

July 31, 2009

Mr. Jensen Uchida
San Joaquin Cross Valley Loop Transmission Project
C/O Environmental Science Associates
225 Bush St., Ste. 1700
San Francisco, CA 94104-4207

RE Docket Number A.08-05-039

Mr. Uchida,

I appreciate the opportunity to comment to the California Public Utility Commission (CPUC) regarding the San Joaquin Cross Valley Loop Transmission Project. I previously provided testimony concerning SCE's request. A full copy of that testimony is attached.

I am a long time builder/developer in the Visalia area with land that will be affected by either of the routes pending. Route 1 will affect property we own in Farmersville. Routes 2 & 3 will all affect our Visalia project River Run Ranch more severely. Having said that, we realize the power system must go somewhere and it's going to happen.

Personally, I favor Route 3.

Routes 2 & 3 impact my company and property more than Route 1. However, Route 1 would be devastating to the City of Farmersville which in the last few years has begun to emerge as more than a suburb of Visalia.

How can you make Routes 2 & 3 more acceptable? How can your body improve the circumstances that this project be approved, constructed and maintained during its operations over the next 50 years?



The
Donald Lawrence Construction Company

P.O. Box 2622, Visalia, CA 93279 (559)625-5544

These points should be considered:

- 1) Utilizing existing power line easements is the most efficient, but they are old and simply outdated. The original easement dates that affect our property go back to the early 1900's and don't limit the use of the land as severely as Edison tries to enforce today. The easements need to be refreshed for such a serious expansion.
- 2) The area we own used to be in the country and agricultural. Today, it is transforming to homes and neighborhoods within the City of Visalia limits. We need a new approach to areas within the City of Visalia.

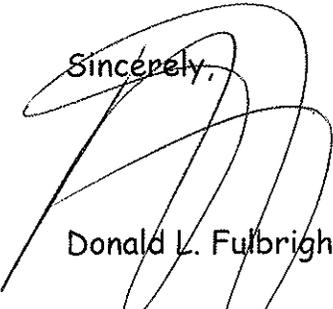
The property is strictly controlled by both Edison and the City of Visalia. The land owner is burdened with maintenance of tumbleweeds and property taxes without a way to make the property pay for itself.

The solution is to allow the portion of chosen Route (2 or 3) that are within the City of Visalia limits be turned into a Publically Supported Landscape Trail System. This would serve to offset the economic, social and environmental effects of the proposed expansion. The upgrade of the system if you will should also serve to upgrade and reflect the current conditions of the surrounding property that is now the east side of Visalia consisting of people, neighborhoods and community.

In our testimony we have provided excellent "Before" and "After" examples of the converting of tumbleweed easement areas to **community serving assets**.

We strongly encourage the commission to incorporate some sort of Edison/City of Visalia partnership to utilize this easement area (Walnut Ave. north to St. Johns River) into an easement Edison Trail System linking other City assets including the River Trail, Sports Park 1 and the new Sports Park 2 adjacent to the proposed easement.

Sincerely,



Donald L. Fulbright

Attachment

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Application of Southern California Edison Company (U 338-E) for a Certificate of Public Convenience and Necessity for the San Joaquin Cross Valley Loop Transmission Project.

Application No. 0805039
(Filed May 30, 2008)

**PREPARED DIRECT TESTIMONY OF DONALD FULBRIGHT
ON BEHALF OF
THE CITY OF VISALIA**

1 **PREPARED DIRECT TESTIMONY OF DONALD FULBRIGHT**
2 **ON BEHALF OF**
3 **THE CITY OF VISALIA**

4 **Question 1:** What is your name, background and experience?

5 **Answer:** Donald Fulbright. I have been a real estate developer/builder in the Visalia
6 area since 1975. I have completed developments in five different cities, all in the proximity of
7 Visalia. I have built more than 3,000 homes in my career.

8 **Question 2:** Do you own property that will be affected by the proposed Southern
9 California Edison San Joaquin Cross Valley Loop Transmission project?

