

ORIGINAL

Decision No. 92448 DEC 2-1980

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application)
of SAN DIEGO GAS & ELECTRIC)
COMPANY for a Certificate that)
Present and Future Public)
Convenience and Necessity Require)
or Will Require the Construction)
and Operation of Segments of a)
Single Circuit 230kv Transmission)
Line from Miguel Substation to)
the International Border to)
Interconnect with the Comision)
Federal de Electricidad, Baja)
California Norte System.)

Application No. 59172
(Filed October 3, 1979)

Manning W. Puette, Attorney at Law, for San Diego Gas & Electric Company, applicant.
John W. Witt, City Attorney, by William S. Shaffran, Deputy City Attorney, for the City of San Diego; Michael Christopher Spata, Attorney at Law, for United Enterprises, Inc.; John D. Pool, for U.S. Border Patrol, Aircraft Pilot (Pilots Office); David Miller and Dennis Weinmeister, for Western Salt Company; Merserve, Mumper & Hughes, by Lawrence H. Thompson, Attorney at Law, for Moreland Investment Company; and Craig K. Beam, Attorney at Law, for Cadillac Fairview Homes West; interested parties.
Freda Abbott, Attorney at Law, and Bill Y. Lee, for the Commission staff.

O P I N I O N

By its application San Diego Gas & Electric Company (SDG&E) seeks a certificate to construct, own, and operate a single circuit 230 kV transmission line from its existing Miguel Substation to the International Border to interconnect with Comision Federal de

Electricidad, Baja California Norte System (CFE), an approximate distance of ten miles. The CFE line will continue south about three miles from the border to CFE's existing Tijuana Substation. The route for the California portion of this transmission circuit is within SDG&E's service territory and will be constructed within the right-of-way to be owned by SDG&E.

Hearing

A duly noticed prehearing conference (PHC) and two days of public hearing were held before Administrative Law Judge J. J. Doran in San Diego. The PHC was held on June 26, 1980 and the hearing on June 26 and 27, 1980. The matter was submitted as of July 25, 1980 with opportunity for the parties to file proposed findings and conclusions.

Project Description

SDG&E's manager of System Planning testified that the utility is proposing a 230 kV interconnection between its system and CFE. The project consists of a single electrical circuit. In California, the ten-mile line would require about 45 steel lattice towers and termination facilities at Miguel Substation. The line would terminate about three miles south of the International Border at CFE's Tijuana Substation. Tijuana Substation is the only substation in CFE's border area with 230 kV capability.

Project Purpose and Need

The witness stated that the primary purpose of providing the high voltage interconnection between the SDG&E and CFE systems is to better facilitate the exchange of capacity and energy between them and to improve both systems' reliability. Presently, SDG&E's system is interconnected with only Southern California Edison Company (SCE) in the northern portion of SDG&E's service area at the San Onofre switchyard. The CFE system is south of SDG&E's service area,

geographically close, but not interconnected with high-voltage lines. Joint studies were conducted and in December 1978 SDG&E and CFE concluded that a 230 kV interconnection was both technically and economically feasible.

The witness also testified that SDG&E and CFE are negotiating an Interconnection and Exchange Agreement to effect the interconnection and establish the bases for its operation to the mutual benefit of each utility. They have resolved all technical matters associated with operating the two systems on an interconnected basis. The principal issue remaining is in which country's courts disputes would be heard. He estimated the agreement would be signed by September 1980. The Interconnection and Exchange Agreement will set forth the basis for interconnecting the CFE and SDG&E electric systems and thereafter operating them in parallel. The Interconnection Agreement is similar to the California Power Pool Agreement. Four types of services and exchanges are listed under the Interconnection Agreement. These are:

1. Emergency Assistance. Each party will, to the extent practicable, supply power and energy to the other party whenever the other party has an emergency in which it is not capable of supplying all the electric demand of its system.
2. Economy Energy. The parties will sell each other interruptible economy energy when such energy is available. The provisions are expected to be similar to those of the California Power Pool wherein pricing is generally based on a "split-the-savings" concept.
3. Economy Capacity. The parties plan to coordinate utilization of their capacity resources to economically satisfy requirements for system reliability and convenience of operation.

4. Short-Term Firm Capacity. Either party will be able to purchase capacity for up to 45 days (renewable) from the other for a specified price per kilowatt (kW) day. Energy associated with the capacity will also be available at a specified percentage mark-up from an agreed upon incremental cost.

The witness further said that the reliability of both systems would be improved when interconnected, since both systems are relatively isolated. SDG&E will also gain benefits of strengthened transmission in and around the southern part of its system.

He testified that the project and agreement are consistent with SDG&E's general planning objectives listed as follows:

1. Reduce dependence on oil.
2. Diversify generation supply.
3. Minimize costs of energy.
4. Minimize risks of interruptions.
5. Minimize capital requirements.

