3.17 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

The following section identifies the socioeconomic characteristics surrounding the project area and the minority and low-income communities that may be affected by the proposed project and alternatives. The Environmental Protection Agency (EPA) Office of Environmental Justice defines environmental justice as:

> *"The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operation or the execution of federal, state, local, and tribal programs and policies."*

Concern that minority and low-income populations might be bearing a disproportionate share of adverse health and environmental impacts led President Clinton to issue an Executive Order (EO) in 1994 to address these issues. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs Federal agencies to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. Impacts on minority or low-income populations that could result from the project were analyzed for the geographic area in which the project would be located to determine if there would be a disproportionately high and adverse impact on minority or low-income populations.

The EPA identifies "three vantage points" from which to approach an environmental justice analysis: "(1) whether there exists a potential for disproportionate risk; (2) whether communities have been sufficiently involved in the decision making process; and (3) whether communities currently suffer, or have historically suffered, from environmental and health risks or hazards."

3.17.1 Affected Environment/Environmental Setting

The community of Boulevard is economically supported by local educational facilities, law enforcement and border security agencies, local tribal gaming, entertainment, and livestock and produce businesses. The reliance on limited groundwater resources, lack of extensive infrastructure, and the distance to a sizable urban area limits the economic potential of the area from major industrial activities and residential growth.

Demographics and Housing

The following information provided in this section was gathered from the most recent estimates from the San Diego Association of Governments (SANDAG). Current demographic data is provided from the Year 2000 U.S. Census and the 2005 American Community Survey (based on 2000 Census data). SANDAG data was gathered for the most current 2009 estimates based on projected growth forecasts in 2008. SANDAG provides demographic information on their website broken down by unincorporated County Community Planning Areas (CPAs). The information provided in this section was gathered for the County of San Diego Mountain Empire Community Plan (MECP) Area.

Table 3.17-1 describes the households by income category within the MECP area of unincorporated San Diego County.

Table 3.17-1. Household Income (2008)

Household Income	Number of Households	Percent (%) of Total
Less than $15,000	403	17%
$15,000 - $29,999	350	15%
$30,000 - $44,999	438	19%
$45,000 - $59,999	412	17%
$60,000 - $74,999	288	12%
$75,000 - $99,999	195	8%
$100,000 - $124,999	91	4%
$125,000 - $149,999	66	3%
$150,000 - $199,000	50	2%
$200,000 or more	8	0%

Source: SANDAG, Current Estimates (2009) Households by Income Category (1999 dollars, adjusted for inflation)

Table 3.17-2 describes the median household income for the MECP area of unincorporated San Diego County.

Table 3.17-2. Median Household Income (2008)

Median Household Income	April 1, 2000	Jan 1, 2008	2000 to 2008 Change	
			Numeric	Percent
Adjusted for inflation (1999 $)	$35,347	$43,613	8,266	23.4%
Not adjusted for inflation (current $)	$35,347	61,157	25,810	73.0%

Source: SANDAG, Current Estimates (2009)

Table 3.17-3 indicates that almost half of the population (43%) within the MECP area is Hispanic, and **Table 3.17-4** identifies that 20 percent (1,207 people) of the area population are living below the poverty status level as determined by the U.S. census.

Table 3.17-3. Population by Race (2009)

Total Population		Hispanic		Non-Hispanic									
				White		Black		American Indian		Asian and Pacific Isl.		Other	
Num.	%	Num.	%	Num.	%	Num.	%	Num.	%	Num.	%	Num.	%
6,134	100%	2,642	43%	2,450	40%	362	6%	375	6.1%	39	0.6%	266	4.3%

Source: SANDAG, Current Estimates (2009)

Table 3.17-4. Poverty Status

Population	Total	Percent (%) of Total
Above Poverty	4,791	80%
Below Poverty	1,207	20%
Total	5,998	100%

(Population for whom poverty status is determined).
Source: SANDAG, constructed from U.S Census SF 1 and 3, Table P87

Property Values

Negative effects of wind facilities on property values are a common concern raised by area residents. HDR recently reviewed readily available studies regarding United States land-based wind farms and their effects on property values. There are several studies completed by Ben Hoen and Dr. Ryan Wiser that are commonly referenced in relation to wind farms and property values. They can largely be grouped into two categories, survey based studies and transaction based studies (Hoen 2006). Recent work completed by Hoen (2006) and Hoen & Wiser (2009) use hedonic regression analysis (which attempts to estimate the impact of environmental disamenities on real estate prices) to support a more comprehensive analysis of wind farm effects on property values. A summary of the results of the survey based, transaction based, and hedonic pricing studies are included below.

