E.1 GROWTH INDUCING EFFECTS

The California Environmental Quality Act (CEQA) requires a discussion of the ways in which a Proposed Project could be an inducement to growth. The *CEQA Guidelines* [Section 15126.2 (d)] identify a project to be growth inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. New employees from commercial and industrial development and new populations from residential development represent direct forms of growth. The expansion of urban services into a previously unserved or underserved area, the creation or extension of transportation links, or the removal of major obstacles to growth are examples of projects that are growth-inducing. It is important to note that these direct forms of growth have a secondary effect of expanding the size of local markets and attracting additional economic activity to the area.

Typically, the growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities such as the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission. Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

It cannot be assumed that the creation of growth-inducing potential automatically leads to growth. Growth occurs through capital investment in new economic opportunities by the private or public sectors. These investment patterns reflect, in turn, the desires of investors to mobilize and allocate their resources to development in particular localities and regions. These and other pressures serve to fashion the local politics of growth and the local jurisdiction's posture on growth management and land use policy (such as the recent passage of Measure D in Alameda County, which is discussed in Section A.2.1). These factors, combined with the regulatory authority of local governments in California in relation to land use, serve to mediate the growth-inducing potential or pressure created by a project.

Potential growth-inducing impacts of the proposed Tri-Valley Capacity Increase 2002 Project could be manifested in two fundamental manners:

- Growth resulting from the direct and indirect employment needed to construct and operate the Proposed Project
- Growth resulting from the additional power that would be transmitted by the Proposed Project.

E.1.1 GROWTH CAUSED BY DIRECT AND INDIRECT EMPLOYMENT

As documented in Section C.10.2.4.1, the construction and operation of the project itself would not affect the employment patterns in the area. Construction personnel would come from the existing labor pool in the Bay Area, most likely from PG&E Co.'s current employees. Operation of the project

would require no full-time personnel, and maintenance would be done by PG&E Co.'s employees responsible for the many existing PG&E Co. facilities in the same project area.

E.1.2 GROWTH RELATED TO PROVISION OF ADDITIONAL ELECTRIC POWER

As documented in Draft EIR Section C.10 (Socioeconomics and Public Services), the nine-county Bay Area is one of the largest and most dynamic metropolitan areas in the country. Its employment and population have grown and are expected to continue to grow at a substantial rate. Between 1990 and 2000, Bay Area population is estimated to have grown by more than 900,000 people to a nine county total of approximately 6.9 million. At the same time, regional employment grew from 3.2 million to approximately 3.7 million, matching the 15 percent increase in population growth. Projections (by the Association of Bay Area Governments) suggest an employment growth rate of 27 percent between 2000 and 2020, or the addition of one million new jobs.

Alameda will be one of the leading Bay Area counties in this job growth, and although its percentage increase forecast from 2000 to 2020, at 30 percent, is not the highest, the projected absolute growth of 219,500 is second only to Santa Clara's projected job growth of 231,000. The forecast 141,000 net new jobs in Contra Costa between 2000 and 2020 represents a 39 percent increase. Dublin's anticipated employment growth of 80 percent from 2000 to 2020, along with growth rates of 54 percent for Livermore and Pleasanton, will be substantially higher than Alameda County as a whole. Likewise, the 58 percent employment growth anticipated in San Ramon is greater than the expected Contra Costa County growth rate.

All industrial sectors are expected to increase their employment with manufacturing and services employment showing the most growth. Dublin and Livermore are also expecting substantial growth in retail jobs. The Tri-Valley cities of Alameda County (Dublin, Livermore, Pleasanton) are growing faster than the remainder of the County. In 2000, 15.2 percent of Alameda County jobs were in the three cities, a ratio expected to increase to 18.8 percent by the year 2020. The construction industry within the county is large and growing as well. In Alameda County, there are approximately 38,500 persons employed in the construction industry in 2000, a 17 percent increase since 1995.

This employment growth, along with the associated population and housing growth, is the driving force behind the need to expand the electrical service capacity of the Tri-Valley area. As shown in Draft EIR Table E.3-1 and Figure E.3-1 (cumulative projects scenario), there are several large development projects in the agency review process. Many other large projects are already under construction or have recently been completed in the area. The Proposed Project did not cause this growth to occur; rather it has resulted from the economic success of the Bay Area, and more particularly, the growth of high tech businesses that are rapidly occupying a central place in the Tri-Valley business community (spilling over from Silicon Valley). PG&E Co. is responding to growth that is occurring and planned, based on city and county planning documents. Given the projections by ABAG, it is extremely difficult to conclude that the Proposed Project could foster growth beyond these already high levels.

There is potential for the Proposed Project's provision of electric service infrastructure to the currently under-developed North Dublin and North Livermore areas (via the new Dublin and North Livermore Substations) to accommodate growth levels in these areas beyond those currently permitted by local or regional plans and policies. As already noted, such potential is mediated/mitigated by the local politics of growth and the local jurisdiction's posture on, and regulatory authority over, growth management and land use policy (such as the recent passage of Measure D in Alameda County, discussed in Section A.2.1). However, the potential for growth-inducement in these two relatively undeveloped areas of eastern Alameda and Contra Costa Counties was one factor in the development of certain alternatives to these components of the Proposed Project (D1 and L2), in order to move the substations closer to the customer load already represented in approved plans and permits. The cumulative impact scenario (Section E.3) reflects the weighting of planned development closer to the I-580 and I-680 corridors, rather than at the northern edge of the Tri-Valley area, where the Proposed Dublin and North Livermore Substations are sited. Clearly, the passage of Measure D to place more substantive restrictions on the nature and size of development in these areas casts the potential for significant impact in higher relief.

