Filing Receipt

Filing Date - 2023-07-23 09:43:49 PM

Control Number - 55067

Item Number - 806

Request to Intervene in PUC Docket No. 55067

The following information must be submitted by the person requesting to intervene in this proceeding. This completed form will be provided to all parties in this docket. **If you DO NOT want to be an intervenor, but still want to file comments, please complete the "Comments" page.**

For USPS, send one copy to:

Public Utility Commission of Texas
Central Records
P.O. Box 13326
Austin, TX 78711-3326

For all other delivery or courier services, send one copy to:

Public Utility Commission of Texas
Central Records
1701 N. Congress Ave.
Austin, TX 78701

First Name: Debra Last Name: Joiner

Phone Number: 940-648-3213 Fax Number:

Address, City, State: 360 Cedar Crest Drive, Justin, TX 76247

Email Address: debrazj@gmail.com

I am requesting to intervene in this proceeding. As an INTERVENOR, I understand the following:

- I am a party to the case;
- I am required to respond to all discovery requests from other parties in the case;
- If I file testimony, I may be cross-examined in the hearing;
- If I file any documents in the case, I will have to provide a copy of that document to every other party in the case; and
- I acknowledge that I am bound by the Procedural Rules of the Public Utility Commission of Texas (PUC) and the State Office of Administrative Hearings (SOAH).

Please check one of the following:

☐ I own property with a habitable structure located near one or more of the utility's proposed routes for a transmission line.

☐ One or more of the utility's proposed routes would cross my property.

☑ Other. Please describe and provide comments. You may attach a separate page, if necessary.

Please see attachments

Signature of person requesting intervention:

Debra Joiner Date: July 23, 2023

Oncor Transmission Line Project Docket #55067

Property ID 258167

Path J4

Attachment to Debra Joiner Request to Intervene

We purchased the house on 360 Cedar Crest Drive, Justin, TX, about 5 years ago. One of the items on our "no go" list while looking for properties was that we did NOT want to be located near high voltage lines. This property was ideal for us, and we enjoyed the sense of being on a greenbelt with beautiful trees lining the creek and blocking the view of additional building in the area.

If the power lines follow the proposed route behind our home (route J4), we will not only lose the aesthetic value of our home but we will lose our quality of life; these power lines are detrimental to our health. We will not be able to continue living in this home and will have to relocate. Unfortunately, the value of our home will also be adversely impacted by the construction of these lines; even the proposal will impact our property value until a decision has been made.

Health Impact:

Genetically, Alzheimer's runs in my family (Grandmother and siblings, Mother, and 2 of my siblings have already passed with the disease). The emissions from high voltage lines may contribute to dementia (see attached articles). Due to the number of members of my family who have succumbed to Alzheimer's, I have made a conscious choice to avoid those things that could contribute to the onset/acceleration of the disease. There was no public plan to erect these high voltage lines at the time we purchased the property.

My husband is a cancer survivor. However, his battle with cancer involved radiation and he was advised that he was likely to have secondary cancer. We have been fortunate that he has been cancer free for over 20 years. Some of this was due to our diligence in removing potential contributions to increasing risk of cancer; we don't even use the microwave in our home. High Voltage power lines have been linked to cancer due to the emissions.

This was to be our home for our retirement years.

Please see the attached article on High Voltage Power Lines, Alzheimer's Disease and Dementia. It is one of many available documents on studies regarding the subject.

Please also see the article on Health Impacts of Corona Effect. It is one of many available documents on studies regarding the subject.

Impact on Pets:

We have two rescued dogs that we committed to their care and well-being. Please see the attached article on Livestock, Pets and High Voltage Power Lines. It is one of many available documents on studies regarding the subject.

Impact on safety:

Considering the weather in Texas, thunderstorms, lightning storms, straight line winds, tornadoes, and icing create a significant concern for us with having high voltage power lines located near our home.

