



**Siting and Land Rights**

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September 14, 2017

Stephen Rodriguez  
Planning Supervisor  
City of Aurora Planning Department  
15151 E. Alameda Parkway, Ste. 2300  
Aurora, CO 80012

Re: Initial Submission Review – Pawnee to Daniels Park Transmission Line Project  
Public Service Company of Colorado - Response Letter  
Application Number: DA-2097-00  
Case Number: 2017-6035-00

Mr. Rodriguez:

As part of the above-referenced project, Public Service Company of Colorado (PSCo) is providing the following responses to the comments received by the Planning Department.

PSCo understands that there were several important issues raised, most importantly the citizen input and comments and that this additional submission is required as part of the Site Plan process.

Each comment received is listed with the corresponding PSCo response supplied below it. Similar to the format you provided, the first section of responses addresses the major comments. The following sections contain responses to the more specific comments, including those received from other City departments.

After your review, please let me know if you have any additional questions or need anything else and thank you for the continued support.

Respectfully,

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## *Initial Submission Review*

### **SUMMARY OF KEY COMMENTS FROM ALL DEPARTMENTS**

- Neighborhood comments (responses to major issues required with the resubmittal)
- Identify what if any, mitigation or compensation was provided to adjacent or affected property owners was provided in other jurisdictions
- Identify preferred transmission line pole color and type

### **PLANNING DEPARTMENT COMMENTS**

#### **1A. Community Questions, Comments and Concerns**

1A. Please respond in your resubmittal to the major issues identified in the following citizen comments:

**Catherine Vogel** - We are very against new and stronger lines going in right by our home. It will significantly impact our homes value and we have health concerns about higher voltage lines so close to us.

**Response – Property Values:** PSCo retained the services of an independent appraiser to complete a comprehensive study of property values in 11 housing subdivisions along electric transmission corridors in Douglas County, City of Aurora and Town of Parker, Colorado. Study areas included: Maher Ranch; Castle Pines; Green Valley; Founders Village; Rowley Downs; Surrey Ridge; Sorrel Ranch; Tallyns Reach; Creekside, Tollgate Crossing; and Villages of Parker. The study examined both property value increases over time and comparable properties by location.

#### **Neighborhood Selection**

These subdivisions were selected based on the following criteria:

- Their proximity to the existing PSCo230 kV transmission line which is also a proposed corridor for the Pawnee-Daniels Park 345 kV transmission line and/or similar transmission line structures.
- They offered a variety of residentially improved homes sites in platted subdivisions, homes of different ages, and a requisite number of home sales for analysis.

Three of the study areas (Maher Ranch, Castle Pines, and Green Valley) included multiple existing transmission lines similar to those proposed for the Pawnee-Daniels project. One study area, Sorrel Ranch, consisted of relatively new home construction (2010-2013) built directly adjacent to an existing high voltage transmission line right-of-way (ROW).

#### **Methodology**

The independent appraiser investigated sales databases within all study areas and determined subsets for paired-sale analysis within each subdivision area. The appraiser analyzed the market data over a selected time frame to determine if property values were impacted by:

- A home's proximity to transmission power lines;
- The specific appearance and design of the transmission lines, including the type(s) of structure, voltage, or number of structures in a study area;
- Views of transmission lines (either bisected or parallel views); and
- Perceptions regarding electric and magnetic fields (EMF)

For purposes of this study, **Market Value** is defined as the most probable price which a property should bring in a competitive and open market, under all conditions requisite to a fair sale, with the buyer and

seller each acting prudently and knowledgeably. This is the same definition set forth in the Appraisal Institute's *The Appraisal of Real Estate* (10<sup>th</sup> Edition).

## Findings

The results of the study indicated there is no measurable market impact on property values from power lines, regardless of the number of lines, the voltage, the type of structure, age of the homes/subdivisions, direction of views, proximity to lines or perceptions of EMF concerns. The study is supported further by comparable market analysis examining appreciation rates, paired sales analysis, statistical descriptive measures and statistical regressions.

**Response – Health Concerns:** When seeking authority to construct, extend or operate a facility such as this, PSCo must file for a Certificate of Public Convenience and Necessity (or a CPCN) with the Colorado Public Utilities Commission (CPUC). PSCo filed for a CPCN on this project in March 2014. As part of the regulatory approval process, the Commission sets standards for the reasonableness of noise levels and electro magnetic fields (EMF). PSCo is required to meet state standards for both as outlined in the Code of Colorado Regulations (Section 4 CCR 723-3). In a decision issued March 11, 2015, the Commissioners and staff agreed that the EMF and noise levels for the Pawnee-Daniels Park project were both reasonable and acceptable.