In its December 2000 filing with the CPUC on the effect of Measure D on the projected load demand for the Tri Valley project area, and specifically for the Livermore distribution planning area (see Section A.2.1), PG&E Co. avers that its projection of demand (and need) for the Proposed Project is based on approved projects only, and not on growth which Measure D now prohibits. For the Livermore-Las Positas Distribution Planning Area (DPA), reflecting actual load in the past two years and the growth associated with these approved projects, PG&E Co. projects a shortfall in 2002 at its existing capacity of about 18 MW (or roughly 14 percent). While the exceedance of capacity in the Livermore-Las Positas DPA is clearly of concern, the question is whether the 230 kV substation and transmission system proposed by PG&E Co. in North Livermore (and in North Dublin) is necessary to address this relatively small, projected overrun. Will the additional, surplus capacity (much larger than the deficit these additions are proposed to address) resulting from construction of both of these new substations and transmission lines induce growth beyond that which is currently permitted? The answer seems to be that it is quite possible, barring sharper escalation in demand by existing customers than the 10 percent reflected in the actual load figures for the past two years that PG&E Co. cites in its recent filing.

There are a couple of different approaches to avoiding this significant impact:

- 1. Scale back the North Area capacity increases to be more commensurate with the projected, approved growth (e.g., 18 MW in the Livermore-Las Positas DPA), such as distributed generation. This could be considered part of the No Project Alternative (see Section 13.3).
- 2. CPUC approval of Alternatives D1 and L2, which would move this additional capacity (and associated footprint) south, toward the I-580 corridor where development is largely focused. However, Alternative L2 is not the Environmentally Superior Alternative for the North

Livermore Area, so at least part of this method is not effective in reducing overall environmental impacts.

A mitigation possibility would be to limit the number of distribution connections served by the Proposed Project's Dublin and North Livermore Substations to that currently permitted by the relevant local jurisdiction. However, such limits could be very difficult to quantify (e.g., for commercial developments where the number of potential tenants is generally not set in plans, and whose demand for electric service will be substantially different from residential service) and even more unwieldy to administer and enforce, and therefore are not recommended.

Therefore, this would remain a significant, unavoidable impact (**Class I**) for the Proposed Project in the North Area (Dublin and North Livermore).

E.2 SIGNIFICANT IRREVERSIBLE CHANGES

The *CEQA Guidelines* [Section 15126.2(c)] require an evaluation of significant irreversible environmental changes that would be caused by a project if implemented. In general, the *CEQA Guidelines* refer to the need to evaluate and justify the consumption of nonrenewable resources and the extent to which the project commits future generations to similar uses of nonrenewable resources. In addition, CEQA also requires that irreversible damage resulting from an environmental accident associated with the project be evaluated. Pursuant to Section 15126.2(c) of the *CEQA Guidelines*, significant irreversible environmental changes must be identified and may include the following:

- Use of nonrenewable resources during the initial and continued phases of the project that would be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely
- Primary impacts and, particularly, secondary impacts which commit future generations to similar uses (such as a highway improvement that provides access to a previously inaccessible area)
- Irreversible damage that may result from environmental accidents associated with the project.

The transmission line construction phase would require an irretrievable commitment of natural resources from direct consumption of fossil fuels, construction materials, the manufacture of new equipment that largely cannot be recycled at the end of the project's useful lifetime, and energy required for the production of materials. Furthermore, construction of the transmission line would necessitate some vegetation and habitat removal, as evaluated in Section C.3 (Biological Resources). Assuming implementation of the mitigation measures recommended in this EIR, permanent loss of biological resources would be confined to project structure locations.

During the project's operational phase, the transmission line would allow for the transport of additional electrical power generated from nonrenewable resources (e.g., natural gas, large hydroelectric, coal), as well as an increasing proportion of renewable resources (e.g., wind, solar, small hydroelectric). While the construction of the Proposed Project (substations and transmission lines) does commit the future use of some amounts of nonrenewable resources, the Project is indifferent to whether the energy it transports is nonrenewable or renewable. Another way to look at the Project's potential is that it could also facilitate the distribution of renewable resources.

The occupation of PG&E Co.'s currently-vacant easement across the open space at the north edge of the Tri-Valley area, as well as through the Altamont Hills east to the Tesla Substation (in Phase 2), and the construction of a new transmission line corridor in open space south of Pleasanton, would commit future generations to this visual impact, as witnessed by the continued presence of a pair of steel towers in the Stanislaus Corridor almost 100 years after they were first built, and years after they were last used to deliver electricity. Similarly, while EMFs have not been conclusively determined to have adverse health impacts on humans, the Proposed Project's undergrounding in residential streets of Pleasanton would commit future generations to relative proximity to the 230 kV line, while the sophistication of scientific knowledge and technology to assess the impact of EMFs on humans continues to progress.