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The Pike Solar Project includes the intent to construct a photovoltaic solar energy generation facility. Pursuant to Chapter 5 of the El Paso County Land Development Code, the additional application requirements are listed below.

5.201 Application Submission Requirements

(1) Vicinity Map

(a) Area within 50-mile radius from the site

The Pike Solar Project is shown in the Vicinity Map (**Appendix C**) with the 50-mile radius surrounding the Project area.

(b) Map showing all existing transmission lines and pipelines

Appendix D- 1041 Map Plan includes several maps, one highlighting the existing transmission lines and pipelines and associated easements. The Map Plan shows how the project will work around existing lines and the associated easements. The Applicant is working to get crossing agreements for roads that will intersect these lines. The map outlined on page 16 of Appendix D shows the transmission and pipelines as well as the locations of the crossings.

(c) For upgrades to existing transmission lines, a map showing existing transmission lines within one mile

The Project does not propose upgrades to existing transmission lines. The Project requires a newly installed transmission lines to connect the Project to the Williams Creek Substation. These lines can be seen in the **Appendix D- 1041 Map Plan** on page 16 of the plan. There will be an underground 1.5 kV DC collection line, underground 34.5 kV AC collection line and a 230 kV overhead transmission line approximately 1,400' long installed on the Pike Project site.

The only facility upgrades proposed would be handled by the Utilities to take place within the existing Williams Creek Substation. The upgrades will take place within the existing system and existing substation footprint and will not require additional lines or impact additional lands.

(d) For all other major facilities, the area within ten miles of the site

No other facilities are proposed. **Appendix D- 1041 Map Plan** includes an attachment for existing infrastructure that shows the other facilities in the area including the Palmer Solar Project and the Clear Springs Ranch boundary. This can be found on page 10 of the 1041 Map Plan package.

(2) Type of facility

The Pike Solar Project is a 175 MW AC Photovoltaic Solar Energy Generation Facility which will also host a Battery Energy Storage System (BESS) up to 75 MW. The solar PV system will be composed of photovoltaic modules that convert the sun's radiant energy into electricity. The modules will be mounted on horizontal single-axis tracking racks that rotate from east to west to track the sun over the course of each day. The modules will be electrically connected in series strings to achieve a system DC design voltage of 1500V DC. Cables from the module strings will be buried in trenches and combined with DC combiner boxes located strategically throughout the field. The DC combiners will connect multiple arrays in parallel, from which point the electricity will be conducted via cables to the inverters, which convert the DC power generated by the modules to grid-synchronized AC power. Step-up transformer(s) will raise the inverter AC output voltage to 34.5kV, and the Solar Project output will pass through an AC collection system to the Pike Solar

substation and ultimately to the Point of Interconnection (POI) at the Williams Creek Substation via a 230kV overhead transmission line.

The 34.5 kV bus of the project substation will be the joint collection point for the solar and BESS medium voltage circuits. The BESS will be charged a minimum of 80% from the solar arrays for delivery at the dispatch time selected by the Colorado Springs Utility. Each battery container unit will house battery cells that are organized in a hierarchical order, cell, module, rack and unit. Each individual cell will have an anode, cathode and an electrolyte that will carry positive ions across a separator inside the cell. The anode will release electrical current to the cathode when the system is discharging, and vice versa while charging. The safety systems in each container will ensure that each cell remains within its operating temperature, current and voltage state. Cables from the battery units will be buried in trenches to reach the PCS units before reaching the 34.5 kV bus at the project substation, and ultimately to the Point of Interconnection (POI) at the Williams Creek Substation via a 230kV overhead transmission line.

A plant monitoring and control system will maximize energy generation while minimizing the downtime associated with planned and forced outages. The system will also provide for the necessary control and dispatching functionality required by utilities and grid operators. The supervisory control and data acquisition (“SCADA”) system delivers a high-level overview of plant operations in addition to environmental sensing and real-time electrical data associated with subsystems down to the individual array. More importantly, the system is designed to provide operators with an alert of important events including communications outages, inverter failures, and breaker trips.