Please see the attached article titled Safety. It is one of many available documents on studies regarding the subject.

Impact on Aesthetics:

As noted at the start of this document, we chose this home for its parklike setting, where we can sit on our patio and enjoy the sounds of birds and the breeze through the trees. The trees on the side of the creek, which are destined to be removed, added to the sense of living in the countryside. If the powerlines are installed, the noise of the lines would seem minor to the visual impact. This home would lose everything that became important to us.

Please see the attached article titled Aesthetics and High Voltage Power Lines. It is one of many available documents on studies regarding the subject.

Impact on Property Value:

Whatever equity we have accrued in this home will be lost as soon as a decision is made to install the power lines. This will be a multiple loss to us since we will be compelled to move. We will have lost our equity and will be moving in an otherwise inflated market with interest rates at a high value. I am retiring on July 29, 2023 and will be on a fixed income. These losses come at the worst possible time. This was to be the home we settled into for retirement and would eventually leave to our children.

Please see the attached article titled Property Value. It is one of many available documents on the subject.

Power Lines – Myths vs. Facts

FACT SHEET #3

HIGH VOLTAGE POWER LINES, ALZHEIMER'S DISEASE AND DEMENTIA

The Myth: *Overhead high voltage power lines and associated electromagnetic fields (EMFs) have no impact on the incidence of Alzheimer's disease or dementia.*

The Facts:

- Health data for workers exposed to above-normal EMFs in Helsinki Finland and Southern California were studied. The risk of Alzheimer's disease in these workers varied from 2.9 to 3.8 times the expected (Sobel et al. 1995). Based on a study of California workers exposed to EMFs, Sobel et al. (1996) found risks of Alzheimer's disease 3.9 times the expected for both sexes, 3.4 times the expected for women, and 4.9 times the expected for men.

- Qui et al. (2004) found that long-term occupational exposure to higher EMF levels may increase the risk of Alzheimer's disease and dementia in men. They reported a dose-response relation with risks of 2.4 times the expected for Alzheimer's disease, and 2.5 times the expected for dementia.

- Based on a systematic review of studies that explored Alzheimer's disease and occupational exposure to EMFs, Garcia et al. (2008) reported an association between the two. Pooled estimates from many studies showed consistently increased risks of Alzheimer's disease 2 times the expected.

- Huss et al. (2009) studied the relationship between magnetic exposure from living near 220-380kV power lines and the risk of mortality from neurodegenerative disease (loss of brain and spinal cord cells) among 4.7 million Swiss residents. There was a clear dose-response relation with respect to years of residence in the immediate vicinity of power lines and Alzheimer's disease. Persons living at least 5 years within 50m had a risk of 1.5 times the expected, increasing to 1.8 with at least 10 years, and to 2.0 with at least 15 years residency. The pattern was similar for senile dementia.

- Many population health and illness studies have reported that workers exposed to EMFs are at an increased risk of Alzheimer's disease, but they have not discussed how this may occur. Numerous recent studies have suggested that DNA strand breaking (Lai and Singh 1997) or significant increases in the release of certain amino acid compounds (Giudice et al. 2007) could explain the EMF-Alzheimer's disease association.

For information on what you can do go to www.reta.ca

RETA
Responsible Electricity Transmission for Alberians

Prepared by RETA. Updated September 22, 2009. References available at www.reta.ca.

