-of-way in the vicinity of settled areas, parks, recreational areas, scenic areas, and existing electrical transmission lines within one mile of the proposed route.

3. A statement of facts and reasons why the public convenience and necessity require the construction and operation of the proposed transmission facilities.

4. A detailed statement of the estimated cost of the proposed facilities.

5. Reasons for adoption of the route selected, including comparison with alternative routes, including the advantages and disadvantages of each.

6. A schedule showing the program of right-of-way acquisition and construction.

7. A listing of the governmental agencies with which proposed route reviews have been undertaken, including a written agency response to applicant's written request for a brief position statement by that agency. (Such listing shall include The Native American Heritage Commission, 1400 Tenth Street, Sacramento, CA 95814, which shall constitute notice on California Indian Reservation Tribal governments.) In the absence of a written agency position statement, the utility may submit a statement of its understanding of the position of such agencies.

8. A Proponent's Environmental Assessment (PEA) or equivalent information on the environmental impact of the project in accordance with the provisions of CEQA and this Commission's Rules 17.1 and 17.3. If a PEA is filed, it may include the data described in Items 1 through 7 above.

The PEA filed with the application contained the required data described above. As the PEA indicated that substantial environmental impacts may be involved, preparation commenced on draft environmental documents.

The proposed project requires permits from two federal agencies, the United States Department of Agriculture, Forest Service (USFS) and the Bureau of Land Management (BLM). This Commission and the USFS are joint lead agencies, and BLM is a cooperating agency, for the project. The joint lead agencies are responsible for the public review of the project and for the preparation of environmental documents. The National Environmental Policy Act (NEPA) requires the federal agency to prepare an Environmental Impact Statement (EIS) and CEQA requires the State agency to prepare an EIR. A joint environmental document was prepared, for convenience referred to as the EIS/EIR or simply the EIR.

The Draft EIS/EIR (DEIS/EIR) was published in August 1981. Public comment on the DEIS/EIR and testimony at CPUC public hearings identified new alternative routes and new issues of environmental impact. The joint lead agencies decided that a supplemental draft EIS/EIR (SDEIS/EIR) should be prepared.[2] Further public review and CPUC public hearings were held on the SDEIS/EIR.

In addition to the public hearings on the DEIS/EIR and SDEIS/EIR, public hearings were held on the issue of public convenience and necessity. In all, 30 days of public hearings were held in Riverside, Los Angeles, and San Francisco during the period August 24, 1981 to April 12, 1983. The matter was first submitted on the receipt of concurrent closing briefs on July 13, 1983.

The Final EIR was adopted by the Commission by Resolution RP-3 dated August 7, 1984. Notice of the adoption of the Final EIS appeared in the Federal Register of August 17, 1984.

Evidence on environmental issues was received from many public witnesses. Other affected persons presented statements of

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[2] Decision (D.) 82-02-082 in this proceeding denied the motion of Coalition to reject the DEIS/EIR and to suspend the proceeding, and directed our staff to prepare an SDEIS/EIR.

position. In addition, comments on the DEIS/EIR and SDEIS/EIR were received by the lead agencies at public meetings at places near the routes of proposed transmission lines. Several of the affected parties filed briefs. Briefs were filed dealing solely with environmental issues by William R. Sweeney, the Corona Foothill Company (Corona), and The Deutsch Co. (Deutsch). These parties are land developers whose properties lie on or adjacent to one or more proposed or alternate transmission line routes.

Briefs were also filed dealing both with environmental and need issues by Edison, the Commission staff (staff), and Coalition. These parties also presented extensive evidence on both environmental and need issues.

On May 10, 1984, the assigned Commissioner, after a discussion with other Commissioners at a public Commission meeting, issued a ruling (Appendix A) setting aside submission and reopening the proceeding for the limited purpose of taking additional evidence on two issues. The first issue was whether there is a need for a third line between the Mira Loma and Serrano substations if the proposed line were to go through Mira Loma instead of directly from Valley to Serrano. The second issue involved the relationship of the proposal in this application to Edison's long-range plans for additional power lines, particularly whether there would be a future need for a second 500 kV line from Devers to Serrano. These issues were addressed during seven additional days of hearings. These hearings were delayed several times at the request of the parties for the purpose of conferring on a possible settlement of the issues in the case, especially those involving Coalition. The matter was finally submitted on August 8, 1984 on the understanding that an agreement was very close. An agreement was indeed reached and the parties filed it formally on September 10, 1984. The staff made a filing in support of the stipulated settlement. No objections to the stipulation have been received from any other parties and the matter is now ready for decision.

3. Physical Description of the Project

Edison seeks a certificate of public convenience and necessity for the construction of a 500 kV transmission line and a short 220 kV transmission line. The 220 kV line was also part of A.59983, D.82-01-050, D.82-03-111, and D.82-07-093. The entire project will be within the Counties of Orange and Riverside. Figure A, a copy of Map 4, Volume 2, Supplement II of the EIS/EIR, is a map of the proposed project plus several alternatives.

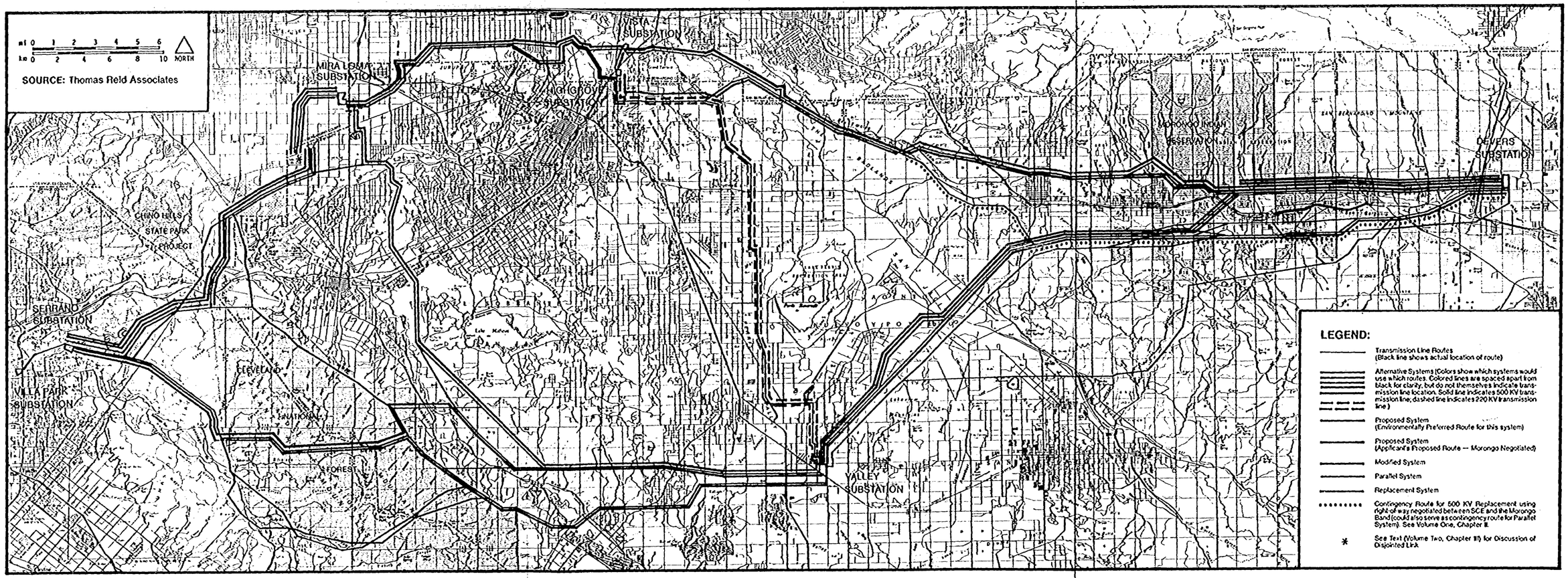
Devers substation is located at the northern corner of Diablo Road and 16th Street, approximately 10 miles north of Palm Springs. The proposed Valley substation site is located at the southwest corner of Highway 74 and Menifee Road, approximately one mile southeast of Romoland. The Serrano substation site is located just east of the intersection of Cerro Villa and Valley Drive in the City of Orange. Villa Park substation is located at the southeast corner of the intersection of Taft and Tustin Avenue in the City of Orange.

As proposed by Edison, the Devers-Valley 500 kV line extends approximately 39 miles in a generally east-west direction from Devers to Valley. The proposed Serrano-Valley 500 kV line extends approximately 42 miles in a generally east-west direction from Valley to Serrano. The proposed Serrano-Villa Park 220 kV line extends approximately one mile in an east-west direction from Serrano toward Villa Park.

The SDEIS/EIR identifies and environmentally reviews five alternatives to Edison's proposed system, which are identified as the Modified System, the Parallel Construction System, the 220 kV Reinforcement System, the 500 kV Replacement System, and the High Voltage Direct Current (DC) System. A schematic diagram of these systems is shown on Figure B, page 35. (Figure I-1 of the SDEIS/EIR.) The additional routes analyzed in the EIS/EIR are longer than Edison's proposed route.

FIGURE A

MAP 4 ALTERNATIVE SYSTEMS



4. Edison's Distribution System

Edison's existing system serves over 3,200,000 customers, representing approximately 8,600,000 people, in an area of southern and central California totaling more than 50,000 square miles. Edison's peak electrical load within this area is approximately 13,000 MW.

About 80% of Edison's electrical load (10,400 MW) is located within the greater Los Angeles Basin (Basin) area.[3] About 6% is located in Ventura and Santa Barbara Counties. Another 7% is located in the San Joaquin and Antelope Valley areas. The Palm Springs/Twenty-nine Palms area accounts for about 3%. The remainder is spread throughout other small desert and mountain communities served by Edison.

The Basin area is served by oil and gas-fueled generating plants located within the Basin, mostly along the coast, and by power delivered from nuclear, coal, and hydroelectric resources located outside the Basin area.

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[3] The Basin is the area bounded by the Pacific Ocean on the southwest, the Los Angeles/Ventura County line to the west, the San Gabriel and San Bernardino Mountains to the north, the San Jacinto Mountains to the east, and the San Diego County line to the south. This area is essentially a single large metropolitan area of about 3,000 square miles, with a total electrical load of approximately 14,500 MW. Approximately 10,400 MW of the load in this area is served by Edison, which represents about 80% of Edison's total system load. The Los Angeles Department of Water and Power (LADWP) and other local municipal utility agencies serve 4,100 MW of load in this area.

5. Edison's Transmission System

A network of 220 kV transmission lines delivers power to some twenty-five 220 kV substations within the Basin area. At each of these substations, the power is stepped down through transformers to a lower voltage and transported on lower voltage lines for further distribution to the local communities.

Edison's 500 kV lines function to transport power in large amounts into southern California over long distances of up to several hundred miles. These lines carry power from Edison's own remotely located coal-fired generating plants, hydroelectric power purchased from the northwest, and a wide variety of other firm contractual power purchases and economy energy purchases. The 500 kV lines also function as major interconnections between Edison and neighboring utilities.

The primary function of the 500/220 kV substations is to receive bulk power coming in on the 500 kV transmission lines, step it down to the 220 kV voltage level through transformers, and send it out on 220 kV lines for distribution around the 220 kV grid in the Basin area. Mira Loma substation and Vincent substation are the two existing 500/220 kV substations which perform this function on the Edison system.

6. Edison's Forecasted Growth and Resource Plan

The Edison system as a whole is forecasted by the California Energy Commission (CEC) to grow at an annual compound rate of 2.0% during 1981 to 1990. Edison is presently the leading oil-consuming utility in the nation, consuming more than 60 million barrels of oil and gas equivalent in 1980. Edison's future generation resource plan is designed to reduce oil usage through development of nuclear, non-oil purchases including coal, and renewable/alternative resources including hydro, wind, geothermal, solar, and cogeneration. In the 1981-1990 period, the plan includes

2,340 MW of nuclear capacity, 1,200 MW of new capacity purchases, 2,060 MW of renewable/alternative capacity purchases, 2,060 MW of renewable/alternative capacity additions, and the contingent retirement of 2,200 MW of existing oil and gas-burning generation located in the Basin. The plan is forecasted to reduce annual oil and gas consumption in 1990 to 38 million barrels equivalent. The generation capacity additions of 6,555 MW planned in Edison's March 1981 Future Generation Resource Program through 1992 are in close agreement with the 6,551 MW of Edison capacity needs through 1992 adopted by the CEC in its Common Forecasting Methodology III (CFM III) proceeding based on its demand and energy forecasts.

7. Project Costs

Total project costs are an important consideration in three respects:

1. In analyzing the need for the project, the expected project benefits should be compared with estimated project costs.
2. Costs of construction must be evaluated, along with environmental considerations and reliability, in selecting a preferred route, if the project is approved.
3. We intend to place restrictions on the recovery of actual costs in excess of the reasonable estimated costs, if the project is approved.

The estimated costs for the project vary considerably depending upon the route selected and the type of system to be built.[4] All the alternatives included in the SDEIS/EIR (staff alternates) are more costly than Edison's proposed route and alternates to that route contained in Edison's PEA. The cost estimates for the Edison alternate routes and staff alternate routes were not developed with the same degree of accuracy as the costs of Edison's preferred routes because the precise route alignments have not been determined, and the number of residences and buildings that may need to be taken by eminent domain and the difficulty of terrain of such alternative routes are not certain.

The project costs for Edison's proposed route are well defined because Edison has acquired a portion of the route and has made extensive surveys as to location of towers and construction costs. Edison presented several exhibits on costs for construction during this proceeding. And in Exhibit 145, presented during the reopened proceedings, it summarized its latest estimates for the many alternate routes considered. Table 1, page 37 contains this summary. For most of the alternatives other than Edison's proposed route, the estimates are based on Edison's general guidelines for land appraisals and cost of installed transmission line per mile. These construction costs are based on general guidelines for transmission line construction in dollars per mile using the type of terrain, type of conductor, and type of tower anticipated for each line segment. These "order-of-magnitude" costs are less accurate than the work order level cost estimates prepared for Edison's preferred route and are determined to be accurate within plus or minus 40%. When a transmission line project has its route

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[4] The costs of constructing a portion of the proposed project as a 500 kV DC line (including transforming AC/DC current at each end of a 500 kV line) are so great that all major participants abandoned a 500 kV DC line as a viable alternate to an AC system.

transmission line project has its route established with a center line and angle points mapped by an "on-the-ground" survey, a more accurate tower count, tower tonnage, and line length can be developed. This will lead to a refined construction cost estimate and a work order level estimate, with a range of plus or minus 25%; none of the alternative systems have the level of engineering detail to prepare an estimate comparable to that for Edison's proposed route.

Right-of-way acquisition costs for the alternate routes were developed by Edison from actual real estate sales data in the area of the alternate routes. In addition, portions of right-of-way have been purchased by Edison along several of the routes so that the land costs as well as the internal processing costs for each parcel are known.

The briefs analyze and argue the evidence on project costs. Coalition argued that Edison's cost estimates are unreliable; therefore, we should not use them to compare alternative transmission systems (thus, the only factors Coalition would have us analyze would be environmental issues and reliability). Coalition argued:

1. The error range of ±40% for construction costs demonstrates the extreme uncertainty of Edison's cost figures.
2. Other inaccuracies in Edison's cost figures demonstrate that these estimates are inappropriate for determining the best alternative.
3. Edison has not revealed costs which could be saved if one of the alternatives is constructed.
4. The staff did not provide any reliable evidence buttressing Edison's cost estimates.

The staff brief addressed these cost questions in some detail, because it is the staff's view that the Commission must determine whether there are economic factors so compelling that they make the environmentally preferred alternative infeasible.

Staff stated that Edison has undertaken a cost analysis which superficially shows that its preferred project is the cheapest, and the simplest and most effective from an engineering standpoint. It is the staff's view that the applicant's preferred project is not the environmentally preferred approach. For this reason the staff urged that we first determine Edison's objectives in proposing the line and whether a need exists to meet those objectives; then we would look to all mitigation measures and feasible and reasonable alternatives capable of reducing or eliminating significant environmental impacts resulting from Edison's proposed project, even if some of the objectives are impeded. (14 Cal. Admin. C. § 15143(c) and (d).) Staff urges that only after the best environmental alternative is identified should economic and technological factors be taken into account.

We generally concur in staff's recommendation.

We do not accept Coalition's argument that Edison's route acquisition and construction cost data are not developed with sufficient accuracy for use in this proceeding. Without more specific data than contained in SDEIR/EIS with respect to precise route alignments, locations of transmission towers, and construction factors, more precise cost data were incapable of presentation. Edison's route acquisition and construction cost data are sufficient for our analyses of alternate routes.

8. Need for the Project

Edison identified the following as its needs which would be satisfied if the proposed project is completed:

1. Provide service to the Hemet-Perris Valley area.
2. Accommodate the development of renewable/alternative resources such as geothermal, wind, and solar.
3. Facilitate the purchase of economy energy from other states.

8.1 Hemet-Perris Valley Load Growth

The Hemet-Perris area, as described in these proceedings, is a region of approximately 1,100 square miles centered in the Hemet-Perris Valley in western Riverside County.

It is an area that has been experiencing rapid growth in recent years with future peak demand growth rates estimated by Edison at 5.5% per year between 1980 and 1985 and 4.4% per year from 1985 through 1990. This contrasted with Edison's overall projected peak demand growth rate for the period of 2%. Thus, Edison is forecasting growth in this area at a rate more than double that for its system as a whole. The staff report on the need for the project uses this same ratio for growth but adjusts overall growth projections to reflect the forecast of the CEC.

Current service to this region is by a number of 115 kV transmission lines which are connected to the high voltage transmission system at Vista substation. The estimate prepared by Edison projected an overload of Vista substation facilities by 1984. Edison forecasts an overload of the transformer banks at the Vista substation as well as of some of the 115 kV lines leading from Vista. The staff concurred with the prediction of the year in which overload would occur.

Edison witness Knapp testified that the peak forecast for 1984 of 550 MW for the Hemet-Perris area was exceeded on August 27, 1981 when the Vista "A" bank transformer peaked at 554 MW. Staff witness Higino Paula acknowledged that the Vista substation had already reached an overload situation.

Edison has proposed to serve this load growth and eliminate the overload situation by the construction of a new Valley substation which would be served by both the proposed Devers-Valley 500 kV line and the proposed Valley-Serrano 500 kV line. Valley would be equipped with 500 kV to 115 kV transformers, with 115 kV transmission then handling the local load.

In internal studies, Edison considered various other approaches to handling this load, including expansion of the existing 115 kV system out of Vista and service to a new Valley substation by 220 kV lines which would tie into the existing Devers-Vista No. 2 line and Devers-Vista No. 1 line and then come to Valley via two double circuit 220 kV lines. According to these studies, the expansion of the 115 kV service would require an additional new 115 kV line every two to four years. In addition to the proliferation of additional lines, the Edison studies indicate that this solution would require a new substation to relieve congestion at Vista and would result in greater cost, greater line losses, and lower system stability than would either service by 220 kV lines or the proposed service via the 500 kV line into Valley. Staff concurs that the 115 kV approach would not be advisable from a service, engineering, or cost perspective.

With respect to 220 kV service from the vicinity of the Vista substation, Edison considered the option where a cut-in would be made to the existing 220 kV lines and a pair of double circuit 220 kV lines would go south from there to a new Valley substation location with local load then handled as in Edison's applied-for approach. The 500 kV line between the Devers and Serrano substations then would not have any intermediate termination and would be built approximately four years later than the 220 kV service of Valley. Edison's initial study of this approach demonstrated that while it had slightly higher line losses and cost more than the preferred approach, when combined with the Devers to Serrano 500 kV project it actually had a lower cost in present value terms than the preferred approach due to the deferral of the Devers to Serrano system by four years.

