I am not convinced that these new power lines are necessary at all.
- I believe that it would make much more sense to generate the power on Vancouver Island in the first place, where it will be used.
- They could build a LNG (Liquified Natural Gas) terminal in a sparsely populated area on the Island and generate the power right there.
- BCTC said in an earlier meeting that the new line is needed in only if their is a failure of the existing 500 KVA line up north.

Why would BCTC choose to go right through our backyards with this new power line when there are hundreds of miles of uninhabited coast line that could be utilized instead?
- Perhaps it is because of our close proximity to the U.S. Border.
- Perhaps the real reason is that they want to use the new line to transport excess power through Vancouver Island and Tsawwassen to export it to the U.S.
- I am sure BCTC will deny this, since they are representing that they need to move more power from the Mainland to the Island. I would like to see a legal restriction placed on BCTC so they are never allowed to move power in the other direction.

While I believe the underground option is vastly superior to the above-ground option I really think that it should not go through Tsawwassen at all.

Also, I cannot understand why BCTC says that if the new lines go above ground they can will eliminate both of the existing sets of power lines whereas if they go below ground we have to live with one of the existing ones until 2018. Surely whatever they can do above ground they can do below ground. I think the only logical explanation for doing this is to punish the residents of Tsawwassen for not agreeing to the cheapest proposal. I believe BCTC has a hidden agenda of trying to get the BCUC to revert back to BCTC’s original plan of going above-ground while subduing the opposition by saying that the will go underground. Why else would they publish statements like the above-ground option will have a “neutral” impact on property values. That is ridiculous. There is no doubt that if we have giant high-power lines in our backyards instead of the current ones the property value will go down. I do not trust BCTC to remove the lines in 2018 as they say they will. I think all of the old lines must be removed now, or we may be stuck with them forever.

If you do go ahead with the underground lines, I believe the transition point from the overhead lines to the underground lines at the north end of Tsawwassen must be moved further North to the other side of Highway 17 to allow for future growth of the community and to reduce the visual impact. It’s going to be pretty ugly having the huge above ground power lines going right to the edge of our community.

Regarding EMF — a reduced risk does not equal an acceptable risk. BCTC has no right to endanger my children at all. These people have a duty to not endanger the public. They cannot just pretend that the risk is not all that bad and act like the big tobacco companies hiding behind self-serving studies that they themselves have commissioned while ignoring all the other studies. The evidence is now becoming quite clear. EMF is a health risk.

In 1993, the Public Utilities Commission of the State of California ruled that they would insist on no-cost and low-cost measures to avoid exposing people to EMF when they are approving new power lines. At that time low-cost was defined as 4% of the total cost of the project. Since the Vancouver Island project is estimated to cost at least $245 million, the 4% threshold for low-cost
measures would be about $10 million dollars in our case. But remember, that ruling was in 1993. Since then, they have taken a much stronger stance against EMF. In 2002 the State of California ruled that the state of knowledge has advanced in the period since 1993, and that "several studies in the intervening years have found correlations that we cannot responsibly ignore."

In 2002 the California Department of Health Services had 3 scientists review several other scientific studies that had been done and here are their conclusions:

- All three of the DHS scientists were inclined to believe that EMF exposure can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's Disease, and miscarriage.

- One scientist was "prone to believe" and two were "close to the dividing line between believing or not believing" that EMFs cause some degree of increased risk for adult leukemia.

- All three scientists had judgments that were "close to the dividing line between believing and not believing" that EMFs cause some degree of increased risk of suicide.

I believe that you have a duty to protect the public, and just like the State of California you too cannot responsibly ignore the studies.

In addition to EMF there are many other good reasons not to have power lines right next to your bedroom.

- They are ugly
- They destroy property values
- They are noisy - they buzz and hum a lot especially when it is foggy.
- They vibrate and rattle as the high voltage pulses through them
- They cause stress and muscle tension
- They prevent us from fully enjoying our lives

We are not a third world country. Surely our society has evolved to the point where we value our quality of life enough that we won't put major long-distance power lines right through the middle of our town. I beg of you, please do not allow BCTC to destroy our community. Past mistakes in planning are no excuse for perpetuating the problem for all eternity. It is time to do the right thing and re-route of the power lines away from the people.
BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA


Application 02-09-043

(Filed September 30, 2002)

(See Attachment A for List of Appearances.)

OPINION GRANTING A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

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EMF Issues

During the proceeding, there was a great deal of public interest and concern regarding potential health effects from EMF exposure due to power lines. Several intervenors along the proposed Jefferson-Martin route ask that the Commission choose a route that reduces or eliminates the risks associated with EMF exposure, particularly to high priority groups including schools, day care centers, and residences.

The FEIR provided extensive information regarding EMFs. However, it did not consider EMF exposure in its determination of the environmentally superior routes on the basis that there is no agreement among scientists that EMF creates a potential health risk and there are no defined or adopted CEQA standards for defining health risk from EMF. As noted in D.90-09-059, § 1002 provides us with responsibility independent of CEQA to include environmental influences and community values in our consideration of a request for a CPCN. The intervening parties have made clear that the potential for health effects due to EMF from this project is of grave concern to the affected communities. Pursuant to § 1002, we consider EMF issues as we determine which project alternative should be authorized.

In 1991, the Commission initiated an investigation, I.91-01-012, into EMFs associated with electric power facilities. In D.93-11-013 in that proceeding, we found that, while EMF studies available at that time did not conclude that an EMF health hazard exists, it was appropriate to adopt several EMF policies and programs because of public concern and scientific uncertainty. We required that utilities undertake no-cost EMF mitigation measures and that they implement low-cost mitigation measures to the extent approved through a project's certification process. We defined "low-cost" to be in the range of 4% of the total project cost but specified that this 4% benchmark is not an absolute cap. We found that, to be implemented, a mitigation measure should achieve some noticeable reduction in EMF but declined to adopt a specific goal for EMF reduction. We instructed that workshops be held and that the utilities develop EMF design guidelines for new transmission facilities. We adopted several EMF measurement, education, and research programs and chose the California Department of Health Services (DHS) to manage the education and research programs.