Power Lines – Myths vs. Facts

FACT SHEET #24

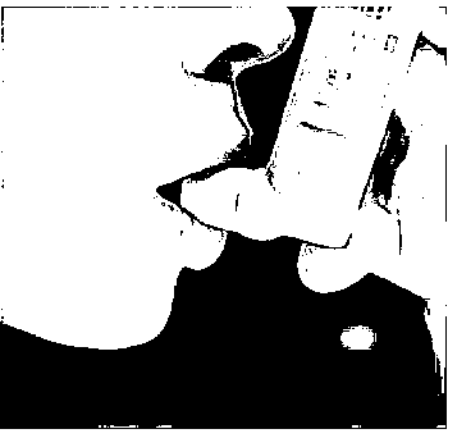
HEALTH IMPACTS OF CORONA EFFECT

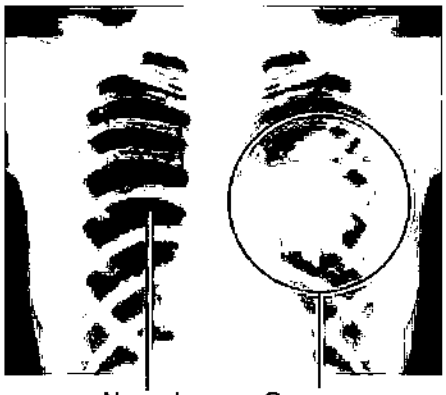
The Myth: *The corona effect associated with overhead high voltage power lines has no impact on health.*

The Facts:

- Overhead high voltage power lines ionize the air, emitting trillions of so-called corona ions into the air per second (Abdel-Salam and Abdel-Aziz 1994, Henshaw and Fews 2004). These ions attach to aerosol-sized particles of air pollution including those that are carcinogenic (e.g., diesel exhaust), increasing the electric charge state on these aerosols. The resulting cloud of corona ions and charged aerosols is carried by the wind for significant distances, varying from several hundred metres up to 7 kilometres downwind of power lines (Chalmers 1952, Mühleisen 1953, Henshaw and Fews 2004). When inhaled, electrically charged pollutant aerosol particles deposit in the lungs at a far greater rate than uncharged aerosols (Cohen et al. 1998, Fews et al. 1999, Melandri et al. 1983).

- A risk analysis conducted by Henshaw (2002), suggests that 200 to 400 excess cases of lung cancer mortality and 2,000 to 3,000 excess cases of cardiovascular and respiratory illnesses and aggravated asthma and allergies may occur annually among the 2.7 million people living within 400m of high voltage power lines in the UK. The researcher suggested that these excess cases of illnesses resulting from the corona effect are likely at a level of public health significance.





Normal lung — Cancerous tumour

- Preece et al. (2001) found increased incidence of both lung cancer and mouth cancer in populations living downwind of overhead high voltage power lines in southwest England. For lung cancer, there was a statistically significant higher rate downwind.

- It is known that between 50% and 90% of outdoor pollutant aerosols penetrate indoors in normal ventilation (Hussein et al. 2001). It is therefore safe to assume that near overhead high voltage power lines a significant proportion of pollutant aerosols electrically charged by corona ions will be inhaled indoors (Henshaw and Fews 2004).

- The risks reported above would be particularly significant along Highway 216 adjacent to EPCOR's and AltaLink's preferred route for the Heartland power line where carcinogenic aerosols (diesel exhaust) are in high concentration a very short distance upwind of thousands of homes and many schools.

For information on what you can do go to www.reta.ca

RETA
Responsible Electricity Transmission for Alberta

Prepared by RETA. Updated January 20, 2010. References available at www.reta.ca.

FACT SHEET #20

LIVESTOCK, PETS AND HIGH VOLTAGE POWER LINES

The Myth: *Overhead high voltage power lines and associated electromagnetic fields (EMFs) have no negative impacts on livestock or pets.*

The Facts:

- In addition to the many laboratory studies on the negative effects of EMFs on animals and cells, important studies have been conducted on EMF effects on dairy cattle. Dairy cattle are not only a significant agricultural and economic resource, but are also important indicators of how EMFs probably affect other large mammals in the wild (e.g., bison, bighorn sheep, moose, mule deer, white-tailed deer [the last 3 species are found along EPCOR's and AltaLink's preferred and alternate routes for the Heartland line]).

