3.6 ENERGY

This section addresses the effects on energy resources that would be caused by the proposed Tule Wind Project. The following discussion describes the existing environmental setting in the surrounding area, the existing federal, state, and local regulations regarding energy resources, and an analysis of the potential impacts to energy resources that may result from the construction, operation, maintenance, and decommissioning of the proposed project and alternatives.

3.6.1 Affected Environment/Environmental Setting

The project is located in eastern San Diego County on lands administered by the Bureau of Land Management (BLM), the Ewiiaapaayp Indian Reservation, the Campo and Manzanita Reservations (access only), the California State Lands Commission (CSLC), as well as privately owned lands under the jurisdiction of the County of San Diego (County). The project site is located in the McCain Valley in the In-Ko-Pah Mountains, north of Interstate 8 (I-8).

State Energy Production

In 2003, the state energy authorities collectively established a cohesive approach to address the state's energy policy goals. An energy action plan was the first time the State's energy agencies collaborated on articulating such goals and it established the "loading order" of California's future energy needs; the State would first invest in energy efficiency, then renewable resources, and finally in clean conventional electricity supply. The Energy Commission and the Public Utilities Commission (PUC) adopted the *Energy Action Plan II* in 2005 to reflect the policy developments since the 2003 initiative and adopt further policy issues. Since the first energy action plan, climate change and transportation-related energy issues were identified as issues to address in the 2005 Energy Action Plan. While the previous energy action plans and updates are intended to articulate recent energy policy changes and layout future activities to accomplish these policies, the 2007 *Integrated Energy Policy Report* is established as the overall guiding document on energy policy for California (CEC 2007a, 2008).

The decision to decrease the impacts of climate change has been identified as the one of the most important developments in California energy policy in the past several decades. Greenhouse gas (GHG) emissions create a significant impact on climate change, and thus the Global Warming Solutions Act of 2006, Assembly Bill (AB) 32 was signed. The bill established a state and economy-wide cap on GHG emissions in California at 1990 levels by 2020. The Governor's Executive Order (EO) S-3-05 (2005) has established even stricter and ambitious targets of 2050 emissions to be 80 percent below 1990 levels. This amount is an approximately 30 percent reduction from projected 2020 levels. Senate Bill (SB) 1368 was also signed in 2006 and prohibited utilities from establishing long-term commitments for electricity with out- of- state plants which create more carbon dioxide than clean-burning natural gas plants. Furthermore, SB 1078, passed in 2007, established a renewable portfolio standard for electrical supply which required 20 percent of the electricity sold by retail sellers to be from renewable sources by 2017. SB 1078 modified the previous SB to establish compliance by 2010. Additionally, electricity providers subject to SB 1078 and SB 107 must increase the share of electricity generated by renewable sources by at least 1 percent annually. For further discussion of (GHG) regulatory standards, refer to Section 3.1.2, Air Quality (CEC 2007a, 2008).

California population for 2008 was over 37 million and is projected to exceed 44 million by 2020. An increasing population in turn increases the state energy needs. This growth can have especially adverse

impacts on energy demand as air conditioning and transportation energy demands can be particularly high (CEC 2007a, 2008).

An increase in energy consumption is also known to cause an increase in GHG emissions. Approximately a quarter of the state's GHG emissions are attributable to electricity generation. Although the state has a significantly low per capita energy consumption rate in comparison to the national average, California is the second largest emitter of GHG emissions in the U.S. While the state generates between 68 and 78 percent of the electricity it consumes, this percentage is disproportionate when compared to actual GHGs associated with California's energy consumption, which is between 39 to 57 percent. As of 2007, renewable energy sources supplied nearly 11 percent of California's electricity needs. By 2010, SB 1250 (passed in 2006) requires renewable energy supplies to make up 20 percent of the state's electricity needs (CEC 2007a, 2008).

Local Energy Production

The San Diego County General Plan identifies AB 32 and the necessity to decrease the usage of fossil fuels and to change present strategies to better address climate change.