EMF exists wherever electricity is produced or used, and EMF surrounds any electrical appliance of wire that is conducting electricity. Everyone is exposed to these fields at home when you turn on a lamp, email a friend, or use an electric oven or microwave to cook your dinner. The frequency of fields produced by electricity transmission—typical of power lines—is low, and electric and magnetic fields exist separately. At higher frequencies, such as with radio or TV signals, the fields are interrelated, and are more accurately described by the term “electromagnetic.” Radio and TV electromagnetic waves are meant to transmit away from the antenna and carry radio frequency energy to the receiver. The EMF from power lines is too low in frequency to carry any significant energy away, and the electric power stays on the utility lines. Thus, the EMF from power lines should not be called radiation or emissions. More importantly, neither power line EMF nor radio frequency electromagnetic waves should be confused with ionizing radiation, such as X-rays. Because of its dramatically higher frequency, ionizing radiation (like X-rays) has enough energy to alter chemical bonds and damage biological molecules, something that lower frequencies in the electromagnetic spectrum (power lines, radio, TV, and infrared) cannot do. Magnetic fields, measured in milliGauss (mG), are produced by electric current and only exist when an electric appliance is turned on—the higher the current, the greater the magnetic field. As with electric fields, the strength of a magnetic field dissipates rapidly as you move away from its source.

Colorado has not established field exposure limit values for magnetic fields, as measured at the edge of a project's ROW. By comparison, New York has adopted a value of 200 mG for any transmission line, regardless of voltage. The American Conference of Governmental Industrial Hygienists has set a not-to-exceed value of 10,000 mG for occupational exposure and 1,000 mG for those workers with pacemakers. The International Commission on Non-Ionizing Radiation Protection has set exposure limits of 833 mG for the general public. PSCo requested that the Colorado PUC approve 150 mG to be a reasonable level for this project. This is a reasonable level based upon past Commission action and standards adopted by others.

### Mitigation Measures

Our engineering team designed the Pawnee-Daniels Park 345kV Transmission Line project to incorporate two measures to help mitigate magnetic fields:

- Arranging phasing conductors in a configuration to reduce magnetic fields (and noise). Under ideal conditions, some areas will actually generate lower magnetic field levels than the current levels - due to proper phase alignment and cancelling caused by the power lines being properly 'tuned' to intentionally reduce electric and magnetic field intensities.
- Increasing the height of transmission structures (an extra five feet more than required) to reduce the magnetic field at ground level.

### Commission Findings

The Commission determined that undergrounding transmission lines was not warranted due to increased costs and construction impacts. Additionally, burying transmission lines would not eliminate magnetic fields. CPUC staff reviewed each section of the project and found expected magnetic field levels to be less than 150 mG at the edge of the transmission line ROW at one meter above the ground. Based on Commission rules, prior findings and comparative standards, PSCo has shown that the project has been designed to avoid magnetic fields. The CPUC also determined the magnetic levels, measured as described above, are reasonable. No party has contested Xcel Energy's testimony in support of these findings.

### EMF – Tollgate Crossing Home Owners Association (HOA)

Due to concerns regarding the amount of Electric and Magnetic Fields (EMF) present in the community, and the amount that may be present after the proposed increase in the number of power lines in the community, PSCo agreed to participate in a manual reading of the current magnetic field levels in the community. On December 8th, 2016, two PSCo representatives, one member of the community and a third party engineer participated in a series of manual magnetic field measurements around the community.

These measurements were taken to establish a firsthand account of existing EMF exposure. As a way of demonstrating a concrete foundation to the various studies, models and illustrations that PSCo has made available to residents, concerned citizens and various government officials. When the readings were taken, there was only one set of power lines running through the ROW within Tollgate Crossing. PSCo is planning to put another set of power lines in the ROW. When that happens, PSCo projects that the magnetic field levels will still fall within the PUC 150 mG limit at the edge of the ROW. Actually, under ideal conditions, some areas will actually generate lower magnetic field levels than the current levels - due to proper phase alignment and cancelling caused by the power lines being properly 'tuned' to intentionally reduce electric and magnetic field intensities. Measurements included ~1.08 mG when situated at a distance of approximately ~229 feet away from the power lines (homes that are on the other side of the ROW), ~2.08mG when situated at a distance of approximately ~175 feet from the power lines (homes that are nearest to power lines) and ~44.8 mG when situated directly beneath the existing power lines.

**Andrew Young** - Please refuse this build. Contractor should be required to bury this power line and not further impede on the existing view. This will reduce property value for all homes in the new power line area. Please also be advised the Xcel already does not maintain the land with the existing power lines on a regular basis. This should be addressed as 6' weeds are a problem every season. I am firmly AGAINST this request.