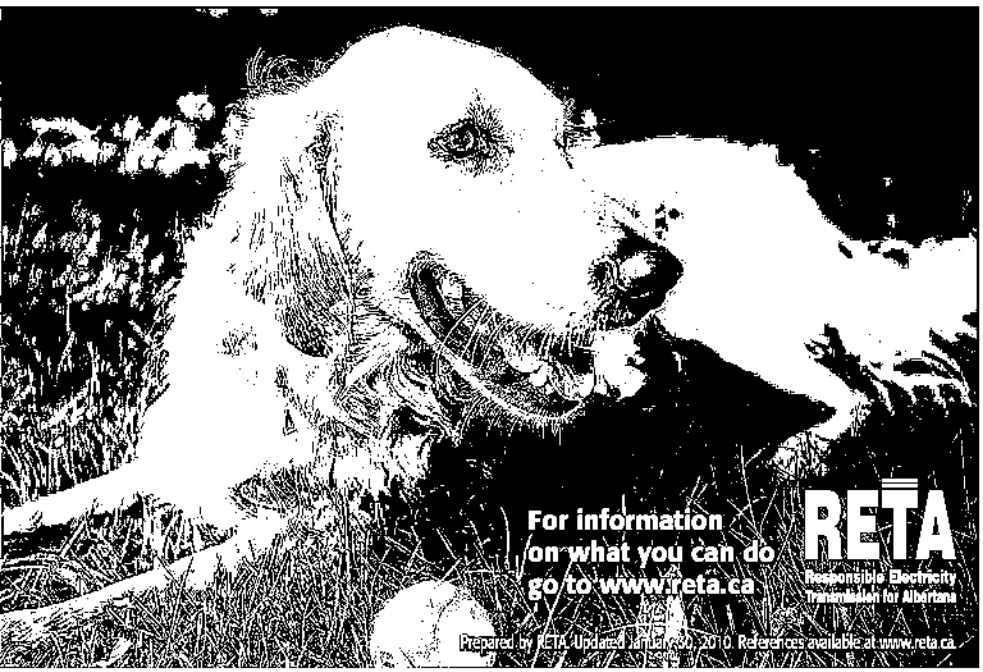
- Exposure to electric and magnetic fields resulted in an average decrease of about 5.0% in milk yield, 13.8% decrease in fat corrected milk yield, and 16.4% decrease in milk fat among Holstein cows in Quebec (Burchard et al. 2003).

- Other studies show a weakening of the blood-brain barrier (Burchard et al. 1998) and negative changes in response to daylight hours (Rodriguez et al. 2004) in Holstein cows exposed to EMFs.

- The family of a French farm crossed by a high voltage power line reported breathing problems and weakened immune systems in both cows and pigs; abnormally low pig birth rates and high piglet mortality; and undersize heifers, some afflicted with hemorrhages or abortions and 10% milk loss (Agence France Presse 2008). A French Civil Court ruled in the family's favor and ordered the power company to pay for damages.

- A study of pet dogs and cats exposed to above-normal EMF levels in Michigan (Marks et al. 1995) reported deformities in stillborn and surviving puppies and kittens. Female dogs ceased cycling or had abnormal "unbreedable" seasons. Male dogs revealed a lack of sperm. Neither Persian nor mongrel female cats showed signs of reproductive cycling.

- Pet dogs that lived in homes with above-normal magnetic field levels had risks of canine lymphoma (cancer of the lymph system) up to 6.8 times the expected (Reif et al. 1995).



Responsible Electricity Transmission for Albertans

Safety

The difference between health and safety is immediacy. The adverse health effects of overhead high voltage power lines manifest themselves over time. Safety, on the other hand, is an immediate issue. If a child runs the risk of getting a fatal electric shock due to induced currents in a chain-link fence, that is a safety issue that needs to be addressed. If children playing in a greenbelt underneath high voltage transmission lines run the risk of suffering a fatal shock, clearly the power lines are not safe. Tornadoes, hurricanes, ice storms and other high winds bring transmission lines and towers to the ground. This is a safety issue. Colchester Elementary School in Strathcona County, Alberta, Canada closed its doors in June 2013 because parents refused to subject their children to the health and safety risks of the newly-constructed 500kV overhead Heartland line which is only 140 metres from the school.