10 **Answer:** I have developments in Visalia and in Farmersville, both of which could be
11 affected by the project depending on which route is selected. The most direct impact will be in
12 Visalia, where my company, Donald Lawrence Company (holding title to the property as
13 Castlewood Partners Inc.), owns the residential development (River Run Ranch) immediately
14 west of the existing power lines, north of Houston Avenue. This development currently consists
15 of 225 completed homes, all of which have been sold, and an additional 72 acres of partially
16 completed residential neighborhoods, which on completion and build-out will have
17 approximately 300 homes. The City of Visalia has approved a master site plan and tentative
18 subdivision maps for approximately 158 homes in the undeveloped area of River Run Ranch on
19 the west side of the Edison right of way. There are 54 lots on 17 acres that are currently under
20 development in this phase (see attached Exhibit A) pursuant to an approved subdivision map.
21 We have submitted building plans to the City for these homes and construction will begin soon.
22 All of the streets and roads in this portion of the River Run Ranch development have been
23 completed and the main trunk lines for sewer, water, and storm-water have been installed.
24 There are conceptual plans for the remaining 55 acres of the River Run Ranch development west
25 of the Edison right of way, as shown on Exhibit A.

26 Our company also owns the land underlying the Edison power line easement and the 64
27 acres of vacant land east of the power lines, which has not yet been annexed to the City. This
28 area, which has been pre-zoned for commercial land uses, low density multi-family, and single

1 family housing, will eventually comprise the eastern portion of our River Run Ranch
2 development.

3 The attached map (Exhibit A) also shows the conceptual layout for a multi-use corridor
4 that includes a possible alignment of the future Visalia Parkway and a pedestrian trail underlying
5 the power lines.

6 The Edison company currently has a right of way for power lines that cross through the
7 River Run Ranch property in a north-to-south direction for 2,300 feet. Edison's easement,
8 which was established in the early 1900's, is 150 feet in width and allows use of the land by the
9 underlying land owner, with height restrictions applicable to any improvements.

10 If any of the Alternate Routes, as identified in the Draft Environmental Impact Report
11 for the subject project, are selected, it is my understanding that the existing power lines in the
12 right of way that crosses the River Run Ranch would be changed. Specifically, the current twin
13 sets of 63-foot lattice towers, carrying three lines each, would be replaced with new twin sets of
14 mono-pole towers that will be anywhere from 120 feet tall to 160 feet tall, each pole carrying six
15 lines for a total of twelve lines, as compared to the current total of six lines.

16 **Question 3:** How will the intensified use of the power line easement affect your planned
17 development?

18 **Answer:** We specifically designed the River Run Ranch development with special
19 features to offset the impact of the existing power lines. Specifically, we made provisions in the
20 design that ensured that only seven of the planned 525 homes west of the Edison right of way
21 are closer than 140 feet from the nearest power line. As is shown on the attached Exhibit A, we
22 were careful to ensure that a great majority of the streets, public open space and other similar
23 amenities were included in this 140 foot buffer. We designed the development to include this
24 buffer because we were concerned about the desirability of homes situated any closer than 140
25 feet from the power lines. In particular, home buyers will be concerned about the possible
26 electro-magnetic field effects of living close to the lines as well as having to listen to the
27 constant buzzing noise that the lines emit and the crackling sound that comes off of the lines
28 after it has rained.

1 If we had known that Edison was going to propose a transmission line project with pole
2 structures between 120 and 160 feet tall, we would have designed an even wider buffer area, in
3 the range of between 200 and 275 feet, instead of 140 feet.

4 If the height of the towers and the number of the lines on the towers are both doubled, it
5 is my opinion that the negative influence on potential buyers for homes in the immediate
6 vicinity is more than doubled.

7 **Question 4:** Doesn't raising the height of the pole structures actually provide a benefit
8 to your development?

9 **Answer:** As I understand it, even though the replacement poles will be taller under
10 the proposed project and the alternative routes, the lowest level of lines will still be
11 approximately 60 feet above ground level, about the same height as the current lines. Also, the
12 future lines will feature three vertical rows of lines, instead of just one. This means that there
13 will be an increased visual impact, with little or no offsetting benefit. Although I have heard
14 that the new pole set up will provide some level of improvement in electro-magnetic fields
15 exposure, in my experience, people do not bother to learn the latest science on electro-magnetic
16 field: if they can see the power lines, they will have a negative reaction, and there is no doubt
17 that more people will see the planned 160-foot towers than currently see the existing 60-foot
18 towers.