**Response – Underground:** In 2010, there were approximately 106,000 miles of 345kV or greater high-voltage transmission lines in the United States. The percentage of existing underground transmission is estimated at 0.5 percent of this total. There are no underground 345kV lines in any of the eight jurisdictions where Xcel Energy operates. Out of a total of over 4,000 miles of transmission lines in Colorado, PSCo has only about 50 miles of transmission lines (115kV & 230kV) constructed underground, most of which are in high load and congested urban areas and near airplane flight paths at airports. Burying high-voltage transmission lines may be appropriate in densely populated urban settings, near airports, or when sufficient ROW is not available for an overhead line. Electric utilities consider the following factors when deciding whether to construct high-voltage transmission facilities (345kV or higher) above ground or bury them:

#### *Costs*

An underground 345kV line costs 10 to 20 times the cost of an overhead line due to time, materials, process, the need to include transition substations and the use of specialized labor. This project (including transition substations) would cost an estimated \$40 million per mile to bury. The proposed overhead double circuit 345kV line would cost \$1.5 million per mile. PSCo generally only considers underground construction if the difference in cost between overhead construction and underground construction is paid for by those requesting it or if technical constraints make it impossible to construct the line overhead. Part of the added cost to bury lines may include routing to avoid other underground installations, such as water, natural gas and sewer lines. An overhead line often can be routed around or over these difficult areas. The CPUC determined that undergrounding this transmission line was not warranted due to increased costs and construction impacts. Additionally, burying transmission lines would not eliminate magnetic fields.

#### *Power restoration*

The reliability of overhead and underground transmission lines is generally comparable. While underground lines are immune to the effects of weather, this type of facility is susceptible to damage from geologic or subsoil instabilities, as well as inadvertent damage resulting from excavations. Underground lines also present challenges during outages. Faults occurring in underground installations are typically more difficult to locate and repair than with overhead lines. The increased difficulty and duration for repairs cause significantly longer power outages than with overhead power lines. Repair of solid dielectric cables or high-pressure fluid-filled conduits would require pulling in a new section of cable and splicing it into the existing cable at two vaults. Such a repair would take weeks or months. In contrast, overhead line outages can often be repaired within hours, because any damage is readily visible and accessible.

#### *Capacity requirements*

For underground transmission, a greater number of cables are often required to match the capacity of the overhead circuit. This project would require three cables per phase (three phase system, total of nine cables) to match the bundle overhead conductor. The additional components increase the underground cost as an additional duct bank, vaults, splices and terminations are required which can also reduce overall system reliability.

#### *Line-length challenges*

High-voltage underground lines may require additional equipment to ensure proper electrical performance along the distance of the transmission line. The additional equipment translates to a higher overall cost, limits the length of the underground line installation and increases the likelihood of failure because of additional components.

#### *Construction impacts*

Burying transmission lines has more environmental impacts than placing them overhead. A 345kV overhead line typically requires erecting structures and placing foundations every 800 to 1,000 feet. Typical structures are 150 feet tall, while the diameter of the foundations ranges from 10 to 12 feet. Burying a 345kV double circuit transmission line at a minimum would require two continuous trenches or duct banks at least 5 feet wide at the

bottom, 7 feet deep, and separated by at least 20 feet. Considerable clearing and grading would be necessary, and dust and noise from construction would last three to six times longer than it would for overhead construction. Large concrete splice vaults or access structures are needed at 1,500- to 2,000-foot intervals. Permanent access to the vaults is required to make repairs when needed.

#### *Easement and land purchase requirement*

An overhead line typically has a wider easement footprint than an underground line. However, undergrounding 345kV transmission lines requires small substations – called transition substations – wherever the underground cable connects to overhead transmission. Transition substations have a footprint of approximately 250 by 400 feet.

#### *Transition substations*

High-voltage underground transmission lines require small substations – called transition substations – wherever the underground cable connects to overhead transmission. Transition substations require grading, access roads, stormwater management facilities, fencing and night time lighting.

#### *Life expectancy*

Underground high-voltage transmission lines generally need to be replaced after approximately 40+ years, while overhead lines have a life expectancy of more than 80 years.

#### *Site restoration*

Site restoration for underground construction is a much larger endeavor than it is for overhead construction because soil is disturbed along the entire route. Top soils have to be restored and returned to vegetated areas, and all hard surface areas must be reestablished to meet local codes. Vegetated areas may require up to two years to return to preconstruction conditions.

**Response – Property Values:** Please see response previously described above.

**Response – Land (ROW) Maintenance:** The existing transmission corridor, in relation to this project, takes approximately 10 days to mow and is done twice a year. Of the total budget to maintain PSCo's approximately 1200 properties, this section accounts for about 2.5% of the budget. PSCo, as they have worked with the other jurisdictions within the project boundaries (Town of Parker, Arapahoe County and Douglas County), will be preparing a Noxious Weed Plan Management Plan that will address how to deal with noxious weed once construction has been completed. In addition, PSCo is working with the City on a Mitigation Agreement that will include a Vegetation Enhancement Program. A number of native species grasses are located within the transmission line corridor which lends to the open space feel of the corridor. However, along the expanse of the corridor, threatening these native, xeric plantings, are an invasive species which uses the Company's R.O.W. as a migration corridor. The vegetation enhancement program is targeted to increase the viability of the plant materials native to selected segments of the transmission corridor within the City by managing the invasive species so as to neutralize their deleterious effect on the landscaping.