The witness stated that about 15 million kilowatt hours (kWh) per month of energy is transmitted to SDG&E from CFE over an existing 69 kV interconnection between SDG&E's San Ysidro Substation and CFE's Frontera Substation, with the result that some load in the San Ysidro area is served by the CFE system.

Further, CFE has indicated a desire to sell more energy to SDG&E, but the 69 kV interconnection will not permit it. The existing interconnection can only be used to transfer approximately 40 megawatts (MW) of load. Further, present equipment limitations do not provide adequate control of generating units when both utilities' (CFE and SDG&E) power plants are connected through the 69 kV interconnection. So in reality, the 230 kV interconnection is not a second interconnection, but one of adequate design and capability to provide the full benefits of interconnecting the two

utility systems. Furthermore, CFE has indicated its intent to dismantle the Frontera Substation because it lies within a railroad right-of-way.

SDG&E estimated surplus energy from the CFE system for the period 1982 through 1986 to average 2,180 million kWh per year. SDG&E cannot utilize all the surplus power which would be available from CFE. However, SDG&E would be able to displace oil generation with 520 million kWh per year of energy purchases.

Project Cost

If CFE continues to provide energy at the same relative cost as energy received over the 69 kV line, the reduction of SDG&E's annual operating expenses would be \$6.7 million. This compares to an estimated project cost of \$7.9 million in 1978 dollars as follows:

<u>Item</u>	<u>Cost</u> <u>(Millions)</u>
Land	\$1.4
Line	2.3
Miguel Substation	3.1
Other	<u>.6</u>
Total	\$7.9

SDG&E estimated beginning procurement of equipment in August 1980 and placing the line in service in June 1982.

The witness anticipates that surplus energy will continue to be available after 1986.

A Commission staff electrical engineer testified in support of this project. He testified that the project would reduce flaring of geothermal steam during low load periods on the CFE system. Further, he stated that to the extent that geothermal energy comes north, less fuel oil will be burned in California.

A reduction in the use of fuel oil is consistent with our national goal of less dependence on foreign oil. Further, such

reduction should also result in increased economic benefits because of the ever-increasing cost of oil.

In Decision No. 88758 dated May 2, 1978 we ordered SDG&E to use its best efforts to obtain Mexican power by 1982 from at least one Mexican generating unit. The proposed project before us does not provide firm capacity, but it is a step toward the goal of our decision.

Environment

A comprehensive record on environmental matters was developed in this proceeding through issuance of a combined federal and state Draft Environmental Document, 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.

An electric utility in the United States proposing to build a transmission line across a United States international border must obtain a Presidential Permit authorizing the project (see Executive Orders 10485 and 12038). The Economic Regulatory Administration (ERA) of the United States Department of Energy processes and issues each Presidential Permit. In addition to this permit, SDG&E must obtain a certificate of public convenience and necessity from the California Public Utilities Commission. Regulatory decision-making at both the state and federal levels must comply with environmental review laws. This environmental impact document on the proposed project has been designed to meet the federal requirements of the National Environmental Policy Act (NEPA) as well as the state requirements of the California Environmental Quality Act (CEQA). The ERA and Commission agreed to prepare jointly a combined Environmental Document EIS/EIR (Environmental Impact Statement/Environmental Impact Report). The staff's project manager sponsored the Draft Environmental Document at the hearing.

The ERA and our staff jointly conducted an independent review of the environmental impact of the proposed project which is represented by the Final EIS/EIR.

SDG&E's environmental consultant, WESTEC Services, which prepared the Proponent's Environmental Assessment, submitted, as part of the pending application, evidence through its project manager describing its study and environmental rationale for supporting the proposed route. We have carefully considered the evidence on environmental matters contained in the Final EIS/EIR and make findings pursuant to Section 21081 of the Public Resources Code.

Alternatives to the Project

The EIS/EIR summarized alternatives to the project as follows:

"Possible alternatives to the proposed transmission line interconnection include conservation of electricity, purchase of power from other U.S. sources, additional generating capacity within the SDG&E system, and no action (denial of proposed project). The no action alternative would avoid potential project impacts to cultural resources, rare and endangered plant species, visual resources, and the creation of an aviation hazard for U.S. Border Patrol surveillance aircraft. The no action alternative would eliminate the opportunity for reducing SDG&E oil and gas consumption with economic exchanges of power.

"The conservation alternative would require implementation of conservation measures beyond those currently projected. The conservation alternative would avoid the adverse impacts of the project (explained above); however it would not allow enhancement of reliability and economic exchanges of energy.

"The alternative of purchasing power from other U.S. sources could have a wide variety of impacts depending upon how the power was generated. The purchased power alternative would also eliminate one opportunity to reduce SDG&E generation fuel.

