emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)). According to Appendix F of the State CEQA Guidelines, the goal of conserving energy implies the wise and efficient use of energy including: (1) decreasing overall per capita energy consumption; (2) decreasing reliance on natural gas and oil; and (3) increasing reliance on renewable energy sources.

The proposed project itself would help achieve this goal because it would develop a renewable source of power, helping to offset the use of nonrenewable resources and contribute to an overall reduction of nonrenewable resources currently used to generate electricity. In addition, Section 4.7 (Greenhouse Gas Emissions) describes effects on greenhouse gas emissions that would be caused by implementation of the proposed project, including a discussion on the effects of the project on energy resources.

Compliance with all applicable building codes, as well as with County policies and proposed measures and mitigation measures identified in this EIR, would ensure that energy is conserved to the maximum extent possible.

Resources that would be consumed as a result of project implementation include water, electricity, and fossil fuels during construction and operation. Additionally, construction would require the manufacture of new materials, some of which would not be recyclable at the end of the proposed project’s lifetime, and the energy required for the production of these materials would also result in an irretrievable commitment of natural resources. However, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. Compliance with all applicable building codes, as well as County policies and the mitigation measures identified in this EIR would ensure that all natural resources are conserved to the maximum extent possible.

No increases in inefficiencies or unnecessary energy consumption are expected to occur as a direct or indirect consequence of the proposed project. No mitigation measures above those already present in this EIR would be necessary.

1.6 Alternatives to the Proposed Project

Section 15126.6 of the State CEQA Guidelines states that an EIR must address “a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives”. Based on the significant and unavoidable impacts on aesthetics, air quality, biological resources, cultural resources and recreation, along with the proposed project objectives, several alternatives were considered as summarized below and discussed in detail in Chapter 6.

1.6.1 Alternatives Eliminated from Further Consideration

Relocate to Altamont Pass Wind Resource Area (APWRA)

The APWRA is located in Alameda County, California. Based on a review of aerial photographs, this area is at full or nearly full build-out, and would not accommodate a contiguous or semi-contiguous project of a similar magnitude as the proposed project. In addition, because it is a bird migration corridor, biological impacts would not be significantly reduced, and would potentially increase, if the project were relocated to the Altamont Pass area (Anderson, et al., 2000).
Solar Photovoltaic (PV) Facility

A solar PV facility electrically equivalent to the proposed project would potentially permanently disturb substantially more acres than would the proposed project. The land use efficiency of solar PV power plants is between 4 and 10 acres per megawatt (NRDC and Sierra Club, 2008). A solar PV facility that would generate up to 290 MW would permanently disturb between 1,160 and 2,900 acres compared with approximately 1,300 acres for the project which proposes the development of up to 339 MW of energy.

The variable terrain at the project’s location at the base of the Tehachapi and Piute mountain ranges within the Sierra Nevada within northeastern Kern County renders construction of a solar PV facility of the magnitude of the project infeasible at this site. Approximately 74 percent of the project site is mapped as steep slope (Kern County General Plan Map Code Designation 2.4) with an average slope of 30 percent or steeper. Utility-scale solar PV facilities are sited at locations with less than 5 percent slope, which is not the case at the proposed project site. The amount of grading required to achieve this slope would render this site economically and practically infeasible and would result in greater environmental impacts to the site. This is because grading between 1,160 and 2,900 acres of steep slope would permanently disturb substantially more acres than would the proposed project as well as increase impacts to biological resources, cultural resources, and air quality compared with the proposed project. Because the site is unsuited to a utility-scale solar PV facility, this alternative was not retained for full analysis.

Reduced Rate of Construction

A reduced rate of project construction would reduce the air quality impacts of the proposed project by reducing the total daily load of particulate matter in the regional air basin. However, extending the period of construction could result in increased impacts on other resources, including but not limited to:

- Increased impacts to soils due to an longer duration of loosened and exposed soil;
- Increased impacts to water quality due to longer duration of soil disturbance and stockpiling of earth that could be transported in stormwater flow or runoff;
- Increased impacts to biological resources due to increased duration of noise and activity and increased length of disturbance to sensitive vegetation and wildlife; and
- Increased impacts as a result of noise due to the extended duration of use of heavy equipment.

In addition, a reduced rate of construction would lengthen the construction period, and the project proponent would be potentially hindered from maintaining its contractual obligations and meeting the electricity generation and greenhouse gas (GHG) displacement objectives that are identified for the project. Consequently, the renewable energy generated by the project may not be available for distribution in the energy market until a later date and would not meet the terms and conditions of existing purchase power agreements. As a result, the project would potentially fail in meeting Objective 1 for North Sky River Energy, LLC and Objective 9 for Jawbone Wind Energy, LLC (contributing to California’s RPS goals). Because the Reduced Rate of Construction would not avoid significant environmental impacts without resulting in an increase in severity of other significant impacts this alternative was not retained for full analysis.
1.6.1 Alternatives Analyzed in this EIR

Alternatives that would avoid or substantially lessen any of the significant effects of the project and that would feasibly attain most of the basic project objectives are discussed below. Each project alternative is discussed with respect to its relationship to the proposed project’s objectives.

Alternative A: No Project Alternative

Under Alternative A, the proposed project would not be constructed and existing conditions at the proposed project site would remain unchanged for the foreseeable future. Existing land uses on the project site would remain, which include recreational off-highway vehicle, livestock grazing, and open space. However, if the proposed project is not implemented, the project site would remain available for some other type of unspecified future use that is consistent with the KCGP.

This alternative would reduce, but not necessarily avoid, significant impacts associated with the proposed project. Moreover, this alternative would not achieve any of the project objectives, such as reducing criteria pollutants and GHGs generated from fossil fuels, help to achieve California’s renewable energy goals, assist Kern County in promoting its role as the State’s leading renewable energy producer, or provide green jobs to Kern County and the State of California. In addition, this alternative would not result in the project’s proposed commitment to restore onsite degraded lands, provide onsite habitat set asides, and expand ongoing avian conservation activities.

Alternative B: Relocate to San Gorgonio Wind Resource Area (SGWRA)

Alternative B would relocate the wind power project to the SGWRA. An alternative site in the SGWRA was selected based on the presence of a suitable, nearly contiguous tract of land that would accommodate up to approximately 290 WTGs and that does not currently have wind power projects or applications for wind power projects. In addition, the chosen alternative site has few or no residential or commercial structures and is otherwise compatible with wind power development. Finally, an alternative site was chosen that would reduce the significant and unavoidable aesthetic, air quality, biological, cultural, and recreation impacts of the proposed project.

Alternative B would achieve all of the proposed project’s objectives. Alternative B would reduce significant, unavoidable aesthetic and recreational impacts of the proposed project to a level that is less than significant, but would have significant, unavoidable impacts on biological resources commensurate with those of the project. This alternative would also fulfill the project’s objectives of helping to achieve California’s renewable energy goals and provide green jobs in the State of California but, the provision of increased property tax revenues and green jobs would be directed to San Bernardino County in lieu of Kern County.

Alternative C: Reduced Project Size

Alternative C would reduce the extent of the proposed area of disturbance in order to reduce the severity of biological and cultural impacts. Alternative C would be identical to the proposed project, except that areas with the most sensitive biological and cultural resources would be established as avoidance areas. Areas near riparian habitats, the northeastern portion of the site nearest the Butterbredt Springs, and three areas of high cultural resource sensitivity would not be developed, as shown on Figure 6-2. This would reduce the project size as shown on Figure 3-2 (Project Site Plan).
by approximately 41 acres due to a reduction associated with road improvements (calculated using the 40-foot buffer) and 11 acres associated with the WTGs. This would result in:

- A removal of up to nine WTGs in the northeast portion of the site to increase the distance between the WTGs and both Butterbredt Springs and the nearest golden eagle nest,
- A removal of up to 12 WTGs along either side of Cottonwood Creek to avoid riparian habitat, and
- A removal of up to 4 WTGs to avoid sensitive cultural resources (two of the WTGs overlap with those removed along Cottonwood Creek.)

Alternative C would achieve some of the project proponents’ objectives. Because the alternative would reduce the project by up to 23 WTGs, it would reduce the contribution towards achieving the California RPS goal (North Sky River Energy, LLC’s Objective 1) and would subsequently reduce the benefit renewable energy offers to greenhouse gas emissions (Objective 5). Although Alternative C may still be able to accommodate up to 116 WTGs, this alternative would only disturb 1,240 acres (compared to 1,292 acres of disturbance associated with the proposed project). Alternative C would result in less severe but nonetheless significant and unavoidable impacts on aesthetics, biological resources, cultural resources, and recreation. Air quality impacts would also be reduced if the removed WTGs are not sited at a different location on the project site.

Table 1-4 provides a summary of the alternatives impact analysis. A more detailed alternatives analysis is provided in Chapter 6, “Alternatives.”

1.6.1 Environmentally Superior Alternative

An EIR must identify the environmentally superior alternative to the proposed project. Alternative A: the No Project Alternative would be environmentally superior to the proposed project on the basis of the minimization or avoidance of physical environmental impacts. Section 15126.6(e)(2) of the State CEQA Guidelines states that if the no project alternative is found to be environmentally superior, “the EIR shall also identify an environmentally superior alternative among the other alternatives.”

Due to the reduction of impacts to aesthetics, biological resources, and cultural resources achieved by Alternative C (Reduced Project Size), it is considered the environmentally superior alternative. Alternative C reduces the significant and unavoidable impacts of the proposed project, although, not to acceptable levels, and has less severe significant impacts as compared to Alternative B. As described above, Alternative C would achieve most of the proposed project’s objectives.

1.7 Areas of Controversy

Areas of controversy were identified through written agency and public comments received during the scoping period. Public comments received during scoping are provided in Appendix A. In summary, the following issues were identified during scoping and are addressed in the appropriate sections of Chapter 4:

- Air Quality
  - Diesel particulate matter on nearby sensitive receptors
  - Fugitive dust plan
  - Stationary equipment that are a source of air pollutants will need a District permit