Staff believes that the record in this proceeding clearly demonstrates that the Hemet-Perris region needs additional transmission capacity to meet its rapid growth and that this need

must be satisfied as soon as possible. Staff states any facilities that are constructed in the Hemet-Perris Valley area for the purpose of meeting this need are facilities whose prime purpose is the provision of energy to this region, that is, the benefits from that construction inure to the same region in which the facilities are located.

While Coalition challenged the other bases advanced by Edison for the need for the project, Coalition conceded that additional transmission capacity is needed to serve the increased demand in the Hemet-Perris Valley area. Coalition argued that Edison can meet this need by constructing one or more additional 115 kV lines. Coalition also argued that the need for additional transmission line capacity in the Hemet-Perris Valley area can be met by all of the alternative systems considered in the EIR/EIS.

8.2 Firm Resources Flowing Into Devers Substation

One of Edison's major objectives is to provide adequate transmission capability west of the Devers substation so that Devers can serve as the entry point to its transmission network for a large number of Edison-owned firm resources scheduled to come on line after 1984, and for which existing transmission capability may not now exist.

Currently, Edison has four 220 kV transmission lines connecting the Devers substation with substations west of Devers, two each to Vista and to San Bernardino. The normal direction of power flow on these lines is from the west into Devers. This flow

direction will change when the Devers-Palo Verde 500 kV transmission line is energized.[5]

The current maximum reliable capacity of these four 220 kV lines for transmission west of Devers is estimated by Edison at 743 MW. Peak local load at Devers, i.e. power that will be served directly to communities in the Devers area without the need for further high voltage transmisssion is anticipated to be 530 MW by 1984 and growing to 590 MW by 1986. Both the energy being transported by the Palo Verde-Devers 500 kV line and other resources that might flow into Devers for transmission west to Edison's main load centers would be limited to the capacity of the 220 kV lines west of Devers plus the local load. When local load is less than peak, which is the vast majority of the time, the power that can flow into Devers is similarly constrained. Edison's Exhibit 27 shows the firm resources it anticipates flowing into Devers in the years following 1983. This is the resource list on which the staff based its analysis as no independent verification of the status of the resources on this list was undertaken by staff. Some of the resources on this list are what are generally referred to as "conventional resources", principally nuclear power from the Palo Verde Nuclear Generating Station, Units 1, 2, and 3. Most of the resources are, however, what are referred to as "alternative technologies" principally wind, geothermal, and solar generation projects.

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[5] The Palo Verde-Devers 500 kV transmission line was certificated by this Commission by D.92302 in A.57251 in 1980. Its construction is completed and full energization is imminent. The Palo Verde Nuclear Generating Station has three units nearing completion. The aggregate nameplate capacity of the three units is 3,810 MW. Edison owns outright 562 MW. Power from Units 1, 2, and 3 was estimated to begin flowing in 1983, 1984, and 1986, respectively.

The nature of the individual projects comprising these alternative technology resources, the likelihood of ultimate development, and the need for their accommodation at the Devers substation were extensively testified to by Edison witness Hall.

With regard to wind energy development, Hall testified that Edison has a 10-year plan to site 120 MW of wind generation in the Banning Pass (San Gorgonio Pass) area. Exhibit 27 shows a total wind capacity through 1990 of 360 MW. Edison uses a capacity credit of one-third of the installed capacity for resource planning purposes. This is the capacity which Edison believes can reliably be expected to be available during peak load conditions. Hall testified that Edison believed its wind development program was proceeding ahead of schedule and had increased its projection of nameplate capacity to be installed by 1990 to 400 MW, with more of the capacity coming in the earlier years.

Most of the wind sites which Edison is investigating are in the Banning Pass area. Due to its proximity to the Devers substation, it is quite likely that Devers will be the collector substation for connecting wind resources to the Edison transmission system. Other parties are also considering the development of wind generation projects in the Banning Pass area. Riverside County has undertaken a master environmental assessment for wind development and the county's resulting decision has the potential of allowing construction of up to 2,290 MW of total wind generation capacity in the eastern portion of the county.

Edison similarly appears to be making aggressive efforts to develop geothermal resources in the Salton Sea/Imperial Valley area.[6] Its 20-year plan for this resource is 420 MW in the Imperial Valley. Combined with Edison's potential geothermal purchases from Mexico and the provision of transmission capacity to other utilities for transporting their geothermal energy, the potential geothermal energy development is very significant. Many questions were raised in the proceeding as to whether this resource, assuming it develops as hoped, would be transmitted through the Devers substation or whether it might be transmitted over facilities of San Diego Gas & Electric Company (SDG&E). There were also questions raised by the staff as to how much of the resource was Edison's and how much was transmission for others, principally LADWP. Edison's position is that even if all non-Edison resources were excluded from the firm resources entering Devers, the exclusion would merely delay the need for the line to transport firm resources to 1986 or 1987.

This Commission has approved Edison's application for the Devers-Mirage transmission line. (D.83-04-019, issued April 6, 1983.) Edison has indicated that that project would ultimately be used as the collector transmission line for its Imperial Valley geothermal projects and that Devers will be a major collection point for geothermal energy development.

With respect to solar projects, the record is less clear. Edison is planning to undertake a number of solar projects using both thermal (using the sun's energy to heat a boiler to drive a generator) and photovoltaic (directly converting the sun's energy

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[6] Public announcement was made on September 13, 1983 of the joint agreement of Dravo Corp. and Standard Oil Company of California to build a geothermal generation plant with a nameplate capacity of 47 MW in the Harbor Field in Imperial Valley. Edison has agreed to purchase the energy generated by the new plant.

into electricity) technologies. Hall testified that some of the best insolation sites (areas with high sun intensity) are located in the areas surrounding the Devers substation. Some of these sites, however, are more than a hundred miles distant from Devers and no direct transmission connections either exist or are now proposed.

Historically, Edison has planned various other firm resources which might flow into the Devers area, including a fourth unit of the Palo Verde Nuclear Generating Plant, Cal Coal and East Coal, and the Vidal and Kaiparowitz projects. All of these projects either are no longer planned or are beyond the planning horizon being considered in this proceeding. Edison's witness Hall testified that the development of Edison's firm resources including alternative technologies, even with a delay in the Palo Verde units would require the construction of additional transmission capacity west of Devers by 1986.

Staff pointed out that this Commission and the CEC have strongly encouraged the development of wind, geothermal, solar, and other alternative technologies. The prototypes of these new generating plants are currently being constructed and tested.

Coalition argued that Edison did not meet its burden of proof that the proposed project is needed to transmit power from any specific new firm resources. Coalition argued that Edison's testimony on supposedly firm solar resources is weak, in that some of the proposed solar sites are more than 100 miles from Devers and no direct transmission connections either exist or are now proposed. Coalition cites that a portion of Edison's own firm, planned resources east of Devers have been canceled or are beyond the planning horizon being considered here; therefore, the transmission lines should not be certificated based on speculative proposals.

Coalition challenged the need of new transmission capacity because of the uncertainty of the resources to be scheduled in Devers as shown in Edison's Exhibit 27. It is Coalition's position that

Edison has failed to demonstrate that the resources would be scheduled as contended. In support of its position that only 787 MW rather than 1,488 MW will be flowing through Devers by 1990, Coalition asked that we take official notice of Edison's latest (December 2, 1982) resource plan filed with CEC, a copy of which is appended to Coalition's opening brief. Staff supports this request; Edison apparently has no objection as it cited data from that document in its closing brief. The resource plan is a document of which this Commission may take official notice under our Rules and the California Evidence Code. We take official notice of Edison's December 2, 1982 Resource Plan filed with CEC (hereafter the 1982 resource plan).

Based on its analysis of Edison's 1982 resource plan, Coalition attacked the amount and availability of various resources included in Edison's estimates of future resources presented in Exhibit 27. Edison's reply brief responded to Coalition's assertions by comparing Edison's resources planned for 1990 shown in the two documents, as follows:

Exhibit 27		Edison's 1982 Resource Plan	
Geothermal	416	Geothermal (SCE)	225
Wind	360	Wind	512
Solar	150	Solar	133
Palo Verde	562	Palo Verde	609
	1,488 MW		1,479 MW

Edison concluded that the above comparison shows a difference of only 9 MW out of almost 1,500 MW.

Edison pointed out that its 1982 resource plan contains a capacity power purchase of 600 MW in the 1988-1992 time frame which was not included in Exhibit 27. Edison argued that although specific sources of this capacity have not yet been identified, it is reasonable to expect a significant portion of the 600 MW to come from the east which will bring additional power into Devers over the Palo

Verde-Devers line;[7] therefore, Edison expects firm power flows into Devers over and above the levels shown in Exhibit 27, and not 787 MW as suggested by Coalition in its brief.

Edison contends that the natural location of wind resources is in the San Gorgonio Pass area and of solar resources is in the desert area east of Devers. The only geothermal locations in southern California are in the Imperial Valley. Therefore, Edison concludes that energy from renewable resources must flow through Devers. Staff believes it inappropriate to applaud the efforts of Edison in pursuing these alternatives and at the same time reject them as a basis for need for a transmission line due to their "speculative" nature. Staff argued that it would certainly be inappropriate to be in a position where the development of these projects would be constrained by the lack of adequate transmission capacity. Staff believes that Edison has adequately demonstrated a need for augmentation of that transmission line capacity since the development of alternative energy technologies need only progress to a relatively small percentage of what Edison is endeavoring to develop in order to require additional transmission capacity west of Devers.

8.3 Economy Energy Purchases

One of the principal reasons advanced by Edison for the construction of the Devers-Serrano transmission line is the increased capability for importing economy energy from utilities in neighboring

[7] The Palo Verdes-Devers line has a capacity of 1,000 MW. An additional Palo Verdes-Devers line will be constructed when additional units of the Palo Verde Nuclear Generating Station come on line.

states.[8] Edison is the largest consumer of oil among electric utilities in the United States, using more than 60 million barrels of oil and gas equivalent in 1980, the most current figures in the record in this proceeding. It is Edison's position that large quantities of economy energy will be available from southwestern states (and other areas) in the foreseeable future to reduce this oil consumption and that the proposed transmission line project will facilitate acquiring this energy through increased transmission capacity to Edison's load center. Edison estimates that the economic benefits of acquiring this economy energy are so overwhelming that the annual savings, with only an 18% economy energy utilization of the line, would pay the annual revenue requirement of the line. Staff concurred that the financial benefits would be considerable. The costs saved by purchasing economy energy are fuel costs and the sums expended for the economy energy are purchased power costs. Under current Energy Cost Adjustment Clause (ECAC) procedures, 90% of any savings which would result from this approach would directly benefit the ratepayers of Edison (D.82-12-105 (1982).)

The questions raised by Coalition and staff are whether:

a. Economy energy will be available for purchase as Edison contends,

b. Edison will be able to benefit from economy energy at the times it may be able to acquire it, and

c. The economies of the transmission line project are advantageous.

Coalition strongly challenged the sufficiency and competency of the evidence adduced by Edison. Staff presented no evidence on the availability of economy energy.

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[8] Economy energy is energy purchased on an as-available, rather than firm commitment, basis which is available at a delivered cost less than the cost to the purchasing utility of producing its own energy at that time.

Edison witness Hall presented in Exhibit 18 a list of base load generation plants from which he concluded economy energy purchases would be available in the 1985-1992 time frame. Exhibit 18 consists of a list of coal and nuclear base load plants located in Arizona, New Mexico, Nevada, Colorado, Utah, and Wyoming with operation dates up to 1990. In total, they would, if constructed, represent a nameplate rating of 20,929 MW. The largest single region represented in this list is the Arizona-New Mexico region which would provide a composite 7,659 MW, followed by Nevada at 7,250 MW.

Corresponding to Exhibit 18 is Edison's Exhibit 19, taken from the Western Systems Coordinating Council "10 Year Coordinated Plan Summary, 1981-1990" dated May 1981. This shows, on a regional basis, the expected energy and peak load growth rates and generation additions by type. Hall testified that the information in this exhibit was used "to determine the comparison between the amount of load growth in each of several power areas of the western United States with the planned capacity increases in order to assess the amount of excess capacity available in each of these areas, which would then lead to an indication of available energy as well from these areas."

Tables in Exhibit 19 show regional summer reserve margins consistently in excess of 20%, and often in excess of 30%, particularly for the Arizona/New Mexico region. The only region which dips below the projected 20% reserve margin for any of the years is the California-Nevada region during the very late 1980's. The forecast for winter reserve margins is greater, often in excess of 50%. By way of comparison, Edison has an average reserve margin of 18%. Other tables in the same exhibit show that the vast majority of the new generation additions will be coal and nuclear plants. From these tables, Edison drew a conclusion that economy energy will likely be available since the growth in base load coal and nuclear plants by 1990 will increase faster than load growth.

Coalition challenged this testimony on the basis that some of the base load facilities included on the list had been abandoned or postponed. Coalition also suggested that owners of some of the base load plants were restricted by law from selling excess energy to out-of-state purchasers. Our staff reviewed this assertion and concluded that any restriction against out-of-state purchases would apply to sales of firm capacity rather than economy energy. Staff pointed out in its brief that Coalition failed to supply for the record the regulatory agency orders or rulings containing restrictions on out-of-state sales of energy.

Exhibit 75 prepared by witness Roger B. Mayall of Edison's Power Contracts Division, containing Edison's survey of other utilities' estimates of excess energy expected to be available, was not received in evidence as the sponsor refused to supply the underlying data supporting the totals. Edison asserted that presentation of the underlying data would make public asserted proprietary information not available to other utilities concerning sources of economy energy purchases.

Edison presented Roger M. Roberge, a consultant with the firm of D. W. Beck and Associates which had prepared a study for the CEC entitled "Analysis of Power Systems Integration Between California and Neighboring States". (Exhibit 75, or the Beck study). The Beck study concluded there would be economy energy from sources in southwestern states available for purchase by California utilities in the 1985-90 time frame and that if the full amount available were purchased, the current transmission system from southwestern states to southern California could not transport the additional load.

Coalition challenged Roberge's testimony on the basis that he could not, from his own knowledge, support the facts, assumptions, and conclusions set forth in Exhibit 75.

Coalition also challenged the need for a new 500 kV transmission system on the basis that estimated increases in energy available from sources east of Devers could be handled by the existing southeastern California transmission system when SDG&E's 500 kV Eastern Interconnection (now called Southwest Powerlink) is energized. The record shows that the full capacity of this line will be taken up by SDG&E when it becomes operative.

8.4 CEC's 1983 Biennial Report

CEC's 1983 biennial report to the Governor and the Legislature entitled "Securing California's Energy Future" contains a listing of potential electric supply additions available between 1981 and 1994 by CEC-proposed priorities, excluding projects under construction (Table 6-12). CEC's preferred alternatives, as shown in the biennial report, include geothermal, wind, and solar resources. On a statewide basis, CEC expects capacity additions in the referenced time period of 2,578 MW for geothermal, 2,987 MW for wind, and 1,300 MW for solar resources. The report also assumes total potential annual purchases of 28,427 gigawatt hours (gWh) of electricity from out-of-state sources, of which about 45% appears to be from the southwest. The CEC biennial report states (on pages 111 and 112):

> "California's utilities are planning to supply 47,000 GWh more electricity in 1994 than in 1982. At the same time, they plan to reduce 1994 oil/gas generation by over 41,000 GWh compared to 1982. New coal and nuclear power plants will supply the bulk of this additional electricity, with sizable increases in geothermal, cogeneration, and hydroelectric sources.
>
> "Additional interstate power transfers is the largest, and increased interutility power pooling is one of the most immediate, supply options identified by the Energy Commission. California utilities presently have purchased power and electricity exchange agreements with several utilities and federal agencies that

> operate power plants in the Pacific Northwest and Southwest. Studies by the Energy Commission, the California Power Pool (composed of SDG&E, PGandE, and SCE), and the United States General Accounting Office have consistently shown that increased interconnections among Pacific Northwest, California, and Southwest utilities would provide substantial economic benefits to all utilities in the three regions. Increased use of out-of-state surplus energy is the most immediate action which can help stabilize and possibly lower California electricity rates. Both the Pacific Northwest and southwestern United States regions have excess generating capacity and can generate surplus electricity at a cost below that of an oil- or gas-fired power plant." (Emphasis supplied.)

Page 113 of the biennial report contains a schematic diagram of selected existing major transmission lines in the western states. The diagram shows that there is no means of connecting the Palo Verde-Devers 500 kV transmission line into the existing western states 500 kV transmission system absent a connection between Devers and Mira Loma or Devers and Lugo. The proposed project would connect the Palo Verde-Devers 500 kV transmission line to the Serrano substation, and the already approved Mira Loma-Serrano 500 kV transmission line would complete the connection.

8.5 Loop Flow

One of the reasons advanced for the new transmission line is to reduce problems of loop flow in the interconnected Western System Coordinating Council (WSCC) transmission line system, which includes all transmission lines between California, Arizona, Nevada,

and adjacent western states.[9]. The addition of another 1,000 MW transmission line creates another path within the system, which permits scheduling of additional power to be carried by the combined transmission network.

Loop flow has been determined to be a major transmission problem facing the WSCC members. WSCC has identified five approaches to the control of major loop flow by means of modifications to planned or existing AC system configurations:[10]

1. Addition of AC transmission lines in parallel with existing or planned lines.
2. Addition of series capacitors in existing or planned AC transmission lines.
3. Addition of AC lines to bridge the WSCC loop and dilute the ring characteristic.
4. Controlled opening of lines throughout the system to minimize loop flow, yet preserve the interconnected nature of operation.
5. Early installation of plant associated transmission which would reduce the magnitude of major loop flow.

---

[9] In simple terms, loop flow is the difference between the scheduled electric power flow in a given direction at a given time and the actual power flow in the same direction at the same time. It results from the electricity in an interconnected system following the transmission path of least resistance. The least resistance transmission path results from a combination of the characteristics of the transmission interconnected network, the magnitude and interconnection points of the generation attached to it, and the electric loads flowing in it at a given time.

[10] Loop Flow Report III, August 1975-January 1976, to the Western Systems Coordinating Council.

Devers-Serrano would add a new parallel line to existing lines which would increase reliability in the system, and increase the net carrying capacity available for scheduling throughout the system.

8.6 Reliability Standards

Edison's transmission reliability criteria basically require that the outage of a single transmission or substation component will not interrupt service to customers nor load other components in excess of their normal thermal ratings.

It also requires ("N-2" standard) that outage of two transmission lines will not (1) cause a protracted interruption of major load which is defined as 400 MW or more, (2) cause line loadings on other system components in excess of their emergency thermal ratings, nor (3) cause uncontrolled cascading outages of additional electrical facilities.

The proposed transmission line assertedly will enable Edison to meet its reliability criteria. Edison states that without the proposed facilities, the system would not meet the reliability criteria in the Devers and Hemet-Perris Valley areas by 1984 due to overloads on transmission lines and transformers.

9. Discussion of Public Convenience and Necessity Issues

Edison and the staff concur that sufficient data has been made available to the Commission to show that additional transmission capacity is required between Devers and Serrano/Villa Park substations in the near future, and that a certificate should be granted for the construction of new transmission line facilities to bring resources available east of Devers to Edison's Los Angeles Metropolitan Area. Edison and staff differ as to the location of the added lines and whether 220 kV or 500 kV lines should be constructed.