**Jason Drew** - I do not feel this is a wise project considering the density of high tension power lines in this area already in addition to the unsightly grid that hangs off of S Gun Club Rd. The Tollgate community has enough worries dealing with a recent homebuilder settlement which will require repairs to overtake the neighborhood. This power line route does not seem ideal and is going to be very invasive to the surrounding neighborhoods. Leave the people alone for once!

**Response – Project Location:** It is not uncommon in PSCo's service territory to have two or even three separate transmission lines within a corridor. The City of Aurora Comprehensive Plan, Chapter IV. Part D,

clearly states to “Use existing utility corridors for new utility extensions whenever possible.” This section of the Pawnee-Daniels Park Transmission Line Project has been anticipated since the early 1960’s when the land for the 210’ wide corridor was purchased by PSCo. The existing 230kV transmission line was constructed to one side of the corridor in 1968, allowing enough room on the other side for future transmission facilities (this project). As development grew up around the corridor, PSCo has been fielding questions over the years from prospective home buyers conducting their due diligence. Since PSCo owns the corridor in fee, the question asked most often is what are the plans for the land/corridor and PSCo has been able to respond that an additional line will be installed when the need arises. The existing corridor has already been approved by three of the four jurisdictions that the project crosses including Douglas County, Arapahoe County and the Town of Parker. The design for the new line will place the steel monopoles adjacent to the existing lattice structures, matching span for span. This will allow them to blend together as opposed to staggering the new monopoles. During the public outreach phase, PSCo asked stakeholders to indicate their preference of the color for the new steel monopoles, weathering steel with a brownish rust color or galvanized steel that has a grey color. This decision can be determined by the decision-making body or jurisdiction.

**Handren Rawanduzy** - Please allow me to express our deep concern and dissatisfaction regarding the new power project in our neighborhood. We think that this project by adding more power lines to what we already have in our neighborhood is unjust. Our concern is our family’s health, the unpleasant view and noise of double power lines in front of our home and the value of our property. In my opinion, there should be another solution for upgrading the power lines by using the same structure that is already installed. Please convey our grave dissatisfaction regarding this project to all parties involved in this project and make our voice heard. Thank you.

**Response – Project Location, Health Concerns, and Property Values:** Please see responses previously described above.

**Response – Using Existing Structures:** PSCo does not consider the idea of combining the existing double circuit 230 kV transmission line and the proposed double circuit 345 kV line between the proposed Harvest Mile Substation and the Daniels Park Substation on the same structures a viable alternative.

Transmission Planners does not recommend combining the lines on one set of structures as an option or alternative.

- Reliability risks are too great.
- Tower failure would result in loss of at least four bulk power circuits feeding critical load-serving substations. Electricity service to tens of thousands of customers in the south Denver metro area, including Aurora, would be lost if a structure failed or suffered significant damage.

Transmission Engineering does not recommend as an option or alternative.

- Safety – tower failure has greater risk of causing harm
- Maintenance – PSCo would be unable to perform maintenance on a four circuit-line as our crews would not be able to take outages on multiple circuits at the same time. The height of a structure that would support four circuits (estimated 200+ feet) would mean transmission line crews would need to work from crane trucks rather than bare hand buckets. Crews can do energized work out of a bare hand trucks, but they max out at 160 feet. With structures over 160 feet we would need to use crane trucks which are typically not set-up for energized work \*(see additional explanation at the end of response)
- Expense – qualitatively, design would lead to significant expense



A structure capable of supporting four high voltage circuits would be huge and visually intrusive with an average height of more than 200 feet and a base of 40 feet square or larger if lattice and 10 to 15 feet in diameter for steel poles (if steel pole structures are an option).

- Other stakeholders have indicated a preference for lower structures
- These towers would be seen by many more people
- Engineers indicate that massive lattice design would most likely be required
- The PUC would most likely approve the double circuit option proposed by Xcel as it's the most viable and reliable design and least cost option
- The additional cost of combining the lines on one set of structures would need to be covered in some other manner as it would not be allowed in the rate base

#### Right-of-Way

- PSCo already owns more than 200 feet of ROW in the existing 20+ mile transmission corridor between the proposed Harvest Mile Substation and the Daniels Park Substation. The proposed Pawnee-Daniels Park 345 kV transmission line can be built parallel to the existing 230 kV line within the existing ROW

PSCo has been working closely with affected parties and stakeholders since 2014 in the project area:

- Tower placement for the proposed 345 kV transmission line can be adjusted for aesthetics where practical
- Development of the existing ROW for trails, vegetation management, etc., is open for discussion

\*Working on energized lines without a truck or crane that supports energized work: Crews can climb taller structures to perform energized work and in some cases helicopters can be used. Both have their advantages and restrictions. With climbing you have to work through multiple energized zones that create safety issues and unsafe working distances from phase to phase. Helicopter work is not an option in populated areas like Aurora that have residential areas and roadways.