"The additional generating capacity alternative would most likely be either geothermal development in Imperial Valley or combustion turbine generators. Potential impacts associated with geothermal development include land use for the plant, subsidence, hydrogen sulfide emissions, and impacts associated with construction of a transmission line from the power plant site. Impacts associated with a combustion turbine generator include land use for the generation plant, air pollution emissions, consumption of a nonrenewable resource, and construction of a transmission line."

Corridors

After examining the general area of south San Diego County, two corridors were identified for further study: one corridor west of Lower Otay Reservoir and another to the east. A literature review was conducted to collect all available data on the environmental resources of the area, and a comparative sensitivity analysis was undertaken to ascertain the relative strengths and disadvantages of each route. It was concluded that while both corridors possessed land use and environmental constraints, location of a corridor to the west would clearly create significantly fewer impacts.

A principal difference between an east and west route is the topography through which a transmission line would have to pass; considerably more land disturbance would be required on the east. Access roads are virtually absent on the east; on the west the land is flatter and there are some existing access roads.

The grading and vegetative clearing required for tower and road construction and clearing of right-of-way would take place

on steeper slopes on the east than on the west. Revegetation and stabilization is more difficult on steeper lands. Therefore, erosion and visual scarring would be greater on the eastern corridor.

The impact on native plant and animal life is of greater concern on the east where the land is in an almost undisturbed condition. The large natural areas, the diversity of landform, and the lack of human activity makes the mountains to the east of the reservoir of greater wildlife value. The Otay Mountain area contains the most unique chaparral association in California and over a dozen rare plants. The Jamul Mountains, although less significant than the San Ysidro Mountains, also provide significant wildlife habitat and contain rare plants. In contrast, a western corridor passes through large areas which, because of agricultural operations, are virtually devoid of wildlife. The high interest plants found to the west are present only in limited areas, and the native plant communities are not as diverse or abundant as those on the east. Therefore, the biological impact is significantly greater on the east of the reservoir.

Visual impacts occur whether a transmission line is built east or west of the reservoir. Towers and conductors to the east of the reservoir would have to cross ridgetops or mountaintops; because the facilities would be silhouetted against the sky, the visual impact would be high. Transmission lines west of the reservoir would be less visible from a distance because mountains would form a backdrop into which they would tend to blend.

The mesas and canyons south of Lower Otay Reservoir are flown daily by the U.S. Border Patrol and U.S. Customs Service. Construction of transmission lines anywhere in this area is of concern to these agencies because they often fly within 25 feet of the ground. Height constraints imposed by operations surrounding

Brown Field are the most significant constraints to a route on the west. The principal land use constraint to the east is the Bureau of Land Management's Wilderness Study Area. To the extent that transmission lines are prohibited in these areas, utilization of an eastern alignment becomes almost impossible, at least from a land use point of view. The only potential route to the east which is not Wilderness Study Area is a narrow strip between the Savage Dam and the foothills of the San Ysidro Mountains. This strip includes the Otay River and encompasses riparian vegetation, a sensitive wildlife habitat. Construction of a transmission line in this location would thus create biological impacts. In addition, because of the proximity of the reservoir and Lower Otay Camping Area, a transmission line would likely create a significant visual impact to recreationists if brought west of the wilderness areas.

Archaeological resources would also be affected by either route. Several known sites are located to the west of the reservoir and would be adversely impacted by a transmission line. While relatively little of the land east of the reservoir has been surveyed for cultural resources, its rough topography would have made it less attractive for use by native Americans. An eastern route would probably create fewer adverse impacts to cultural resources than a western alignment. The range of physical, biological, and land use issues considered during the environmental analysis process determined that resources and constraints would be impacted to a greater degree by an eastern rather than a western corridor.

The EIS/EIR summarized the alternative general or corridor routes as follows:

"SDG&E considered three possible routes in determining the most desirable location for the interconnection. The applicant's proposed route lies to the west of Lower

Otay Reservoir, between the Tijuana Substation in Mexico and the San Miguel Substation in San Diego County. These substations both presently have high voltage capability. Impacts associated with this proposed route include visual impacts to some parts of Lower Otay County Park and the Proctor Valley Road and Otay Lakes Road area. There are also potential impacts to rare and endangered plant species and cultural resources, although these appear to be avoidable impacts. The proposed route would also create an aviation hazard to U.S. Border Patrol surveillance aircraft.

"One route that was considered lies along an existing 69 kV line that extends from Miguel Substation to Frontera Substation in Mexico near the international border. This route passes through urbanized parts of Chula Vista and the City of San Diego. The Frontera Substation does not have 230 kV capability and a line would have to be extended from the Tijuana Substation across urbanized parts of Tijuana to achieve 230 kV capability.

