

5.0 ELECTRIC MAGNETIC FIELDS (EMF)

Over the last several years, representatives of the public have expressed concern about the potential health risk associated with power frequency electric and magnetic fields (EMF). Numerous internationally recognized scientific organizations and independent regulatory advisory groups have conducted scientific reviews of the EMF research literature. The results of this research are inconclusive and public concern and scientific uncertainty remains regarding the potential health effects of EMF exposure.

In January 1991, the CPUC issued an Order Instituting Investigation to develop policies and procedures for addressing potential health effects of magnetic fields from utility facilities. The CPUC formed the California Consensus Group (CCG), a committee of 17 stakeholders representing diverse interests and perspectives, to provide guidance on interim EMF measures the CPUC might have adopted while waiting for resolution of scientific uncertainties. In March 1992, the CCG issued its report. In part, the report recommended that the CPUC authorize utilities to implement magnetic field reduction techniques if those techniques could be implemented at little or no cost. In November 1993, the CPUC issued Decision 93-11-013 adopting interim policy regarding EMF. California's electric utilities were authorized to implement no- and low-cost (low cost is defined as 4% percent of total project cost) field management techniques to reduce EMF levels from new and upgraded electrical facilities if a noticeable reduction could be achieved.

The proposed Hobart Substation Rebuild project incorporates measures to reduce EMF exposure in compliance with CPUC Decision 93-11-013. These measures include engineering techniques to reduce exposure to magnetic fields created in electric facilities, and for the Hobart Substation Rebuild project include the following:

1. Locating substation equipment as close to the center of the substation as possible;
2. The use of metal clad switchgear for 12 kV bus work to reduce phase spacing and produce lower magnetic fields; and
3. Locating substation equipment as close to the existing transmission right-of-way as possible.