All parties agreed that additional 220 kV or 500 kV lines are necessary to serve the Hemet-Perris Valley area, although the parties are not in agreement as to the location of such lines. Coalition challenged the sufficiency of the evidence adduced in justification of the need for new facilities other than those necessary to serve Hemet-Perris Valley. We have reviewed the evidence and conclude that a new system is required to permit Edison to transport energy from resources located east or south of Devers beginning in 1985.

Edison's potential firm and economy energy purchases from utilities located in southwestern states, although difficult to quantify with the precision desired by Coalition, will be available to all California electric utilities in the 1985-1991 time frame. The transmission lines between California and southwestern states operate as an area-wide system. Should that excess energy and capacity not be sold to Edison, it probably would be sold to other California utilities. The transmission system would require additional capacity to bring the imports to California, as indicated in the Beck report and CEC's latest biennial report. The record clearly shows that even with the operation of SDG&E's new "Eastern Interconnection", additional transmission capacity is needed.

CEC and this Commission have encouraged and supported renewable energy generation projects. The most favorable and likely location of those generation sources in or near Edison's service area is in the region south and east of Devers or in the Banning Pass area through which the proposed transmission line would be located. We expect that Edison will recognize the advantages of developing alternative energy resources to the fullest extent possible to replace existing fossil fuel generation and will expedite the construction of new facilities of these types.

The record also indicates that the overall project is justified from a cost basis, as it will permit Edison to purchase

firm and economy energy at costs below those associated with fossil fuel generation. The utilization of the project for transmission of economy energy at only 18% of the amount estimated by Edison will produce savings over fossil fuel generation equal to the annual project operating costs estimated for Edison's preferred route.

The record also shows that the existing transmission system cannot transport significant additional amounts of electricity, and that transmission capacity must be increased in order to accommodate the additional firm and economy energy imports from other states expected to be available to California utilities from southwestern states in the 1983-1990 time frame.

10. Supplemental Environmental Review After Close of Public Hearing

On November 19, 1983, this Commission and the USFS issued for public review a two-volume document entitled "Supplement II, Public Review Draft, Environmental Document (EIS/EIR)" (hereafter Supplement II) in connection with this proceeding. The first volume of this document consists of the responses to comments received on the DEIS/EIR and the SDEIS/EIR previously issued in this proceeding. The second volume includes new material integrated into revised pages of the SDEIS/EIR. This new material was developed as a result of comments and evidentiary presentations made following the issuance of the SDEIS/EIR. It was the Commission staff's belief that this new material should be circulated for public review in much the same manner as a DEIS/EIR.

The principal component of the new material is the environmental impact analysis resulting from the identified need for an additional 500 kV transmission line between the vicinity of the Mira Loma substation and the Serrano substation for any system alternatives being considered which were previously shown terminating at the Mira Loma substation rather than at the Serrano substation. These include all system alternatives other than the applicant's

proposed system between the Devers, Valley, and Serrano substations. The new material also involves the discussion of items which were raised at prior hearings and in comments which required an extensive response or are subjects new to the report, including a discussion of costs associated with the various alternatives and an expanded discussion of undergrounding requirements for high voltage transmission lines.

10.1 Differences Between Supplement II and the SDEIS/EIR

Supplement II identifies the existence of a need for an additional 500 kV transmission line between the Mira Loma and Serrano substations for all alternative systems under consideration except the applicant's proposed system. While this additional line was considered in the SDEIS/EIR to be useful in improving system reliability, it is considered in Supplement II as an essential component for all but the applicant's proposed system in order to meet Edison's transmission system reliability criteria, criteria which the Commission staff believes are reasonable.

As a result of this line being viewed as a necessary component of most of the alternatives, additional analysis was undertaken to investigate possible routes for this line and environmental impacts associated with it. This investigation was then fully integrated with the analyses previously done for the balance of the systems and new comparisons and rankings of alternatives resulted.

Supplement II contains an extensive section dealing with costs of the various systems and routes under consideration.

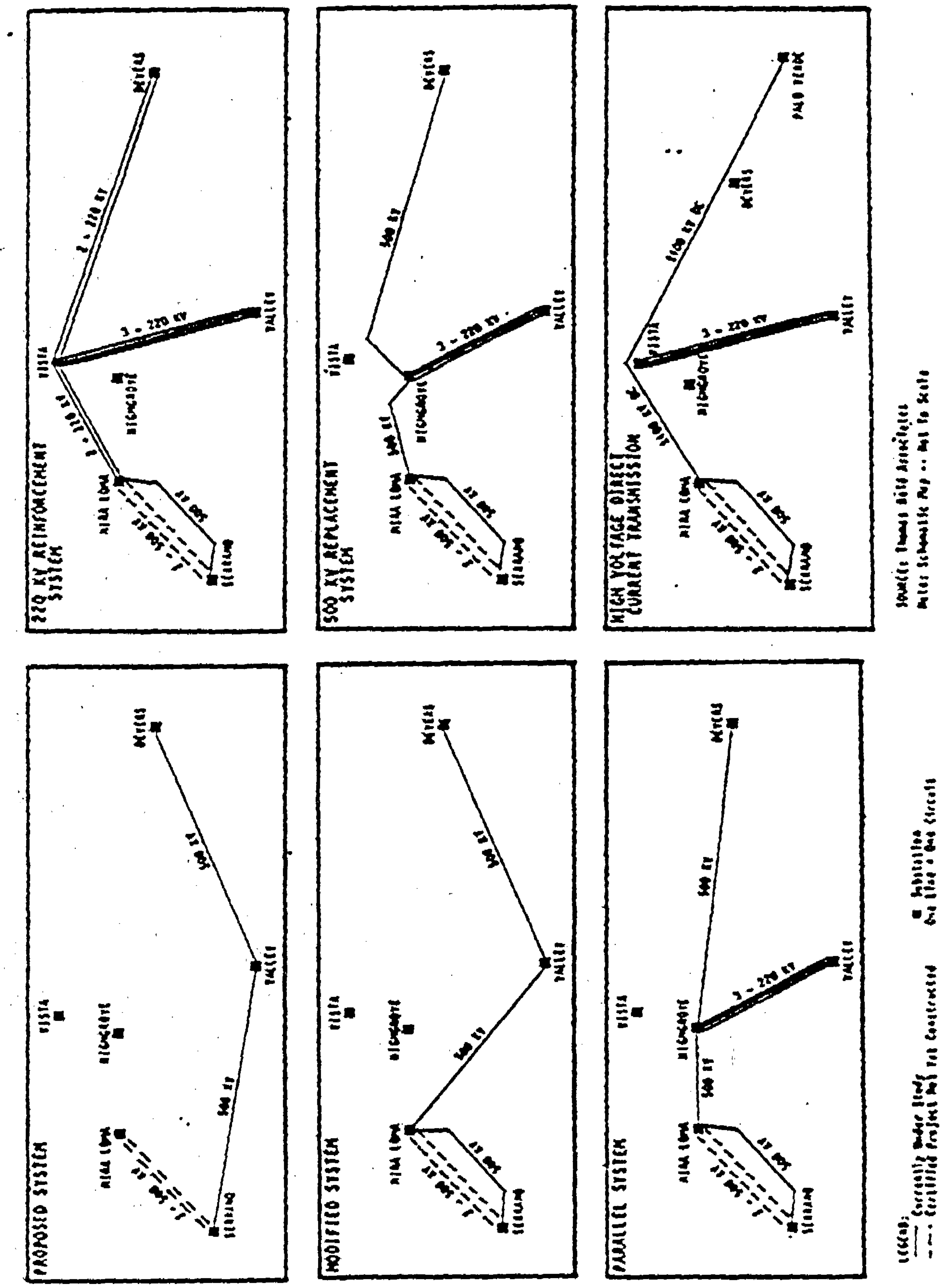
Rankings of the alternative systems have been changed somewhat from the SDEIS/EIR, principally due to the inclusion of the additional Mira Loma-Serrano transmission line in various alternatives and the resultant impacts.

While the 220 kV Replacement System was considered in the SDEIS/EIR as the environmentally preferred system, it is only considered in Supplement II in conjunction with the 500 kV Replacement System due to the staff's acknowledgment that a 500 kV system west of the Devers substation is necessary. High voltage DC is not considered in Supplement II as a viable alternative for this project and is therefore not actively considered among environmental alternatives. The Parallel Construction System is considered the next most preferred after the 500 kV Replacement System plus the 200 kV Reinforcement System. Finally, the relative positions of the Modified and Proposed Systems have shifted in Supplement II from those set forth in the SDEIS/EIR.

11. Schematic Diagrams of Routes Studied

Figure B on the next page contains schematic diagrams of the routes studied in the final EIR. The initial DEIR studied only the routes proposed by Edison in its PEA and short alternate segments proposed by other parties. The SDEIR studied additional routes proposed by staff and other parties. It does not show the proposed 3-mile 220 kV line between the Serrano and Villa Park substations, because that line was approved in the Mira Loma-Serrano application by D.82-01-050.

Figure B



220 KV REINFORCEMENT SYSTEM
500 KV REPLACEMENT SYSTEM
HIGH VOLTAGE DIRECT CURRENT TRANSMISSION
PROPOSED SYSTEM
MODIFIED SYSTEM
PARALLEL SYSTEM

12. Brief Description of All Routes Considered

Table 1 is a summary of costs for the various alternative routes considered in this proceeding together with a simplified schematic diagram which can be referenced to Figure A on page 8. The following is a brief description of each route:

* (A1) is EDISON'S PROPOSED ROUTE - a new 500 kV line from Devers to the proposed new Valley Substation and a new 500 kV line from Valley to Serrano Substation.

* (A2) is the CPUC ENVIRONMENTALLY PREFERRED ROUTE - it is identical to A1 schematically but follows a different path. See Figure A, page 8.

* (B) is a MODIFICATION OF EDISON'S PROPOSAL - a new 500 kV line from Devers to Valley and then from Valley to Mira Loma Substation.

* (C) is a MODIFICATION OF (B) - a third 500 kV line would be added from Mira Loma to Serrano.

* (D) is ANOTHER MODIFICATION OF (B) - the Valley to Serrano line would follow the route in (B) but bypass Mira Loma Substation and the second line to Serrano would originate at Mira Loma.

* (E) is a MODIFICATION OF (D) - no lines would connect Mira Loma and Serrano.

* (F) is the REPLACEMENT SYSTEM - replace the existing 220 kV line from Devers to Highgrove to Mira Loma with a 500 kV line and add three new 220 kV lines between Highgrove and Valley.

* (G) is the REPLACEMENT/REINFORCEMENT SYSTEM - same as the replacement system, (F), but bundle two 220 kV lines between Devers and Mira Loma through Vista Substation and add two 220 kV lines between Vista and Highgrove.

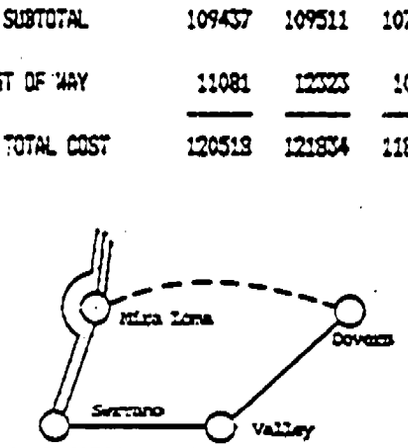
* (H) is the REPLACEMENT SYSTEM WITH THIRD LINE - same as the replacement system, (F), but with a third 500 kV line between Mira Loma and Serrano.

* (I) is a MODIFICATION OF (G) - same as the replacement/reinforcement system, (G), but without two 220 kV lines between Vista and Highgrove.

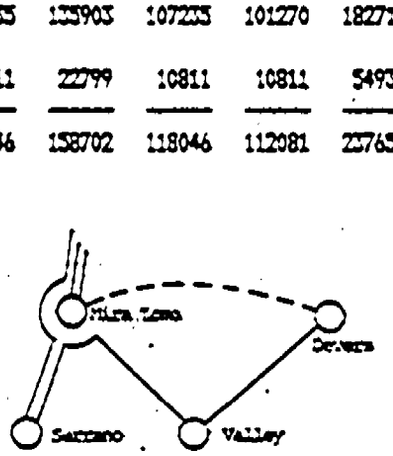
* (J) is a MODIFICATION OF (G) - same as the replacement/reinforcement system, (G), but without two 220 kV lines between Vista and Highgrove but with third 500 kV line between Mira Loma and Serrano.

TABLE 1 - TRANSMISSION SYSTEM COST ESTIMATES
(Thousands of dollars)

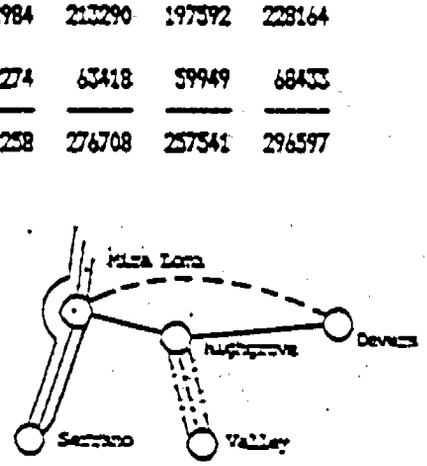
ALTERNATIVE	(A1)	(A2)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
LINE COSTS	45799	45857	42402	57244	42402	42402	58782	68598	73624	67921	82763
SUBSTATION COSTS	40372	40372	42033	49766	42033	37338	85090	103830	94321	87663	96894
SUBTOTAL	86171	86229	84437	107010	84437	79740	143872	172428	167945	155584	179657
OVERHEADS @ 27%	23266	23282	22798	28893	22798	21530	38845	46556	45345	42008	48507
SUBTOTAL	109437	109511	107235	135903	107235	101270	182717	218984	213290	197592	228164
RIGHT OF WAY	11081	12323	10811	22799	10811	10811	54934	62274	63418	59949	68433
TOTAL COST	120518	121834	118046	158702	118046	112081	237651	281258	276708	257541	296597



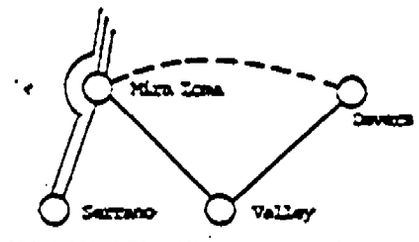
(A1) EDISON PROPOSED $120,518
(A2) ENVIRONMENTALLY PREF. $121,834



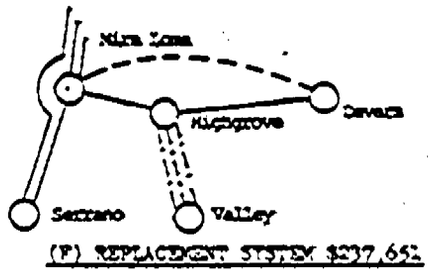
(B) MODIFIED EDISON $118,046



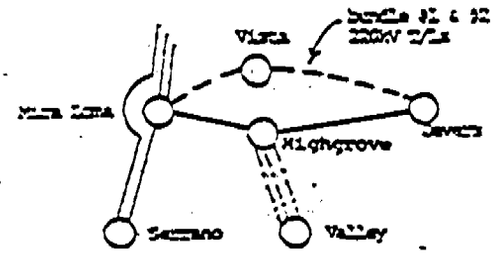
(H) REPLACEMENT WITH THIRD LINE $
$276,708



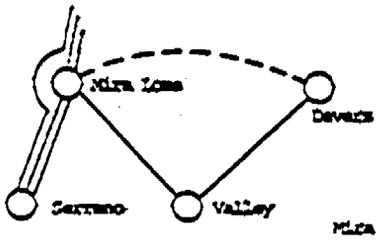
(B) MODIFIED EDISON $118,046



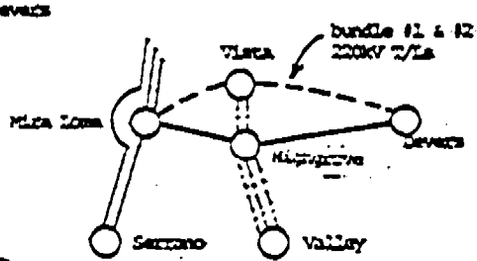
(F) REPLACEMENT SYSTEM $237,651



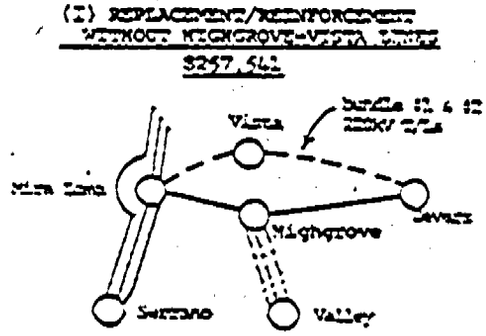
(I) REPLACEMENT/REINFORCEMENT
WITHOUT HIGHGROVE-VISTA LINES
$257,541



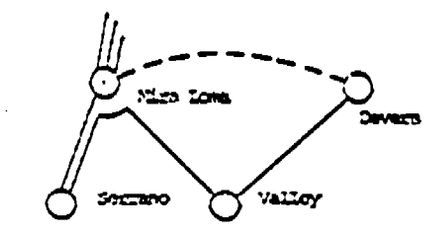
(C) MODIFIED EDISON $158,702



(G) REPLACEMENT/REINFORCEMENT
$281,258



(J) REPLACEMENT/REINFORCEMENT
WITHOUT HIGHGROVE-VISTA LINES AND WITH THIRD
$296,597



(D) MODIFIED EDISON $118,046

500kV T/Ls
EXISTING 220kV T/Ls
NEW 220kV T/Ls

13. Initial Elimination of Routes

The Morongo Band of Mission Indians (Morongos) own lands over which all but one of the alternate routes through San Gorgonio (Banning) Pass must be placed. Federal law provides that Indian-held lands may not be condemned for public use. Thus, only the Morongos may permit use of their land by others. Testimony by Tom Lyons on behalf of the Morongos shows that Edison has negotiated a route through San Gorgonio Pass which was approved at a tribal election held April 17, 1982. The tribe elected to grant a transmission line easement on a specific route along Section 14 (Link OHS) and Section 22 (Link CN2) (negotiated route). All parties agree that the transmission line cannot be built absent an easement across Morongo lands. Therefore, the parties concur that even though the easement granted by the Morongos may not be along the most environmentally preferred route through the pass, the route along which the easement lies is the only buildable route. The record also shows that environmental factors were part of the discussion by tribal elders preceding approval of the negotiated route. The current status of negotiations with the Morongo Indians was addressed in the reopened proceeding. As indicated in an August 17, 1984 letter from Edison's attorney, William Elston, to Administrative Law Judge Porter, which was in response to a request by the staff, there is still no final agreement with the Morongo Band. During the hearings Edison's counsel represented that the ongoing dispute with the Morongos was over the amount to be paid by Edison for the negotiated right-of-way rather than the location of the right-of-way. Indeed, according to Edison the Morongos are still adamant in their position that the negotiated right-of-way is the only acceptable routing through reservation lands.

As an alternative to crossing reservation lands, Edison is seeking congressional authorization to build along the Morongo Bypass

Route. According to the August 17 letter, the California Wilderness Act of 1983 contains specific language accommodating a transmission line along the Morongo Bypass Route. We note this legislation has been passed by Congress and awaits presidential approval.