**Rezan Kamal** - The building of these transmission lines would be terrible for residents living in neighborhoods like Eagle Bend. We all have children and do not want to raise them in an area with such a high risk of radiation that will be detrimental of both our health and our peace. We do not approve of this construction; these lines are way too close to our homes.

**Response – Project Location and Health Concerns:** Please see responses previously described above.

**Lizabeth Beerman** - In the application, Item 11 says that if the applicant or developer thereof is determined to be in violation of any requirements, conditions or representations on a prior development you can deny the application. As a resident for the last 10 years Excel has failed to maintain the landscaping, animal control, signage, and neighborhood care as they said they would do. Property under the power lines is a disgrace, poorly maintained, an eyesore and dangerous. They have NOT performed to what they said they would do. I implore the city to deny this application until Excel proves they can live up to their commitments.

**Response – Land (ROW) Maintenance:** Please see responses previously described above.

**Shawn and Tiffani Kirkpatrick** - Thank you for the opportunity to gain a better understanding of this project and express my family's opinion. While we are not supporters of this project as it is right outside of our backyard, we understand the occasional need for some to make a sacrifice for the greater good. We would like to respectfully suggest/request consideration for exchange of the existing steel lattice structures for something more similar with the new structures to be added as a compromise between Xcel and community residents directly affected by this project. If we must



reserve ourselves to looking at these monstrosities every day, it would be more acceptable to residents if they were uniform and lower profile in appearance. Everyone's preference, of course, is that both sets of lines be buried, but I believe that option has been eliminated.

On a side note, there are some misspellings and incorrect street names on the maps of my neighborhood in the attached engineered site plan that we wanted to mention in case they should be corrected before all of this becomes official. Glasgow (sp) is actually Glasgow and Frost Drive is indicated as opposed to Glasgow Cir. We're not 100% certain, but we don't think that Lodgepole Place exists where indicated. Please see View B page 9 for these items. Please consider reviewing and correcting the plans in the interest of accuracy.

**Response – Replace existing lattice structures with monopoles:** The existing lattice structures have been in place since 1968 and with similar structures on our system that are up to 100 years old, these structures have not reached the end of their use and are not ready to be replaced at this time. The associated costs would also be prohibitive and the CPUC would not allow PSCo to incur the extra expense when the existing structures are still in good condition.

**Response – Underground:** Please see response previously described above.

**Response – Map Corrections:** The misspellings and correct street names will be included in the revised Site Plan set.

**Laura Stedman** - I am a resident of Tollgate Crossing and will be directly impacted by the addition of the power line. My home backs up to the existing lines. When I bought my home I knew that the lines were there and felt that they were a safe enough distance from my property. Now Xcel wants to put in another set of lines closer to my property. I understand that they have right of way back there...but why can't they put the line underground/bury it? Lines are underground all over...please push for them to come back to Planning with a revision to their request which shows them taking the line underground. Thank you, Lora Stedman.

**Response – Project Location and Underground:** Please see responses previously described above.

**Edgar Acosta** - I oppose adding these power lines through any existing neighborhoods. Homes were purchased with existing lines at current power rates. Increasing number of lines and power to each line creates a risk to nearby residents. Another suggestion needs to occur that doesn't affect as many residences and neighborhoods. Lines can be run through uninhabited or less inhabited areas and connect with power grid to the south of the Denver metro area.

**Response – Project Location and Health Concerns:** Please see responses previously described above.

**Response – Uninhabited Areas:** The existing corridor (preferred route) has received approval from three of the four jurisdictions that this project crosses. Selecting an alternative route at this stage would significantly increase the costs and significantly delay the project schedule.

**Brian Houline** – As a resident of Tollgate Crossing, I do not support this.

**Response:** Noted.

**Meredith Whitehead** - The residents of Tollgate Crossing, where the proposed route of new lines runs, have opposed this from the beginning. Despite only opposition for these lines and the substation already under construction, Xcel has failed to reroute anything from their preferred plan. Additional lines were added several years ago along this route and we don't want more. Despite reports to the contrary, we are concerned about the impact on our property values, in addition to health and noise

concerns. Please, consider denying the additional lines along this route and take them further away from Arapahoe County residents!!

[\*\*Response – Project Location, Property Values and Health Concerns:\*\*](#) Please see responses previously described above.