For your reference, RETA has prepared 3 fact sheets regarding safety of overhead high voltage power lines, as part of its Fact Sheet series. They focus on safety regarding weather and storms, electric shock and pipelines. RETA has also authored Airplane, Helicopter and Hot Air Balloon Accidents Due to Overhead Power Lines.

Even in elementary safety videos for in-field workers, workers are advised not to touch their vehicles if they are close to high voltage power lines due to the risk of electric shock from induced currents. When it comes to our children, why would we even take the chance?

Electricity transmission companies state that they mitigate all of the potential safety issues. However, no mitigation will be fool-proof and when asked what level of risk they deem acceptable, they have no answer. So, here are a few of the potential safety issues. We are continuing to research these areas to get the answers that electricity transmission companies refuse to provide.

- Above-ground high voltage lines can greatly increase the risk of potentially catastrophic failures when run alongside pipelines like the ones in the Sherwood Park Greenbelt, where AltaLink and EPCOR have recently completed the 500kV Heartland Transmission Line. Overhead power lines and towers can induce electrical currents in pipelines, attract lightning to the flammable liquids in pipelines, and significantly increase pipeline corrosion rates.

- Overhead high voltage lines can induce enough current to cause a fatal shock in metal objects below. This is particularly hazardous when these lines are built so close to homes and schools, as is the case with the Heartland line recently built by AltaLink and EPCOR in Strathcona County, Alberta, Canada.

- High voltage towers and lines have fallen over in ice storms and tornadoes, including in Edmonton in 1987 and in Quebec and Ontario in 1998, both catastrophies that resulted in many deaths, and millions of dollars to repair high voltage power lines and towers that were destroyed or damaged.

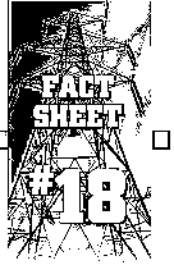
- Power outages affect hundreds of thousands of electricity customers every day in North America. Overhead power lines are negatively affected by inclement weather, birds, rodents, aircraft and hot

air balloons, vehicles crashing into poles and towers, farm machinery, solar storms, etc. Power outages are costly in terms of infrastructure repair, lost productivity, spoiled food and other damages; and there have been many deaths attributed to major outages.

- There are hundreds of reports of helicopters, fixed-wing aircraft and hot air balloons colliding with overhead power lines, causing death, injury, and costly damages.
- Solar storms can knock out entire above-ground electricity transmission grids within huge geographic areas.
- Security experts have warned that overhead electricity transmission infrastructure is extremely vulnerable to terrorist attacks.
- Overhead power lines start wildfires that have burned thousands of acres of land.
- National defense operations are negatively affected by above-ground power lines, which could affect national security.

All of the above-mentioned impacts are eliminated if high voltage power lines are buried.

Power Lines – Myths vs. Facts



AESTHETICS AND HIGH VOLTAGE POWER LINES

The Myth: *Overhead high voltage power lines have no effect on our surroundings.*

The Facts:

- Overhead high voltage power lines are unsightly; in fact many people consider them ugly. They consist of tall grey metal towers; EPCOR and AltaLink (2009) indicate 60-metre or 200-foot tall towers (about 20 storeys) for their proposed double circuit 500kV line. Heavy dark power lines or cables hang between these towers, and together are a blight on the landscape. Not only are the towers and lines unsightly, but they obstruct and detract from the many positive aspects of our rural and urban landscapes and scenery.

- The negative visual impacts of high voltage power lines have been well documented. Although most electricity transmission companies downplay this fact, they are well aware of the problem, as evident by AltaLink's and EPCOR's (2009) statement, "In some cases the specific location of towers can be shifted to mitigate a potential visual impact."