A. Scientific Research Regarding EMF

The FEIR and the parties in this proceeding reported the results of a number of scientific studies related to EMF. Intervenors along possible Jefferson-Martin routes cite numerous scientific studies that, in their view, provide compelling reason for concern about the potential health risks associated with EMFs from power lines. They maintain that numerous studies have demonstrated an association between EMFs and serious diseases, even if causal links have not been established. San Mateo asserts that anxiety and lack of certainty about the safety of EMF exposure, by themselves, create a public health issue, citing potential stress-related health effects. These intervenors recommend that, in light of the studies and continued uncertainty, the Commission choose a route alternative that reduces or eliminates the risks associated with EMF exposure. 280 Citizens asks that the Commission adopt a standard that transmission-related EMF exposure from the combined effect of the existing 60 kV and new 230 kV lines should not exceed 1 mg at residential property boundaries. It asks that the Commission route the southern segment away from residential areas and schools where feasible and, where that is not feasible, require that the lines be undergrounded in a manner that achieves this standard.

PG&E responds that there is no scientific basis that EMF exposure causes adverse health effects. Its expert witness testified that, despite decades of scientific inquiry, there remains insufficient scientific evidence to conclude that EMF causes any adverse health effects. PG&E asserts that the state of scientific knowledge remains where it was when the Commission adopted the precautionary approach of requiring no-cost and low-cost mitigation but declined to adopt a numerical limit. PG&E maintains that there is still no scientific basis to set any health-based EMF standard and concludes that there is no reason to depart from the Commission's 1993 no-cost, low-cost EMF reduction policy. CARE agrees with PG&E that EMF is not a serious consideration that would affect the balance of issues in this case.

The state of scientific knowledge has advanced in the period since we issued D.93-11-013. While causation has not been proved definitively, several studies in the intervening years have found correlations that we cannot responsibly ignore. In assessing the numerous scientific EMF studies, we find DHS's comprehensive review of existing EMF studies undertaken at the Commission's direction in I.91-01-012 to be of particular value. The DHS study reviewed several of the other scientific studies cited in this paper and thus took those studies' findings into account in its conclusions. Three DHS staff scientists undertook the evaluation and the DHS final report, published in 2002, identified their individual professional judgments regarding EMF risks. Their conclusions include the following:
All three of the DHS scientists were inclined to believe that EMF exposure can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's Disease, and miscarriage.

One scientist was "prone to believe" and two were "close to the dividing line between believing or not believing" that EMFs cause some degree of increased risk for adult leukemia.

All three scientists had judgments that were "close to the dividing line between believing and not believing" that EMFs cause some degree of increased risk of suicide.

They were all inclined to believe that EMF exposure does not cause an increased risk of breast cancer, heart disease, Alzheimer's Disease, depression, or symptoms attributed by some to a sensitivity to EMFs.

They all strongly believed that EMFs do not increase the risk of birth defects or low birth weight, and that EMFs are not universal carcinogens since a number of cancer types are not associated with EMF exposure.

While there is no definitive proof at this point, we must proceed with the knowledge that EMF exposure may increase the risk of certain health effects. In routing the Jefferson-Martin project and considering PG&E's EMF management plan for the project, it is entirely appropriate and prudent for us to consider the EMF levels that would be created by the various possible routings and configurations of the project. At the same time, we find that the state of scientific knowledge has not advanced to the point to support adoption of the numerical EMF exposure standard that 280 Citizens proposes.

B. EMF along Routes under Consideration

Several intervenors along the proposed Jefferson-Martin routes ask that, if a Jefferson-Martin project is authorized, the Commission choose a route that reduces or eliminates the risks associated with EMF exposure.

The overhead southern segment of PG&E's Proposed Project would be located in watershed lands and would pass next to residential developments in the unincorporated San Mateo County area known as The Highlands, the Town of Hillsborough, and the City of Burlingame. It would pass the Hillcrest Juvenile Detention Home in San Mateo (over 125 feet east of the alignment) and Nueva School in the Town of Hillsborough on the opposite side of I-280 from the route.

The underground southern alternative Route Option 1B would be located partly in watershed lands but would traverse residential areas along Skyline Boulevard, Trousdale Drive and El Camino Real. It would pass Franklin Elementary School, set back about 75 feet from Trousdale Drive, and Mills-Peninsula Hospital, with buildings set back about 275 feet from Trousdale Drive.

The majority of the underground northern segment of the Proposed Project would pass through commercial areas. However, there are several residential areas along this portion of the Proposed Project, including along San Bruno Avenue, Huntington Avenue, the BART right of way, Lawndale Drive, Hillside Boulevard, Hoffman Street, and Orange Street. Route Option 4B would avoid the residential areas on Hoffman and Orange, but would pass other residences on Hillside Boulevard and East Market Street. The underground segment would pass Kaiser Permanente Medical Center and also several schools:

- Herman Tot Lot day care center (San Bruno)
- South San Francisco High School (South San Francisco, with school buildings set back 750 feet from the alignment)
- Los Cerritos Elementary School (South San Francisco)
- Boys and Girls Club (South San Francisco, 11 feet from the line)
- El Camino High School (South San Francisco, with school buildings 50 feet from the alignment)
- Susan B. Anthony High School (Route Options 4A and 4B, Daly City, with school buildings over 100