Two things become apparent from the above. First, it is presently impossible to determine the ultimate location of the line through San Gorgonio Pass. Second, a new right-of-way will be established regardless of which route is ultimately built, Morongo Negotiated or Morongo Bypass. The fact that either route will result in the creation of a new right-of-way reinforces the conclusion in the Final Environmental Document that the initial environmental preference for the Replacement/Reinforcement System has been substantially undercut. The staff recommends certifying the Morongo Negotiated route with a provision that the Morongo Bypass can be used as an alternative in the event that Edison is unable to reach an agreement with the Morongo Indians within a time certain such as 60 days from the date of issuance of a CPC&N. This assumes that congressional action on the Wilderness Act and presidential approval will be forthcoming as represented by the company. Edison should also be placed on notice that any expenditures incurred prior to obtaining a firm route through San Gorgonio Pass will be at its own risk. The staff recommendation should be adopted.

13.1 400 kV DC Conversion Route

This alternative was examined and found to be technically unsuited as an alternative to the 500 kV AC project. Therefore, no in-depth environmental analyses are set forth in the Final EIR. (Final EIR, Volume 2, page 1-1.)

13.2 Other Routes - Initial Screening

In order that the environmental document address all reasonable alternatives under CEQA and NEPA, all routes suggested during the scoping and public comment process were accorded an

Initial Screening. Many of these routes were eliminated from further consideration in the Initial Screening because of serious environmental flaws.

13.3 Parallel Construction System

The Parallel Construction System would follow essentially the same route as the Reinforcement/Replacement Systems. But it would take new right-of-way through the built-up areas adjacent to the existing right-of-way. Accordingly, this system can be eliminated from further consideration as requiring excessive amounts of new right-of-way when compared with other systems

14. Matrix Analyses of Environmental Factors

Because of the many alternate routes proposed in this proceeding resulting in difficulties in analyses, the ALJ requested that the parties follow a matrix form for analysis.

The component segments and routes for the alternate transmission line systems from Table I-1 of the Final EIR are set forth in Tables 2 and 3.

Table 2

ALTERNATE TRANSMISSION LINE SYSTEMS, COMPONENT SEGMENTS AND ROUTES

SYSTEM	SEGMENT	POSSIBLE ROUTES
Proposed	Serrano-Valley	Canyon-Steele Peak Route
		Canyon-Estelle-Steele Peak Route
		Canyon-Valley Route
		SCE Proposed Cleveland-Steele Peak Rt.
		**SCE Proposed Cleveland-Estelle-Steele Peak Route
		*SCE Proposed Cleveland-Valley Route
		SCE Buildable-Steele Peak Route
		SCE Buildable-Valley Route
		Hoeger-Steele Peak Route
		Chino-Norco-Steele Peak
		Hoeger-Valley Route
	Valley-Devers	Eastern-Southern Route
		Western-Central Route
		*Western-Morongo Negotiated Route
		**Western-BLM "A" Crossover-Northern Route
		Eastern-Moroogo Bypass Route
		Western-Morongo Bypass Route
		Western-Central-Southern Route
		Eastern-Soboba Hot Springs-Poppet Flat Route
Modified System	Valley-Devers	as above for Proposed System
	Mira Loma-Valley	Mira Loma-Valley Route
	Serrano-Mira Loma	Weir-Chino Bypass-Mira Loma Route (new 500 KV construction)
220 KV Reinforcement System	Mira Loma-Highgrove	existing 220 KV lines (replace/upgrade)
	Highgrove-Devers	existing 220 KV lines (replace/upgrade)
	Highgrove-Valley	Highgrove-Valley Route (3 new 220 KV circuits)
	Serrano-Mira Loma	Weir-Chino Bypass-Mira Loma Route (new 500 KV construction)
500 KV Replacement System***	Mira Loma-Highgrove	existing 220 KV lines (replace)
	Highgrove-Devers	existing 220 KV lines (replace)
	Highgrove-Valley	Highgrove-Valley Route (3 new 220 KV circuits)
	Serrano-Mira Loma	Weir-Chino Bypass-Mira Loma Route (new 500 KV construction)

* Applicant's Proposed Project or currently suggested route
** Environmentally preferred Route for the proposed system
*** Environmentally preferred system

The staff adopts the comparative system rankings set forth in Table I-3 (Supplement II) of the Final EIR as follows:

Table 3

Comparative System Rankings

Environmental Factor	Proposed System	Modified System	Parallel	220 kV Reinforce	500 kV Replace
Land Use					
Adjacency	1	2	5	3	4
Pending Devel.		all equivalent			
Specific Conflicts		all equivalent			
Takings	1+	1+	5	3	4
Aesthetics	5	4	3	1	2
Biology					
Sedentary spp.	4	5	3	1+	1+
Eagles	5	1	4	3	2
Cultural Resources	5	4	3	1+	1+
Fire Safety	5	4	3	1+	1+
Geology	5	4	1+	1+	1+
Cumulative Impact	5	4	3	1	2

Notes:

1 = environmentally most preferred (least impact)
5 = environmentally least preferred (highest impact)

Where two are "tied" for a rank, both are given the same rank with a "+", and the next rank is skipped.

Chapter II, "Revised Tables," of the Final Environmental Document (EIS/EIR) includes a summary of the environmental impacts of Reinforcement/Replacement with the Morongo Negotiated Route incorporated. From the broadest vantage point, the amount of new right-of-way construction in each of the systems may be ranked from lowest to highest as follows:

Proposed System (Devers-Valley-Serrano)

New 500 kV construction across the Cleveland National Forest
New 500 kV substation at Valley
New 500 kV corridor on south side of San Gorgonio Pass

Original Replacement (500 kV Devers-Highgrove-Mira Loma; 220 kV Highgrove-Valley)

New 220 kV corridor through Sunnymead

Replacement with "Third Line" (500 kV Devers-Highgrove-Mira Loma-Serrano; 220 kV Highgrove-Valley)

New 220 kV corridor through Sunnymead
New 500 kV through Chino Hills (State Park Project)

Replacement with Morongo Negotiated (500 kV Devers-Highgrove-Mira Loma-Serrano; 220 kV Highgrove-Valley)

New 200 kV corridor through Sunnymead
New 500 kV through Chino Hills (State Park Project)
New 500 kV corridor on south side of San Gorgonio Pass.

Based on the comparison shown above, the Replacement System as originally conceived was predicated on very little new right-of-way construction and provided major environmental advantages over the applicant's proposed system. The addition of the new 500 kV corridor through the Chino Hills and the new 500 kV construction on the south side of San Gorgonio Pass brought about by the need to use the Morongo Negotiated (rather than the northern route) robs the Replacement System of most of its original environmental advantage. The length of new corridor for the Replacement System is increased from 45.7 to 79.1 miles, an increase of 33.4 miles of new 500 kV corridor. With that change, only 31% of the "Replacement" System would actually follow existing right-of-way, compared with 58% with the original Replacement System. The line would cross four additional miles of Morongo Band lands and the other 29 miles of additional right-of-way would cross other lands in San Gorgonio Pass, the Badlands, and San Timoteo Canyon. If one accepts both the need for Mira Loma-Serrano connection, and the absence of options to using the Morongo Negotiated Route then there is no longer a consistent, significant environmental advantage of Replacement over the applicant's proposed system.

14.1 Major Objections to Alternate Routes

The staff analysis which supports the rankings on Table 3, as set forth in its brief, indicates that there are major objections

to certain of the alternate routes. The major objection to the 220 kV Reinforcement route is that it does not provide a full 1,000 MW of capacity to the Los Angeles Basin area; therefore, that route does not meet the primary project objective set out in the application. For this reason, the 220 kV Reinforcement route, although rated in Table 3 as the most environmentally preferred route, must be eliminated from further consideration.

Two alternative routes, 500 kV Replacement and Parallel Construction, do not meet the secondary objectives of the application.

1. They do not develop presently owned 500 kV rights-of-way with room for additional 500 kV lines.
2. They require new rights-of-way for service between Highgrove and Valley. Edison contends that route may need three 220 kV circuits, one single and one double.

These routes and the Modified System route require the construction of a third Mira Loma-Serrano 500 kV line according to Edison and staff. Coalition disputes the need for the third line, arguing that the evidence adduced on this issue was inconclusive. The need for the third line was the subject of further hearings after the proceeding was reopened by a ruling of the Assigned Commissioner. The testimony presented in the reopened phase of the proceeding is discussed in section 16 below.

14.2 Environmental Impact Analysis

The Commission is required to evaluate this application in conformance with the requirements of the CEQA and the State EIR Guidelines (Guidelines). (Cal. Pub. Res. C. §§ 21000 et seq.; Cal. Admin. C. §§ 15000 et seq.)

The significance of that requirement goes far beyond the mere preparation of an EIR as part of the regulatory steps in processing the application. It is the purpose of the EIR to identify the significant effects, identify alternatives and to indicate how

the significant effects can be mitigated or avoided. (Cal. Pub. Res. C. §§ 21002.1(a), 21061.)

The California Supreme Court has consistently determined that CEQA must "be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (Friends of Mammoth v Board of Supervisors (1972) 8 C.3d 247 at 256, 104 Cal. Rptr. 761, 502 P.2d 1049; see also, Bozung v Local Agency Formation Comm. (1975) 13 C.3d 263, 118 Cal. Rptr. 249, 529 P.2d 1017; and People ex rel. Younger v Local Agency Formation Commission (1978) 81 C.A. 3d 464, 146 Cal. Rptr. 400.)

It is the staff's position in this proceeding that the environmentally preferred alternative must be adopted unless there are overriding considerations involved; if such overriding considerations are found to exist, they must be fully explained in the Commission's decision.

Other parties challenge that position. For example, Deutsch states that the staff's assertions that environmental considerations have a preferred position over social, economic, and technological considerations are legally erroneous. Deutsch argues that the staff's position goes beyond the policy of equality stated in Rule 17.1(b) (2) of our Rules of Practice that "environmental costs and benefits will assume their proper and co-equal place beside the economic, social, and technological issues before the Commission."

Deutsch argues that a project can be approved if its significant adverse impacts on the environment can be mitigated or if mitigation is infeasible. Consideration of environmentally preferable alternatives is not required if either condition can be met. (Pub. Res. Code, § 21002.1(c); Laurel Hills Homeowners Ass'n. v City Council of Los Angeles (1978) 83 Cal. App. 515, 521, 147 Cal. Rptr. 842, 845 (hearing denied).)

Deutsch states that in Laurel Hills the Court of Appeal directly held that no finding was required regarding the feasibility of the alternative proposal identified in the EIR. The court explained its decision as follows:

> "As we see it, the fundamental purpose of CEQA is to prevent avoidable damage to the environment from projects. (See § 21000, subd. (g).) If this end can be accomplished essentially by the imposition of feasible mitigation measures alone, there is no need to resort to a consideration of the feasibility of environmentally superior project alternatives identified in the environmental impact report. This apparently is the reason why (aside from their joint inclusion in environmental impact reports) mitigation measures and project alternatives are always mentioned together in the alternative rather than in the conjunctive in the two sections of CEQA upon which we concentrate in this opinion. (See §§ 21002, 21002.1 subd. (a).) Otherwise, the fundamental purpose of CEQA would become the mandatory choice of the environmentally best feasible project. We believe to the contrary that under the Friends of Mammoth yardstick, which we quoted above, the appropriate public agency may approve a developer's choice of a project once its significant adverse environmental effects have been reduced to an acceptable level--that is, all avoidable significant damage to the environment has been eliminated and that which remains is otherwise acceptable. In other words, CEQA does not mandate the choice of the environmentally best feasible project if through the imposition of feasible mitigation measures alone the appropriate public agency has reduced environmental damage from a project to an acceptable level." (83 Cal. App. 3d at 521, 147 Cal. Rptr. at 845-846.) (Emphasis added.)

State CEQA Guidelines, issued by the California Resource Agency, effective August 1, 1983, provides in §§ 15092 and 15093 as follows:

15092. APPROVAL.

(a) After considering the final EIR and in conjunction with making findings under Section 15091, the lead agency may decide whether or how to approve or carry out the project.

(b) A public agency shall not decide to approve or carry out a project for which an EIR was prepared unless either:

(1) The project as approved will not have a significant effect on the environment, or

(2) The agency has:

(A) Eliminated or substantially lessened all significant effects on the environment where feasible as shown in findings under Section 15091, and

(B) Determined that any remaining significant effects on the environment found to be unavoidable under Section 15091 are acceptable due to overriding concerns as described in Section 15093.

Note: Authority cited: Sections 21083 and 21087, Public Resources Code; Reference: Sections 21002, 21002.1, 21081, and 21085, Public Resources Code; Friends of Mammoth v Board of Supervisors (1972) 8 Cal. App. 3d 247; San Francisco Ecology Center v City and County of San Francisco (1975) 48 Cal. App. 3d 584; City of Carmel-by-the-Sea v Board of Supervisors (1977) 71 Cal. App. 3d 84; Laurel Hills Homeowners Association v City Council (1978) 83 Cal. App. 3d 515.

15093. STATEMENT OF OVERRIDING CONSIDERATIONS.

(a) CEQA requires the decision-maker to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve the project. If the benefits of a proposed project outweigh the unavoidable adverse

environmental effects, the adverse environmental effects may be considered "acceptable".

(b) Where the decision of the public agency allows the occurrence of significant effects which are identified in the final EIR but are not at least substantially mitigated, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. This statement may be necessary if the agency also makes a finding under Section 15091(a)(2) or (a)(3).

(c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination.

NOTE: Authority cited: Sections 21083 and 21087, Public Resources Code; Reference: San Francisco Ecology Center v City and County of San Francisco, (1975) 48 Cal. App. 3d 584; City of Carmel-by-the-Sea v Board of Supervisors (1977) 71 Cal. App. 3d 84. Formerly Section 15089.

We conclude that we need not select the environmentally preferred alternative if we find that other overriding considerations make the selection of another option preferable from the point of view of the overall responsibility of the Commission. The project may be approved if potential impacts are mitigable. The staff recommends that all mitigation measures identified in the Final EIR be implemented. Edison asserts that all adverse biological, cultural, and geological impacts are mitigable. The effectiveness of various mitigation measures is summarized in the table at pages V-3 to V-11 of the Final EIR. None of the measures is described as ineffective except for those which are equally ineffective for all routes. Overriding considerations exist in the form of the Morongo negotiated agreement, which could remove a large segment of the environmentally preferred alternative from the possibility of

construction, and in the substantially higher cost estimates for the alternatives other than the applicant's proposed system.

15. Discussion of System Selection

In selecting a system to satisfy the project objectives, we must balance environmental considerations identified in the Final EIR with other considerations.

The Final EIR identifies the 500 kV Replacement System as the buildable environmentally preferred system. The Final EIR also indicates that the 500 kV Replacement System does not fully meet project objectives, requires about the same length of new right-of-way as the applicant's proposed system if the Morongo Negotiated route is followed, and will incur substantially more acquisition and construction costs than the applicant's proposed system. The 500 kV Replacement System also impacts land use to a greater extent than the applicant's proposed system because it would be constructed in urban areas where present or potential residential development exists.

The Final EIR points out that all of the alternate systems, including the 500 kV Replacement System, may encompass a route between Mira Loma and Serrano which would require a third 500 kV line crossing Chino Hills State Park. The Final EIR identifies the possibility that Chino Hills would require the third 500 kV line to be partially undergrounded, at an additional cost of $28.5 million.

CEQA does not require the mandatory choice of the environmentally best feasible project; the applicant's proposal can be approved once its significant adverse environmental effects have been reduced to an acceptable level by imposition of feasible mitigation measures (Laurel Hills, supra).

It is clear that other considerations make the most environmentally superior system unacceptable. To select the

environmentally superior system in face of the impediments described above would not serve the overall best interests of the community. Edison's ratepayers would be required to expend almost twice that necessary to acquire and construct the system. Additional construction would be required in the near future to achieve the secondary project needs the environmentally preferred route would not achieve. That construction would cause other environmental impacts not identified in the EIR.

On the other hand, applicant's proposed system is less costly to build; second it fully meets all project objectives. The Final EIR indicates that applicant's proposed system would have the least land use impacts. The Final EIR identifies feasible mitigation measures for most adverse environmental impacts. It also states that adverse environmental impacts which cannot be mitigated are common to all systems studied.

Therefore, we conclude that we should not adopt the environmentally preferred system. All other alternate systems fail to meet secondary project objectives. All alternate systems would incur greater acquisition and construction costs than applicant's proposed system. Therefore, we conclude that the variation of applicant's proposed system which will provide the least environmental impacts should be adopted.

16. Reopened Proceedings

As noted in Section 2, these proceedings were reopened by ruling of Commissioner Grew, see Appendix A, to take additional evidence on the relationship of the proposal in this application to Edison's long-range plans for additional power lines and on whether there is a need for a third line between Mira Loma and Serrano substations if the line west of Devers terminates at Mira Loma. Seven days of additional hearings were held on these issues; Edison presented five witnesses and the staff two, and 20 additional exhibits were received.

Evidence presented by Edison shows that it now has firm plans for a second Palo Verde-Devers line and expects completion in September 1989. However, application for a certificate for that line is contingent on approval of this application because the existing transmission system west of Devers cannot accommodate additional imported power from the east together with power from renewable and alternative resources planned for development. Staff witness Ajello concurred with Edison that the need for a second 500 kV line west of Devers hinges on the likelihood of an additional Palo Verde-Devers 500 kV line. Given these positions, the route selected for the line proposed in this application should allow room for the second parallel 500 kV line. It follows that the system proposed by applicant is the most efficient, cost effective, and least environmentally disruptive for the placement of two parallel lines. As noted by the staff witness, there is little to be gained in choosing an environmentally preferred route over the route proposed by Edison only to find that within a few years a second 500 kV line from Devers to Serrano will be needed which will essentially follow the route proposed by Edison. This is particularly true considering the significantly greater costs of all of the alternatives to Edison's proposed system.

The possible need for a second 500 kV line from Devers to Serrano, as addressed in the reopened proceedings, is therefore a material consideration in our choice of the applicant's proposed system. We caution Edison that our recognition of this possibility is in no way an endorsement of the utility's long range transmission plans. Edison produced testimony in the reopened proceedings asserting that a second Devers-Valley-Serrano line, in conjunction with a second Palo Verde-Devers line, was a likely prospect for increasing imports of economy power from

the Southwest. The staff reserved judgment on this issue, noting that there are several competing projects which could increase transfer capability to the Southwest and that the economics of a second Palo Verde-Devers line constructed without associated transmission additions in Arizona appear to be marginal. The staff recommended that any determination of need for additional transmission capacity to the Southwest should be evaluated from a statewide perspective. We concur with our staff's cautious approach to Edison's long-range transmission plans. Our choice of routes for this line has the advantage of best preserving Edison's option to build a second 500 kV line west of Devers. However, we caution Edison that this choice in no way represents a finding that a second line will be needed in the foreseeable future. That determination of need will be properly a subject of certification proceedings following any future application by Edison for a second Palo Verde-Devers line. Such an application must also discuss fully the impact of a second Palo Verde-Devers line on Edison's long-range plans for its 500 kV system, including a second Devers-Valley-Serrano line and an interconnection with San Diego Gas and Electric at Valley.