The Utilities is also proposing an upgrade to accommodate for this facility. The proposed upgrades do not impact the footprint of the existing system and all upgrades will take place within the current Williams Creek Substation Project site. Williams Creek is an existing 230kV ring bus substation that will be transitioned into a breaker and a half in bays 2, 3, and 4 with the installation of seven circuit breakers. This reconfiguration will accommodate a renewable energy provider connection and a loop in of the existing 230kV Nixon-Claremont transmission line, including one new transmission tower within the existing alignment and easement. The substation plot does not require expansion and updates to drainage, grading, ground grid, cable trench, fencing, yard rock, conduit, cabling, steel, bus, instrumentation, protection and control, and substation equipment will only be installed or modified as required for the installation of the new equipment. No work for other future expansion will be considered. This upgrade will help service a new Juwi solar farm in the surrounding area.

(a) The voltages and lengths of transmission lines

The Applicant proposes a 230kV overhead transmission line will span 1,400’ from the Pike substation to the POI at the Williams Creek Substation. This is specifically identified on the **Appendix D- 1041 Map Plan** on the southwest portion of the project near the Williams Creek Substation. The Pike substation will be located near the Williams Creek Substation in order to minimize the length of the overhead generation tie-line and to minimize negative aesthetics and affects to wildlife on the Project site.

There are several existing overhead and underground lines located throughout the Project site. All of the existing lines are not part of the Project. The Applicant is working to obtain three crossing agreements identified on the map, one is a 100’ wide easement with MVEA, another is a 225’ wide easement with PSCo (Xcel) and the third is a Tri-State owned overhead line that lies within a 100’ wide MVEA easement. In the first easement crossing, the Applicant will be proposing to build an access road and lay underground MV and fiber cable. In the second easement crossing, the Applicant will be requesting to lay underground MV and fiber cable. In the third crossing, the Applicant is requesting to place part of the access road across the easement in order to connect the Project.

(b) Types of poles used with graphic depictions

The 230kV overhead transmission line connecting the Pike Solar Project Point of Interconnection to the Williams Creek Substation will consist of a combination of wood tangent structures and steel monopoles. The length is anticipated to be 1,400' long.

There existing lines located on the site are not part of the Project. The majority of the Project layout has been designed around these easements. The Applicant will request three crossing agreements across the existing easements in order to build roads, lay fiber cables and MV lines to connect the Project. Overall, the Project will not disrupt any existing lines.

(c) Power source and generating capacity

The project will include a 175 MW AC Photovoltaic Solar Energy Generation Facility and will also include a Battery Energy Storage System of up to 75 MW AC. The total energy supplied at the Point of Interest will not exceed 175 MW AC combined. The point of Interconnection will be the Williams Creek Substation.

(d) Functions and Size of Substations

The function of the Pike Substation is to combine the 34.5kV AC collectors from the both the PV and BESS subsystems and transform their output voltage to 230kV for transmission to the Williams Creek Substation. The Project substation will also contain protection, meters and SCADA equipment.

The Williams Creek Substation will require upgrades in order to accommodate for the new power generated by the Pike Solar Project. The Utility has proposed upgrades within the current footprint of their Williams Creek Substation. The substation plot does not require expansion and updates to drainage, grading, ground grid, cable trench, fencing, yard rock, conduit, cabling, steel, bus, instrumentation, protection and control, and substation equipment will only be installed or modified as required for the installation of the new equipment. No work for other future expansion will be considered.

(e) Diameters and lengths of pipelines

No pipelines are proposed.

(f) Capacities of storage tanks and types of petroleum derivative to be stored

No storage tanks are proposed.

The Battery Energy Storage System (BESS) system will not have additional generators. The BESS will be charged a minimum of 80% from the solar arrays for delivery at the dispatch time selected by the Colorado Springs Utility. The system may be charged occasionally from the Williams's Creek Substation to provide grid balancing services, as needed by the Colorado Springs Utility.