19 In my experience, any home that has an obvious view of major transmission lines is more
20 difficult to sell, and it will sell for approximately \$20,000 to \$30,000 less than other homes in
21 the same subdivision that do not have the same view of these lines. With the greater height, the
22 transmission lines will now be visible from further away; however, it is too late for us to
23 redesign our development to reduce the effect of the proposed project on the sales price of
24 homes in the development. It is my opinion that approximately 30 to 35 homes in our
25 subdivision will now experience a negative sales impact, with a corresponding total reduction in
26 value of approximately \$600,000 to \$1,000,000, as a result of raising the height of the pole
27 structures consistent with the project design. And that is only with regard to our currently
28

1 approved, but not yet built, subdivision. I have not attempted to calculate the negative impact to
2 the value of the land to the east of the power lines that we are holding for future development .

3 Even if we were able to redesign the development to provide a larger set back from the
4 transmission line right of way, that would translate into a much smaller return on our
5 investment because we purchased the land anticipating the current setback, not a larger set back.
6 If we had known of the proposed Edison project at the time we initially purchased the property,
7 we would have factored this lost land into the purchase price. As a ballpark estimate, the value
8 of the land that we will not be able to develop as a result of the project as currently proposed,
9 (approximately 8 acres, based on an additional 150 feet from west to east and 2,300 feet from
10 north to south) is approximately \$650,000 in current values (based on a conservative estimate of
11 \$80,000 per acre).

12 **Question 5:** Are there features that could be incorporated into the project that you
13 believe would offset the economic and social effects of the project on your development that
14 you have described and that would provide important community benefits?

15 **Answer:** We obviously have taken steps in terms of designing the development on
16 our own land, including providing a buffer area, to address the effects of the existing
17 transmission lines. Ideally, in addition there are public uses and amenities that could be added
18 in this area to address the additional effects of the proposed project that I have described above.
19 We have attempted to show one concept for such public uses in the potential trail alignment that
20 can be seen on the attached Exhibit A. Amenities within the trail corridor underlying the
21 transmission lines would include publicly supported landscaping, including trees to help offset
22 the vertical visual effect of the poles, and walking and biking trails or horse paths.

23 Attached as Exhibit B are a series of photos of the desired type of conjunctive use that
24 would provide concrete benefits to the community and would offset the significant economic
25 effect that the new transmission lines will have on the River Run Ranch development. These are
26 photos of a Pacific Gas and Electric utility alignment in San Jose, California showing the before
27 and after utility line corridor. These photos, obtained from the National Trails Training
28 Partnership website, are available on line at

1 <http://www.siparks.org/Trails/SilverCrLower/SilverCrLowerPhotos.htm>. We have not been
2 successful in getting such amenities established in our own buffer zones, primarily because we
3 cannot get the necessary approval for these uses on the land under the lines. However, as the
4 attached Planning West Magazine article from July-August 2008 - "Developing Near
5 Transmission Lines" - shows, amenities such as landscaping provide one of the most effective
6 methods to diffuse the effects of power lines and, as a result, contribute to an attractive
7 community that serves to enhance neighborhood appeal and residential property values. (See
8 Exhibit C attached hereto).

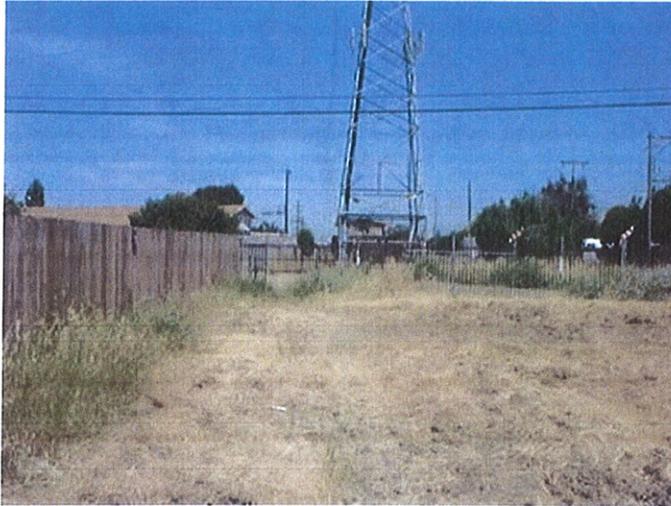
9 I also believe such a multi-use public open space area would help offset the impact of the
10 project on the community at large, as well as to future planned development on the areas to the
11 east of the City. Incorporating into the power line expansion project a conversion of the vacant
12 land under the towers into a community amenity has the potential, in my opinion, to turn a
13 negative influence on this neighborhood into a positive amenity that would be put to great use
14 by a number of community groups and events.