The most recent rates of electricity consumption are available from 2007, and indicate that San Diego County used 18958.10 kilowatt hours (kWh) of electricity annually (CEC 2007b).Within San Diego County, there are many power plants, with most forms of alternative energy used in power generation. Wind, waste-to-energy, nuclear, and hydropower are all utilized in addition to traditional oil/gas powered plants. Presently, there are no identified large-scale solar projects within San Diego County. The project area is identified as being "Available for Wind Energy Development" by the BLM Eastern San Diego County Resource Management Plan and high wind resources are known to occur within McCain Valley. **Table 3.6-1** lists the amount of power plants in San Diego County by type and amount of generated power.

Table 3.6-1. Type and Capacity of Energy Plants in San Diego County

Type of Plant	Number of Plants in San Diego County	Total Generating Power (in MW)
Gas/Oil	58	3076.127
Wind	2	45.9
Waste to Energy	7	29.5
Nuclear	1	2254
Hydropower	9	14.14
Solar	0	0
Geothermal	0	0

Source: California Energy Commission 2008

Project Energy Production

Electricity production and consumption are most commonly measured in kWh. A kWh means one kilowatt (1,000 watts) of electricity produced or consumed for one hour. One 50 watt light bulb left on for 20 hours consumes one kWh of electricity (50 watts x 20 hours = 1,000 watt hours = 1 kWH).

The output of a wind turbine depends on the turbine's size and the wind's speed through the rotor. According to the American Wind Energy Association, wind turbines being manufactured now have power ratings ranging from 250 watts to 5 megawatts (MW). For example: A 10 kW wind turbine can generate about 10,000 kWh annually at a site with wind speeds averaging 12 miles per hour, or about enough to power a typical household. A 5 MW turbine can produce more than 15 million kWh in a year, enough to power more than 1,400 households. The average U.S. household consumes about 10,000 kWh of electricity each year. The proposed project will generate up to 200 MW of electricity. The project is estimated to generate enough power for approximately 60,000 San Diego area homes.

Turbine energy is measured by capacity factor. This calculates the amount of power the turbines would produce over a period of time. The capacity factor is not to be confused with energy efficiency. Energy efficiency is associated with using less energy to provide the same level of energy service, such as insulating a home to reduce heating and cooling energy. The American Wind Energy Association describes capacity factor as the following:

> "The production over a given period of time with the amount of power the plant would have produced if it had run at the full capacity of the same amount of time. A capacity factor of 40 percent to 80 percent is typical for conventional energy plants. Wind plants are fueled by the wind, which blows steadily at times and not at all at other times. Modern utility-scale wind turbines typically operate 65 to 90 percent of the time, often run at less than full capacity. A capacity factor of 25 to 40 percent is common, although higher capacity factors are experienced during windy periods.
>
> It is important to note that while capacity factor is almost entirely a matter of reliability for a fueled power plant, it is not for a wind plant—for a wind plant, it is a matter of economical turbine design. With a very large rotor and a very small generator, a wind turbine would run at full capacity whenever the wind blew and would have a 60 to 80 percent capacity factor—but it would produce very little electricity. The most electricity per dollar of investment is gained by using a larger generator and accepting the fact that the capacity factor will be lower as a result. Wind turbines are fundamentally different from fueled power plants in this respect."

3.6.2 Regulatory Setting

Federal

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) regulates the transmission of oil, natural gas, and electricity between states. FERC also licenses and inspects private, municipal and state hydropower projects, and supervises related environmental concerns of hydroelectricity and major electricity policy initiatives. FERC monitors and investigates energy markets and ensures the reliability of interstate transmission systems.

Bureau of Land Management Wind Energy Development Policy Instructional Memorandum (IM 2009-043)

The BLM's Instructional Memorandum (IM 2009-043) describes the process of obtaining a right-of-way (ROW) for wind energy projects on public lands administered by the BLM. It was created to replace old

policies and best management practices (BMPs) established in the PEIS for Wind Energy Development (2005). IM 2009-043 sets policy to all wind energy activities on BLM-administered public lands, and replaces those in the Programmatic Environmental Impact Statement (2005). The policies set forth in IM-2009-043 that are applicable to the proposed project are included in Section 3.11-2 of the Land Use and Planning Section.