**James Donovan** - Owing to our proximity to the existing lines and the likely even closer location of the proposed new line we feel that the recommended limit of 20 micro Torr may not be able to be guaranteed from all locations within our home. Health effects are unknown but a formal risk assessment may reveal for our location an unusually high risk likelihood of unacceptable EMF levels. Our property value is very likely to be negatively impacted by the proposed new project. Subjective risk may be substantial and we can't help but wonder how we will recover this cost. It has not been proven to us the value of wind farms in general. We question the real costs of these projects. The environmental impact of these has not really been quantified in all respects. The studies we have seen neglect or gloss over large portions of the actual costs of these projects. Even though we have been promised no rate increases for this project we are skeptical. Other projects in the world have made grandiose claims, in the guise of being environmentally friendly, but have utterly failed to live up to their promise. We strongly suspect this project will be no different.

[\*\*Response – Health Concerns and Property Values:\*\*](#) Please see responses previously described above.

[\*\*Response – Costs:\*\*](#) As part of the approval issued by the CPUC for the project's CPCN, the Recommended Decision requires PSCo to file semi-annual progress reports. The first report is due 30 days after the issuance of the final permit determining the route of the Project, and subsequent reports of monthly expenditures and progress are due every six months thereafter. During the CPCN process with the CPUC, both the Colorado Office of Consumer Counsel (OCC) and the Colorado Energy Consumers (CEC), intervened in the process arguing that detailed reports are necessary to promote transparency and to protect ratepayers.

**Jeff Ham** – I would like to officially comment that I do NOT support this project as I fear for the safety of my family with an additional power line running in the front of my home. This will no doubt affect the value of my home due to the safety concerns.

[\*\*Response – Health Concerns and Property Values:\*\*](#) Please see responses previously described above.

**Nate McGrath** - We already have a power line running through the back area of our house. The western view from our deck/house is directly at one of the power line towers. It was a hard pill to swallow when we purchased the house but we didn't for a number of other reasons. The addition of another tower and more lines can only decrease the property value by adding more of an obstruction to the mountain views. I know you have experts that say power lines don't decrease the property value. I think we can all agree if a person buys a place with mountain views they don't want it obstructed by power lines. I know there is another route available. I would appreciate it if the alternative route is used that runs back to the east and then south. Please don't make your decisions based on money like so many decisions are. Thanks Nate.

[\*\*Response – Project Location, Property Values and Costs:\*\*](#) Please see responses previously described above.

[\*\*Response – Alternative Route:\*\*](#) PSCo evaluated alternative routes as part of the Siting process but all along stated that the existing corridor is the preferred route. This project crosses four different jurisdictions including Aurora, Parker, Arapahoe County and Douglas County; three of those jurisdictions have already granted PSCo approval to use the existing corridor. Using the alternate route stated above would require us to go back to the three jurisdictions to get approvals, which the project schedule and

budget will not allow. When dealing with a project of this size and being a regulated utility, cost is always a major factor. The CPUC would more than likely not approve additional costs for an alternative route when there is an existing corridor that can be used at a fraction of the price and has already received a majority approval.

**Shirley Zaeske** - As a homeowner that will be affected by the addition of more power lines in my neighborhood and extremely close to my home I feel my input should be considered as you determine the fate of these transmission lines. Tollgate Crossing already has an excessive amount of power lines. To add more puts a burden on our community. The excessive amount of lines will affect our home values due to the ugly nature of them for one thing but mostly because of the gravity of the health issues surrounding people (especially children) living too close to them. There are alternate routes that could be used that are way less populated. As an agency that is given the responsibility to help our community thrive I would ask that you choose to not approve additional transmission lines going through or near the Tollgate Crossing sub-division. I ask that alternate routes with less homes nearby be seriously considered. Homeowners do not want power lines at their back doors for financial and safety reasons.

**Response – Project Location, Property Values, Health Concerns and Alternative Route:** Please see responses previously described above.

**Sean Jolley** - When my family and fellow neighbors bought houses along the green space with power lines, they were taken into account in our home valuations. Adding another set alongside these was not. By putting in a second set of even more monstrous power lines you will kill the value of my house. I will explore my legal options against this but fear this project will force me to sell prior the project beginning. We are also greatly concerned about the increased EMF's coming off a second set of larger lines. Your project will provide greater capacity and kill myself and everyone's surrounding home values in the process. Surely there is an alternative option we can all live with???

**Response – Project Location, Property Values, and Health Concerns:** Please see responses previously described above.

**Walter King** - Existing lines with lower voltage are already exceeding safe levels of emf radiation which is known to increase childhood leukemia rates. Additional lines will only increase the levels. Installation of these lines is posing a serious health hazard that is negligent and unethical by the power company and any delegating bodies that support its development. I highly suggest that the city hire a neutral third party to measure emf levels currently to see what I have measured myself. As a resident of the area i am extremely concerned about this getting worse and impacting my family's health.