"A second route located to the east of the Lower Otay Reservoir was also considered. The eastern route would cross land designated by The Bureau of Land Management as Wilderness Study Area. Transmission lines and other structures are prohibited in the Wilderness Study Area. In addition, a transmission line in the eastern route would have significant visual impacts on Lower Otay County Park and also create a hazard to U.S. Border Patrol surveillance aircraft."

* * *

"Construction of the transmission line in the proposed corridor, located on the west side of Lower Otay Reservoir, would have fewer adverse environmental consequences than either the corridor to the east of the reservoir or the existing route from Miguel Substation to Frontera Substation."

Proposed Route

SDG&E's proposed route extends southeasterly of the substation to Proctor Valley Road, continues southerly across Rancho Janal Road and Telegraph Canyon Road to a point just north of the grand boundary between Rancho Janal and Rancho Otay, continues again southeasterly to Salt Creek Canyon, and then shifts south to a crossing of Otay Valley west of the Lower Otay Dam. From this point to the Mexican border, it generally follows the base of the foothills where Otay Mesa meets the San Ysidro Mountains.

The proposed right-of-way is 120 feet wide. The structures proposed are steel lattice towers. A 126-to 128-foot tall tower will be constructed at dead-ends and strains. All tower placement will involve new construction, since no towers are presently located within the subject area.

Connection of the transmission line to the Miguel Substation would require installation of an additional transformer, circuit breakers, busbar, and switches. All of this equipment will be installed in unoccupied space within the Miguel Substation.

The location and number of tower sites and location of access roads will not be determined with certainty until surveying and engineering studies of the right-of-way have been completed. However, it is known that there will be approximately 45 towers. The tower sites will be located near existing access roads or in locations where access can be provided with minimal difficulty, wherever possible.

SDG&E, in its Proponent's Environmental Assessment, concludes that the construction, operation, and maintenance of the route will not produce an unreasonable burden on natural resources, aesthetics of the area in which the line will be located, public health and safety, air and water quality in the vicinity, or parks, recreational and scenic areas, or historic sites and building or archaeological sites.

Environmental Consequences

The direct effects include disturbance of approximately 15 acres of ground during the construction phase of the project. An estimated 45 towers are expected to disturb permanently a total of 1.1 acres. A maximum of five pulling and tensioning sites would disturb 3.4 acres. Five miles of access road averaging 18-foot wide would disturb 10.9 acres. An area of up to 40 acres may be temporarily disturbed by trampling and foot traffic during tower assembly. These disturbances from construction activities could potentially impact cultural resources and rare or endangered plant species. The transmission line would also result in a visual impact and an aviation hazard to the Border Patrol aircraft that survey the Otay Mesa area.

The U.S. Border Patrol uses a network of personnel and vehicular sensing devices and a variety of other sensing methods. SDG&E has been working with the Border Patrol to determine the effects of transmission lines on these devices. The jurisdiction of the Border Patrol and the configuration of the networks in relation to the proposed transmission line is such that the Customs Service surveillance is not affected by the line.

The transmission line will cross the floodplain of the Otay River; due to the width of the Otay Valley at this point, it will be necessary to locate a tower in the floodway. While storms that can result in flooding do not reach the San Diego area every year, there is a potential for flooding severe enough to cause tower washout during the operating life of the project. Tower construction at this location will incorporate design features necessary to effectively protect against washout or flood damage, and to comply with U.S. Executive Order 11988.

The location of the proposed transmission corridor could have an adverse impact on Border Patrol operations in the area.

The San Diego County-based Border Patrol makes routine low-level night flights over the area from Otay Mountain west, as well as daytime flights from the Imperial County border west to the ocean. They believe the proposed location of the transmission corridor presents a safety hazard to their flight surveillance activities. There are mitigation measures that can be taken to substantially reduce this adverse impact.

The Customs Service also has frequent flights in the area, but as these flights are conducted at higher altitudes, the proposed transmission line would have no impact on their operation in San Diego County.

The transmission line does not impact any designated local, state, or national scenic landmarks, but it will visually change the landscape that it passes over and add another manmade intrusion in the area such as roadways, Lower Otay County Park Campground, the filtration plant, and gravel quarry operation.

The project could potentially adversely affect cultural resources. There are 27 reported archaeological sites within the proposed corridor as well as a potential for ethnic, historic, and paleontological resources. Three of the archaeological sites are in the immediate vicinity of the proposed route alignment and another several archaeological sites are located near the route. Approximately 15 acres are expected to be disturbed by construction of towers, staging areas, conductor-pulling sites, and access roads. These disturbances could potentially impact archaeological, ethnic, or paleontological resources.