State

California Public Utilities Commission

Pursuant to Article XII of the Constitution of the State of California, the California Public Utilities Commission (CPUC) is charged with the regulation of investor-owned public utilities. The CPUC's General Order (GO) Number 131-D, Section XIV B states that: "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the Commission's (CPUC's) jurisdiction." Iberdrola Renewables and the Tule Wind Project are not considered to be a public utility and would not typically be governed by the CPUC. Because the project is considered to be a connected action to the whole of the East County Substation Project, the CPUC is identified as the lead California Environmental Quality Act (CEQA) agency on the Tule Wind Project. The CPUC will ensure that the project complies with the provisions of CEQA, and with local regulations to the greatest degree feasible to minimize project conflicts with local conditions, in accordance with GO Number 131-D. The BLM will review the project for conformance with the National Environmental Policy Act (NEPA).

3.6.3 Environmental Consequences/Impact Analysis

California Environmental Quality Act Significance Criteria

The State Resources Agency created Appendix F of the *CEQA Guidelines* to serve as an advisory document that assists Environmental Impact Report (EIR) preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Based on the *CEQA Guidelines*, Appendix F, energy impacts would be considered significant if implementation of the proposed project would result in:

- Wasteful, inefficient, and unnecessary usage of energy; or
- Placement of a significant demand on regional energy supply or requirement for substantial additional capacity.

Result in wasteful, inefficient, and unnecessary usage of energy

Construction

The proposed project will require an increased demand on energy that would be necessary for the construction of new and improved access roads, turbines and lay down sites, transmission lines, the operation and maintenance facility and substation, and other project components. It is estimated that 325 employees will be employed daily during the peak of construction for the project. Approximately 125 employees will work on-site while 200 employees will deliver equipment, accessing the work area during normal business hours (7 a.m. to 7 p.m.), but may involve extended hours, as needed to complete certain construction activities. Power and equipment operation will be necessary to construct the project. The type of equipment that is anticipated to be utilized throughout the construction process is provided in

Section 2, Proposed Actions and Alternatives, **Table 2.0-5**. Power during construction will be supplied by generators or utility supply. The project proponent will facilitate the distribution of worker manuals that will include measures to reduce energy and emissions from heavy equipment whenever possible. The project will not result in the wasteful, inefficient, or unnecessary usage of energy due to construction, thus having a less than significant impact.

Operation and Maintenance

During the operation and maintenance of the project, energy would be required to power the substation and O&M facility, which is expected to be minimal. The project will require 12-full time employees to maintain and operate the turbines. Power for operation will be supplied by an outside provider. The project will be producing 200 MW of power which would far exceed the minimal power requirements of the O&M/Substation facility. The operation and maintenance phase of the project will not result in wasteful, inefficient, and unnecessary usage of energy, and would be considered less than significant.

Decommissioning

Decommissioning of the project is anticipated to have similar construction related activities and processes as the construction phase. Similar equipment will be used to remove and transport equipment and turbines away from the project site. The turbine towers will be removed from the site and the materials will be reused or sold for scrap. All management plans, best management practices (BMPs), and stipulations developed for the construction phase will be applied to similar activities during the decommissioning phase. The decommissioning phase of the project will not result in wasteful, inefficient, and unnecessary usage of energy, and would be considered less than significant.

Result in placement of a significant demand on regional energy supply or requirement for substantial additional capacity

Construction

Project construction is expected to occur over an 18 to 24-month period. The energy demands associated with project construction will be temporary and would not require a significant demand on regional energy supply or necessitate a substantial additional capacity of energy required for the project, thus having no impact.