Lower Silver Creek Trail, North – Photo Gallery

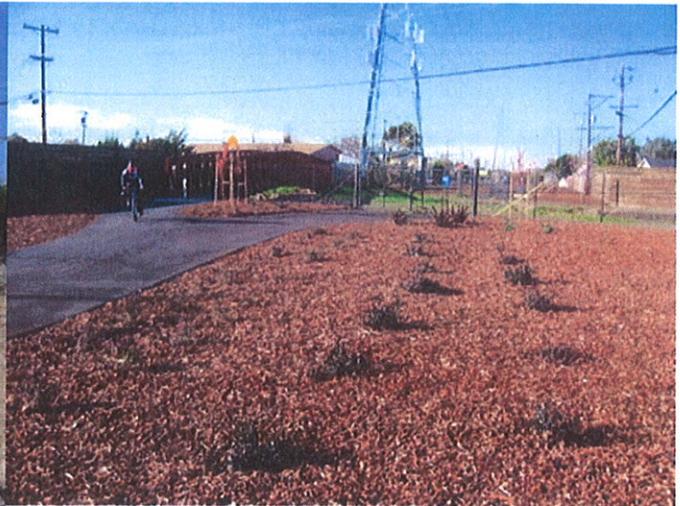
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Dobern Bridge



From Bambi Lane - Before



From Bambi Lane - ***After!***

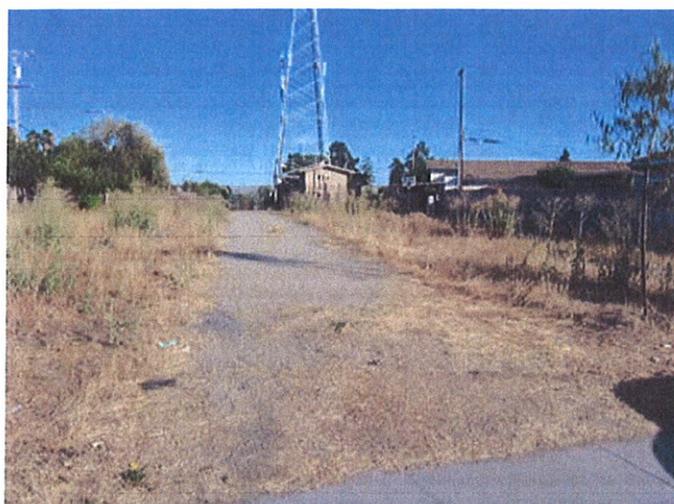


Toward Bambi Lane - Before



Toward Bambi Lane - ***After!***

Comment Letter O21



From Dobern Ave - Before



From Dobern Ave - **After!**

Wenlock Drive Pedestrian Corridor

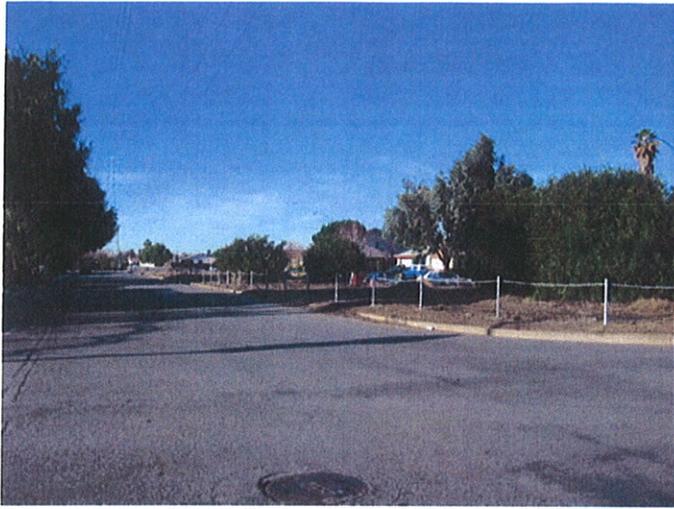