On the question of a third line from Mira Loma to Serrano if there is no direct line built between Valley and Serrano, the evidence presented by Edison supports the need for such a third line. Staff and the Coalition extensively cross-examined Edison's witnesses on this issue. The need for a third 500 kV line from Mira Loma to Serrano depends upon an evaluation of the electrical reliability of Edison's transmission system. Edison's N-2 standard for its 500 kV system within the Los Angeles Basin appears to be a conservative standard, based on the importance of these lines in bringing large amounts of bulk power into the basin. In evaluating the electrical reliability of various transmission configurations west of Devers, the critical loads occur in a 500 kV to 230 kV transformer at Mira Loma. Load flow studies performed by Edison showed N-2 overloads in this transformer for all alternative routes ending at Mira Loma, without the third line. These studies formed the basis for the recommendations of both Edison and staff that all Devers-Mira Loma alternatives required a third line from Mira Loma to Serrano. Under cross-examination, however, Edison's witness on this issue admitted that these overloads could be relieved by replacing the existing transformer with a newer model with a higher rating. The cost of this replacement ($6 million) would be substantially less than the cost of the third line (roughly $40 million), would eliminate the substantial environmental impacts of the third line, and would ensure that any route for this transmission line would not violate Edison's conservative reliability criteria. These facts call into question the need for the third line, and we will not base our choice of routes on a finding that the alternatives to Edison's proposal would require a third line. Despite the uncertainty regarding the need for the third line, our choice of the applicant's proposed system remains well-justified on other grounds, as discussed in Section 15 above.

During the reopened proceedings, several written protests to the possible Vista-Highgrove-Valley line were received and three members of the public made statements during the hearings protesting such a line.

17. The Stipulation and Agreement

On September 10, 1984 Edison and Coalition filed an agreement stipulating to a route for the proposed line that closely follows the Morongo negotiated/Edison preferred route from Devers to Valley and the environmentally preferred route from Valley to Serrano. That agreement is attached as Appendix B. The staff filed a recommendation in support of the stipulation. No other parties have responded to the stipulation.

The environmentally preferred route for Edison's proposed system was recommended over the more expensive northern alternatives which could ultimately have a greater cumulative impact. The staff has reviewed the settlement agreement between Edison and Coalition and has recommended that minor modifications be made in the routing for the environmentally preferred route to accommodate the terms of the settlement agreement. These modifications are discussed below.

Between the Devers and Valley substations the route agreed upon consists of the following links going from east to west: WWH, FPT, S18, OBS, EZA, MRN, CN2, CN4, SMK, LBC, MRD, and LVW. This is the same route initially recommended by staff as the environmentally preferred route for Edison's proposed system with the exception of one link, MRD. This link is in the area where the line passes through the Lakeview Mountains (Staff Opening Brief, p. 65; see also Ex. 93, Maps).

The Supplemental Draft Environmental Document, Ex. 92, recommended the "Quarry Deviation", consisting of links QRY and BRS,

over MRD which is commonly referred to as the "Western Corridor." This recommendation was on the grounds that the Quarry Deviation largely misses the Lakeview Mountains and thereby avoids a high fire hazard area and the visual skylining of the MRD variant. This document also stated that the Quarry Deviation would have lesser impact on species of concern. With respect to land use, the Supplemental Draft indicated that the Quarry Deviation has 36 structures within 1,500 feet and approximately 200 within 5,000 feet. The Western Corridor has 10 structures within 1,500 feet and approximately 60 within 5,000 feet. (Ex. 92, p. VI-14; Table VI-5, p. VI-24.)

The above environmental analysis is in direct contrast with the Draft Environmental Document published in August 1981 which indicated that the Western Corridor was environmentally preferred over the Quarry Deviation with respect to biological considerations, (p. IV-16), land use (p. IV-22), and aesthetics (Id. pp. IV-16, IV-22, IV-78). With respect to aesthetics, the draft stated that:

> Overall, the Quarry Deviation would have a greater visual impact than the section of the Western Corridor it deviates from due to its proximity to Nuevo and Lakeview. Where it crosses the Ramona Expressway, the corridor passes within 500 feet of a mobile home park. (Id. p. IV-78.)

In light of the above discrepancies it appears that the question of the environmentally preferred route for this segment is a close call. The staff recommends that the Commission certify MRD in accord with the expressed preference of local residents as reflected in the settlement agreement. It should also be noted Edison has already acquired virtually all of the right-of-way for link MRD at a cost of $500,000 (Ex. 106, Table 1, p. 3) while the estimated cost of acquiring the right-of-way for the Quarry Deviation is $2.5 million. (Id. Table 1, p. 4). It, therefore, appears that certification of link MRD would also result in a significant reduction in construction

costs. Also, the fact that Edison is relinquishing its right-of-way for a third and fourth line through the Lakeview Mountains mitigates problems related to fire hazards and visual impacts.

The only other deviation from the environmentally preferred route between Devers and Valley would occur along link LVW. As provided in the settlement agreement, Paragraph 1(b), the line would be moved a maximum of 1,500 feet northwest for a distance of approximately one mile to reduce the skylining effect in the vicinity of Nuevo Peak in the Lakeview Mountains. This modification is precisely the type of mitigation contemplated by the Pre-Construction Mitigation Development Program previously recommended.

Between the Valley and Serrano substations, the agreement generally follows the environmentally preferred route for Edison's proposed system as identified in Volume 1 of Supplement II, Public Draft Environmental Document. (Stipulation Paragraph 1(c).) Going from east to west this route consists of the following links: SP3, SP2, ESW, ALA, BRC, BKC, BSC, WCC and PRH.

The agreement would modify this routing by replacing links SP2 and ESW, commonly referred to as "Johnson Alternate," with links ESE and DWC commonly referred to as the "Estelle Mountain" variant. This would result in the line staying more to the east as it proceeds northwest up the Temescal Valley.

As noted in the Supplemental Draft Environmental Document, the Johnson Alternate was selected as "slightly preferable although the choice involves environmental tradeoffs." (Ex. 92, p. VI-4.) However, there appears to be a significant difference between the costs for the two routes. As indicated in the testimony of Roy Akers, Edison would have to acquire the right-of-way for links ESW and SP2. This entails approximately 31 parcels at an estimated cost of $1.3 million. By contrast, Edison already owns the right-of-way for the link ESE. The initial cost, or sunk cost, was $94,000. Even if this amount were tripled to reflect the period which this property

has been included in rate base, the cost differences are still significant. In light of the slight environmental preference of one route over the other and the significant cost differences, the Estelle Mountain variant consisting of links ESE and DWC should be certified.

The final modification in routing contemplated by the agreement is where the line leaves the Temescal Valley and enters the Cleveland National Forest. (Settlement Agreement, Paragraph 1(c)(3).) The two links in question here are ALA and BRC. (See Ex. 93.) Both the Supplemental and Final Environmental Documents recognize that the routing along these two links could be altered to eliminate some of the backtracking and thereby obtain a shorter route. (Ex. 92, p. VI-12; Ex. 143, p. I-4.) The settlement agreement simply places a limit on the extent to which link ALA can be moved south. This modification is in accord with earlier recommendations.

We will adopt the route stipulated to in Appendix B for the certificate of public convenience and necessity requested.

While we will adopt the stipulated route, we decline to adopt those portions of the stipulation providing for: (1) reimbursement of attorney and expert witness fees and associated expenses of the coalition and its attorneys, and (2) sale of portions of the "Eastern Right of Way" from Gilman Springs Road to Valley Substation (Appendix B, pp. 8-9).

With regard to attorney and witness fees, the Stipulation states:

> "3. SCE agrees to pay and reimburse all attorney and expert witness fees and associated expenses to the Coalition and its attorneys as set forth in the letter dated August 17, 1984 from Roger Beers to William T. Elston, and such payment shall be made within 30 days of the date of this agreement by delivery of a check payable to Beers and Dickson."

The transmittal document accompanying the Stipulation states that:

> "SCE agreed to reimburse the Coalition for its attorneys' fees and expert witness fees, not just to facilitate reaching an agreement and putting an end to a four-year proceeding, but SCE believes that its basis for reimbursing the coalition meets the standards for attorneys' fees set forth in the Public Utilities Commission's Rules of Practice and Procedure (Article 18.6 of Title 20 of the California Administrative Code). The parties believe that this compromise is the best way to resolve the issues between the parties." (Appendix B, p. 2.) (Emphasis added.)

Under this agreement, Edison already has paid the Coalition's attorneys the sum of $94,865.00. While Edison may believe that such reimbursement meets the Article 18.6 standards for the award of attorneys' fees, in our view its decision to reimburse the Coalition's attorneys' fees as part of a package resolution of its dispute with the Coalition was made at shareholder risk, since this Commission has made no determination that the Coalition's participation comports with the requisites of Rules 76.23 ("significant financial hardship" test) or 76.26 ("substantial contribution" test) of Article 18.6. Neither has this Commission determined that the Coalition's involvement in this proceeding "greatly assists the Commission to promote a public purpose in a matter relating to an issue by the adoption, at least in part, of the participant's position." (Rule 76.26.) (Emphasis added.) A stipulation of parties cannot bind the Commission on issues of this nature. More significantly, such a stipulation cannot commit ratepayers to make Edison whole pursuant to Rule 76.30. Edison's ratepayers will not be required to bear such costs in the absence of specific findings and conclusions by this Commission in accordance with an appropriate filing which fully meets the requisites of Article 18.6, establishing both the eligibility of the Coalition and its substantial contribution in promotion of a public purpose.

Similarly, we are concerned with SCE's agreement on the sale price of portions of the "Eastern Right of Way." In this regard, the Stipulation states:

> "2. SCE agrees to sell back those portions of the so-called "Eastern Right of Way" (which parallels the Western Right of Way) from Gilman Springs Road to Valley Substation, at the price paid for it by SCE plus 10% per year from the date of SCE's acquisition of it or current appraised value, if lower, subject to the following terms and conditions:"

Ratepayers obviously have an interest in the sale of this right of way since all or some portion of any gains realized on this sale may be allocated to them under the principles enunciated in D.82-12-21 and D.84-05-100, our decisions on PG&E's Utah coal properties. If ratepayers stand to realize a gain (or loss) for risks they may have borne, we would expect SCE to make all reasonable efforts to maximize this gain (or minimize the loss). In our view, the price arrangement made in the stipulation (i.e., the lesser of 10% per year from the date of SCE's acquisition of it or current appraised value) may not be in the best interest of ratepayers and was made at shareholder risk. In approving the stipulated route, we are in no way prejudging the ratemaking treatment to be accorded the transactions subject to these stipulated sellback provisions. That issue can only be resolved in Edison's next general rate case. To that end we will require Edison, in its next general rate proceeding to address the issue of the appropriate ratemaking treatment applicable to these transactions and to supply all information pertinent to this issue, including the following information relative to each transaction:

(1) Whether the parcels in question were in rate base, and if so, in which plant account,

(2) The price paid to original seller at the time of Edison's acquisition,

(3) The price received by Edison under the terms of the stipulated sell-back provision,

(4) Current appraised value at the time of reconveyance by Edison to the original seller.

18. Mitigation Measures

The Final EIR contains an extensive list of measures designed to mitigate the adverse environmental impacts. All of the mitigation measures should be adopted as more fully described in the EIR.

As indicated in the Final EIR, adverse environmental impacts which cannot be mitigated are common to all routes and the differences between routes following incorporation of the Morongo Negotiated Route are small. Thus, those adverse impacts which cannot be mitigated are not a large factor influencing route selection.

We have carefully considered the evidence on environmental matters contained in the Final EIR and make findings under § 21081 of the Public Resources Code. We further find that granting the application, subject to the mitigation measures contained in the EIR, will not produce an unreasonable burden on natural resources or aesthetics in the area in which the proposed facilities are to be located, public health or safety, air or water quality in the vicinity, recreational or scenic areas, historic sites or buildings, or archaeological sites.

19. Mitigation Monitoring Program

It is essential, in view of the transmission line route adopted here, that all effective mitigation steps be taken by applicant to reduce adverse environmental impacts. While effective mitigation procedures are identified in the Final EIR, their specific application depends, in part, on the final engineering of the line, including tower and access road locations. In order that the decisions on specific mitigation procedures will not be left solely to Edison's discretion, a mitigation monitoring program should be adopted along the lines of that adopted for SDG&E's Eastern Interconnection System (D.93785, issued December 1, 1981, in A.59755).

The staff, through its Executive Director, should report to the Commission within 60 days after the effective date of this order on its recommended mitigation monitoring plan and its estimated cost. The staff's plan should rely upon the expertise of other state agencies having an interest in the project and should be coordinated with USFS.

The goal of the program will be to assure that the mitigation programs outlined in the Final EIR and adopted here are fully implemented and that additional mitigation takes place consistent with the results of further studies undertaken after final engineering plans and construction methods are finalized. All costs of the mitigation monitoring program will be borne by applicant as part of the project costs.

20. Acquisition and Construction Costs

Counsel for Edison filed a statement of acquisition and construction costs for the selected route which equals that for Route A1 on Table 1 of $121,834,000. According to the record there could be a maximum cost of $165,953,000 considering confidence factors of 40% for construction and 25% for right-of-way.

Also the estimated costs do not include mitigation costs and may change when the actual configuration of the transmission line, including location of towers and access roads, is determined.

Effective monitoring of project costs so as to avoid cost overruns during construction requires that we adopt a cost monitoring procedure. Under procedures adopted for the Balsam Meadow hydroelectric project (D.83-10-031, dated October 5, 1983, in A.60175), we limited rate base treatment of the new plant facilities to an adopted cost estimate based on cost estimates in the record, adjusted for inflation and for environmental impact mitigation costs.

Edison, the proponent of the Balsam Meadow project, was permitted to seek adjustments required by unforeseen circumstances by advice letter filing accompanied by a showing of need and cost effectiveness. Similar procedures should be adopted here as the project costs are estimated to exceed $100 million exclusive of environmental impact mitigation costs.

We adopt as the project costs the $121,834,000 noted above. We will direct Edison to file a response 90 days after the effective date of this order showing:

1. Adjustments in adopted project costs because of delay in starting the project or inflation.
2. Adjustments in project costs as a result of final design criteria.
3. Additional project costs resulting from the mitigation measures adopted here.
4. Adjustments to reflect the route changes agreed to in the Stipulation.

An order approving or rejecting the supplemental cost data will be issued following assessment by our staff.

21. Crane Helicopter Construction

Our staff has raised an issue concerning helicopter construction of the Devers-Valley-Serano line, an important mitigation measure intended to reduce or eliminate the construction of new access roads. The Final EIR contains an extensive discussion of helicopter construction, including details of the different methods of helicopter construction, the types of transmission line projects that have been built with helicopters, and the economic and safety issues involved.

There are two basic methods of helicopter construction. The first, which Edison proposes to use where required, is not so much construction by helicopter as it is conventional construction with the materials, tools, cranes (motorized gin pole) and construction crew flown to the construction site in many trips using small helicopters. Edison has informed us that this method requires the clearing of a large laydown area at the site of each tower.

The second method, and one which Edison has resisted considering, involves the towers being preassembled in a construction yard into sections capable of being lifted by large crane-type helicopters and flown to the construction site where they are placed by the helicopter and bolted together by construction crews. The use of crane helicopters can minimize the land disturbance associated with transmission line construction, through the elimination of access roads and large laydown areas. Edison has objected to this method on grounds of expense, safety to construction crews, and the need to redesign its towers. The Final EIR cites improvements in the technology of crane helicopter construction which, staff argues, have obviated these concerns. The Final EIR notes that crane helicopter construction is now cost-competitive with other forms of helicopter construction, and cites a significant number of transmission line projects which have

sucessfully used crane helicopter methods. Staff urges us require Edison to solicit bids for crane helicopter construction from qualified bidders and to compare these bids with Edison's estimates for conventional methods. We are persuaded by staff's arguments that crane helicopter construction is a mature technology and has the potential to minimize the environmental impacts of transmission line construction. We will require Edison to file with its supplemental cost data for this project the results of its solicitation of bids for crane helicopter construction.

Findings of Fact

1. Edison seeks authorization to construct two 500 kV transmission lines between Devers substation and Valley substation, a distance of about 80 miles.

2. Serrano is a new 500/220 kV substation established for the termination of the Mira Loma to Serrano 500 kV transmission line which was authorized in a certificate of public convenience and necessity granted in D.82-01-50 dated January 5, 1982 in A.59983.

3. The estimated cost of the proposed project is $120,518,000 in 1984 dollars assuming use of the applicant's proposed route.

4. Edison's planned capacity additions of 6,555 MW through 1992 are compatible with the projections of the CEC which found the need for 6,551 MW of capacity additions.

5. Edison maintains an "N-2" reliability criteria for its extra high voltage (EHV) transmission system. That criteria conforms to utility industry standards and is reasonable.

6. By 1986, existing transmission line capacity west of Devers will not meet the "N-2" reliability criteria.

7. The proposed Devers-Serrano 500 kV transmission line would carry the majority of the power flowing west out of Devers, reducing the loading on the existing transmission lines below overload levels.

8. Load flow studies show that beginning in 1983 an outage of one 220/115 kV transformer at Vista will overload the other transformer beyond its continuous overload rating.

9. An additional 500 kV line would help mitigate loop flow problems encountered by WSCC.

10. The Hemet-Perris region of Edison's service territory is now served by four 115 kV lines from the Vista and Highgrove substations.

11. Peak load in this region is currently in excess of 550 MW and is expected to grow by approximately 5% per year through 1990.

12. While Edison's overall peak load growth rate is projected at less than 2% per year through 1992, this area has a growth rate more than twice that.

13. Edison's actual recorded peak load for the Hemet-Perris region in 1981 exceeded its forecasted peak load for the region in 1984.

14. Load flow studies show that beginning in 1984 two single 115 kV line outage conditions and six different double line outage conditions would cause overloads on the 115 kV lines serving the Hemet-Perris Valley area.

15. The proposed Valley 500/115 kV substation would assume service of the majority of the Vista 115 kV load and would reestablish an adequate level of reliability of service to the Hemet-Perris Valley area.

16. Serving the Hemet-Perris Valley area by augmenting the existing 115 kV transmission network will require up to four additional 115 kV lines by 1995 as well as additional substation facilities.

17. The 115 kV service augmentation will have higher line losses and cost than either 220 kV service or the proposed 500 kV service to Valley substation.

18. The 220 kV service will have slightly higher line losses than the proposed 500 kV service and would have a lower present worth cost based on the current construction schedule for the Devers to Serrano 500 kV line.

19. Edison's present transmission capacity west of Devers consists of four 220 kV transmission lines with a total reliable capacity of 743 MW.

20. Edison's peak local load at Devers will be 530 MW by 1984.

21. The addition of the SDG&E Eastern Interconnection transmission line will significantly increase the interstate transfer capability, but will not benefit Edison's purchases since virtually the entire capacity of that project is committed to SDG&E resources.

22. The addition of the Devers-Valley-Serrano line and the already certificated Mira Loma-Serrano lines will add approximately 550 MW to interstate transmission capacity.

23. The addition of the Mira Loma-Serrano lines would add only 40 MW to interstate transmission capacity.

24. Of the 550 MW increase, approximately 510 MW will result from the addition of the Devers-Valley-Serrano project.

25. Edison's firm resources scheduled to flow into Devers will require transmission capacity west of Devers by 1986 even assuming a delay in the Palo Verde nuclear generating units.

26. The development of wind generation by Edison and others selling to Edison is most likely to occur in the vicinity of the Devers substation.

27. Wind generation, geothermal generation, and solar have been encouraged by this Commission and the California Energy Commission.

28. The development of geothermal generation by Edison is most likely to occur in the Imperial Valley area of California. Most of Edison's wind and geothermal generation will be transported via collector transmission lines to the Devers substation.

29. While some high insolation solar sites are located in the general vicinity of the Devers substation, it is uncertain whether any such resources, even if developed according to Edison's estimates, will be scheduled through the Devers substation.

30. Edison's 1982 resource plan calls for development of significant wind, geothermal, and solar resources by 1991.

31. Edison consumes more oil than any other utility in the United States, using more than 60 million barrels of oil and gas equivalent in 1980.