**Response – Health Concerns:** Please see response previously described above.

**Fisette Pierre** - The lines already in place are an eye sore. Doubling the number will do more than double the eye sore. The residents in the area pay just about the highest taxes in the city. Investing money in burying the lines would be an investment for the city. Growing a beautiful city does not come by accident.

**Response – Project Location and Underground:** Please see responses previously described above.

**Justin Kerns** - Please do not approve this power line. It will greatly reduce our property values and create safety concerns due to proximity to existing houses. If this is approved then Aurora is once again blighting some of its nicest residential areas. This is trend that our great city should work very hard to reverse. Make Xcel spend a little more money to either bury this line or move it further east. We are adamantly opposed to this route!

**Response – Property Values, Health Concerns, Project Location, Underground and Alternative Route:**

Please see responses previously described above.

**Gene Kellar** - Map is small enough to almost be illegible. The power lines at Smokey Hill and Aurora Parkway almost completely block out radio reception. With the route running down Aurora Parkway how are you ensuring continued radio and TV reception to the adjacent housing. Also, what studies have been done to ensure there are no health hazards due to exposure to low frequency electromagnetic radiation from power lines?

**Response – Radio & TV Reception:** Corona on transmission line conductors can generate noise at the frequencies at which radio and television signals are transmitted. This noise can interfere with receiving of these signals and is called “radio interference” and “television interference” depending on the frequency. Radio reception in the AM broadcast band (535 to 1605 KHz) is most often affected with what is commonly referred to as static. This problem typically occurs when we have loose hardware which can be corrected. There also may be AM radio interference when one is directly under the lines. FM radio reception is rarely affected. In the past, radio noise was a concern for the video portion of analog television signals; however, this is no longer the case in the United States because broadcast stations have switched to digital broadcasting and no longer transmit older analog AM video signals. Corona effects from this project are expected to be low enough so that no objectionable audible noise or radio or television interference would result outside the ROW. If any problems do occur, transmission line maintenance activities are intended to locate and correct these problems as they occur. The line will use low corona hardware to minimize noise.

**Response – Health Concerns:** Please see response previously described above.

**Adam Mobille** - There is already the one transmission line behind our house and the proposed route sends this next line right near our homes. These power lines ruin the ability to sell a home as no one wants to see these lines right next to their home. Please consider placing them along DeGaulle toward the pool area and leading to Southlands mall.

**Response – Project Location, Property Values and Alternative Route:** Please see responses previously described above.

**David Trotter** - Suggest that the transmission lines be placed farther to the East away from residential areas that will be negatively impacted if the current plan is approved. We already have large transmission lines in front of our house that affect our view and property values.

**Response – Alternative Route, Project Location and Property Values:** Please see responses previously described above.

**Aaron Puckett** - Xcel doesn't maintain their property. Simply look at the stark difference between the Xcel property and property owned by people who care... the photo says it all. For all of Aurora, please don't allow this. This is simply bad for everyone.

**Response – Land (ROW) Maintenance:** Please see response previously described above.

**Dan Mckee** - We are very concerned about not only the visual impacts but the noise generated from this high of voltage. If this gets approved make sure the new towers are next to the old and do not add shorter spans.

**Response – Project Location and Health Concerns:** Please see responses previously described above.

## **2. Completeness and Clarity of the Application**

2A. No comments.

[Response](#) : Noted

## **3. Zoning and Land Use Comments**

3A. Staff received input in the past regarding the color of the transmission line poles. The photo simulations and show both galvanized poles and self-weathering poles that appear to be a *Rustic* shade of brown. Both are shown to be utilized in the 3.9 mile long segment within the city. Please clarify for staff if PSCo has had discussions in the past regarding the preference of the residents regarding the color of the poles, and if so, if it is reflected in the plans.

[Response – Pole Color and Type](#): The photo-simulations were created to show the two options for the proposed steel monopoles. PSCo's standard design is to use weathering steel monopoles that have a brownish-rust color; however, PSCo has left the choice up to the decision-making body or jurisdiction to either use the weathering steel monopoles or galvanized steel monopoles that has a grey color.

3B. Identify what mitigation or compensation was provided to and for adjacent or affected property owners in other jurisdictions. For example was any compensation provided for increasing landscaping/screening along the perimeter of a property line to help mitigate visual or aesthetic impacts? If this was provided, is any planned for affected property owners that live along this proposed expansion? Please clarify for staff.

[Response – Mitigation](#): Mitigation measures provided to other jurisdictions along the project corridor have included contributions to:

- Trail connections
- Park improvements
- Park parking facilities improvements
- Corridor vegetation enhancement
- Residential tree/landscape screening grant program
- Fencing construction/improvements along segments of the corridor

Similar mitigation measures are under consideration for that part of the project corridor located in Aurora.

## **4. Landscaping issues**

4A. No landscaping issues are associated with this application.

[Response](#): Noted

## **5. Addressing (Cathryn Day)**

5A. Please provide a digital .SHP or .DWG file for GIS mapping purposes. Include the following layers as a minimum:

- Parcels
- Street lines
- Easements
- Building footprints (If available)

Please ensure that the digital file provided in a NAD 83 feet, State plane, Central Colorado projection so it will display correctly within our GIS system. Please eliminate any line work outside of the target area. E-mail these files to me.

[Response:](#) Noted

## **REFERRAL COMMENTS FROM OTHER DEPARTMENTS AND AGENCIES**

### **6. Civil Engineering (Kristin Tanabe)**

6A. No comments, approved.

[Response:](#) Noted

### **7. Life Safety**

7A. No comments, approved.

[Response:](#) Noted

### **8. Parks (Chris Ricciardiello)**

8A. No comments, approved.

[Response:](#) Noted

### **9. City Arborist (Jacque Chomiak)**

9A. It is difficult to tell what trees will be impacted by the construction of the Transmission Line. I would like to see the trees highlighted on the plan that will be affected. I would assume some of the trees that are currently located under the lines were approved to be in the easement and not all of them will be impacted. If a meeting is needed in the office or on site, let's set that up.

[Response – Tree Removal:](#) It is difficult to identify all of the trees that will need to be removed as part of the construction of the line, but the revised Site Plan will identify the ones that are anticipated to be removed. The contractor, who hasn't been selected yet, may find the need to removed additional tress as part of the construction.

### **10. Real Property (Maurice Brooks)**

10A. Any easements need to be dedicated by plat or separate document.

[Response – Easements:](#) There should be no easements required as part of the project as the entire transmission corridor (ROW) is either owned in fee by PSCo or existing easements have already been acquired. Access to the ROW during construction will be off of existing roads and the proper permits will be pulled before construction. Any required temporary construction easements will be acquired before construction begins, but do not need to be recorded or dedicated by plat or separate document.

### **11. Aurora Water (Anthony Tran)**

11A. I was unable to view. Please resubmit with legible text that meets minimum text size requirements and clear images.

[Response – Legible Text:](#) What texts were you unable to view or were illegible and didn't meet the minimum text size requirements and clear images? Please be more specific.





**Siting and Land Rights**

1800 Larimer St, Suite 400  
Denver, Colorado 80202  
Telephone: **303.571.7284**  
Facsimile: 303.294.2088

September 22, 2017

Stephen Rodriguez  
Planning Supervisor  
City of Aurora Planning Department  
15151 E. Alameda Parkway, Ste. 2300  
Aurora, CO 80012

Re: Initial Submission Review – Pawnee to Daniels Park Transmission Line Project  
Public Service Company of Colorado – Updated Responses  
Application Number: DA-2097-00  
Case Number: 2017-6035-00

Mr. Rodriguez:

As part of the above-referenced project, Public Service Company of Colorado (PSCo) is providing the following revised or updated responses to the comments received by the Planning Department. Per our conversation on 9/22/2017, please see the revised responses to comments #9 and #11 from Jacque Chomiak and Anthony Tran respectively.

After your review, please let me know if you have any additional questions or need anything else and thank you for the continued support.

Respectfully,

Derek Holscher, Principal Agent  
Direct - 303.571.7284  
Cell - 720.837.4742  
[derek.d.holscher@xcelenergy.com](mailto:derek.d.holscher@xcelenergy.com)

#### **9. City Arborist (Jacque Chomiak)**

9A. It is difficult to tell what trees will be impacted by the construction of the Transmission Line. I would like to see the trees highlighted on the plan that will be affected. I would assume some of the trees that are currently located under the lines were approved to be in the easement and not all of them will be impacted. If a meeting is needed in the office or on site, let's set that up.

**Response – Tree Removal:** There is some vegetation currently located within the transmission corridor that was allowed to be installed per a license agreement that was issued to housing developer(s), which is the developer's responsibility to maintain. It is difficult to identify all of the trees that will need to be removed or trimmed as part of the construction of the line. At this time, our vegetation management department has not reviewed the entire project to identify all of the trees that will need to be removed or trimmed. However, we did identify a few areas that are known at this time within the City limits of Aurora. These areas are shown on the current Site Plan set and are clouded with a descriptive leader on sheets 6 and 9. In addition, the contractor, who hasn't been selected yet, may find the need to remove additional trees as part of the construction.

#### **11. Aurora Water (Anthony Tran)**

11A. I was unable to view. Please resubmit with legible text that meets minimum text size requirements and clear images.

**Response – Legible Text:** With this type of development that has several land uses within a small area, it is difficult to adjust the text height and keep all of the information included. We have submitted this type of Site Plan(s) to the other jurisdictions within the project boundaries with no issues regarding text height. As far as the imagery, this was the most current imagery available to use but is not as sharp as we hoped it would be. If you would like to call me directly, I would be happy to review those areas that you find unable to view or are illegible (303.571.7284).