Along Wenlock Drive - Before

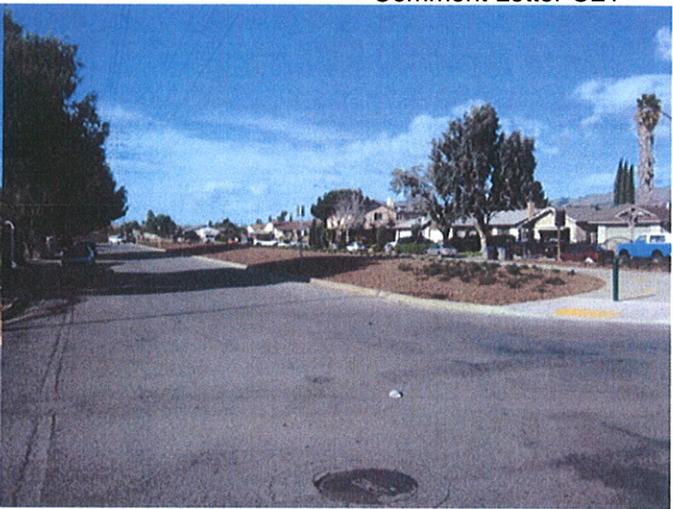


Along Wenlock Drive - **After!**

Comment Letter O21



From Dumont Circle - Before



From Dumont Circle - *After!*



...more after



...more after



...more after



... and even more after

Lausett Ave Bridge



Lausett Ave Bridge - Before



Lausett Ave Bridge - After!



From Lausett Ave - Before

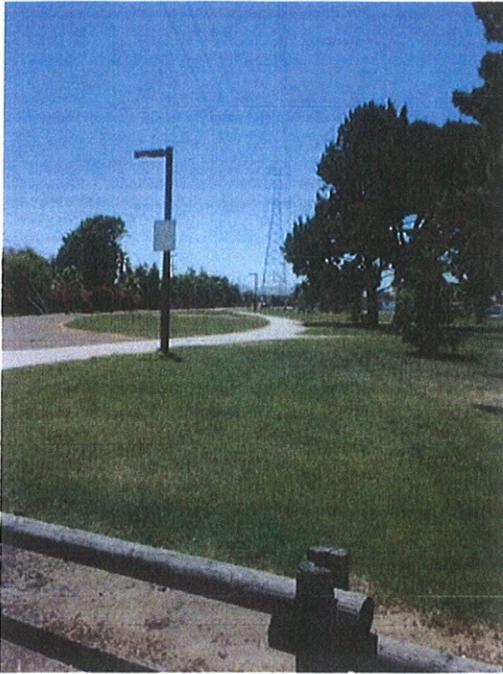


From Lausett Ave - After!