32. Economy energy is energy which Edison is able to purchase on an as-available basis from other utilities at a delivered cost which is less than Edison's current production cost.

33. Economy energy purchases by Edison from generation facilities in Arizona, Nevada, and other southwestern states are less costly than oil generation by Edison's plants in California.

34. Edison predicts that large-scale off-peak and on-peak economy energy purchases can be made in the 1985-1990 time frame.

35. The potential savings to the ratepayers by importing larger quantities of economy energy are very significant.

36. There are a large number of baseload coal and nuclear generating plants being considered for possible construction in southwestern states between now and 1990.

37. Baseload coal and nuclear plants, if constructed, will be the principal source for Edison purchases of economy energy from southwestern states.

38. This Commission is not aware of any restrictions that exist on the sale of economy energy to Edison by utilities in southwestern states.

39. To the extent that load growth in the southwestern states is as Edison's estimates show, any of the planned generating plants which are not constructed will reduce the potential for economy energy.

40. Significant economy energy will be available to Edison in the period prior to 1990.

41. Subsequent to 1990, it is difficult to estimate availability of economy energy purchases from the southwest.

42. Edison is currently buying large quantities of economy energy.

43. Edison is currently buying its economy energy on a split-the-savings basis.

44. Nothing in the record of this case indicates how the Edison load curve compares on any quantitative basis with those of prospective sellers of economy energy to evaluate whether energy will be available when Edison could best use it.

45. A minor constraint on the effective use of economy energy by Edison will be Edison's ability to economically use the energy at the time it is available.

46. The increased transfer capability referred to in Finding 24 will enable Edison to purchase and import larger quantities of economy energy from the southwestern states.

47. Edison's incremental fuel is natural gas or oil.

48. Edison experiences little difference in energy cost between its baseload and peak load oil-fired generators.

49. Economy energy purchases would displace energy generated at Edison's gas and oil-fired plants.

50. The public safety, health, comfort, convenience, and necessity require the installation, maintenance, operation, and use of the project. The project does not compete with any person, firm, or public or private corporation in the public utilities business for furnishing or supplying electric service to the public in or adjacent to the territory in which the project will be located.

51. A comprehensive record on environmental matters was developed in this proceeding through issuance of the DEIS, SDEIS, and FES, consultation with public agencies and others, and public

hearings. All are elements in the environmental process which culminated in the issuance of the final document.

52. In addition to routes described in Edison's PEA in this application, the Final EIR studied alternative routes developed by the staff and described in the Final EIR and this opinion (Figure B and page 35).

53. Extensive undergrounding of 500 kV transmission lines is not an economically feasible alternative to overhead construction.

54. The 400 kV DC system described in the Final EIR does not meet project objectives.

55. The 500 kV Replacement System is identified as the environmentally preferred system in the Final EIR.

56. The 220 kV Reinforcement System does not meet the primary project objective of providing a transmission line with a capacity of 1,000 MW.

57. Construction of the 500 kV Replacement System, the Parallel System, or the Modified System might require the construction of a third 500 kV line through Chino Hills State Park. If this third line is required, and if a portion of any new line had to be undergrounded to meet the State Park's requirements, the estimated additional cost of undergrounding would be $28.5 million.

57a. The evidence presented in the reopened proceedings on the need for a third Mira Loma-Serrano line was inconclusive.

58. The three systems noted in the previous finding do not meet Edison's secondary objectives for the project,

(a) They do not develop presently owned 500 kV rights-of-way with room for additional 500 kV lines.

(b) They require new rights-of-way for service between Valley and Highgrove, which would require three 220 kV circuits, one single and one double.

58a. The possible need for an additional 500 kV line west of Devers is a material consideration in our choice of the applicant's proposed system.

59. Only two feasible routes have been identified through the Banning Pass, the Morongo Negotiated Route and the Morongo Bypass Route.

60. The Morongo Negotiated Route should be incorporated in any transmission line route system approved in this proceeding with the provision that the Morongo Bypass Route may be used if Edison cannot reach an agreement with the Morongos.

61. Land use and acquisition and construction costs are important elements in route selection.

62. The proposed system does not have the least adverse environmental impacts of the transmission line systems analyzed in the Final EIR (Table 3).

63. The proposed system has the shortest corridor length and the least right-of-way requiring new construction.

64. The proposed system is estimated to cost less for right-of-way acquisition and substation and transmission line construction than any alternative system. The 500 kV Replacement System is almost twice as costly as the proposed system.

65. The Final EIR identifies feasible mitigation measures for most adverse environmental impacts. It also states that adverse environmental impacts which cannot be mitigated are common to all routes.

66. CEQA does not require the mandatory choice of the environmentally superior project.

67. Applicant's proposed project can be approved once its significant adverse environmental effects have been reduced to an acceptable level by the imposition of feasible mitigation measures.

68. The buildable environmentally superior system (500 kV Replacement System) does not fully meet project objectives, because it requires substantially more new rights-of-way and higher acquisition and construction costs, and impacts land use to a greater extent than applicant's proposed system.

69. The present status of the negotiations with the Morongo Band of Mission Indians and the relative costs associated with the studied alternatives constitute overriding considerations against the selection of the environmentally preferred alternative.

70. The mitigation measures identified for the applicant's proposed system reduce its adverse impacts to an acceptable level.

71. Applicant's proposed system is the least costly to build, it fully meets all project objectives.

72. The transmission line route described in the attached stipulation, Appendix B, is a reasonable alternative and should be adopted for purposes of this proceeding.

73. The route described in Appendix B combined with the mitigation measures prescribed by the Final EIR constitute an environmentally acceptable solution to the requirements of the project.

74. The Final EIR contains an extensive list of measures designed to mitigate the adverse environmental impacts. All of the mitigation measures should be adopted as more fully described in the Final EIR.

75. Monitoring of construction costs and mitigation measures will ensure that our decision is fully implemented.

76. Crane helicopter construction is a mature and cost-competitive technology which has the potential to minimize the land disturbance associated with transmission line construction.

77. In order to provide adequate rights-of-way for the selected route and to ensure a transmission line right-of-way will be available at minimum cost to ratepayers for any additional 500 kV line, should such a line be needed in the future, the right-of-way for the selected route should be 330 feet in width.

78. We have reviewed the record, the Final EIR, and the comments filed and find that the project, subject to the mitigation measures set forth, except as otherwise discussed in this decision, will not produce an unreasonable burden on natural resources, aesthetics of the area in which the proposed facilities are to be located, public health and safety, air and water quality in the vicinity of park, recreational, and scenic areas, historic sites and buildings, or archaeological sites.

79. Those portions of the Stipulation providing for reimbursement of attorney and expert witness fees and associated expenses of the Coalition and its attorneys should not be adopted by the Commission at this time.

80. Those portions of the Stipulation providing for sale of portions of the "Eastern Right of Way" from Gilman Springs Road to Valley Substation should not be adopted.

Conclusions of Law

1. Present and future public convenience and necessity require the construction and operation of the project.

2. The Final EIR has been completed in compliance with the CEQA Guidelines and we have reviewed and considered the information contained in the Final EIR in reaching this decision.

3. The CEQA Guidelines issued by the California Resources Agency (§§ 15092 and 15093) and the CEQA permit the Commission to approve a project if significant adverse impacts on the environment can be mitigated or if mitigation is infeasible (Laurel Hills Homeowners Ass'n v City of Council of Los Angeles (1978) 83 Cal. App. 515, 521).

4. The route identified in Appendix B should be adopted after considering all environmental factors and project costs and objectives on a collective basis, and that route represents the most feasible and reasonable route.

5. The mitigation measures set forth in the Final EIR should be conditions of authorization.

6. Mitigation measures have been or will be adequately implemented by project design, proposed construction, operation methods, modifications of the project, and the required conditions.

7. Any remaining environmental impacts are outweighed by the beneficial effects of the project.

8. Under PU Code § 1001, the transmission line along the adopted routing should be authorized in the manner set forth in the following order.

9. A mitigation monitoring program and a cost monitoring procedure, as identified in the preceding opinion, should be established.

10. The Stipulation between Edison and Coalition is not binding on the Commission insofar as it relates to Article 18.6 of Title 20 of the California Administrative Code, and to the ratemaking treatment accorded the sale of portions of the "Eastern Right of Way."

11. Because Edison is in need of the transmission facilities that will be provided by the authorized system, this decision should be effective on the date signed.

O R D E R

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to Southern California Edison Company (Edison) to construct and operate a 500 kilovolt (kV) transmission line between its Devers and Valley substations, a 500 kV transmission line between its Serrano and Valley substations, and a 220 kV transmission line between its Serrano and Villa Park substations, as more specifically described in the preceding opinion.

2. Edison shall implement the mitigation measures contained in the Final Environmental Impact Report (EIR).

3. Within 60 days, the Executive Director shall prepare and present to the Commission a recommended mitigation monitoring program consistent with the discussion in this decision. The recommendation shall include an estimated cost for the program.

4. All reasonable costs related to the mitigation monitoring program shall be considered as construction expenses related to this project.

5. Edison shall file within 90 days the estimated cost of the additional mitigation measures contained in the Final EIR.

6. Edison shall file an amended project description and cost estimate for the project within 90 days. The supplemental cost data shall include the results of a solicitation of bids for crane helicopter construction from qualified bidders.

7. During construction Edison shall provide the Commission staff with a quarterly report for the project which contains:

a. A period cost report reflecting:
   (1) Monthly budgeted expenses.
   (2) Actual monthly expenses.
   (3) Budgeted total cost to date.
   (4) Actual total cost to date.
   (5) Total committed costs to date.
   (6) Total budgeted costs for the project at completion.
   (7) Forecasted total costs for the project at completion.

b. S-curve graphs showing budgeted and actual project costs by month, and year-to-date.

c. An exhibit showing the major milestones of scheduling for each major phase of the project.

d. A narrative explanation of the major accomplishments and problems occurring since the last report with special emphasis on any variance from budgeted expenses or construction schedules, and a description of Edison's progress toward the major milestones including an estimate of whether those milestones will be achieved within budgeted costs and on schedule.

8. Edison shall not apply for cost recovery of any amount above the amended cost estimate. Edison may apply for reasonable costs caused by delay in initial construction in an amount equal to the adopted cost of the project times the increase in the Producer Price Index for Industrial Commodities, subgroup 10 "Metals and Metal Products", as published by the U.S. Bureau of Labor Statistics for each month that initial construction is delayed past June 1, 1985. Edison may apply for added adjustments only with a showing of unforeseen circumstances as approved by the Commission after advice letter filing.

9. The Executive Director of the Commission shall file a Notice of Determination for the project, as set forth in Appendix C to this decision, with the Secretary of Resources.

10. In its next general rate proceeding, Edison shall address the issue of the appropriate ratemaking treatment applicable to the sale of portions of the "Eastern Right of Way" and provide all information pertinent to this issue as discussed in this decision.

11. The application is granted as set forth above.

This order is effective today.

Dated October 3, 1984, at San Francisco, California.

VICTOR CALVO
PRISCILLA C. GREW
DONALD VIAL
WILLIAM T. BAGLEY
Commissioners

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

Joseph E. Bodovitz, Executive Director

ORIGINAL

FILED
PUBLIC UTILITIES COMMISSION

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY for a certificate that the present and future public convenience and necessity require or will require construction and operation by applicant of a 500 kV transmission line between Devers and Valley Substations, a 500 kV transmission line between Serrano and Valley Substations and a 220 kV transmission line between Serrano and Villa Park Substations.	Application 59982 (Filed October 1, 1980; amended November 14, 1980 and June 12, 1981)

MAY 10 1984

SAN FRANCISCO OFFICE

ASSIGNED COMMISSIONER'S RULING

This ruling sets aside submission and reopens the record in this case for the limited purpose of taking additional evidence on two issues.

The first issue has been referred to by the parties in this case as the "third line question." Southern California Edison Company (Edison) maintains that using any of the environmentally-preferred alternatives to its proposed route for this transmission line would also require construction of a third 500 kV line (in addition to two such lines already in place) between Mira Loma and Serrano substations. The utility maintains that the third line would be needed in order to provide adequate electrical reliability.

Whether or not this third line is needed will significantly affect the costs and environmental impacts of the alternative routes in comparison with Edison's proposal. The state of the record in this case on this important issue is inadequate. Edison failed to present detailed testimony from its own engineers on the need for the third line, despite the fact that Edison itself raised the issue in its comments on the first Supplemental Draft EIR/EIS. Our staff made two efforts to evaluate the issue: first, by hiring an electrical engineering consulting firm which failed to produce a clear and thorough analysis of the need for the third line; and, second, by attempting, at the direction of the ALJ, an analysis of its own under severe time-constraints, relying on studies requested from Edison.

The Western Riverside Energy Coalition (Coalition) has cited a number of inadequacies in the evidence on the third line, and argues that, as a result, the Commission should simply exclude the third line in making our choice among the alternative routes. Clearly the third line question is an

important issue in this case, and we cannot simply ignore it, as the Coalition would have us do. However, I share the concerns of the Coalition regarding the adequacy of the evidence on this issue.

Submission of this matter is therefore set aside to take evidence on the following matters:

1) Edison shall provide load flow studies for each alternative route which represents a distinct electrical configuration of Edison's system, including sensitivity analyses for critical factors such as the amount of power imported through Devers;
2) Evaluations of the reasonableness of the input assumptions used in Edison's load flow studies;
3) Evaluations as to Edison's ability to reduce transformer and/or line loads during emergency situations by rescheduling generation or by curtailing out-of-state purchases;
4) The appropriate emergency loading rating for AA transformer banks; and
5) The extent to which the possible reduced electrical reliability of any of the alternatives could be mitigated by limiting the effective transfer capability west of Devers or by rescheduling generation;
6) Such other matters as may be reasonably related to the third line question described above.

Edison shall submit testimony on these issues, and I expect staff to review critically the utility's showing.

The second issue which requires additional consideration in this case is the relationship of this project to Edison's longer-range transmission plans. Our staff notes that internal planning documents for this project indicate that Edison is at least considering a second Devers-Palo Verde line, a second Devers-Valley-Serrano line, and an interconnection with San Diego Gas and Electric at Valley Substation. The second Devers-Palo Verde line may have a planned operating date as early as January 1, 1988.

Edison has contended that these projects are speculative at this time and should not be considered in this proceeding. I disagree; because the potential need for these projects is an important consideration in our choice

of routes for this line. My point is not that Edison should have presented a full-blown need analysis for its long-range transmission plans through Devers. What the record in this case lacks, and what I now direct Edison to provide and our staff to review critically, is an evaluation of the likelihood that a second 500 kV line will be needed west of Devers, with an indication of the time frame within which that need may develop, if at all. In addition, I am interested in the purposes that would be served by an interconnection with SDG&E at Valley. The evaluation of the second line west of Devers should be based on updated information including, but not limited to, the following:

1) the pace of development of renewable resources that may flow into Devers;
2) the status of firm and economy energy available from the Southwest;
3) the status of the nuclear units under construction at Palo Verde;
4) factors which may or may not make a second Palo Verde-Devers line preferable to other lines or routes for the 1988 Transmission Line listed in Edison's 1982 Resource Plan, and the current status of planning for this line.

In discussing this case at the May 2 meeting, several of my fellow Commissioners indicated a preference for setting a date by which time further evidence could be taken, the matter resubmitted, and a decision placed on the Commission's agenda. Accordingly, the parties in this case are directed to use their best efforts to have this matter on the Commission agenda for the first Commission meeting in September, 1984. Edison is to file testimony on these issues by June 1, 1984.

Therefore, as Assigned Commissioner, and after consultation with my fellow Commissioners at the Commission meeting on May 2, 1984, I hereby RULE that submission of Application 59982 shall be set aside for the limited purpose of taking additional evidence, as directed above.

Priscilla C. Grew

PRISCILLA C. GREW
Assigned Commissioner
for A. 59982

Dated: May 10, 1984
San Francisco, California

(END OF APPENDIX A)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the matter of the application of Southern California Edison Company for a certificate that the present and future convenience and necessity require or will require the construction and operation by applicant of a 500 kV transmission line between Devers and Valley substations, a 500 kV transmission line between Serrano and Valley substations and a 200 kV line between Serrano and Villa Park substations.	Application No. 59982

TRANSMITTAL OF STIPULATION BETWEEN
THE WESTERN RIVERSIDE COUNTY ENERGY COALITION
AND
SOUTHERN CALIFORNIA EDISON COMPANY

Attachment 1 to this transmittal is a copy of the executed Stipulation and Agreement for settlement of all differences between Southern California Edison Company (SCE) and Western Riverside County Energy Coalition (Coalition) in Application No. 59982. The parties have essentially resolved their differences by agreeing on a route for the proposed 500kV transmission line between Devers Substation, Valley Substation and Serrano Substation.

The stipulated route is shown on the diagram on attachment 2 to this transmittal, entitled Devers-Valley-Serrano 500kV T/L Proposed System Stipulated Route. The diagram is marked with the link codes of the links which are to be combined to make up the stipulated route. The link coding used on the attached diagram is consistent with the link coding used in the staff's environmental documents. The route modification described in Paragraph 1b of the stipulation lies within Link LVW.

SCE agreed to reimburse the Coalition for its attorneys' fees and expert witness fees, not just to facilitate reaching an agreement and putting an end to a four-year proceeding, but SCE believes that its basis for reimbursing the coalition meets the standards for attorneys' fees set forth in The Public Utilities Commission's Rules of Practice and Procedure (Article 18.6 of Title 20 of the California Administrative Code). The parties believe that this compromise is the best way to resolve the issues between the parties.

SCE and the Coalition jointly request the Commission to adopt the route contained in the Stipulation and Agreement between the Coalition and SCE. The parties further request that this transmittal and the attached documents be made part of the formal record in this proceeding and that the Commission make its order of certification immediately effective.

Respectfully submitted,

William T. Elston
Attorney for Applicant,
Southern California Edison Company

Roger Beers
Beers & Dickson
Attorneys for Intervenor
Western Riverside County Energy Coalition

STIPULATION AND AGREEMENT FOR SETTLEMENT OF PROCEEDINGS BEFORE THE CALIFORNIA PUBLIC UTILITIES COMMISSION ON SOUTHERN CALIFORNIA EDISON'S PROPOSED DEVERS-VALLEY-SERRANO TRANSMISSION LINE

This stipulation and agreement is entered into this 27th day of August, 1984 by and between Southern California Edison Company, a California corporation (hereinafter "SCE"), and the Western Riverside County Energy Coalition ("WRCEC").