- Compared to other high voltage towers that we see more frequently in Alberta, which may be up to 39m tall for single circuit 500kV or 44m tall for double circuit 240kV (AltaLink and EPCOR 2009), the proposed 60m towers and double circuit 500kV lines would be visible for a significantly greater distance. This translates into negative visual impacts for more people.

- Not only would residents be negatively impacted by the unsightly 500kV line, but tourists and visitors to Edmonton, Sherwood Park, Sturgeon County or Parkland County would be confronted with these monstrous towers and lines for long distances if an overhead line was constructed in EPCOR's and AltaLink's preferred or alternate route. Tourism is negatively affected by high voltage overhead power lines (Gallant 2006, Askon Consulting Group 2008, Colindres 2009, Stachura 2009).

- AltaLink and EPCOR (2009) indicate, "After construction is complete, the transmission line will produce a low frequency hum." Anyone who has stood under, or within an appreciable distance of, a high voltage power line will be aware of this loud, harsh and raspy hum or buzz that can be heard 24 hours a day, 7 days a week, and 365 days a year.

- A review of websites that raise concerns about the hum of high voltage power lines indicates that this noise is annoying and often causes headaches and hearing problems.

- Foul weather (rain, fog, snow, hoar frost) or high relative humidity often leads to discharges on high voltage overhead power lines that result in a louder crackling or hissing noise that is even more annoying than the normal humming sound.

For information on what you can do go to www.reta.ca

RETA
Responsible Electricity Transmission for Alberta

Prepared by RETA. Updated January 30, 2010. References available at www.reta.ca.

Responsible Electricity Transmission for Albertans

Property Value

Your home is likely the single largest investment that you have made. There is absolutely no doubt that erecting high voltage transmission lines and towers near residential properties has a serious impact on property values.

For your reference, RETA has authored a Fact Sheet on Property Values and High Voltage Power Lines as part of its Fact Sheet series.

As well, we provide the following example of property devaluation associated with the recent building of the 500kV overhead Heartland transmission line in Strathcona County, Alberta, Canada.

The current route evaluation criteria used by AltaLink and EPCOR (or any other transmission company) do not ascribe a monetary value to the decrease in value of people's property. We have done much research on this subject and, while there is a considerable range of estimates on how much property values are affected, we feel very comfortable using a 15%-20% average within 1 kilometre or so of the Heartland towers and lines approved by the AUC November 1, 2011. Front line homes can be hit much harder – as much as 40% or more. Some appraisals have listed up to 91% devaluation associated with overhead lines.

As an example, using the Strathcona County tax register, RETA added up the assessed value of the 2,300 homes along the Sherwood Park Greenbelt separating Highway 216 and Sherwood Park (within 800m of the Greenbelt). This amounted to more than $1.2 billion. The new-build cost is substantially higher and many of the homes in the area are in fact relatively new.

Surely the real cost of the project should reflect the decrease in value of people's homes. So, even with a 15% average property value decline, we have an additional project cost of $180 million. RETA's position is that homeowners and landowners need to be compensated for the decrease in the value of their properties and that they should be compensated at new-build value – not fair market value after that has been driven down by as much as 40% or more.

And rural land is also impacted – the ability to sub-divide, the effects of EMFs on livestock and so on all contribute to adversely affect property values. And just picking up and moving when you're a farmer or an acreage owner isn't always an option. Studies indicate agricultural properties devalue by 16-29%, when overhead lines are built on or nearby the properties.

Burying the lines in an urban setting completely mitigates the damage to property value and is far more cost effective than forcing hundreds or thousands of families to move (or to live next to ugly overhead lines and towers with the debilitating impacts of EMFs and the corona effect). In rural settings, we need to be sensitive to the environment and farming practices, but with modern-day undergrounding techniques, it is completely viable to farm land that has underground transmission lines. Again, burying the line is the answer.

Blog at WordPress.com.