Operation and Maintenance

The project will assist with the national, state, and local initiatives to increase the amount of energy generated from clean fuel sources, provide reliable energy for a growing population, and decrease the amount of pollutants caused by energy generation. The generation of electricity from wind power does not produce the GHGs and air pollutants that traditional gas/oil energy production does. The project will generate new renewable energy sources in the region without generating additional pollutants or GHGs thus fulfilling a role in implementing the Energy Policy Act, and contributing towards achieving California's energy goals by supplying more of the state's energy from renewable sources. The proposed project will be capable of generating up to 200 MW of electricity, and is anticipated to generate enough electricity to power 60,000 San Diego area homes. This generation of power will compensate for any energy requirements for the operation and maintenance of the project. Project operation and maintenance energy requirements are expected to be minimal. Impacts to energy demand and supply due to the operation and maintenance of the project are less than significant.

Decommissioning

Energy resources will be required during decommissioning of the project, similar to that of the construction phase. It is anticipated that the project will use similar sources of energy as with the construction phase for dismantling of the turbine components. Upon decommissioning, the project will no longer supply energy resources to the region. It is difficult to anticipate the energy sources in 30 years, although through proper energy planning, new energy resources should be online to replace any energy resources formally provided by the project. Upon dismantling, the project would impact the regional energy supply by removing an estimated 200 MW of energy from the regional energy network; however, a less than significant impact is identified.

3.6.4 Cumulative Impacts

The project will have a beneficial contribution to the cumulative impact that renewable sources can have on the state's energy supply. Another wind energy project already exists and operates within the vicinity of the project and another project is proposed. As discussed above, there are a growing number of renewable energy projects similar to the proposed project throughout California. The project will contribute to the regional energy grid and will thus have a beneficial cumulative energy impact on the region's energy supplies.

3.6.5 CEQA Levels of Significance Before Mitigation

Result in wasteful, inefficient, and unnecessary usage of energy

Construction and Decommissioning

The project will use energy from on-site generators or from a utility supply and would not result in wasteful, inefficient, and unnecessary use of energy. Therefore, impacts are considered less than significant.

Operation and Maintenance

The energy used during the operation and maintenance phase of the project is expected to be minimal, and the project will produce 200 MW of energy; therefore, impacts are less than significant.

Result in placement of a significant demand on regional energy supply or requirement for substantial additional capacity

Construction

The project would not substantially impact the regional energy resources; therefore, a less than significant impact is identified.

Operation and Maintenance

The energy used during the operation and maintenance phase of the project is expected to be minimal and the project is expected to produce 200 MW of power, which will compensate for any energy consumption of the operation and maintenance of the project. Impacts are less than significant.

Decommissioning

Energy resources will be required during decommissioning of the project, similar to that of the construction phase. Upon decommissioning, the project will no longer supply energy resources to the region. Upon dismantling, the project would result in the removal of 200 MW of energy from the regional energy network. It is anticipated in 30 years there will be new energy resources to replace any energy resources formally provided by the project; therefore, a less than significant impact is identified.

3.6.6 Mitigation Measures

The proposed project does not have a negative or significant impact on the energy resources of the region; thus mitigation measures are not necessary.

3.6.7 CEQA Levels of Significance After Mitigation

Construction, Operation and Maintenance, and Decommissioning

No mitigation measures are required. The proposed project will not significantly impact the energy resources of the region.

3.6.8 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 built. No renewable energy would be generated by the project. San Diego County and the region would not benefit from the generation of new sources of clean, renewable, emissions-free energy from the project. If the project were not to be implemented, impacts to the regions' energy supply would be greater by the lack of new renewable energy sources in the county. Impacts to energy resources resulting from the No Project/No Action Alternative are greater than the proposed project.

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 San Diego Gas & Electric (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.

Result in wasteful, inefficient, and unnecessary usage of energy

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to use the same amount of energy throughout all phases as the proposed project, and would not result in wasteful, inefficient, and unnecessary usage of energy. The location of the alternate transmission line would not change the overall energy needs of the project. A less than significant impact is identified.