Impact to cultural resources can be avoided or reduced by mitigation measures. The mitigations essentially consist of conducting a 100 percent survey by a qualified archaeologist and paleontologist of all areas that will be disturbed and contacting

native Americans for determination of ethnic resources. The significance of cultural resources that cannot be avoided must be determined and acceptable recovery programs instituted.

Significant Environmental Effects

The presence of transmission lines and towers will present an additional obstacle for the U.S. Border Patrol to avoid during its low-level aerial surveillance if the project is implemented. The Border Patrol and SDG&E have reached an agreement to partially mitigate this problem. The transmission line would also impact Border Patrol electronic surveillance devices. The effects of a 230 kV transmission line on Border Patrol ground-based electronic surveillance devices can be mitigated to a level acceptable to the Border Patrol.

The issue of vernal pool habitat disturbance or destruction is currently under consideration by the county of San Diego in cooperation with the Army Corps of Engineers, the California Department of Fish and Game, and the U.S. Fish and Wildlife Service. A comprehensive plan for vernal pool preservation is under development, but in the interim the U.S. Army Corps of Engineers requires a Corps Construction permit before a project may proceed that will disturb, degrade, or eliminate vernal pool habitat. The county of San Diego has recently enacted an interim vernal pools protection ordinance. Disturbance of vernal pool habitat and rare or endangered plants can be avoided by mitigation measures.

Construction of the proposed transmission line could potentially impact cultural resources. A total of 27 archaeological sites have been located within the corridor area. Some of these sites may be eligible for the National Register of Historic Places,

while others have little cultural or scientific value. A complete survey of the line route is necessary to determine the full extent of archaeological resources and their significance and eligibility for the National Register of Historic Places.

Construction of the transmission line would introduce another manmade intrusion further altering the visual character of the landscape.

The commitment of materials would not be absolutely irreversible, since in most cases, the materials could be recycled. The land used would be relatively minor, and in most cases, it could be returned to its original condition.

X-1 Alternative Route

It is Western Salt Company's (Western Salt) view that the eastern corridor should be used. However, if that is not possible, Western Salt proposed to SDG&E and then at the hearing an alternative alignment designated X-1. Both the X-1 and proposed routes cross Western Salt's undeveloped land. Some undeveloped land is used for farming.

SDG&E stated that the X-1 route is similar to a previously identified and evaluated alternative, P-1 in the Draft EIS/EIR located east of X-1. SDG&E asserts that the environmental and economic analyses for X-1 appears to be similar to that of P-1.

In the Final EIS/EIR, the environmental analysis of the western corridor could not consider potential impacts on community planning by Cadillac Fairview Homes West because no plans have been formally submitted or approved for such development. The only potential impacts assessed are those relating to present land uses.

An analysis of the potential environmental impacts of the alternate alignment designated X-1 is presented in the Final EIS/EIR. While the X-1 alternative alignment is closer to existing

residential areas than the proposed route, it is still over one-half mile from the nearest residential area. Alternative route X-1 would be generally equivalent to the proposed route in regard to impact except as follows:

1. The X-1 alternative route would be approximately one-half mile closer to existing residential areas than would the proposed route. For this reason the X-1 route would have a slightly greater impact.
2. Alternative route X-1 poses the potential for impact to at least one extensive archaeological site. This appears to be the same site as alternative routes P-1 and R-1 would impact. The proposed route avoids this archaeological site.

While SDG&E stated it believed that the Commission should give consideration to landowners' preferences, SDG&E did not change its proposed route to the X-1 route by testimony or by amending its application to the Department of Energy or to this Commission. If the X-1 route is adopted, SDG&E will have to revise its Presidential Permit application pending before the Department of Energy because the Department of Energy acts only on specific proposals--in this case the proposed route.

The Final EIS/EIR states that the alternative routes reviewed in the environmental process have approximately equal potential for impacting cultural resources except for alternative routes P-1 and R-1. Alternative route P-1 would have a higher potential impact than R-1 because it traverses about 2,000 feet across a large archaeological site in which a tower would appear to be located. SDG&E described the X-1 route as being similar to the P-1 route. Therefore, X-1 would have a potential for environmental impact upon cultural resources higher than the proposed route.

A 100 percent archaeological survey will have to be conducted along the authorized right-of-way and additional information compiled in order to determine the eligibility of sites along the adopted route for the National Register of Historic Places. If a site is eligible for the National Register, the proponent must propose steps to avoid or mitigate adverse effects.

The cultural resources study and federal agency determination should be completed in less time in areas of lower potential for impact (proposed route) than in areas of higher potential (X-1 route). Delay in time of start and completion of the project will delay receipt of the project benefits and increase project costs.

We conclude that the 230 kV transmission line from its Miguel Substation to the International Boundary about three miles north of CFE's Tijuana Substation, as proposed by SDG&E, should be authorized subject to the mitigation measures set forth herein.