WHEREAS, SCE has filed with the California Public Utilities Commission ("CPUC") its Application No. 59982 for a certificate that the present and future public convenience and necessity require or will require the construction of and operation by SCE of a 500 kV transmission line between Devers and Valley Substations and a 500 kV transmission line between Serrano and Valley Substations; and

WHEREAS, the WRCEC has intervened in the CPUC proceedings on the subject application and opposed the issuance of a certificate for the proposed SCE Devers-Valley-Serrano transmission line; and

WHEREAS, SCE has advised the WRCEC that it has no plan for the construction of any 500 kV transmission lines in the areas of concern to the WRCEC, beyond a maximum of two

500 kV lines that would be built within the right-of-way agreed to in paragraph 1 of this settlement agreement, as set forth below; and

WHEREAS, the WRCEC continues to oppose the construction of a second 500 kV transmission line from Devers to Valley to Serrano, but recognizes that such a second line is not the subject of Application No. 59982 and that this settlement will not foreclose the WRCEC from opposing any such second line which may be proposed by SCE hereinafter; and

WHEREAS, SCE and the WRCEC have been able to reach an agreement on the routing of SCE's proposed Devers-Valley-Serrano transmission line (which is the subject of Application No. 59982) and on various other terms and conditions herein which provide a basis for resolution of their differences in the CPUC proceeding; and

WHEREAS, the WRCEC and SCE will join in requesting that the CPUC's decision on the subject application accept the routing of the transmission line agreed upon herein; and

WHEREAS, SCE and the WRCEC have therefore waived their rights to file further briefs in the proceeding on Application No. 59982, and agree that the Final Environmental Document, dated August 1984 (EIS/EIR) on the project is adequate to cover the routing of the transmission line, as agreed to herein; and

WHEREAS, the Steering Committee of the WRCEC met on August 25, 1984 and approved this agreement by a majority vote and this agreement is therefore executed by each of such members voting in favor of the settlement;

NOW THEREFORE, SCE and the WRCEC agree as follows:

1. SCE would construct its proposed 500 kV transmission line as follows:

a. The right-of-way from Devers Substation through the San Gorgonio Pass, across the Badlands, the San Jacinto flood plain and the Lakeview Mountains into Valley Substation, would follow what is referred to in this proceeding as the Western-Morongo Negotiated Route, which is the route depicted by a red line on Map 4 of Volume 2 of Supplement II, Public Draft Environmental Document, dated November, 1983 (hereinafter referred to as the "Westerly Right-of-Way"), except as that routing is adjusted in subparagraph b, below.

b. In the vicinity of the northwest corner of Section 32, of Township 4 South, Range 2 West, the Westerly Right-of-Way would be relocated in a westerly direction to reduce the skylining effect of the proposed transmission line in that area. The adjusted right-of-way will lie within an area between (i) the existing Westerly Right-of-Way owned by SCE on the east and south and (ii) an imaginary line nominally 1500 feet northwest from and

parallel to this existing Westerly Right-of-Way. The relocation would commence to the north near the middle of Section 29 and would return to the existing Westerly Right-of-Way near the middle of Section 31 for a distance of approximately one mile, all as depicted on the map attached hereto as Exhibit 1. SCE will design and engineer the relocated line and submit such design including right of way design, to the WRCEC for its approval.

c. For the route between Valley and Serrano Substations, the parties have agreed to that route indicated to be the route preferred by the CPUC staff on Map 4 in Volume 2 of Supplement II, Public Draft Environmental Document, dated November, 1983, and shown on that map as a green line connecting Valley and Serrano Substations, subject to the following qualifications:

(1) From Valley Substation west to Section 10 of Township 5 South, Range 5 West, the green route coincides with an SCE owned 200 feet wide right-of-way and no specific relocations are required as part of this settlement agreement.

(2) SCE has entered into a contemporaneous agreement, dated August 27, 1984, with John Coudures and J.C. Associates, with the intent of dealing with their individual concerns for the transmission line location outside of this stipulation.

(3) The route is not fixed from Section 10 of Township 5 South, Range 5 West to the Cleveland National Forest but it is agreed that it will follow the green route, except as provided in this subparagraph. The parties agree that SCE shall use the right-of-way owned by it running generally north and south and parallel to the green route on the east of the Temescal Valley. Any adjustments made to the green route crossing the Temescal Valley and on the west side of the Temescal Valley for the purpose of optimizing the route shall be made in such a way that the ALA link (between the ESW and BRC links), as depicted on Quadrangle Maps Nos. 8 and 12 accompanying the Supplemental Draft Environmental Document (January 1983), shall be moved no further south than Hunt Road in Section 34, of Township 4 South, Range 6 West and no further south than Bixby Canyon in Section 4, Township 5 South, Range 6 West.

(4) SCE agrees not to acquire or use the so-called CWC link as shown on Quadrangle Maps Nos. 8, 12, and 13 accompanying the Supplemental Draft Environmental Document (January 1983).

d. SCE agrees to provide aesthetic lattice (Tetra) towers (as shown on Exhibit 2 attached hereto) in locations suitable for suspension type towers (i) in the western half of Section 29 Township 4, South Range 2 West, (ii) immediately north of Valley Substation, and (iii) where

appropriate, crossing the Temescal Valley. SCE will submit its proposal for the design and location of such aesthetic towers to the WRCEC for its approval.

e. SCE will follow its normal acquisition practices in securing the transmission rights-of-way not currently owned by SCE after the CPUC has approved the route agreed to by the parties.

2. SCE agrees to sell back those portions of the so-called "Eastern Right of Way" (which parallels the Western Right of Way) from Gilman Springs Road to Valley Substation, at the price paid for it by SCE plus 10% per year from the date of SCE's acquisition of it or current appraised value, if lower, subject to the following terms and conditions:

a. For right of way parcels where SCE owns the fee title thereto, this option may be exercised by (i) each original seller of the right of way parcel to SCE, or that seller's successor in interest, so long as such seller or successor in interest has an interest in the property adjacent to the right of way being sold back by SCE and (ii) otherwise, to the adjacent landowner.

b. For right of way parcels where SCE owns only an easement therefor, this option may be exercised only by each original seller of the right of way parcel to SCE, or that seller's successor in interest, so long as such seller or successor in interest has an interest in the property

adjacent to the right of way being sold back by SCE.

c. Such option may be exercised within one year from the date of this agreement. Any person meeting the appropriate description in subparagraph a or b who is desirous of purchasing any such right of way parcel shall give written notice of the same to SCE, and SCE shall within 15 days advise such person of its original acquisition cost and date of acquisition, and within 15 days thereafter such person may request an independent appraisal. The appraisal shall be prepared within 60 days thereafter, at SCE's expense, by an appraiser chosen by the person requesting an appraisal, subject to SCE's approval of the appraiser chosen.

3. SCE agrees to pay and reimburse all attorney and expert witness fees and associated expenses to the Coalition and its attorneys, as set forth in the letter dated August 27, 1984 from Roger Beers to William T. Elston, and such payment shall be made within 30 days of the date of this agreement by delivery of a check made payable to Beers & Dickson.

4. It is understood between the parties hereto that this agreement is binding on the Coalition per se and the individual members of its Steering Committee who are signatories hereto.

5. This stipulation and agreement shall not

foreclose, constitute a waiver of, or affect in any manner, the right of the Coalition to oppose any proposal by Edison to construct any additional transmission lines in areas of concern to the Coalition, except for the single 500 kV transmission line which is the subject of Application No. 59982. In the event Edison files any further application for additional transmission lines in this area within ten years after the date of this agreement, it will provide notice thereof to each of the members of the Coalition signing this agreement and their attorneys, Beers & Dickson. The names and addresses of such Coalition members, to which such notice should be mailed, are set forth on Exhibit 3, attached hereto.

6. The parties hereto agree and stipulate that the decision of the CPUC regarding Application No. 59982 may be made immediately effective.

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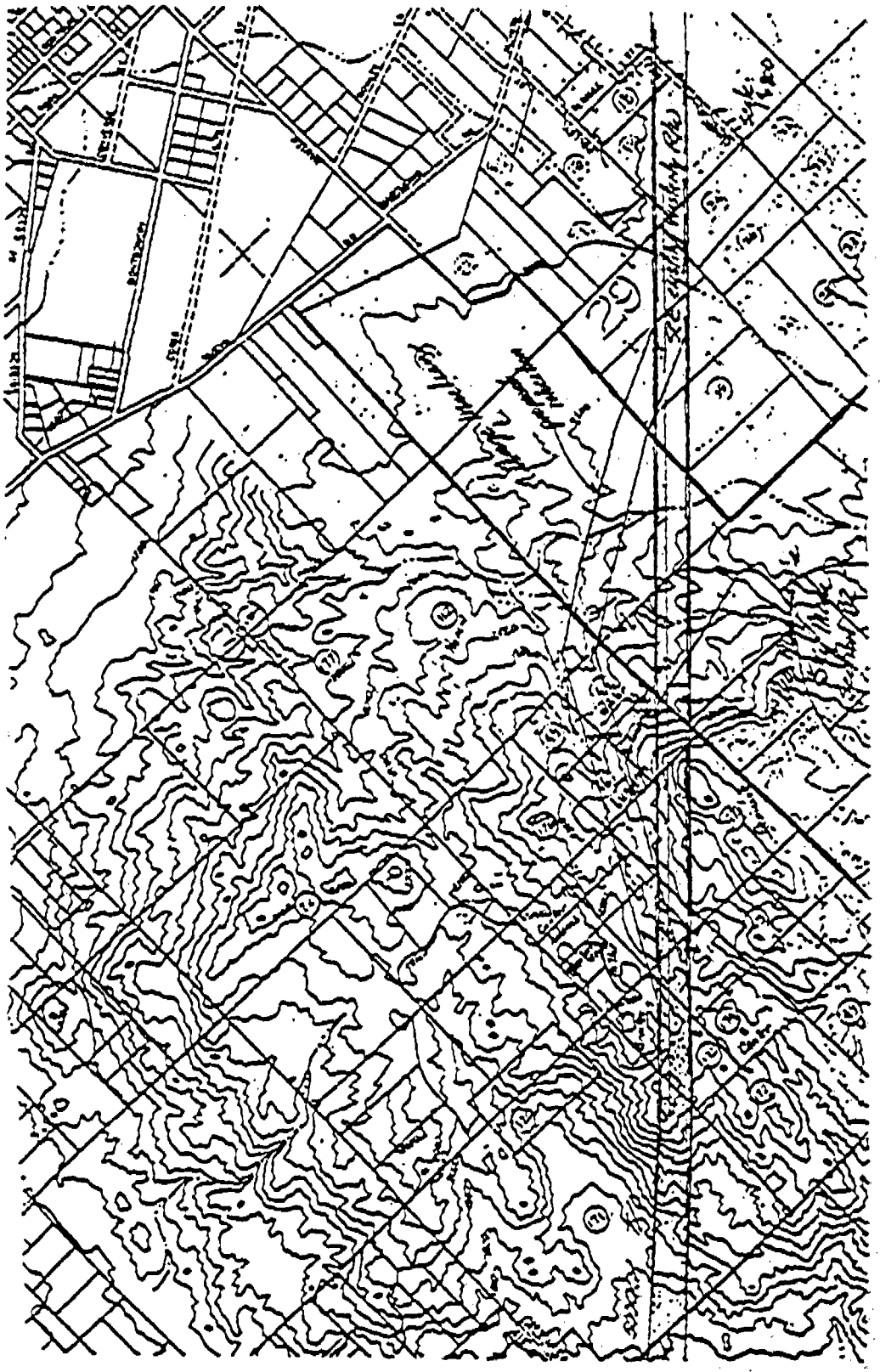

EXHIBIT 2

7. This stipulation and agreement may be executed in counterparts with the same effect as if all signatures appeared on a single copy of the stipulation and agreement.

WRCEC Steering Committee:

Southern California Edison Company

By: _____
Vice President

Approved as to form:

Roger Beers

William T. Elston

7. This stipulation and agreement may be executed in counterparts with the same effect as if all signatures appeared on a single copy of the stipulation and agreement.

WRCEC Steering Committee:

Southern California Edison Company

By: _____
Vice President

_____

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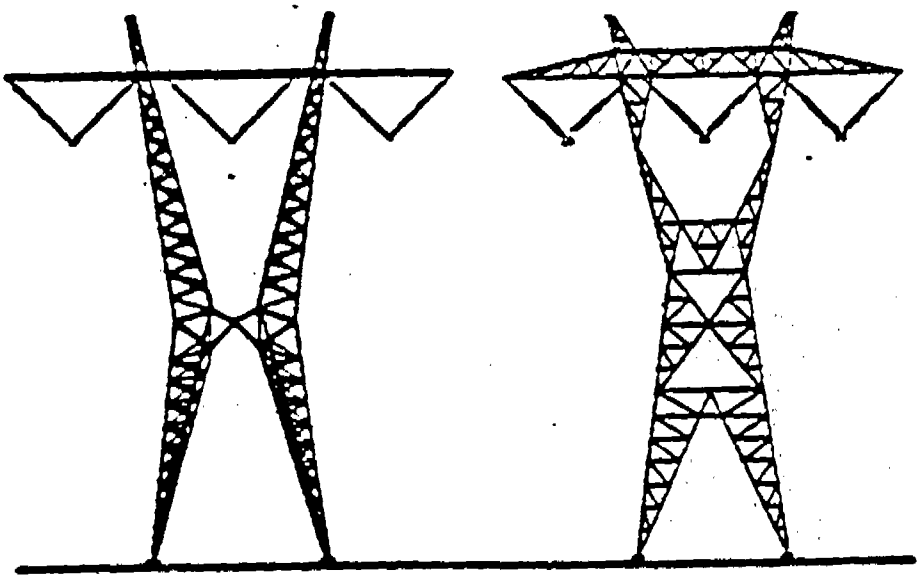
Approved as to form:

_____
Roger Peers

_____
William T. Elston



TETRA CONVENTIONAL

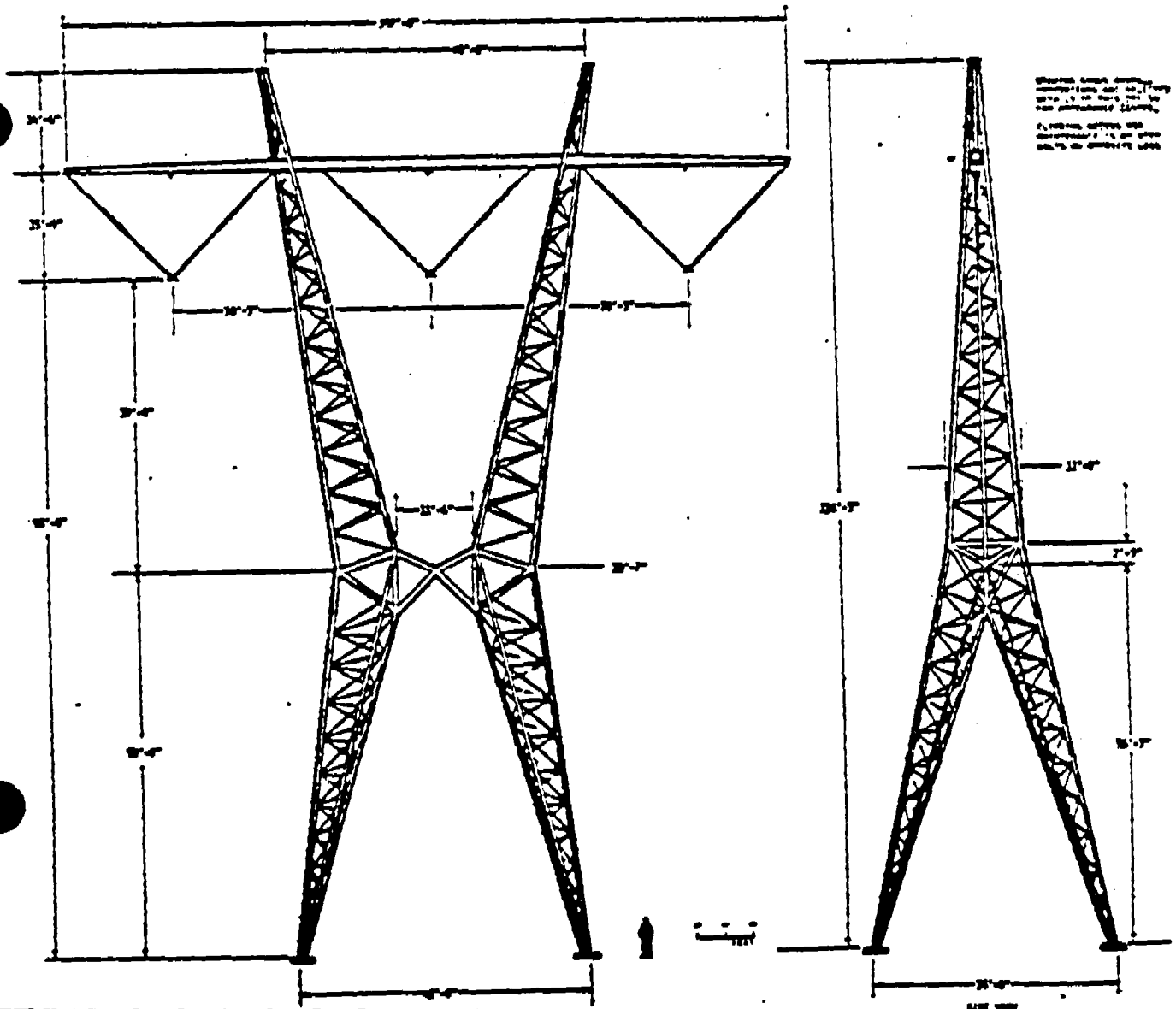


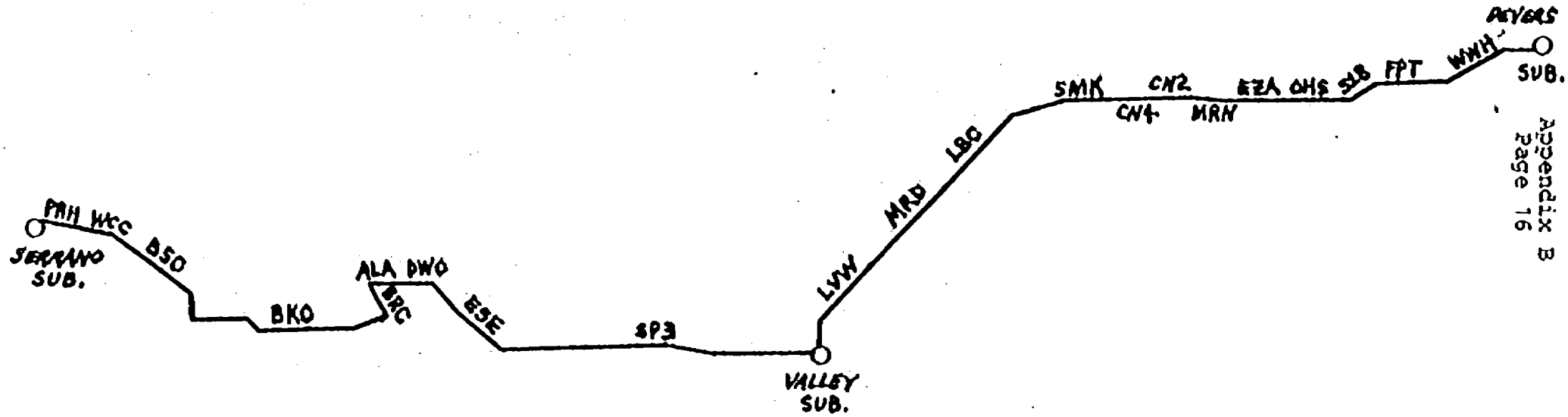
Exhibit 3

	Representing
Marion Ashley ROICO International 320 South Perris Boulevard Perris, CA 92370	Nuevo, Romoland, Sun City, Perris
Michael Baim Glen Ivy Hot Springs 25000 Glen Ivy Road Corona, CA 91720	Glen Ivy
John Coudures 320 South Perris Boulevard Perris, CA 92370	South Perris, Sun City, Quail Valley
Joe Kuebler 146 Fourth Street Perris, CA 92370	Nuevo
Del Lamb 29125 Watson Road Romoland, CA 92380	Romoland
Aaron Lipton 27081 Stark Street Sun City, CA 92381	Sun City
George MacLean Sky Mesa Ranch Estates 23875 Sky Mesa Road Homeland, CA 92348	Homeland, Nuevo, Juniper Flats
Charles Motte 320 South Perris Boulevard Perris, CA 92370	Romoland, Homeland, Sun City, Nuevo, Lakeview
Brian Moucka 28222 Stonehouse Road Lake Elsinore, CA 92330	Warm Springs Valley

DEVERS-VALLEY-SERRANO 500KV T/L

PROPOSED SYSTEM

STIPULATED ROUTE



A.59982 /ALJ/ec

Appendix B
Page 16

ATTACHMENT 2

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the original attached Transmittal of Stipulation Between The Western Riverside County Energy Coalition and Southern California Edison Company on all parties of record in this proceeding by mailing a copy thereof to each such party or to his attorney of record.