Survey Based Study

Survey based studies utilize interviews with "experts" to ascertain effects. According to Mr. Hoen, "The survey studies do not give a clear indication as to whether there is an actual decrease in value . . . The results of these studies reinforce the need for more research . . ." (Hoen 2006).

One survey based study was identified for this summary. ECONorthwest conducted a study to better understand the potential economic impact of wind power development in Kittitas County, Oregon (Grover 2002). One facet of this study used tax assessor interviews and a literature review to determine the potential effects of wind farms on property values. Their nation-wide survey of tax assessors in areas with wind power projects (which included 22 wind projects in 13 different counties throughout the country) found no evidence supporting the claim that views of wind farms decrease property values. The study surmised that one of the likely reasons that wind turbines do not diminish property values is that not all people agree that views of wind turbines are undesirable (Grover 2002). As reported in interviews of tax assessors, some residents find views of wind turbines attractive.

Transaction Based Studies

Transaction based studies gather data on property values and compare sales prices of homes in a given area. These studies typically fall short by not identifying whether the wind farms are actually the cause for property values effects (Hoen 2006). HDR recently identified the following transaction based studies in the United States, and are provided as follows:

Renewable Energy Policy Project Study

This 2003 study of post-1998 wind farms in the U.S. examined data on property sales in the vicinity of wind projects and determined whether the presence of a wind project had an influence on property values

for properties that were sold. It also attempted to address the extent to which wind projects have an influence on property values. The results of the study indicated there is no empirical support for the claim that wind development harms property values (Sterzinger 2003). The study indicated that for the great majority of wind projects, the property values actually rose more quickly in the view shed than they did in the comparable community. Moreover, values increased faster in the view shed after the projects became operational than they did before. Finally, after projects were operational, values increased faster in the view shed than they did in the comparable community.

Due to the broad scope of this study, the analysis did not take into account whether the individual properties had a direct view of the wind developments or the distance to the turbines. Subsequent studies have addressed this issue.

Energy Center of Wisconsin

The 2004 collaborative study by the Energy Center of Wisconsin (ECW) examined wind turbine impacts on local property values. The study attempted to address the shortcomings of the Renewable Energy Policy Project (REPP) report. In particular they included viewshed ground truthing of the data and distance effects in their analysis. This study came to no definitive conclusions of the effects of wind energy on property values, largely due to the fact that the sample size was small due to the relative rural nature of the surrounding environment. As a result, there were less than one in three transactions in the sample that involved properties within the view shed of the development (ECW 2004). The conclusions of the study outlined key elements to property value studies in relation to wind farms.

Poletti and Associates Study

Poletti and Associates (2005) conducted a study of the Forward Wind Energy Center in Wisconsin using on-site evaluation and property transactions near operating wind farms in Wisconsin and Illinois. According to this study, the selling prices of small residential or agricultural property near the operating wind farms in Wisconsin and Illinois were not significantly different from the selling prices of similar properties located in control areas some distance from these farms. Results were less conclusive at predicting the effects of the wind farm on improved residential property values at the Illinois site. However, the authors still concluded that, based on the sales of agricultural land, small residential tracts as well as anecdotal data, the Illinois wind farm has not affected prices or development in the project area.

Hedonic Pricing Model

Hoen (2006) proposed the use of hedonic pricing models as a way to isolate the characteristics of properties that are affecting price. Hoen (2006) contends that this approach in assessing the link between property values and wind farms improves on previous studies that generally lack rigor and include insufficient detail to capture the complex relationships between wind farms and home transaction prices.

Madison County, New York Study

Mr. Hoen of the Bard Center for Environmental Policy conducted a study of impacts of wind turbine visibility on property values in Madison County, New York. The study provides an overview of previous studies that had been conducted and uses the Madison County wind farm for an analysis of potential effects. The study found no statistically significant relationship between the sale price of homes and their proximity or visibility to the wind farm. They caution the use of the results of the study, in particular the transferability of the results would be limited to a community that is similar to the Fenner rural farming

community evaluated in the study. However, he argues that the research done in this study does provide evidence that the presence of a wind farm does not devalue property.