Mitigation

Very little clearing of vegetation in the right-of-way will be required for the proposed project since few trees and shrubs of any significant height occur along the alignment. Hand clearing by crews with power saws will be used where necessary to fell and limb trees to provide adequate electrical clearances.

Bulldozers will be used to clear and grade sites for access roads, towers, and work areas. This ground disturbance could result in destruction of surface resources such as rare and endangered plants, vernal pools, and archaeological, ethnic, or historic sites. The location of proposed construction sites should be carefully surveyed and marked as a first step in preventing impacts of this kind.

Certain habitats within and adjacent to the transmission line corridor support plant and animal species that are either listed as endangered by the U.S. Fish and Wildlife Service or are under

current review for possible listing in the near future. In the former category is the southern bald eagle, which winters in small numbers at Sweetwater and Lower Otay Reservoirs. Two vernal pool plant species, the Loma Alta pogogyne and the San Diego coyote thistle, are under status review and may be listed before the end of 1980. Under Section 7 of the Endangered Species Act of 1973, the ERA will initiate consultation with U.S. Fish and Wildlife Service to determine if permitting the proposed project is likely to jeopardize the continued existence of these species or result in adverse modification of their habitats.

Following such consultation, any necessary mitigation measures should be implemented to ensure compliance with the Endangered Species Act. A qualified biologist could be retained to examine any proposed construction sites for the presence of rare and endangered plants and vernal pool habitat.

A 100 percent surface reconnaissance of the right-of-way should be conducted by a qualified professional archaeologist. Any sites that are found should be recorded and their eligibility for the National Register of Historic Places determined. Significant archaeological sites (historic or prehistoric) should be avoided if at all possible or if not possible, impacts to them should be mitigated by a recovery and curation program or other mitigation procedures approved by the California State Historic Preservation Office. Native Americans knowledgeable of the project area should be contacted to determine if any ethnic resources would be impacted by the project.

The potential for increased soil erosion along access roads, at tower sites, and in other areas where surface disturbance occurs can be reduced by construction practices. Existing roads will be used wherever feasible. Road width will be kept to the

minimum required to accommodate the equipment. In the event the road grade is increased to 15 percent, the length of the road should not extend more than 500 feet. Dust control will be carried out by sprinkling with water and compaction where necessary. Roads will be designed to cross streams and washes as nearly as possible at right angles. No culverts will be used where streams are crossed at gradient and no soil will be pushed into streambeds. Ditches will be constructed where necessary to dispose of accumulated water by routing it into established stream channels or under the road by means of a culvert.

Disruption of radio and television signals can result from a gap in loose hardware. The line should be properly maintained to avoid radio and television interference.

Radio and television reception in the outer areas of San Diego is often marginal and is particularly bad in isolated valleys. For this reason many people subscribe to cable-reception services. This effectively solves interference problems with 230 kV lines. For those people not on cable service, SDG&E will review complaints on a case-by-case basis for application of a number of mitigation measures that are available.

The Border Patrol considers the proposed location of the transmission lines and towers a safety hazard to its night flights. This hazard can be mitigated by putting lights on the towers for nighttime visibility. Transmission towers and lines are also a hazard to daylight air patrolling. If such long spans are unavoidable, the lines should be clearly marked with bright orange markers to protect the pilots. Towers could also be painted white or white and red to increase their visibility. SDG&E and the Border Patrol have entered into an agreement for acceptable safety measures. Such agreement is reasonable and received herein as Exhibit 12.

The proximity of the proposed transmission crossing to the Lower Otay Reservoir Park could result in visual impact. This impact can be mitigated in some areas by planting trees to screen the view and maintain a natural park setting.

SDG&E will prepare a firefighting plan for the transmission line right-of-way in accordance with the Commission's General Order No. 95.

The transmission line will be designed to the seismic safety criteria of the Commission's General Order No. 95.

A tower was proposed to be sited in the Otay River floodplain. The federal government requires that any such tower must be protected from washout or flood damage. This could require construction of tower foundations with a greater depth and quantity of steel-reinforced concrete and heavy barricades placed around the base of the tower to ensure that heavy objects transported by flood waters do not damage tower legs. Further, a determination by the Department of Energy must be made pursuant to Executive Order 11988 prior to the authorization of construction of a tower in a floodplain. The Department of Energy has stated that it is unable to make a favorable determination. In lieu of a tower in the floodplain, the floodplain should then be spanned.

Environment - Overall

The public safety, health, comfort, convenience, and necessity require the installation, maintenance, operation, and use of the project. The project should not, on balance, have a significant detrimental effect on the environment. 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 shall be located.