Kammerer Avenue Bridge

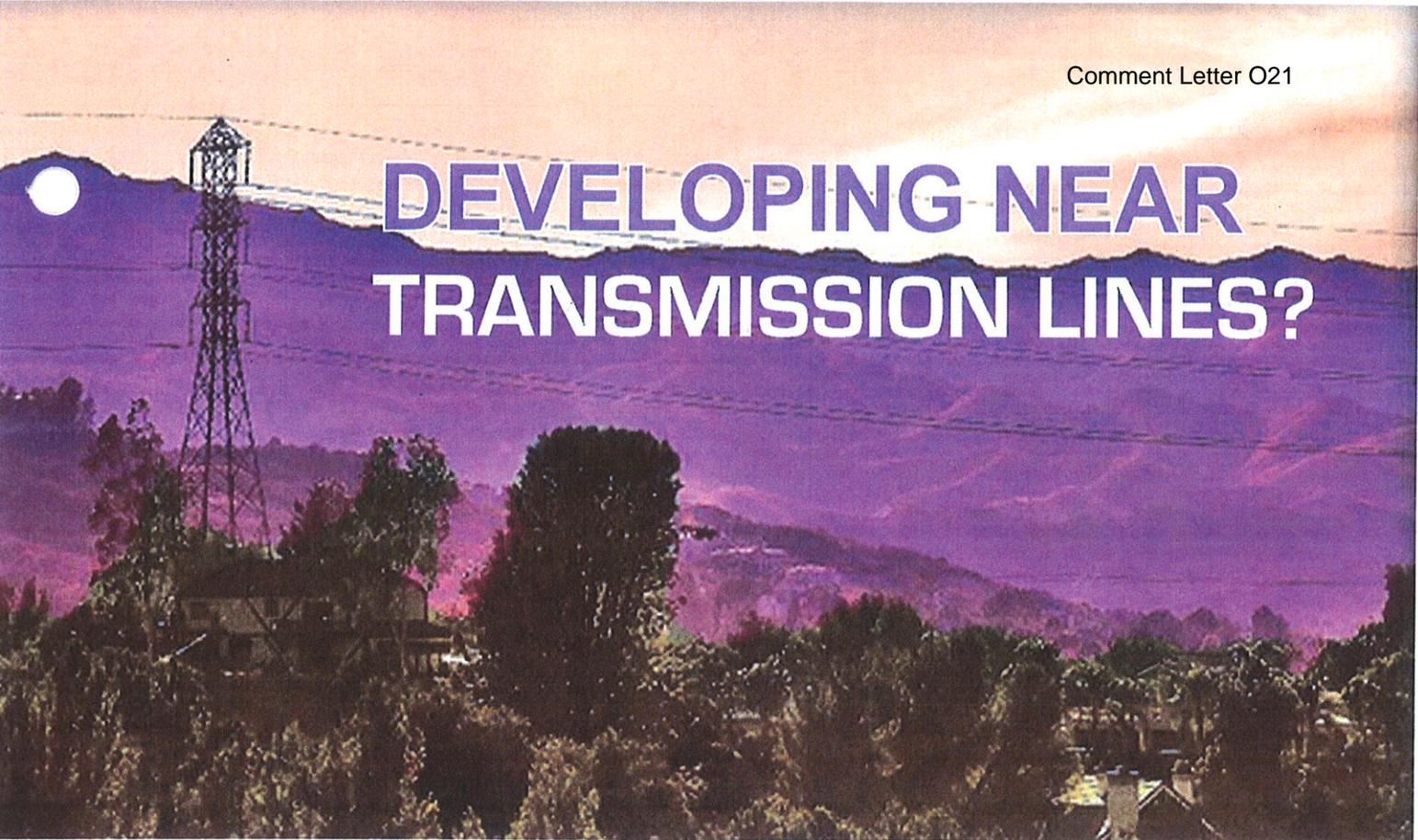


Trail through Capitol Park



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DEVELOPING NEAR TRANSMISSION LINES?

**A little planning can go a long way in
minimizing their impact.**

BY GARY HOLISKO, MCIP

Lands under power lines and transmission towers, though primarily owned by private landowners, are subject to specific rights contained in the statutory right of way agreements referred to as rights of way. The agreements restrict owners' rights to activities that do not impact public safety, interfere with the operation of the lines, cause a hazard, or interfere with the rights granted. They also generally allow for the construction and maintenance of the existing facilities, including tree cutting and their replacement with future lines.

BC Transmission Corporation (BCTC) is a Canadian company established in 2003 as a provincial Crown corporation to focus on building and maintaining a safe, reliable and cost-effective power grid. BCTC recently published guidelines for development adjacent to its transmission corridors. The guidelines will assist landowners, designers, planners, developers and communities who are working within or beside power lines and transmission towers to minimize their impact and promote a quality environment.

BCTC was formerly the transmission group within BC Hydro, another provincial Crown corporation which continues to be responsible for generation and distribution services in much of BC. While BC Hydro retains ownership of the physical assets and the legal tenure for the rights of way, BCTC is responsible for operating, planning and maintaining the province's publicly owned high-voltage electric transmission grid. Transmission voltage power is delivered through

an interconnected system of more than 18,000 kilometers of transmission lines to substations which in turn step down the voltage for distribution. BCTC manages 20,500 steel towers, 75,000 wood poles, and 287 substations.