The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis

The Lawrence Berkeley National Laboratory (LBNL) recently issued a report entitled "The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis," written by Ben Hoen and Ryan Wiser, et al. (2009). This study used hedonic pricing models to examine the impact of large wind facilities on residential property values longitudinally (e.g., before wind projects were announced and developed, and up to four years after the project was operational) using residential property transaction data. This study evaluated data from ten communities surrounding 24 existing wind power facilities spread across multiple parts of the U.S. (e.g., nine states). Homes included in this sample were located from 800 feet to over 5 miles from the nearest wind energy facility. These areas include approximately 8,500 property transactions. Recognizing that home purchases are made on a variety of influencing factors, this study reviewed three non-mutually exclusive residential property purchasing stigmas with the potential to affect property values:

- *Area Stigma:* A concern that the general area surrounding a wind energy facility will appear more developed, which may adversely affect home values in the local community regardless of whether any individual home has a view of the wind turbines;
- *Scenic Vista Stigma:* A concern that a home may be devalued because of the view of a wind energy facility, and the potential impact of that view on an otherwise scenic vista; and
- *Nuisance Stigma:* A concern that factors that may occur in close proximity to wind turbines, such as sound and shadow flicker, will have a unique adverse influence on home values.

While the research results are identified as being preliminary results, and the authors indicate that more research is necessary before firm conclusions can be made, the following conclusions have been surmised from the analysis:

- Regarding area stigma, no statistical evidence was found to suggest that homes near wind facilities are measurably stigmatized by the construction and operation of wind facilities as compared to other homes in the same region that are not located in proximity to the wind facilities;
- Regarding scenic vista stigma, there is little consistent or statistically significant evidence that homes with a view of wind turbines have different values than homes without such views;
- Regarding nuisance effects, there is not statistically significant evidence that homes within one-quarter, one-half, and 1-mile of wind turbines sell for different values than those further away.

The primary finding of this study was that there is insufficient evidence to suggest that home values near wind developments are "consistently, measurably, and significantly affected by either the view of wind facilities or the distance of the home to those facilities" (Hoen et al. 2009). Hoen and Wiser concluded that although one cannot rule out isolated cases where property values are negatively impacted, any such impacts within their sample were not widespread nor statistically identifiable. "Although the analysis cannot dismiss the possibility that individual or small numbers of homes have been or could be negatively impacted, if these impacts do exist, they are either too small and/or too infrequent to result in any widespread and consistent statistically observable impact" (Hoen et al. 2009).

3.17.2 Regulatory Setting

Executive Order 12898

The Council on Environmental Quality (CEQ) has oversight of the Federal government's compliance with Executive Order 12898 and the National Environmental Policy Act (NEPA). CEQ, in consultation with EPA and other affected agencies, has developed this guidance to further assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs Federal agencies to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations, low-income populations, and Indian tribes.

A description of the geographic distribution of low-income and minority population groups was based on demographic data from the 2000 Census (U.S. Bureau of the Census 2001). The following definitions of individuals were used to define low-income and minority populations:

- *Minority.* Persons are included in the minority category if they classify themselves as belonging to any of the following racial groups: Hispanic, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander.

  Beginning with the 2000 Census, where appropriate, the Census form allows individuals to designate multiple population group categories to reflect their ethnic or racial origin. In addition, persons who classify themselves as being of multiple racial origins may choose up to six racial groups as the basis of their racial origins. The term minority includes all persons, including those classifying themselves in multiple racial categories, except those who classify themselves as not of Hispanic origin and as White or "Other Race" (U.S. Bureau of the Census 2001).

  A minority population exists where the percentage of minority persons for any given geographic unit, a state, for example, is more than 20 percentage points higher than the percentage of minority persons for the reference geographic unit, the 11-state region, for example. A minority population also exists in any geographic unit where the number of minority persons exceeds 50 percent of the total population.

- *Low-Income.* Low-income individuals are defined as individuals who fall below the poverty line. The poverty line takes into account family size and age of individuals in the family. In 1999, for example, the poverty line for a family of five with three children below the age of 18 was $19,882. For any given family below the poverty line, all family members are considered as being below the poverty line for the purposes of analysis (U.S. Bureau of the Census 2001).

