

## Letter of Introduction/Justification for Pre-application #1544888

**Purpose:** To provide the City of Aurora with an overview of the proposed solar project

**About Pivot Energy:** Pivot Energy is Colorado's leading community solar developer. Pivot Energy was founded in 2009 in St Louis, MO to install residential solar projects. In 2016, headquarters was moved to Denver to pursue larger and more robust solar programs. To date, we have been awarded more projects in Colorado by Xcel Energy through their Solar\*Rewards Community program than any other developer. We also have more solar capacity online in Colorado's community solar program than any other developer. We have developed and built projects across Colorado, including in Adams and Arapahoe Counties. We've worked with multiple municipal and county governments to navigate land use approval processes and look forward to working with the City of Aurora to bring additional solar projects to the City's properties.

**About the land site:** Pivot Energy participated in an RFP with the City of Aurora in late 2020 for the right to use the parcels in question for these solar projects. In early 2021, Pivot was awarded the RFP and we have been working with Natasha Wade and Karen Hancock on the site license agreement which will allow us to construct these projects once the site plan review is finalized. Aurora's ownership of this site will allow us to provide power for years to come with the understanding that we have a long-term partner to host these projects.

Pivot is proposing to build these solar projects on roughly 40 – 50 acres of the City's land in the area immediately northeast of 6<sup>th</sup> Ave and Tower Road. The projects will surround the existing solar facility on site which has been in operation since 2015. Pivot has identified the locations of the existing monitoring wells on the site and will design around these wells to ensure they are still accessible for periodic checks. Some environmental contamination from former Buckley operations have caused the site to become contaminated. Along with this limitation, the site's proximity to Buckley's runways have further limited its development potential. For these reasons, additional solar projects at this site represent the best and highest use for the City's lands. The solar projects will generate revenue from otherwise unusable land while contributing to Colorado's climate goals while providing access to renewable energy to some of the City's most disadvantaged residents.

**About these solar projects:** The solar projects that Pivot Energy proposes to build on the City's land site were awarded in the 2019 and 2020 Solar\*Rewards Community Request for Proposals (RFP) by Xcel Energy. The projects will provide community solar subscriptions to multiple low-income ratepayers, along with other residential ratepayers and commercial electrical customers across Colorado. In total, there will be 3 unique projects built in two phases.

The first phase will include the projects known as Pivot Solar 9 and Pivot Solar 10. These projects are part of Xcel Energy's 2019 RFP and will be constructed in the spring of 2022. The second phase will include the project known as Pivot Solar 21 and will be constructed in late 2022. Pivot Solar 9 and 10 will have a mix of residential, commercial, and municipal customers in Colorado. Pivot Solar 21 will be a unique project because it is dedicated to low- to moderate-income residential ratepayers, and subscriptions to the solar arrays will be offered at no cost to these participants.

Pivot Energy is working with Energy Outreach Colorado (EOC) to identify and partner with these low- to moderate-income ratepayers to help provide a meaningful reduction in their energy costs throughout the year. Pivot believes that renewable energy equity is important, and we've identified a way to bring these cost savings to residents in the Aurora area. We are particularly excited by the community benefits of this project and appreciate the City of Aurora's commitment to this project.

**Technology and appearance:** The solar arrays will utilize single-axis tracking racks that allow the solar panels to "follow" the sun throughout the day. This allows each module to generate almost 20% more power than a module that has fixed racking (i.e. racking that doesn't move throughout the day). This

means that more subscribers can participate in each project, spreading the benefits of the renewable energy to more people.

The projects will connect to existing electrical infrastructure on the site. The solar modules will be no more than 10' above grade at their highest point. There will be a few equipment pads spread throughout the site where the energy produced by the panels will be collected and transformed from DC electricity to AC electricity, allowing for it to be injected into Xcel Energy's existing infrastructure. There are several photos at the end of this document to demonstrate what the solar panels will look like.

**Installation and operations:** The solar equipment will be installed in two phases, both during 2022. The first phase will represent about 40% of the installed capacity and will be operational by the summer of 2022. The second phase will begin construction in the fall and will be operational by the end of 2022. The projects will operate for a minimum of 20 years from first date of commercial operations which is coincident with the duration of Xcel Energy's program.

The solar array is supported by steel foundation posts that are driven directly into the ground, using the soil as support. This allows for quick installation times without the need to pour concrete. The racks support the modules and are attached to the foundation posts. The modules are wired together with groups of wires being directed to several central "inverter pads" located within the array. The inverters convert the DC energy generated by the solar modules into AC energy suitable for the electrical grid. The output of the inverters is then combined in switchgear which is connected to a utility transformer which connects the solar energy to the electrical grid.

The solar panels do not emit any noise, light, odor, or other nuisance. They operate during daylight hours, 365 days each year. The inverters do generate a noise which operational, but the decibel rating is typically in the low 60s – similar to a residential air conditioning unit. The racks move periodically throughout the day and make a very soft noise during operations.

Pivot has evaluated potential glare impacts to the Buckley Space Force Base Air Traffic Control Tower (ATCT) and found there to be no potential for hazardous glare. We have also evaluated the potential glare impacts to the road routes of E. 6<sup>th</sup> Ave as well as Tower Road and found the same results – there is not any glare predicted along these routes. We use the Forge Solar Glare Hazard Analysis tool to make these determinations. The tool was developed by the United States Government at the Sandia National Laboratory in New Mexico before being privatized and further developed for consumer use.

After consultation with Michelle Teller at COA PROS, the City has determined that prairie dogs on site will be humanely euthanized prior to site mobilization. This is due to the area being controlled and the ineffectiveness of passive relocation. Pivot has received quotes from Smith Environmental and Engineering to complete this work prior to site mobilization for each phase. Once the project is operational, ongoing prairie dog mitigation is not anticipated. This could change if the prairie dogs compromise any structural or electrical components of the solar arrays.

Vegetation management of the solar sites is a top priority, and we will conduct ongoing vegetation management to ensure that no vegetation grows into the racks, or shades the solar equipment. This will be accomplished on an "as needed" basis and can be expected to occur between 2 – 6 times annually. In addition to managing the vegetation, we will also conduct regular electrical and mechanical inspections of the equipment to ensure it is operating as expected. In between site visits, we will monitor the energy produced using remote monitoring software that will give us minute-by-minute production information, allowing us to ensure that the system is operating as expected.

Pivot is aware of the ground water monitoring wells across the site. The solar equipment will be installed to ensure the monitoring wells can be accessed by qualified personnel. In some cases, the solar equipment may be installed above/over the monitoring wells, but we will ensure there is sufficient clearance to access the wells by testing personnel. It will be possible to drive a truck in between the rows of modules to get within 5' of the wells for routine checks.

**Example photos of similar projects and technology:**



*Equipment pad*