Designing Around Power Lines: Draft Guidelines

Landowners and developers often see proximity to power lines and rights of way as a factor that may affect property values. However, with effective planning and design, transmission corridors can provide benefits to landowners and create better, more aesthetically pleasing communities. A right of way on private property can create opportunities for individual property owners to enjoy larger lot sizes with the potential for large gardens and outdoor spaces, while the use of public right of way corridors for public amenities such as walking trails, playing fields and bicycle paths contributes to attractive communities which in turn serves to enhance neighborhood appeal and residential property values.

The Design Elements

It is important to create a harmony between density, alignment, orientation and landscaping, in order to create an aesthetically appealing community.

Topography

The location of towers can have an enormous impact on public perception. When towers are set in an elevated position and are viewed from lower ground, the scale and visual impact of the towers is emphasized. Conversely, where towers are viewed from an elevated position the visual impact is reduced. Towers set across the brow of a hill will be silhouetted against the sky and will appear more prominent than towers set in a similarly elevated position but with rising land or built development behind them.

Density

The density of property surrounding the tower can also affect its visual impact and perception in the community. By placing buildings with higher heights closest to the overhead power line, views of the line from public areas can be minimized. Higher densities close to power lines, particularly in residential areas with lower heights, can typically have a negative perception.

Alignment and Orientation

The alignment of streets and paths can reduce the number of direct views of towers, minimizing their impact and reducing the impression of a linear corridor.

Buildings should be oriented to minimize direct views of towers. Some developments may face towards the overhead power lines, rather than towers, as part of a variety of design responses to the transmission route. Development blocks adjacent to overhead power lines can also be left open ended, using the resultant space to create public gardens, squares or parking courts. The use of buildings oriented perpendicular to the lines, offers the opportunity to minimize direct views towards the route, significantly reducing the visual impact from streets, buildings and gardens. This orientation is best suited for high and medium density developments usually in the form of high rise condominiums, apartments and town homes.

The orientation of homes parallel to the right of way does little to minimize the visual impact of the lines from inside the homes. One solution is to locate cul-de-sacs on the edges of the right of way and between towers. Curving streets and paths, even by relatively small degrees, can significantly reduce the visual impact of towers. Views toward towers may occur at some distance from the tower, and can also be framed by new street scenes and public open spaces at some distance from the towers, particularly where there may be changes in topography.

The arrangement of buildings, boundaries, fences, paths and planting parallel to the transmission route over long distances will tend to highlight the presence of overhead power lines and the linear nature



Typical residential development backing onto two 230 kV H-frame lines in Delta, BC.

“Landscaping provides one of the most effective methods to diffuse the effects of power lines”

of the route and will make them more obtrusive. However, where one or more of these elements is varied (and not parallel), the linearity of the transmission route and its overall prominence can be diminished.

Distance

Varying the distance of development from transmission facilities is an important design tool. Buildings are not permitted within the right of way. Auxiliary buildings should be kept, as a minimum, at the edge of the right of way or set back to allow uses not otherwise permitted to take place within the right of way (e.g. in-ground swimming pools, greenhouses; garages, etc). In commercial and multi-residential settings, the area of the lot within the right of way can be used for parking and other amenities.

Landscaping and Screening

Landscaping provides one of the most effective methods to diffuse the effects of power lines and use the space within and adjacent to the right of way in a manner which is aesthetically pleasing and an amenity to homeowners. Screening can enhance the quality and intimacy of the immediate setting by creating the perception that towers have receded into the distance. The effectiveness of any screening depends on the distance of the viewer from the overhead power line and from the screening.

Within the right of way, trees and shrubs generally cannot exceed three meters in height at maturity. Appropriately low growing vegetation can be located within the right of way, while larger species can be planted near the edge, thereby reducing the visual impact of the lines and enhancing the overall environment.

Outside of the right of way, strategic screening can enhance the quality and intimacy of the area, giving the impression that towers and lines are further away. Mature trees planted along streets can effectively screen views and enhance the residential environment. Layers of planting create a series of silhouettes into the distance, creating a depth in the field of vision that helps to reduce the visual impact of overhead power lines. In this way, views of towers can be effectively screened without the need for continuous belts of planting. When branches of mature trees actually arch over the street, then views of towers can be obscured for much of the year. Consideration should be given to the use of screening in layers with varying heights to match site circumstances.

Community Amenities within the Right of Way

Most public amenity uses are on municipal lands. While use of the right of way has some restrictions, the presence of long corridors of clear, open, space provides the opportunity to develop significant private and community amenities. Consent of the owner and the local government as well as BCTC will be required for any public use of a right of way.

