City of Golden Community Solar Garden
Evaluation Site #2: 1151 Catamount Drive

Site:

1151 Catamount Drive, Golden, CO 80403

Jefferson County PIN: 30-213-12-002

Roughly 2.25 acres near the corner of Golden Gate Canyon Road and Catamount Drive. The site includes an active retention pond owned by the City.

Potential capacity:

100 kilowatts (200 solar panels, 4 inverters)

Potential progress toward the City's sustainability goals:

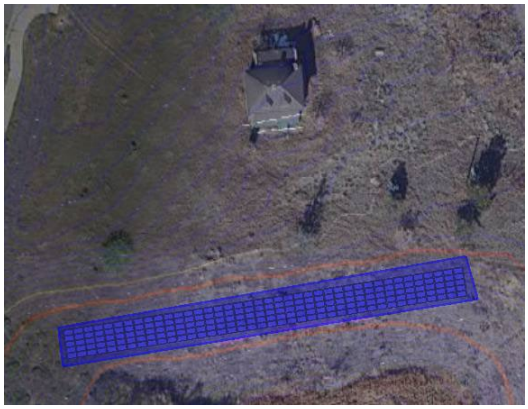
- 150,000 kilowatt hours of annual energy production
- +>1% toward 100% renewable energy target for community
- Producing equivalent energy for about 14 homes or 5 historic buildings.

Who can subscribe?

- ✓ Low-income households
- ✓ Renters
- ✓ Homeowners
- ✓ Business owners & tenants
- ✓ Commercial building owners
- ✓ Multi-family owners
- ✓ Municipal government

This parcel contains an active retention pond owned by the City of Golden which serves upstream properties in the Canyon View Industrial subdivision. The potential area for a community solar project is bound by the high-water mark on the south and the top of slope on the north, close to the existing Brickyard House. There is an average of 30% slope along the entire area (18°).

A Colorado School of Mines student group performed a preliminary analysis of the site. The City requested information about the potential for this site to offset electricity use in public historic buildings in Golden. Historic buildings have an added challenge that can limit or prevent solar installations for historic preservation reason or because some rooftops may not be able to support solar infrastructure. the energy production of the array is compared to the energy needs of multiple historic buildings in Golden, including the Golden History Museum, Clear Creek History Park, Astor House, Brickyard House, and the Foothills Art Center. The total annual collective energy needs of this group of historic buildings is about 127.5 MWh, which is under the potential electric capacity generated by this site.



Opportunity: For projects of this size, Xcel Energy's Standard Offer program is open on a year-round basis, so the City should work with a qualified solar garden developer to create a proposal for Council consideration.

Cost/Benefit Analysis: A preliminary cost estimate provided by the Colorado School of Mines report shows a total up front cost of about $200k, including $26k in racking systems, $76k of panels and electrical equipment and $98k for design and installation.

Next Steps: The City should obtain quotes from qualified community solar garden developers and evaluate different subscription models to consider a garden open to all residents and businesses to potentially provide energy toward historic buildings.