(g) Corridor locations and dimensions

Within the **Appendix D- 1041 Map Plan** there is an easement map indicating the corridor locations and dimensions of the current easements located on the property. The site is built around the existing easements, however the Applicant is working to obtain crossing agreements to connect the Project. The Applicant is working to obtain three crossing agreements identified on the map, one is a 100' wide easement with MVEA, another is a 225' wide easement with PSCo (Xcel) and the third is a Tri-State owned overhead line that lies within a 100' wide MVEA easement.

(h) Service Area

Colorado Springs Utilities (the “Utilities”) is the identified offtaker for electricity generated by the Project. Details about the Utilities service area are found in **Appendix AG- Colorado Springs Utilities Service Territories Map**.

(3) Resource Area (source of power)

The solar and BESS system resource is adequate for meeting generation commitments outlined in Appendix E- Power Purchase Agreement.

(4) Project Development Schedule

Milestone	Start	Finish
1. Major Permit Approvals (WSEO, 1041)	Q1 2021	Q2 2021
2. Secondary Approvals (Site Plan Review, PPRBD permit)	Q2 2021	Q3 2021
3. Pre-construction (surveys, engineering)	Q3 2020	Q2 2021
4. Site Improvements, Substation and Project Construction	Q3 2021	Q4 2023
4.1 Civil Construction (site grading; roads)	Q4 2021	Q1 2023
4.2 Post Rack Module Install	Q3 2022	Q2 2023
4.3 Electrical Install	Q3 2022	Q2 2023
4.4 Construction of Interconnection Facilities	Q2 2022	Q4 2022
5. Initial Energization	Q1 2023	
6. Plant Commercial Operation	Q3 2023	Q4 2023
7. Seeding and close out Stormwater Permit	Q3 2023	Q4 2023
8. Estimated life of the Project/1041 Timeframe	2023	2058
9. Final Decommissioning Plan submittal	Q4 2058	
10. Begin Active Revegetation and Site Restoration	Q2 2059	

(5) Hazards and Emergency Procedures

(a) Hazards and danger to health, safety and welfare of employees and general public

There are several plans within this application to support emergency procedures and handling hazards. The first plan is **Appendix AH- Operations and Maintenance Plan**. This outlines how the facility will run, once operational. Continuous monitoring efforts of equipment will be in place as well as periodic site visits to ensure the Project is functioning correctly.

In the event of an emergency, the Applicant is working with the local Hanover Fire Protection District to establish two plans. A draft of the plans is attached as **Appendix V- Fire Prevention and Protection Plan** and **Appendix W- Emergency Response Plan**. These plans establish approved protection measures and outline procedures in the event of an emergency.

Additional precautions are being taken in the design of the Project by adding fencing around each of the Project array areas. This will help protect the safety of the general public and wildlife.

(b) Hazards and danger to environment from contamination due to substances on site

The lithium contained in the Battery Energy Storage System (BESS) will be considered a hazardous material located onsite. Many safety measures and protocols will be in place to ensure that the hazardous material is handled appropriately. The BESS has many built-in safety procedures and mechanisms due to guidance that is being followed through regulations UL9540A testing procedures. The equipment will comply with the NFPA 855 and tested through the Failure Mode, Effects and Critical Analysis (FMECA) to evaluate safety considerations of the battery. In addition, an Emergency Response Plan (**Appendix W**) has been included. The final plan will be attached with our Site Development Plan submission and address emergency response related to the battery.

(c) Procedures in case of emergency

The Applicant has been actively working with the Hanover Fire Protection District to develop two plans. The first plan is a Fire Prevention and Protection Plan (**Appendix V**) that will focus on proactive ways the Project will work toward prevention and mitigation of possible incidents. This will include design elements, training and systems in place. In addition, the Applicant is also developing an Emergency Response Plan (**Appendix W**) should an EMS or Fire Emergency occur requiring the Hanover Fire Protection District to help respond. This will include routes and detailed procedures how to respond to an incident involving the Project. Currently there are draft plans in place and the Applicant is working with the Hanover Fire Protection District to develop plans that are mutually acceptable. The Emergency Response Plan file includes the Pike Emergency Response Plan, Safe Work Practices Plan and the Williams Creek Substation existing Emergency Response Plan. These plans have been communicated to the Fire Protection District and we will continue to work through these plans as needed throughout the construction to operation process.