We have reviewed the record, the Final EIS/EIR received herein as Exhibit 13, and the comments filed, and find that granting the application, subject to the mitigation measures contained herein, 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 parks, recreational and scenic areas, or historic sites and buildings, or archaeological sites.

Findings of Fact

1. SDG&E requests permission to construct a single-circuit 230 kV transmission line with lattice-type towers from its Miguel Substation to the International Border to interconnect with the system of CFE, a distance of approximately ten miles.

2. SDG&E is purchasing economy energy from CFE in limited quantities at the present time at prices below SDG&E's generation costs. The existing 69 kV line is limited to 40 MW capability and system limitations do not provide adequate control to permit interconnection of the two systems through this 69 kV connection. It is not expected to operate beyond 1980.

3. SDG&E's electric system is presently interconnected with only one other system, namely, the SCE system.

4. The proposed line could provide a greater level of reliability to the SDG&E system and would allow for economy exchanges of energy between SDG&E and CFE.

5. Estimated cost of the SDG&E interconnection to the International Border, including transmission line and substation facilities, and including interest on construction funds through 1982 is \$7.9 million.

6. With construction of the interconnection SDG&E could purchase approximately 25 percent or 520 million kWh per year of the surplus energy available from CFE.

7. Annual purchase of 520 million kWh by SDG&E would reduce its dependence on oil by approximately 900,000 barrels each year, would reduce its operating expenses approximately \$6.7 million annually, and would save SDG&E's customers approximately \$5 million annually including capital recovery for the interconnection.

8. Based on an annual purchase of 520 million kWh, SDG&E would be able to recover the capital cost of this project in less than two years.

9. A proposed Interconnection and Exchange Agreement between SDG&E and CFE is proceeding toward execution; it must be completed to enable interconnection and exchange of energy.

10. The proposed agreement provides for emergency assistance, economy energy, economy capacity, and short-term firm capacity.

11. The Final EIS/EIR identified two corridors, an eastern and a western corridor.

12. SDG&E's proposed route in the western corridor was fully discussed in the Final EIS/EIR.

13. Several alternative routes or route segments within the western corridor were identified in the Final EIS/EIR. In addition, another alternative route segment, designated X-1, was proposed by Western Salt at the hearing on June 27, 1980.

14. Alternative route X-1, proposed by Western Salt, is economically equivalent to the route segment originally proposed by SDG&E. In addition, it is environmentally equivalent to another route segment, P-1, which was identified as an alternative route in the EIS/EIR. Alternative route X-1 is an acceptable route segment to SDG&E.

15. Alternative route X-1 traverses about 2,000 feet across a large archaeological site and has a higher potential for

environmental impact upon cultural resources than the proposed route. It would also be one-half mile closer to existing residential areas than the proposed route.

16. Based on the analyses in the Final EIS/EIR, the proposed route is the environmentally preferred route. This route is economically feasible and is adopted.

17. Flexibility in determining the precise alignment along the adopted route is necessary for the purpose of final design considerations and mitigation of any adverse environmental impacts. A variation of 250 feet from the center line of adopted route is reasonable and is adopted.

18. Most of the land which the proposed project will traverse is being used for agricultural purposes. The placement of towers and access roads to the towers and pulling sites will have a minimal impact affecting only a maximum of five acres during construction and 0.4 acres during operation.

19. There are 27 reported archaeological sites throughout the area, some of which may be affected. Historic, ethnic, and paleontological resources may also be found in the area and affected.

20. Approximately 25 acres of vegetation are expected to be affected by construction. There are rare and endangered plant species associated with three vernal pools found in the area which will not be affected by the project. Impact on other plant species being considered by the U.S. Fish and Wildlife Service for possible endangered status should be minimal.

21. Impacts to wildlife could occur in the event that migratory birds were to fly into the transmission lines across canyon and waterway flyways.

22. The towers and transmission line could be a hazard to crop dusters and to Border Patrol aircraft which routinely fly the area north of the International Border.

23. The presence of towers and transmission lines will have a visual impact on the users of Procter Valley and Otay Lake Roads and Lower Otay Reservoir Park. Construction of access roads will cause a visual impact.

24. Electromagnetic consequences which could affect the San Diego Aqueduct can be caused by paralleling the transmission line for long distances. Induced voltages on the reinforcing within the concrete pipes and on the natural gas pipeline may cause corrosion. Any other effects of electrical phenomena upon the environment should be minimal.

25. The Department of Energy is unable to make a favorable determination authorizing the construction of a tower in the Otay Valley floodplain. Therefore, a tower may not be located in the floodplain, but the floodplain may be spanned.

26. SDG&E and the U.S. Border Patrol entered into an agreement as to the safety measures required to satisfy the U.S. Border Patrol. Such agreement is reasonable and adopted.