In order to best use this space, it is worth considering design ideas, such as:

- Breaking the transmission route into cells using roads, bridges, etc.
- Creating places with a variety of uses such as garden squares and parking lots
- Creating meandering paths and varied planting
- Providing a mix of activities beneath and adjacent to overhead power lines

Compatibility

The following are examples of compatible uses within the right of way, subject to maintaining safety clearances.

Public Open Space and Playing Fields - active recreational uses may take place close to overhead lines subject to the nature of the activity, layout of playing fields and the level of supervision. The location and type of lighting used for playing fields within rights of way need to be reviewed by BCTC where high voltage overhead lines are present.

Nature and Conservation - the retention or creation of nature conservation areas may be particularly suitable where public access to the area is restricted or prevented.

Circulation Paths - active recreation paths, roads, cycle paths and walkways can be successfully accommodated beneath high voltage overhead lines.

Allotments and Community Orchards - using rights of way for allotments and community orchards

Parking - accommodating ancillary parking beneath high voltage overhead lines.

Private Gardens - using rights of way for gardens and planting.

Power Line Safety and Maintenance

Contact, or near contact, with high voltage equipment is extremely dangerous and must be avoided. Objects that approach overhead electricity conductors too closely can cause fatal or severe shocks and burns. In order to prevent such incidents, minimum safety clearances for all overhead power lines are prescribed, which must be maintained between conductors and the ground, trees, buildings and any other structures, such as street lighting.

Care must be taken in unloading, stacking or moving material underneath conductors and in the construction of buildings or other structures in the vicinity of an overhead power line. Generally, buildings located outside of the right of way are safe from any of these concerns.

Emergency access to large buildings that are being constructed adjacent to transmission rights of way also must be considered. For example, the crew on a fire truck attempting to extinguish a fire in a multi-story development at the edge of a right of way must have adequate clearance from the transmission lines.

1. Induced Currents

Induction is the transfer of electric current or charge to an object that is not directly in contact with power lines. Induction can be an issue with buildings that are more than two stories, or long buildings that are parallel and located adjacent to high voltage (generally 230 kV and higher) lines and rights of way. As the height of a building increases, it comes into closer proximity to the high voltage wires with greater exposure to induced currents. While there is no direct public safety risk, it does significantly increase nuisance or micro-shocks. Developers should retain a professional consultant with expertise in calculating electric and magnetic fields, mitigation strategies and safety issues during construction and after occupancy if they plan to build in close proximity to high voltage transmission lines.



Playing fields and tennis courts underneath 230kV and 500 kV lines in Coquitlam, BC.



House development built on angle to 500 kV lines with trees screening right of way in Surrey, BC.

2. Electric and Magnetic Fields (EMF)

Power frequency (also referred to as extremely low frequency or ELF) electric and magnetic fields are present everywhere that electricity flows. All electric wires, and the lighting, appliances and other electrical devices they supply, are sources of electric and magnetic fields. Scientists have been researching EMF and possible health effects for more than 30 years, and this extensive research has yet to establish a link between health risks and EMF. Health Canada and the BC Centre for Disease Control state that there is no reason to be concerned about exposure levels in typical Canadian homes and workplaces, regardless of the proximity to power lines.

3. Changes to Ground Level

Changes to the ground level are not permitted without approval, as there must be a minimum distance between the lowest point of the transmission line and the ground. When ambient temperature is high and transmission lines are operating at maximum capacity, the lines will sag.

Conclusion

Transmission towers and lines are a necessary part of the infrastructure that enables us to provide electricity to our homes and businesses. Many transmission lines built in what were formerly rural areas are now being "encroached" upon by development. Hopefully this article, and the guide it is based upon, will provide some helpful guidelines on how to best consider transmission lines when developing lands within and nearby. By doing so, the owner, developer and community will all benefit. 🌱

These guidelines were approved and placed on the BCTC website in April of this year. Visit them at: www.bctc.com/the_transmission_system/rights_of_way_prop_rights/

This is an updated version of the article that was published in Planning West magazine, September 2007 edition. Reprinted with permission, Planning Institute of British Columbia and BC Society of Landscape Architects.