(6) Non-structural alternatives to Project development, such as conservation and no-development

While there are several non-structural alternatives available to reduce emissions, including increasing the number of electric vehicles, the aggressive goals to reduce emissions within the timeline provided require larger scale projects to move the emissions numbers.

The state of Colorado published the “Greenhouse Gas Pollution Reduction Roadmap” in January 2021. This outlines the state goals of decreasing greenhouse gas emissions within the state. This report states the largest sources of GHG pollution in Colorado is caused by transportation, electricity generation, oil and gas production and fuel use. Two sectors- electricity generation and oil and gas account for approximately two-thirds of the total 2030 reductions needed to reach the state climate goals. In order to reduce emissions to the goals stated in this plan there were two near-term actions identified for the electricity sector- adopting Clean Energy Plans and Electric Resource Plans and incorporate coal plant retirement from utility commitments. The Utility authored a Sustainable Energy Plan through their Energy Vision that will coordinate with the publishing. In addition, projects like the Pike Solar Project will need to be implemented to replace the fossil fuel power generation facilities. Within this plan, the Utilities will achieve an 80% carbon reduction and retire all coal generation by 2030, including the Martin Drake Power Plant.

Several utilities companies have joined the roadmap commitment including the Utility, Xcel, Holy Cross Electric, Black Hills and Tri-State. One priority within this plan is to promote investment and innovation in electrification in sectors and this will be seen across all utility companies with the various plans they are implementing.

The Project is one part of a portfolio of new generation projects, identified in Utilities recently developed Electric Integrated Resource Plan (EIRP), necessary to replace the Drake and Nixon coal generation plants capacity (approximately 400MW in total) that will be retired in 2022 and 2029 respectfully. The Project's main purposes is to serve as replacement power for the retiring plants and drive emissions reductions from Utilities generation fleet.

(7) Structural alternatives to the Project

There were several components to the Project that were considered including siting location and interconnection points.

In addition to the Utilities' land that the Project is currently designed on, there were two alternative locations considered for the Project: 1) juwi considered land owned by Woodmoor Water and Sanitation ("Woodmoor") adjacent to the juwi-developed, built, and operated Palmer Solar Project and 2) juwi considered using its planning lease covering up to 3,100 acres with the Colorado State Land Board (CSLB) east of the Williams Creek Substation substation. The Applicant undertook a comprehensive analysis of the alternative locations and determined the current site and design was best considering Utilities' renewable energy goals, available land rights, electrical interconnection, and other development criteria based upon juwi's extensive experience proposing solar energy projects across Colorado.

In addition to the land locations, the interconnection options were also assessed. The first option was located at the Williams Creek Reservoir and another at North Clear Springs Ranch. Each location could support up to 12 MW, with the Applicant being responsible for funding the cost of adding additional capacity to these locations. Additionally, interconnection availability exists at four separate Colorado Springs Airport sites, which can each support up to 10 MW, but the Applicant would be responsible for connecting costs.

Multiple points of interconnection were considered including the following that would not connect directly into the Utilities' system but that could serve as a delivery point:

- Midway Substation - interconnected to the Western Area Power Association Colorado Missouri (WACM) at the Midway substation
- Monument Substation - interconnected to Tri-State Generation and Transmission Association (TSGT) at the Monument Substation
- Fuller Substation - interconnect to Xcel Energy (Xcel) and Tri-State Generation and Transmission Association (TSGT) at the Fuller Substation

These third-party points of interconnection require additional costs associated with wheeling transmission to a Utilities delivery point. Bearing in mind Utilities' goal of delivering cost effective renewable energy to the citizens of Colorado Springs, the Applicant decided against using these alternatives. Ultimately, the Williams Creek Substation was determined to be the best and most economic location for interconnection given that it was recently upgraded during juwi's construction of the Palmer Solar Project.