27. Mitigation measures required to minimize the project impacts as contained in the Final EIS/EIR and in this opinion are reasonable and adopted.

28. The project will provide access to more desirable and less expensive sources of power and reduce the quantity of oil consumed by SDG&E.

29. The proposed project is essential to meet the future public convenience and necessity.

30. There are no feasible alternatives to the project.

31. The proposed project could have a significant effect upon the environment; however, such effect is far outweighed by the beneficial effects of the project.

Conclusions of Law

1. The Commission certifies that the Final EIS/EIR has been completed in compliance with the CEQA and the Guidelines. We have reviewed and considered the information contained in the EIS/EIR in reaching this decision. The Notice of Determination for the project is attached as Appendix A to this decision.

2. Potential environmental impacts have been or will be adequately mitigated by project design, proposed construction and operation methods, modifications of the project during this proceeding, and by conditions imposed in the EIS/EIR and this opinion.

3. The mitigation measures contained in the EIS/EIR and in this opinion should be a requirement of our authorization.

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

5. The Interconnection and Exchange Agreement between SDG&E and CFE should be filed with us before actual construction of the project.

6. The action taken herein should not be considered as indicative of amounts to be included in future proceedings for the purpose of determining just and reasonable rates.

7. Pursuant to Section 1001 of the Public Utilities Code, the 230 kV transmission line between SDG&E's Miguel Substation and the International Border to interconnect with CFE along the proposed route should be authorized in the manner set forth in the following order.

O R D E R

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to San Diego Gas & Electric Company (SDG&E) to construct and operate a 230 kV transmission line between Miguel Substation and the International Border to interconnect with Comision Federal de Electricidad (CFE) along the adopted route (proposed route) in this proceeding subject to the mitigation measures recommended in the Final Environmental Impact Statement/Environmental Impact Report and in this opinion.
2. A variation of 250 feet from the center line of the adopted route is authorized for the final alignment.
3. SDG&E shall file with this Commission a detailed statement of the capital cost of the transmission line project within one year following the date it is placed in commercial operation.
4. SDG&E shall file the Interconnection and Exchange Agreement between SDG&E and CFE before actual construction of the project.
5. The authorization granted in this decision shall expire if not exercised within two years from the date hereof.

NOTICE OF DETERMINATION

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

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

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

Project Title

Mexican Interconnection Transmission Line Project

State Clearinghouse Number (If submitted to State Clearinghouse)

SCH 79051403

Contact Person

Bill Yuen Lee

Telephone Number

(415) 557-1748

Project Location

San Diego County - Miguel Substation to International Border

Project Description

230 kV International Transmission Line, San Diego County, California to
Tijuana, Mexico - San Diego Gas & Electric Company

This is to advise that the California Public Utilities Commission
as lead agency has made the following determination regarding the
above described project:

1. The project has been approved by the Lead Agency.
 disapproved
2. The project will have a significant effect on the environ-
ment.
 will not
3. An Environmental Impact Report was prepared for this project
pursuant to the provisions of CEQA.
 A Negative Declaration was prepared for this project pursu-
ant to the provisions of CEQA. A copy of the Negative
Declaration is attached.

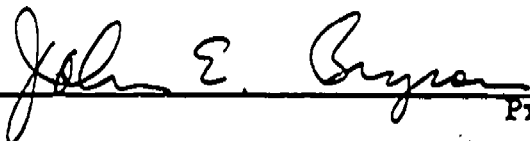
Date Received for Filing

Executive DirectorDate

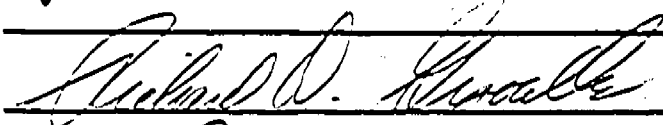
6. The Executive Director of the Commission shall file a Notice of Determination for the project as set forth in Appendix A to this decision with the Secretary of Resources.

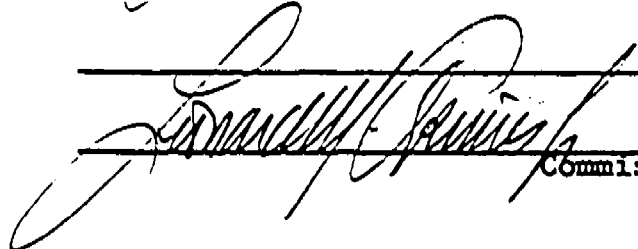
The effective date of this order shall be thirty days after the date hereof.

Dated DEC 2 - 1980, at San Francisco, California.



President





Commissioners

Commissioner Vernon L. Sturgeon, being necessarily absent, did not participate in the disposition of this proceeding.

Commissioner Claire T. Dedrick, being necessarily absent, did not participate in the disposition of this proceeding.