  A low-income population exists where the percentage of low-income persons for any given geographic unit, a state, for example, is more than 20 percentage points higher than the percentage of low-income persons for the reference geographic unit, the 11-state region, for example. A low-income population also exists in any geographic unit where the number of low-income persons exceeds 50 percent of the total population.

3.17.3 Environmental Consequences/Impact Analysis

National Environmental Policy Act Criteria

According to NEPA, an Environmental Impact Statement (EIS) must evaluate social and economic effects of a project if they are related to effects on the natural or physical environments, although social and economic effects alone should not trigger the preparation of an EIS (40 CFR 1508.8, 1508.14). NEPA provides no specific thresholds of significance for socioeconomic impact assessment. Baseline conditions were evaluated based on their potential to be affected by construction activities as well as operation and maintenance activities related to the proposed project and alternatives. Five "Issues of Concern" of potential socioeconomic impacts have been identified, including:

- Population and Housing
- Employment
- Local Business Revenue
- Public Revenue
- Private Property Value

California Environmental Quality Act Criteria

Title 14 of the California Code of Regulations (CFR), Chapter 3, Guidelines for Implementation of the California Environmental Quality Act (CEQA), Article 9(a), Section 15131, states the following regarding Economic and Social Effects:

a) Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

b) Economic or social effects of a project may be used to determine the significance of physical changes caused by the project. For example, if the construction of a new freeway or rail line divides an existing community, the construction would be the physical change, but the social effect on the community would be the basis for determining that the effect would be significant. As an additional example, if the construction of a road and the resulting increase in noise to a particular area disturbs existing religious practices in the area, the disturbance of the religious practices could be used to determine that the construction and use of the road and the resulting noise would be significant effects on the environment. The religious practices would need to be analyzed only to the extent to show that the increase in traffic and noise would conflict with the religious practices. Where an EIR uses economic or social effects to determine that a physical change is significant, the EIR shall explain the reason for determining that the effect is significant.

c) Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. If information on these factors is not contained in the EIR, the information must be added to the

record in some other manner to allow the agency to consider the factors in reaching a decision on the project.

Consistent with the requirements set forth in *CEQA Guidelines* Section 15131 described above, social and economic effects are not treated as significant effects on the environment in this analysis and, therefore, no CEQA significance conclusions are presented for such effects.

Have a socioeconomic impact including population and housing, employment, local business revenue, public revenue, and private property value

Construction

The Tule Wind Project is anticipated to benefit the local economy throughout the construction period; particularly, employment from the development, and construction. The project is anticipated to be constructed over an 18 to 24-month period, and employ up to 325 workers per day during peak construction. It is anticipated that laborers, electricians, carpenters, linemen, ironworkers, equipment operators, and technicians will be utilized for the project, and approximately 60-70 percent of the site labor will be employed locally. The number of workers on-site at any time will vary depending on the specific stage of construction. During that time, the local business activity, employment, local land revenue, and tax revenue will be affected by the construction force required as part of the project. The project may also cause an influx of non-local labor and generate expenditures to the local community and businesses. These impacts would be considered beneficial over a short term of 18 to 24 months. The local construction expenditures are estimated to be $3,507,000 and a minimum of 11 local contracts are anticipated. The economic impacts for the San Diego County area are expected to include the following:

- Equipment Rental $1,300,000
- Materials – Portland Cement $300,000
- Materials – Vaults $350,000
- Materials – Culverts/ Drainage $100,000
- Services – Portable Toilets $12,000
- Services – Traffic Control $20,000
- Services - Trailer Rental $25,000

Local contracts that could potentially be awarded may include:

- O&M building $750,000
- Fencing, Gates $150,000
- Boring $100,000
- AC Paving $400,000

The workforce is not anticipated to significantly increase inhabitants to this rural area. Construction workers would be transported in private vehicles to the construction site, and it is not anticipated to impact short-term housing availability. The project is not anticipated to affect population to the area causing a change in the local housing market or affect property values.

It is not anticipated that the proposed project will have an adverse affect on the population and housing, employment, local and public revenue, or private property value during the construction phase of the project.

Operation and Maintenance

Once construction is complete, the project is expected to be supported by 12 permanent full-time employees on the operation and maintenance (O&M) staff. The project is anticipated to generate enough power for approximately 60,000 San Diego-area homes, and approximately one-half million dollars annually in property tax revenues.