Result in placement of a significant demand on regional energy supply or requirement for substantial additional capacity

Construction, Operation and Maintenance

This alternative would not place a greater demand on regional energy supply or substantiate additional capacity than the proposed project. This alternative would not have a greater impact on energy resources throughout all phases, as compared to the proposed project. A less than significant impact is identified.

Decommissioning

Upon decommissioning, the project will no longer supply energy resources to the region. Upon dismantling, the project would result in the removal of 200 MW of energy from the regional energy network. It is anticipated in 30 years there will be new energy resources to replace any energy resources formally provided by the project; therefore, a less than significant impact is identified.
This alternative has the same level of impact 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.

Result in wasteful, inefficient, and unnecessary usage of energy

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to use the same amount of energy throughout all phases as the proposed project, and would not result in the wasteful, inefficient, and unnecessary usage of energy. Impacts are less than significant.

Result in placement of a significant demand on regional energy supply or requirement for substantial additional capacity

Construction, Operation and Maintenance

This alternative would not result in a significant demand on regional energy supplies or substantiate additional capacity beyond what the proposed project would use. A less than significant impact is identified.

Decommissioning

Upon decommissioning, the project will no longer supply energy resources to the region. Upon dismantling, the project would result in the removal of 200 MW of energy from the regional energy network. It is anticipated in 30 years there will be new energy resources to replace any energy resources formally provided by the project; therefore, a less than significant impact is identified.

This alternative has the same level of impacts 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.

Result in wasteful, inefficient, and unnecessary usage of energy

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to use the same amount of energy throughout all phases as the proposed project, and would not result in the wasteful, inefficient, and unnecessary usage of energy. Impacts are less than significant.

Result in placement of a significant demand on regional energy supply or requirement for substantial additional capacity

Construction, Operation and Maintenance

This alternative would not place a greater demand on regional energy supply or substantiate additional capacity than the proposed project. This alternative would not have a greater impact on energy resources throughout all phases, as compared to the proposed project. A less than significant impact is identified.

Decommissioning

Upon decommissioning, the project will no longer supply energy resources to the region. Upon dismantling, the project would result in the removal of 200 MW of energy from the regional energy network. It is anticipated in 30 years there will be new energy resources to replace any energy resources formally provided by the project; therefore, a less than significant impact is identified.

This alternative has the same level of impacts 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.

Result in wasteful, inefficient, and unnecessary usage of energy

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to use the same amount of energy throughout all phases as the proposed project, and would not result in the wasteful, inefficient, and unnecessary usage of energy. Impacts are less than significant.

Result in placement of a significant demand on regional energy supply or requirement for substantial additional capacity

Construction, Operation and Maintenance

This alternative would not place a greater demand on regional energy supply or substantiate additional capacity than the proposed project. This alternative would not have a greater impact on energy resources throughout all phases, as compared to the proposed project. A less than significant impact is identified.
Decommissioning

Upon decommissioning, the project will no longer supply energy resources to the region. Upon dismantling, the project would result in the removal of 200 MW of energy from the regional energy network. It is anticipated in 30 years there will be new energy resources to replace any energy resources formally provided by the project; therefore, a less than significant impact is identified.

This alternative has the same level of impacts 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.

Result in wasteful, inefficient, and unnecessary usage of energy

Construction, Operation and Maintenance, and Decommissioning

This alternative is anticipated to use the same amount of energy throughout all phases as the proposed project, and would not result in the wasteful, inefficient, and unnecessary usage of energy. Impacts are less than significant.

Result in placement of a significant demand on regional energy supply or requirement for substantial additional capacity

Construction, Operation and Maintenance

This alternative would not place a greater demand on regional energy supply or substantiate additional capacity than the proposed project. This alternative would not have a greater impact on energy resources throughout all phases, as compared to the proposed project. A less than significant impact is identified.

Decommissioning

Upon decommissioning, the project will no longer supply energy resources to the region. Upon dismantling, the project would result in the removal of 200 MW of energy from the regional energy network. It is anticipated in 30 years there will be new energy resources to replace any energy resources formally provided by the project; therefore, a less than significant impact is identified.

This alternative has the same level of impacts as the proposed project.