(8) Need for the Proposed Development

(a) Present Population of area to be served and population when operating at full capacity

The service area for the population receiving the power for the Project can be found in **Appendix AG-Colorado Springs Utilities Service Territories Map**. According to the U.S. Census Bureau El Paso

County experienced a 15% growth rate between 2010 and 2019. Projections estimate continuous county growth and needs for energy to satisfy such growth. The population was reported to be 622,253 in 2010 and estimated at 720,403 in July 2019. The Project was awarded from the RFP that was issued (**Appendix AL**).

Several factors contribute to the need for the project:

1. The Utilities developed a plan of action in response to outside requests and customer feedback to expand the renewable energy portfolio powering the grid.
2. The Utilities needs to replace some existing power sources on the grid as well as respond to increased demand stemming from population growth.
3. Utilities must meet the State's current Renewable Portfolio Standard (RPS) and prepare for anticipated increases in RPS requirements in coming years.

Further, the RFP-GM-141545 was released by Utilities to address these same needs, namely:

- Legislative requirements
- Customer feedback
- Capacity availability

Utilities' developed a Sustainable Energy Plan through their Energy Vision. Within this plan, the Utilities will achieve an 80% carbon reduction and retire all coal generation by 2030, including the Martin Drake Power Plant. The goal of the plan is to modernize the grid with new technologies such as the Project within this Application. The Utilities' projected demand growth rate is 0-1% over the next 10 years and has a peak electric load of 908 MW.

The State of Colorado has also published additional literature encouraging increased renewable facilities and enlisting a need for growth to utilities such as CSU. On January 14, 2021, Governor Polis released the "Greenhouse Gas Pollution Reduction Roadmap." In 2019, Gov. Polis partnered with the Colorado General Assembly to pass 14 pieces of climate legislation, including the Climate Action Plan to Reduce Pollution (House Bill-1261), which established science-based targets of reducing statewide greenhouse gas (GHG) pollution 26% by 2025, 50% by 2030, and 90% by 2050 from 2005 levels. Governor Polis directed state agencies to develop a roadmap to achieving these goals with a whole-of-state effort, focusing particularly on the nearer term 2025 and 2030 targets. Utilities committed to the Governor's plans and specifically agreed to reduce pollution by at least 80% and transition to renewables.

The need for this Project is shaped not only from the State of Colorado standards, but also upon the Utilities' long-term goals and benefits shown within the scope of the specific RFP. Support for increasing renewable energy is illustrated in community interest and local programs developed by groups, such as the Pike Peak Area of Council Governments. This local council authored a document titled, "Looking to Our Future- Pikes Peak Region 2030," which described goals toward increasing renewable energy.

(b) Predominant Type of Users or Communities to be served

Colorado Springs Utilities, and its customer base, is the predominate community to be served.

(c) Percentage of Design Capacity at which the system is currently operating

The Project proposed, once built, will be designed to provide 175 MW AC power to the Williams Creek Substation. The Utilities owns the substation and will be designing and constructing necessary upgrades the system may need to handle capacity of the additional supply. Currently the Williams Creek Substation can

only accommodate the power generated from the Palmer Solar Project. The system upgrades that are proposed will not impact the substation footprint but allow for more system capacity to handle the 175 MW proposed Project.

The Williams Creek Substation is designed primarily as an interconnection or switching substation, not a load serving substation, and design capacity is not technically an issue at switching substations. The main design consideration at switching substations is the number of interconnection positions for generation connections and/or transmission line connections necessary for reliable power delivery. The proposed Project will add additional interconnection positions to the substation for the connection of the 175MW generation facility and additional transmission line connections to ensure the generation from the site can be reliably delivered Utilities customers.

(d) If Proposal is for a new facility and the capacity exceeds a ten-year projected increase in Demand, a detailed explanation of the excess service capacity and cost

The Project was designed as a result of the Utilities solicitation for additional capacity within the RFP-GM-141545. Pike Solar will supply 175 MW to the Utilities grid. This will help increase use of renewable energy in the system and allow coal generation facilities to retire without affecting the power supply to the customer base. This system will replace those and provide the necessary power to meet current demands, while exchanging the source of the power supplied. The Martin Drake coal generation facility will be retiring in 2030 and that will require approximately 200MW of power to replace this system. **The Project is one part of a portfolio of new generation projects, identified in Utilities recently developed Electric Integrated Resource Plan (EIRP), necessary to replace the Drake and Nixon coal generation plants capacity (approximately 400MW in total) that will be retired in 2022 and 2029 respectfully. The Project's main purposes is to serve as replacement power for the retiring plants and drive emissions reductions from Utilities generation fleet.**

The Williams Creek Substation was built to accommodate the Palmer Solar Project. The Substation will require upgrades to the system in order to accommodate for the power generated from Pike Solar. There are no additional upgrades or expansions currently planned beyond the proposed system upgrades for the Project. Adding the additional power from the Pike Solar Project gives Colorado Springs Utilities improved options for addressing base load, intermediate load, and peak load with solar energy. This will not “cost” the County for excessive capacity.

(e) Relationship to Applicants long-range planning and capital improvement programs

The long-term plan of the Utilities is to retire the coal generated plants that supply power to the Utility grid. In order to do this, an RFP was issued for renewable energy options. The Project was selected by the Utilities from the RFP-141545 (**Appendix AL**). The intent of the Project was to generate additional needed power for the Utility to provide to its customers over the next 35 years. The benefit to this proposed Project is that it may tie into the existing Williams Creek Substation and require minimal upgrades to incorporate into the existing system. The overall cost of providing this energy has become more competitive with other sources of electricity generation and the operations and maintenance plan of the Project will allow this project to be an economic source of energy for the Utility for the long-term.

(f) Description of user needs and user patterns to be fulfilled by Project

The Solar Project provides power to Colorado Springs Utilities consumers, particularly during daytime hours, but with the capability to dispatch electricity from the BESS after dark or at periods of peak demand.

Appendix AG – Colorado Springs Utilities Service Territories Map shows the location of the users who will receive power from this Project.

(g) Description of relationship of Project to other existing and planned utility facilities of a similar nature, other communication or energy generation and transmission facilities, local government capital improvement programs and special district expansion programs

The Project will be located next to the Williams Creek Substation which was built alongside the juwi-built Palmer Solar Project that is directly adjacent to the Pike Solar Project site. Colorado Springs Utilities has increased solar and renewable power generation in their grid portfolio. The Palmer Solar Project was a 60 MW AC Photovoltaic Solar Energy Generation Facility. The Utilities has one other solar Project within El Paso County call the Clear Springs Ranch Solar Array that produces 10 MW at full capacity.

In addition, there are also pending applications for the Front Range Midway Solar Project within the El Paso County community. This is a 100.2 MW photovoltaic solar energy generation facility located in south El Paso County.

All of the projects are intended to align with the goal of increasing renewable power within local utilities, counties and the state at large.

(9) Environmental Impact Analysis

(a) Land Use: Specify how the proposed development will utilize existing easements or rights-of-way for any distribution or collector networks

One of the supporting maps located in **Appendix D- 1041 Map Plan** identifies the existing easements. These easements are for existing natural gas lines, etc. The Applicant is currently working to obtain crossing agreements for such easements in order to build the Project and associated roads and underground medium voltage lines. The Applicant is working to obtain three crossing agreements identified on the map, one is a 100' wide easement with MVEA, another is a 225' wide easement with PSCo (Xcel) and the third is a Tri-State owned overhead line that lies within a 100' wide MVEA easement. In the first easement crossing, the Applicant will be proposed to build an access road and lay underground MV and fiber cable. In the second easement crossing, the Applicant will be requesting to lay underground MV and fiber cable. In the third crossing, the Applicant is requesting to place part of the access road across the easement in order to connect the Project.

The Project will work with CSU to tie the power in from the Project to the Williams Creek Substation. There will be an overhead transmission line approximately 1,400' long from the Pike Substation to the Williams Creek Substation. This will be an added line rather than pre-existing.

The Applicant will use some existing roads, but additional roads will be constructed for access, operations, maintenance, and vegetation management. There will be two entrances into the Project site- one from the southwest side located nearest to the Williams Creek Substation and Project substation. The other entrance is an existing road off the northwest end of the site near the landfill. Within the Project site, roads will be constructed to connect the existing roads with the layout and planned development. These can be seen on **Appendix D**.

(b) Information regarding Utility Facilities

(i) Map showing existing major facility of a public utility within the county of type proposed for development

Utility-scale solar is the type of proposed development. Colorado Springs Utilities has two utility-scale solar energy generation facility on its system including the Clear Springs Ranch Solar and Palmer Solar. A map of these in relation to the Pike Solar Project can be found in the **Appendix D- 1041 Map Plan**, page 10.

(ii) Design Capacity of each such facility, the excess capacity of each such facility and the percentage of capacity at which each such facility operates

Clear Springs Ranch Solar is currently a 10 MW PV facility that generates power for the Colorado Springs Utilities. In addition, Palmer Solar is a 60 MW PV facility that ties into the Williams Creek Substation and provides additional renewable power to the Utilities. Other projects include the pending Front Range Midway Solar Project for 100.2 MW.

(iii) Can Present facilities (Clear Spring Ranch) be upgraded to adequately accommodate a ten-year project increase in demand for services to be offered by Proposed Project.

In order to accommodate for a 175MW project, the Applicant needed approximately 1,350 acres for the total site. The other locations of existing solar facilities did not accommodate for this land footprint. In addition, the proposed site is located on Utility owned land with the shortest overhead transmission connection line distance proposed to the Williams Creek Substation facility.

The Project will tie into the existing Williams Creek Substation that Palmer Solar also feeds into therefore utilizing existing systems and working to minimize overall impact. The Project was submitted in response to the Utilities RFP for additional power to their grid. This is due to the growing demands for renewable power both from the Utility as well as local, state and federal governments. By adding this additional power to the existing facilities this will help accommodate increasing demand over the next 35 years.

The Williams Creek Substation will require expansion in order to accommodate for the power generated from Pike Solar. Williams Creek is an existing 230kV ring bus substation that will be expanded into a breaker and a half in bays 2, 3, and 4 with the installation of six circuit breakers. This expansion will accommodate a loop in of the existing 230kV NX-CL transmission line and a renewable customer tap. The substation plot does not require expansion and updates to drainage, grading, ground grid, cable trench, fencing, yard rock, conduit, cabling, steel, bus, instrumentation, protection and control, and substation equipment will only be installed or modified as required for the installation of the new equipment. No work for other future expansion will be considered.

(10) Energy Map

Appendix D- 1041 Map Plan, page 10 includes a map that illustrates the proposed Project in relation to existing facilities in El Paso County.

(11) For Applicants seeking permit for construction of transmission lines or substation

(a) Computer modeled electromagnetic field measurement with the proposed transmission line easement for that portion of the transmission line between the two substations

Appendix AB- Electromagnetic Interference Report was rendered for the proposed Project. This report is an academic report that compares electromagnetic frequencies of similar projects to determine field levels. The report evaluates the electric and magnetic field of eleven different types of comparable solar facilities. The report indicates that the measurements are negligible and that it is expected that the Pike Solar Project will have similar results to these eleven other projects. There are no power frequency electric or magnetic fields in solar panels or collecting cables. The guidelines and limits recommended by the standards set forth by various committees and organizations, including The International Committee on Electromagnetic Safety indicate that much higher thresholds than the measurements of the solar facilities within the report.

(b) Measures taken to comply with concept of prudent avoidance with respect to planning, siting, construction, and operation of the transmission lines, which may be those steps taken to comply with CCR 723-3 Section 3206(9)(b) or similar authority, for projects where other similar authority is applicable.

The Project is located adjacent to the Williams Creek Substation and Palmer Solar in order to tie this Project into the existing facility, Williams Creek Substation. This was intentionally designed to avoid impacts to lengthy transmission lines. There are three important components making the Pike Solar Project favorable in our siting efforts. The Applicant has worked to place the Project adjacent to the existing substation. It is also located near another existing solar facility, Palmer Solar for streamlining purposes. Lastly, it is located within a transmission corridor for Mountain View Electric, Xcel and Colorado Springs Utility for like use.