Operation of the project will stimulate local businesses and the fiscal impacts created as part of the project will add to the County tax base throughout the life of the project. It is estimated that over $2,000,000 annually will be expended locally for O&M purposes. In addition, the project will contribute to the personal income of landowners by providing additional income received by royalty payments through set lease agreements between the individual landowners and the developer. These community benefits from increased income would be widespread throughout the County and surrounding region. Further, the project will contribute towards the Ewiiaapaayp Band of Kumeyaay Indians viable economic development plan for achieving a balanced economic growth and improving the standard of living for Tribal members. The Ewiiaapaayp will receive a share of the gross revenues from the turbines on their land that will be very meaningful to the tribe. The development of wind energy on tribal land would not be feasible without the synergies of the remaining portions of the project development on BLM lands.

According to the survey and transaction based studies cited previously, there is insufficient detail and statistical support regarding property values and wind energy projects. The operation and maintenance of the proposed project is not anticipated to impact property values in the surrounding area.

3.17.4 Cumulative Impacts

The project fits into the regional system with two proposed projects which will connect with the proposed Tule Wind Project; the East County (ECO) Substation and the Energia Sierra Jaurez United States Transmission Generation Tie Line Project (ESJ) project. San Diego Gas and Electric (SDG&E) is proposing to rebuild the Boulevard Substation with the upgraded ECO Substation. This project will help to facilitate the additional 200 megawatts (MW) of energy that the project will add to the power grid. The upgrades will increase SDG&E's ability to bring renewable energy into its system and is expected to improve the reliability of the local transmission system. The description of the ECO Substation project is as follows:

- 500/230/138 kilovolt (kV) ECO Substation;
- Southwest Powerlink (SWPL) loop-in, a short loop-in of the existing SWPL transmission line to the proposed ECO Substation;
- 138 kV transmission line, approximately 13.3 miles in length, running between the proposed ECO Substation and the rebuilt Boulevard Substation;
- SDG&E Boulevard Substation rebuild; and
- White Star Communication Facility rebuild.

In addition to ECO Substation, the proposed ESJ project consists of the construction and operation of generation-tie lines that would connect the La Rumorosa Project in Baja, Mexico to the proposed ECO Substation. This project has applied to Department of Energy's (DOE's) Office of Electricity (OE) Delivery and Energy Reliability for a Presidential permit to construct either a double-circuit 230,000 volt (230 kV) or a single-circuit 500 kV transmission line on either lattice towers or steel monopoles. ESJ's

proposed transmission line would connect wind turbines from the La Rumorosa Project located in the vicinity of La Rumorosa, Baja California, Mexico, to the existing SWPL 500 kV transmission line. One portion of the proposed transmission project would consist of 2 miles of transmission located in Mexico that will be owned and operated by Sempra Energy Mexico. The remaining portion of the transmission line would consist of a one-mile transmission line constructed by ESJ within the United States on private land connecting to the SDG&E proposed Rebuilt Boulevard Substation located in the community of Boulevard. The entire electrical output of the La Rumorosa Project (1,250 MW) would be dedicated to the U.S. market and delivered using the proposed international transmission line.

3.17.5 CEQA Levels of Significance Before Mitigation

Have a socioeconomic impact including population and housing, employment, local business revenue, public revenue, and private property value

Construction, Operation and Maintenance, and Decommissioning

No significant impacts are identified related to socioeconomics or environmental justice; therefore, no mitigation measures are proposed. The proposed project is not anticipated to have a significant negative effect on the local economy or existing low income or minority populations in the project area or surrounding communities. Therefore, the project has no impact on the social or economic environment of the area.

3.17.6 Mitigation Measures

No significant impacts were identified related to socioeconomics or environmental justice; therefore, no mitigation measures are proposed.

3.17.7 Comparison of Alternatives

In developing the alternatives to be addressed in this environmental document, the potential alternatives were evaluated in terms of their ability to meet the basic objectives of the project, while avoiding or reducing the environmental impacts of the project. The alternatives will contain all of the same components and construction corridor as the proposed project except they may vary in number and location.

No Project/No Action Alternative

Under the No Project/No Action Alternative, the proposed project would not be implemented and the benefits to the local economy associated with construction and operation of the project would not occur. The area would not benefit from the increase in jobs due to the construction phase and operational phase of the project. Additionally, San Diego County would not benefit from the increase in tax base or personal income that the project would generate.