William T. Sweeney, Esq.
Union Bank Tower, Suite 1059
21515 Hawthorne Boulevard
Torrance, CA 90503

Kenneth P. Scholtz, Esq.
Quan, Cohen, Kurahashi, Hsieh & Scholtz
808 North Spring Street, 9th Floor
Los Angeles, CA 90012

Brownell Merrell, Jr., Esq.
350 Elm Avenue
Long Beach, CA 90802

Patrick Gileau, Esq.
California Public Utilities Commission
350 McAllister Street
San Francisco, CA 94102

Albert C. Porter, ALJ
California Public Utilities Commission
350 McAllister Street
San Francisco, CA 94102

Dated September 6, 1984 at Rosemead, California.

Isabel Amparan

End of Appendix B

APPENDIX C

NOTICE OF DETERMINATION

TO: Secretary for Resources
1416 Ninth Street, Room 1312
Sacramento, CA 95814

FROM: California Public Utilities Commission
350 McAllister Street
San Francisco, CA 94102

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code

Project Title
Devers-Valley-Serrano 500 kV Transmission Line

State Clearinghouse Number (If submitted to State Clearinghouse)
80120519

Contact Person: George Hersh
Telephone Number: (415) 557-3398

Project Location
Riverside-San Bernardino-Orange Counties, California

Project Description The proposed project is a single circuit 500 kV transmission line connecting Devers substation at the eastern end of the SanGorgonio Pass with Valley substation near Romoland and Serrano substation east of Villa Park

This is to advise that the California Public Utilities Commission (Lead Agency or Responsible Agency) has approved the above described project and has made the following determinations regarding the above described project:

1. The project [XX] will ☐ will not have a significant effect on the environment

2. [XX] An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.

   ☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.

   The EIR or Negative Declaration and record of project approval may be examined at 350 McAllister St., San Francisco, CA

3. Mitigation measures [X] were ☐ were not made a condition of the approval of the project.

4. A statement of Overriding Considerations [XX] was ☐ was not adopted for this project.

Date Received for Filing Dec. 1980

Executive Director, Joseph E. Bodovitz

Date

(END OF APPENDIX C)

I N D E X

79. Those portions of the Stipulation providing for reimbursement of attorney and expert witness fees and associated expenses of the Coalition and its attorneys should not be adopted by the Commission, at this time.

Conclusions of Law

1. Present and future public convenience and necessity require the construction and operation of the project.

2. The Final EIR has been completed in compliance with the CEQA Guidelines and we have reviewed and considered the information contained in the Final EIR in reaching this decision.

3. The CEQA Guidelines issued by the California Resources Agency (§§ 15092 and 15093) and the CEQA permit the Commission to approve a project if significant adverse impacts on the environment can be mitigated or if mitigation is infeasible (Laurel Hills Homeowners Ass'n v City of Council of Los Angeles (1978) 83 Cal. App. 515, 521).

4. The route identified in Appendix B should be adopted after considering all environmental factors and project costs and objectives on a collective basis, and that route represents the most feasible and reasonable route.

5. The mitigation measures set forth in the Final EIR should be conditions of authorization.

6. Mitigation measures have been or will be adequately implemented by project design, proposed construction, operation methods, modifications of the project, and the required conditions.

7. Any remaining environmental impacts are outweighed by the beneficial effects of the project.

8. Under PU Code § 1001, the transmission line along the adopted routing should be authorized in the manner set forth in the following order.

9. A mitigation monitoring program and a cost monitoring procedure, as identified in the preceding opinion, should be established.

10. The Stipulation between Edison and Coalition is not binding on the Commission insofar as it relates to Article 18.6 of Title 20 of the California Administrative Code.

11. Because Edison is in need of the transmission facilities that will be provided by the authorized system, this decision should be effective on the date signed.

O R D E R

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to Southern California Edison Company (Edison) to construct and operate a 500 kilovolt (kV) transmission line between its Devers and Valley substations, a 500 kV transmission line between its Serrano and Valley substations, and a 220 kV transmission line between its Serrano and Villa Park substations, as more specifically described in the preceding opinion.

2. Edison shall implement the mitigation measures contained in the Final Environmental Impact Report (EIR).

3. Within 60 days, the Executive Director shall prepare and present to the Commission a recommended mitigation monitoring program consistent with the discussion in this decision. The recommendation shall include an estimated cost for the program.

4. All reasonable costs related to the mitigation monitoring program shall be considered as construction expenses related to this project.

5. Edison shall file witin 90 days the estimated cost of the additional mitigation measures contained in the Final EIR.

6. Edison shall file an amended project description and cost estimate for the project within 90 days. The supplemental cost data shall include the results of a solicitation of bids for crane helicopter construction from qualified bidders.

7. During construction Edison shall provide the Commission staff with a quarterly report for the project which contains:

9. The Executive Director of the Commission shall file a Notice of Determination for the project, as set forth in Appendix C to this decision, with the Secretary of Resources.

10. In its next general rate proceeding, Edison shall address the issue of the appropriate ratemaking treatment applicable to the sale of portions of the "Eastern Right of Way" and provide all information pertinent to this issue as discussed in this decision.

This order is effective today.

Dated OCT 3 1984, at San Francisco, California.

VICTOR CALVO
PRISCILLA C. GREW
DONALD VIAL
WILLIAM T. BAGLEY
Commissioners

I N D E X

to certain of the alternate routes. The major objection to the 220 kV Reinforcement route is that it does not provide a full 1,000 MW of capacity to the Los Angeles Basin area; therefore, that route does not meet the primary project objective set out in the application. For this reason, the 220 kV Reinforcement route, although rated in Table 3 as the most environmentally preferred route, must be eliminated from further consideration.

Two alternative routes, 500 kV Replacement and Parallel Construction, do not meet the secondary objectives of the application.

1. They do not develop presently owned 500 kV rights-of-way with room for additional 500 kV lines.
2. They require new rights-of-way for service between Highgrove and Valley. Edison contends that route may need three 220 kV circuits, one single and one double.

These routes and the Modified System route require the construction of a third Mira Loma-Serrano 500 kV line according to Edison and staff. Coalition disputes the need for the third line, arguing that the evidence adduced on this issue was inconclusive. The Final EIR contains additional information on this issue which indicates that the third 500 kV line between Mira Loma and Serrano is required to maintain N-2 conditions and to prevent overloads. The need for a third line is a material consideration in determining an approved route.

14.2 Environmental Impact Analysis

The Commission is required to evaluate this application in conformance with the requirements of the CEQA and the State EIR Guidelines (Guidelines). (Cal. Pub. Res. C. §§ 21000 et seq.; Cal. Admin. C. §§ 15000 et seq.)

The significance of that requirement goes far beyond the mere preparation of an EIR as part of the regulatory steps in processing the application. It is the purpose of the EIR to identify the significant effects, identify alternatives and to indicate how

construction, and in the substantially higher cost estimates for the alternatives other than the applicant's proposed system. Therefore, we conclude that construction of the applicant's proposed system combined with implementation of all of the mitigation measures recommended in the Final EIR for that system is the only option which survives the test of the existence of overriding considerations.

15. Discussion of System Selection

In selecting a system to satisfy the project objectives, we must balance environmental considerations identified in the Final EIR with other considerations.

The Final EIR identifies the 500 kV Replacement System as the buildable environmentally preferred system. The Final EIR also indicates that the 500 kV Replacement System does not fully meet project objectives, requires substantially more new right-of-way than other routes, and will incur substantially more acquisition and construction costs than applicant's proposed system. The 500 kV Replacement System also impacts land use to a greater extent than applicant's proposed system because it would be constructed in urban areas where present or potential residential development exists.

The Final EIR points out that all of the alternate systems, including the 500 kV Replacement System, will encompass a route between Mira Loma and Serrano which will require a third 500 kV line crossing Chino Hills. The Final EIR identifies the probability that Chino Hills would require the third 500 kV line to be partially undergrounded, at an additional cost of $28.5 million.

CEQA does not require the mandatory choice of the environmentally best feasible project; the applicant's proposal can be approved once its significant adverse environmental effects have been reduced to an acceptable level by imposition of feasible mitigation measures (Laurel Hills, supra).

It is clear that other considerations make the most environmentally superior system unacceptable. To select the

environmentally superior system in face of the impediments described above would not serve the overall best interests of the community. Edison's ratepayers would be required to expend almost twice that necessary to acquire and construct the system. Additional construction would be required in the near future to achieve the secondary project needs the environmentally preferred route would not achieve. That construction would cause other environmental impacts not identified in the EIR. Approval of the environmentally superior system probably would cause delay in completion of the project while Edison and Chino Hills discuss the requirements for construction of a line through the state park, in addition to incurring substantial additional expense for undergrounding. We have expressed our concerns about cost escalations of major utility construction projects (most recently Edison's Balsam Meadow project). Because of the real possibility of accelerations of acquisition and construction costs, which ultimately will be imposed on the ratepayer, those costs should be held to a minimum.

On the other hand, applicant's proposed system is the least costly to build; it fully meets all project objectives, and much of the rights-of-way have already been acquired by Edison. The Final EIR indicates that applicant's proposed system would have the least land use impacts. The Final EIR identifies feasible mitigation measures for most adverse environmental impacts. It also states that adverse environmental impacts which cannot be mitigated are common to all systems studied.

Therefore, we conclude that we should not adopt the environmentally preferred system. All other alternate systems fail to meet secondary project objectives and require a third 500 kV route through Chino Hills. All alternate systems would incur greater acquisition and construction costs than applicant's proposed system. Therefore, we conclude that the variation of applicant's proposed system which will provide the least environmental impacts should be adopted.

16. Reopened Proceedings

As noted in Section 2., these proceedings were reopened by ruling of Commissioner Grew, see Appendix A, to take additional evidence on whether there is a need for a third line between Mira Loma and Serrano substations if the Valley-Serrano line goes through Mira Loma and on the relationship of the proposal in this application to Edison's long-range plans for additional power lines. Seven days of additional hearings were held on these issues; Edison presented five witnesses and the staff two, and 20 additional exhibits were received.

Evidence presented by Edison shows that it now has firm plans for a second Palo Verde-Devers line and expects completion in September 1989. However, application for a certificate for that line is contingent on approval of this application because the existing transmission system west of Devers cannot accommodate additional imported power from the east together with power from renewable and alternative resources planned for development. Staff witness Ajello concurred with Edison that the need for a second 500 kV line west of Devers hinges on the likelihood of an additional Palo Verde-Devers 500 kV line. Given these positions, the route selected for the line proposed in this application should allow room for the second parallel 500 kV line. It follows that the system proposed by applicant is the most efficient, cost effective, and least environmentally disruptive for the placement of two parallel lines. As noted by the staff witness, there is little to be gained in choosing an environmentally preferred route over the route proposed by Edison only to find that within a few years a second 500 kV line from Devers to Serrano will be needed which will essentially follow the route proposed by Edison. This is particularly true considering the significantly greater costs of all of the alternatives to Edison's proposed system.

On the question of a third line from Mira Loma to Serrano if there is no direct line built between Valley and Serrano, the evidence presented by Edison supports the need for such a third line.

During the reopened proceedings, several written protests to the possible Vista-Highgrove-Valley line were received and three members of the public made statements during the hearings protesting such a line.

17. The Stipulation and Agreement

On September 10, 1984 Edison and Coalition filed an agreement stipulating to a route for the proposed line that closely follows the Morongo negotiated/Edison preferred route from Devers to Valley and the environmentally preferred route from Valley to Serrano. That agreement is attached as Appendix B. The staff filed a recommendation in support of the stipulation. No other parties have responded to the stipulation.

The environmentally preferred route for Edison's proposed system was recommended over the more expensive northern alternatives which could ultimately have a greater cumulative impact. The staff has reviewed the settlement agreement between Edison and Coalition and has recommended that minor modifications be made in the routing for the environmentally preferred route to accommodate the terms of the settlement agreement. These modifications are discussed below.

Between the Devers and Valley substations the route agreed upon consists of the following links going from east to west: WWH, FPT, S18, CHS, EZA, MRN, CN2, CN4, SMK, LBC, MRD, and LVW. This is the same route initially recommended by staff as the environmentally preferred route for Edison's proposed system with the exception of one link, MRD. This link is in the area where the line passes through the Lakeview Mountains (Staff Opening Brief, p. 65; see also Ex. 93, Maps).

The Supplemental Draft Environmental Document, Ex. 92, recommended the "Quarry Deviation", consisting of links QRY and BRS,

1. Adjustments in adopted project costs because of delay in starting the project or inflation.
2. Adjustments in project costs as a result of final design criteria.
3. Additional project costs resulting from the mitigation measures adopted here.
4. Adjustments to reflect the route changes agreed to in the Stipulation.

An order approving or rejecting the supplemental cost data will be issued following assessment by our staff.

Findings of Fact

1. Edison seeks authorization to construct two 500 kV transmission lines between Devers substation and Valley substation and between Valley substation and Serrano substation, a distance of about 80 miles.

2. Serrano is a new 500/220 kV substation established for the termination of the Mira Loma to Serrano 500 kV transmission line which was authorized in a certificate of public convenience and necessity granted in D.82-01-50 dated January 5, 1982 in A.59983.

3. The estimated cost of the proposed project is $120,518,000 in 1984 dollars.

4. Edison's planned capacity additions of 6,555 MW through 1992 are compatible with the projections of the CEC which found the need for 6,551 MW of capacity additions.

5. Edison maintains an "N-2" reliability criteria for its extra high voltage (EHV) transmission system. That criteria conforms to utility industry standards and is reasonable.

6. By 1986, existing transmission line capacity west of Devers will not meet the "N-2" reliability criteria.

7. The proposed Devers-Serrano 500 kV transmission line would carry the majority of the power flowing west out of Devers, reducing the loading on the existing transmission lines below overload levels.

hearings. All are elements in the environmental process which culminated in the issuance of the final document.

52. In addition to routes described in Edison's PEA in this application, the Final EIR studied alternative routes developed by the staff and described in the Final EIR and this opinion (Figure B and page 35).

53. Extensive undergrounding of 500 kV transmission lines is not an economically feasible alternative to overhead construction.

54. The 400 kV DC system described in the Final EIR does not meet project objectives.

55. The 500 kV Replacement System is identified as the environmentally preferred system in the Final EIR.

56. The 220 kV Reinforcement System does not meet the primary project objective of providing a transmission line with a capacity of 1,000 MW.

57. Construction of the 500 kV Replacement System, the Parallel System, or the Modified System would require the construction of an additional 500 kV line through Chino Hills. The Final EIR indicates that a portion of any new line would be undergrounded to meet State Park's requirements, at an estimated cost of $28.5 million.

58. The three systems noted in the previous finding do not meet Edison's secondary objectives for the project,

(a) They do not develop presently owned 500 kV rights-of-way with room for additional 500 kV lines.

(b) They require new rights-of-way for service between Valley and Highgrove, which would require three 220 kV circuits, one single and one double.

59. Only two feasible routes have been identified through the Banning Pass, the Morongo Negotiated Route and the Morongo Bypass Route.

70. The mitigation measures identified for the applicant's proposed system reduce its adverse impacts to an acceptable level.

71. Applicant's proposed system is the least costly to build, it fully meets all project objectives, and much of the right-of-way has already been acquired by Edison.

72. The transmission line route described in the attached stipulation, Appendix B, is a reasonable alternative and should be adopted for purposes of this proceeding.

73. The route described in Appendix B combined with the mitigation measures prescribed by the Final EIR constitute an environmentally acceptable solution to the requirements of the project.

74. The Final EIR contains an extensive list of measures designed to mitigate the adverse environmental impacts. All of the mitigation measures should be adopted as more fully described in the Final EIR.

75. Monitoring of construction costs and mitigation measures will ensure that our decision is fully implemented.

76. In order to provide adequate rights-of-way for the selected route and to ensure a transmission line right-of-way will be available at minimum cost to ratepayers for any additional 500 kV line, should such a line be needed in the future, the right-of-way for the selected route should be 330 feet in width.

77. We have reviewed the record, the Final EIR, and the comments filed and find that the project, subject to the mitigation measures set forth, except as otherwise discussed in this decision, will not produce an unreasonable burden on natural resources, aesthetics of the area in which the proposed facilities are to be located, public health and safety, air and water quality in the vicinity of park, recreational, and scenic areas, historic sites and buildings, or archaeological sites.

78. Those portions of the Stipulation providing for: (1) reimbursement of attorney and expert witness fees and associated expenses of the Coalition and its attorneys, ~~and (2)~~ 79. sale of portions of the "Eastern Right of Way" from Gilman Springs Road to Valley Substation should not be adopted.

Conclusions of Law

1. Present and future public convenience and necessity require the construction and operation of the project.

2. The Final EIR has been completed in compliance with the CEQA Guidelines and we have reviewed and considered the information contained in the Final EIR in reaching this decision.

3. The CEQA Guidelines issued by the California Resources Agency (§§ 15092 and 15093) and the CEQA permit the Commission to approve a project if significant adverse impacts on the environment can be mitigated or if mitigation is infeasible (Laurel Hills Homeowners Ass'n v City of Council of Los Angeles (1978) 83 Cal. App. 515, 521).

4. The route identified in Appendix B should be adopted after considering all environmental factors and project costs and objectives on a collective basis, and that route represents the most feasible and reasonable route.

5. The mitigation measures set forth in the Final EIR should be conditions of authorization.

6. Mitigation measures have been or will be adequately implemented by project design, proposed construction, operation methods, modifications of the project, and the required conditions.

7. Any remaining environmental impacts are outweighed by the beneficial effects of the project.

8. Under PU Code § 1001, the transmission line along the adopted routing should be authorized in the manner set forth in the following order.

9. A mitigation monitoring program and a cost monitoring procedure, as identified in the preceding opinion, should be established.

10. The Stipulation between Edison and Coalition is not binding on the Commission insofar as it relates to Article 18.6 of Title 20 of the California Administrative Code, and to the ratemaking treatment accorded the sale of portions of the "Eastern Right of Way."

11. Because Edison is in need of the transmission facilities that will be provided by the authorized system, this decision should be effective on the date signed.

O R D E R

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to Southern California Edison Company (Edison) to construct and operate a 500 kilovolt (kV) transmission line between its Devers and Valley substations, a 500 kV transmission line between its Serrano and Valley substations, and a 220 kV transmission line between its Serrano and Villa Park substations, as more specifically described in the preceding opinion.

2. Edison shall implement the mitigation measures contained in the Final Environmental Impact Report (EIR).

3. Within 60 days, the Executive Director shall prepare and present to the Commission a recommended mitigation monitoring program consistent with the discussion in this decision. The recommendation shall include an estimated cost for the program.

4. All reasonable costs related to the mitigation monitoring program shall be considered as construction expenses related to this project.

5. Edison shall file within 90 days the estimated cost of the additional mitigation measures contained in the Final EIR.

6. Edison shall file an amended project description and cost estimate for the project within 90 days.

7. During construction Edison shall provide the Commission staff with a quarterly report for the project which contains: