

3.7 Energy

This section describes the potential for energy impacts associated with the proposed changes to the approved project.

Environmental Setting

The 2014 Subsequent IS/MND stated that the state’s power infrastructure and supply will have sufficient thermal capacity to handle the Greater Bay Area through 2024. In the most recent projections, the 2017-2018 CAISO Transmission Plan indicates that there are some reliability concerns consisting of thermal overloads. However, these concerns are mostly addressed by previously approved projects, and the 2017-2018 CAISO Transmission Plan identifies additional mitigation requirements to further address these concerns (CAISO 2018).

The following regulations were adopted or updated subsequent to the certification of the 2014 Subsequent IS/MND:

- **Senate Bill 350—De Leon (Clean Energy and Pollution Reduction Act of 2015) (2015).** Senate Bill (SB) 350 was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: (1) a renewables portfolio standard of 50% and (2) a doubling of energy efficiency (electrical and natural gas) by 2030, including improvements to the efficiency of existing buildings. These mandates will be implemented by future actions of the California Public Utilities Commission and California Energy Commission.
- **Senate Bill 1389 (2002) and California Integrated Energy Policy Report.** SB 1389 requires the CEC to develop an integrated energy plan for electricity, natural gas, and transportation fuels. The energy plan is to be updated biannually and support improvements to the California energy system that reduce air pollution, congestion, and wasteful energy use. The current Integrated Energy Policy Report (IEPR) was updated in 2018 and covers a broad range of topics, including, but not limited to, environmental performance of the electricity generation system, landscape-scale planning, transportation fuel supply reliability, climate adaptation activities, and climate and sea level rise scenarios.

Environmental Impacts and Mitigation

This impact discussion primarily focuses on the proposed changes to the approved project that could result in new or more significant energy impacts compared to the impacts previously identified and analyzed for the approved project.

Similar to the approved project, construction activities associated with the proposed changes to the approved project would temporarily consume energy. However, the construction activities would not increase the consumption of nonrenewable energy

resources in a wasteful, inefficient, and/or unnecessary manner beyond what was previously identified and analyzed for the approved project.

The majority of proposed changes to the approved project (including the revisions to Capitol Expressway roadway lane configurations; modifications to the Eastridge Station platforms and tracks; reduction in parking spaces at the Eastridge Park-and-Ride lot; minor shift in the location and straightening of the Story Station pedestrian overcrossing; modification to Story Station pedestrian access; and the proposed relocation of PG&E electrical transmission facilities) would involve modifications to existing or approved project structures. Thus, these proposed changes would not result in additional energy demand compared to the level of exposure previously identified and analyzed for the approved project. In addition, the proposed relocation of a construction staging area would not result in additional energy demand.

One proposed change to the approved project (the extension of the aerial guideway to grade-separate the Ocala Avenue and Cunningham Avenue intersections) would result in fewer vehicle miles traveled and better intersection performance compared to the approved project, as discussed in Section 5.1, *Transportation*, of the SEIR-2. The replacement of the at-grade track alignment with an aerial guideway between south of Story Road and north of Tully Road would enable light rail vehicles to travel at increased speeds compared to the approved project. The increased speeds would result in better system performance. Thus, ridership could increase, which would lead to lower fuel consumption in private vehicles and lower energy consumption for this proposed change to the approved project compared to the approved project. In addition, it is anticipated that the proposed replacement of the at-grade track alignment with an aerial guideway would result in slightly less energy consumption compared to the approved project because the elevated guideway would allow light rail vehicles to avoid traffic signal delay that would occur at intersections for an at-grade alignment. By avoiding traffic signal delay, this proposed change to the project would eliminate the need for additional energy required for light rail vehicle acceleration at intersections. Thus, the system would operate more efficiently, which would lead to lower energy consumption. Although the acceleration effect is anticipated to be minor, this proposed change to the approved project would result in lower energy consumption compared to the impacts previously identified and analyzed for the approved project.

In the 2007 Final SEIR, VTA identified a significant and unavoidable impact to electrical transmission infrastructure during periods of peak demand as the electricity generation and transmission network in California came under increasing strain to meet growing demand from population and economic growth, higher-than-average summer temperatures, and decreasing consumer conservation efforts. Since then, conditions have changed dramatically. As discussed above, the 2017-2018 CAISO Transmission Plan indicates that there are some reliability concerns consisting of thermal overloads. However, these concerns are mostly addressed by previously approved projects, and the 2017-2018 CAISO Transmission Plan identifies additional mitigation requirements to further address these concerns. Given the state's current projections, this increase in electricity demand during peak periods is not considered to represent an adverse effect. As a result, this effect is no longer considered significant and unavoidable.

Impact: Based on the analysis above, the proposed changes to the approved project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to energy.

The following impacts from the 2005 Final EIR would still apply to the proposed changes to the approved project: E (CON)-1 (Consumption of Nonrenewable Energy Resources in a Wasteful, Inefficient, and/or Unnecessary Manner from Project Construction), E (CON)-2 (Consumption of Nonrenewable Energy Resources in a Wasteful, Inefficient, and Unnecessary Manner from Secondary Facilities Activities), E-7 (Place a Substantial Demand on Regional Energy Supply), E-8 (Significantly Increase Peak and Base Period Electricity Demand), and E-9 (Increase Demand on Electricity Transmission Infrastructure).

Mitigation: Operation. None required. This impact is “Less than Significant.”

Construction. The following mitigation measure identified in the 2005 Final EIR would still apply to the proposed changes to the approved project: Mitigation Measure E (CON)-1 (Adopt Energy Conservation Measures). Inclusion of this mitigation measure would reduce this impact to “Less than Significant.”

Less-than-significant operational and construction impact with mitigation.

This Page Intentionally Left Blank