The San Diego area would be required to locate alternative sources of power in other areas of the county for the regional growth in the upcoming years. This alternative would result in a significantly less amount of jobs and economic benefit to the County and would have a greater impact to the local economy. This alternative would have less of an impact to surrounding homeowners who may feel property values may be affected.

Alternate Transmission Line Alternative #1

The Alternate Transmission Line Alternative #1 (T-line Alternative #1) would include all of the same components as the proposed project except for an alternate overhead 138 kV transmission line (T-line Alternative #1), as shown in **Figure 2.0-12**. The T-line Alternative #1 would be located parallel to, but in-lieu of, the proposed transmission line. T-line Alternative #1 would be located further west and run from either the proposed or deviant collector substation approximately 5.5 miles south to the Rough Acres Ranch (south of turbine G-19). From Rough Acres Ranch, the line would continue west to Ribbonwood Road. The line would continue south on Ribbonwood Road to Old Highway 80, and east along Old Highway 80 to the SDG&E proposed Rebuilt Boulevard Substation.

This alternative would increase the land disturbance by approximately 7.6 acres, from 772.7 acres to 780.3 acres, utilizing the deviant collector substation. The 138 kV transmission line would increase in distance from 9.7 miles to 11.7 miles and would increase the amount of transmission line poles from 116 poles to 152 poles, utilizing the deviant collector substation. The 34.5 kV overhead collector lines would remain the same distance of 9.4 miles, and would require the same amount of collector line poles (250), and the underground collector lines would also remain the same distance of 29.3 miles, utilizing the deviant collector substation.

Have a socioeconomic impact including population and housing, employment, local business revenue, public revenue, and private property value

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to disrupt an increased amount of people from temporary disturbances caused by the construction of the transmission line along Ribbonwood Road and Old Highway 80. However, impacts resulting from construction activities will be temporary and will not have a greater impact related to socioeconomics and environmental justice as the proposed project. Impacts on the local economy are anticipated to be equal to the project and this alternative will not subject a disproportionate share of the negative environmental consequences on an increased amount of low income or minority populations. Impacts are less than significant.

This alternative has the same level of impacts to socioeconomics and environmental justice as the proposed project.

Alternate Transmission Line #2 and Collector Substation Alternative

The Alternate Transmission Line #2 and Collector Substation Alternative would include the alternate O&M/Substation facility co-located on Rough Acres Ranch (T17S R7E Sec9), the Alternate Transmission Line #2 (138 kV), as well as an alternate overhead collector system, as shown in **Figure 2.0-13**. This alternative would consist of two 34.5 kV lines connecting the turbines to the alternate collector substation location. All other elements of the project including the turbine locations, parking and laydown areas, roadway upgrades, and batch plant would remain as described in the proposed project. The Alternate Transmission Line #2 would run from the alternate collector substation south along McCain Valley Road, and then west along Old Highway 80 until reaching the SDG&E proposed Rebuilt Boulevard Substation.

This alternative would increase the land disturbance by 1.9 acres, from 772.7 acres to 774.6 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 3.8 miles and would decrease the amount of transmission line poles from 116 poles to 44 poles. The

34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

Have a socioeconomic impact including population and housing, employment, local business revenue, public revenue, and private property value

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to have equal impacts on the local economy as the proposed project and this alternative will not subject a disproportionate share of the negative environmental consequences on an increased amount low income or minority populations. An increased amount of personal income to the private property owner who leases their land to the developer for the O&M/Substation facility is anticipated to occur. Impacts are less than significant.

This alternative has the same level of impacts to socioeconomics and environmental justice as the proposed project.

Alternate Transmission Line #3 and Collector Substation Alternative

The Alternate Transmission Line #3 and Collector Substation Alternative would include the alternate O&M/Substation facility co-located on Rough Acres Ranch (T17S R7E Sec9), the Alternate Transmission Line #3 (138 kV), as well as an alternate overhead collector system as shown in **Figure 2.0-14**. This alternative would consist of two 34.5 kV lines connecting the turbines to the alternate collector substation. All other elements including the turbine locations, parking and laydown areas, roadway upgrades, and batch plant would remain as described in the proposed project. The Alternate Transmission Line #3 would run from the alternate collector substation west to Ribbonwood Road, continue south along Ribbonwood Road, and then east along Old Highway 80 until reaching the SDG&E proposed Rebuilt Boulevard Substation.

This alternative would increase the land disturbance by 7.3 acres, from 772.7 acres to 780.0 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 5.4 miles and would decrease the amount of transmission line poles from 116 poles to 60 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

Have a socioeconomic impact including population and housing, employment, local business revenue, public revenue, and private property value

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to disrupt an increased amount of people to temporary disturbances caused by the construction of the transmission line along Ribbonwood Road and Old Highway 80. However, impacts resulting from construction activities will be temporary and will not have a greater impact related to socioeconomics and environmental justice as the proposed project. Effects on the local economy are anticipated to be equal to the project and this alternative will not subject a disproportionate share of the negative environmental consequences on an increased amount of low income or minority populations. An increased amount of personal income to the private property owner who leases their land to the developer for the O&M/Substation facility is anticipated to occur. Impacts are less than significant.

This alternative has the same level of impacts to socioeconomics and environmental justice as the proposed project.

Operation and Maintenance Facility Location #1 Alternative

The O&M Facility Location #1 Alternative would be located on private property (T17S R7E Sec4), north of the alternate collector substation and located west of McCain Valley Road, as shown in **Figure 2.0-13**. This alternative would consist of separating the 5-acre O&M building site from the collector substation; however, both would remain on Rough Acres Ranch property. Alternate Transmission Line #2 would be utilized under this alternative as well as the Alternate Overhead Collector System consisting of two 34.5 kV lines connecting the turbines to the alternate collector substation. All other elements of the project including the turbine locations, parking and laydown areas, and batch plant would remain as described in the proposed project.

This alternative is estimated to have the same land disturbance impacts as the Alternate Transmission Line #2 and Collector Substation Alternative. However, by relocating the O&M building site to the northern portion of Rough Acres Ranch, this alternative would require an approximate 650-foot new access road to be constructed on the west side of McCain Valley Road, thus necessitating an approximate 0.07 acres of permanently impacted area and a temporary impact of 0.55 acres. In comparison to the proposed project, this alternative would decrease the land disturbance by approximately 2.5 acres, from 772.7 acres to 775.2 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 3.8 miles and would decrease the amount of transmission line poles from 116 poles to 44 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

Have a socioeconomic impact including population and housing, employment, local business revenue, public revenue, and private property value

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to have equal impacts on the local economy as the proposed project and this alternative will not subject a disproportionate share of the negative environmental consequences on an increased amount low income or minority populations. An increased amount of personal income to the private property owner who leases their land to the developer for the O&M/Substation facility is anticipated to occur. Impacts are considered less than significant.

This alternative has the same level of impacts to socioeconomics and environmental justice as the proposed project.

Operation and Maintenance Facility Location #2 Alternative

The O&M Facility Location #2 Alternative would be located on private property (T17S R7E Sec 16), south of the alternate collector substation and located west of McCain Valley Road, as illustrated in **Figure 2.0-13**. This alternative would consist of separating the 5-acre O&M building site from the collector substation; however, both would remain on Rough Acres Ranch property. Alternate Transmission Line #2 would be utilized under this alternative as well as the Alternate Overhead Collector System consisting of two 34.5 kV lines connecting the turbines to the alternate collector substation. All other elements of the project including the turbine locations, parking and laydown areas, and batch plant would remain as described in the proposed project.

This alternative is estimated to have the same land disturbance impacts as the Alternate Transmission Line #2 and Collector Substation Alternative. However, by relocating the O&M building site to the southern portion of Rough Acres Ranch, this alternative would result in a very slight difference of 1.0 acre of permanent impacts and 0.08 acre of temporary impacts resulting from the construction of new access roads than those described in **Table 2.0-10**. In comparison to the proposed project, this alternative would increase the land disturbance by approximately 2.0 acres, from 772.7 acres to 774.7 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 3.8 miles and would decrease the amount of transmission line poles from 116 poles to 44 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

Have a socioeconomic impact including population and housing, employment, local business revenue, public revenue, and private property value

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to have equal impacts on the local economy as the proposed project and this alternative will not subject a disproportionate share of the negative environmental consequences on an increased amount low income or minority populations. An increased amount of personal income to the private property owner who leases their land to the developer for the O&M/Substation facility is anticipated to occur. Impacts are less than significant.

This alternative has the same level of impacts to socioeconomics and environmental justice as the proposed project.