



Solar Energy

Learn About Community Solar

CEC Projects

Community Solar News

Our Customers

Case Studies

Events

 cleaneasyenergy.com

<http://cleaneasyenergy.com/cecblog/index.php/south-suburban-park-and-recreation-district/>

South Suburban Park and Recreation District



Not only do community parks provide green space for recreation and leisure, they also increase property values, attract business, and offer gathering places for all social groups—enhancing the quality of life for local residents.

The [South Suburban Park and Recreation District](#) is a special district in Colorado that provides recreational facilities and services for nearly 140,000 residents throughout south metro Denver. “We’ve always tried to save energy; we’ve always tried to save water throughout the parks,” said Brett Collins, the district’s director of planning and development. Sporadic energy-saving tactics had been implemented over the years, including the installation of a highly-efficient irrigation system with computer controllers. “We did a bit here and a bit there, but wanted to bring it all together and do a really big project,” Collins said.

So the South Suburban Park and Recreation District hired McKinstry, an energy service provider, to assess the district’s facilities and provide guidance on optimizing efficiency while reducing operational costs. As part of its strategy, the district board looked into community solar as a sustainable, cost-cutting tactic that would allow more projects to be included in the overall plan.

Community Solar as an Energy-Saving Tactic

Community solar developer [Clean Energy Collective \(CEC\)](#) presented its community-shared solar solution to the district board. “It’s a huge investment,” Collins said of the \$630,400 price tag. “But once we reviewed all the information, it just made sense. The board saw the value in [community solar] and we moved forward.”



The South Suburban Park and Recreation District purchased 720 photovoltaic (PV) panels in two of CEC’s Denver area solar arrays. Expected to produce 260,000 kilowatt hours (kWhs) of green power each year, the panels will help offset the power requirements for several of the district’s high demand irrigation systems that serve its golf courses and ball fields. The bill credits that the park district receives from Xcel Energy for the clean energy generated will offset the high demand electrical use.

“All of our golf courses are on non-potable water but a lot of parks are on potable water—so that’s where our big expense comes in.” The computer-controlled irrigation system allows the south metro district to save more water than the typical recreation agency. Still, many of its facilities are aging. “Even if the 30-year-old boiler is still working, it’s not working very efficiently,” Collins said.

A More Attractive Payback Than Rooftop

While making upgrades throughout the parks, the district’s sustainability committee considered having solar panels installed on the individual buildings. “I’ve looked into that over the years, but we have never been able to see the payback we want,” Collins said. “Until CEC came along.”

Rather than the 20-year payback a small rooftop system offered, CEC’s [community solar](#) option provides a payback between years six and seven. “That was probably the most important thing, at least for our board, that it was sustainable and it pays back in a reasonable amount of time,” Collins said.

CEC estimates that in the first year of solar production, the park district will save more than \$90,000 on its 170 kilowatt (kW) system. Over 20 years, the projected savings (less the purchase price) is over \$1.75 million. “Once it pays back and we’re saving a lot of money in electricity after that sixth year, it helps all-around for the district,” Collins said.

Year 1	
Bill Credits	\$67,254
REC Payments	\$22,880
Total Savings	\$90,134
First Year Payback	14.3%
First 20 Years	
Bill Credits	\$1,964,012
REC Payments	\$418,321
Savings	\$2,382,332
Total Savings (less purchase price)	\$1,751,945
20 Year Payback	278%

Going Solar Without Sacrificing Open Space

The savings enables the South Suburban Park and Recreation District to commission more energy efficiency projects in its comprehensive \$5.7 million plan, from installing new windows and doors to replacing water heaters and dehumidification units.

Part of the district’s inclusive strategy, community solar offers a hassle-free approach to solar without the need to install a ground-mounted array in precious open space. “It seemed more sustainable because we’re not taking up the land,” Collins said. “And we don’t have to maintain it.”

The 720-panel purchase coincides with the district’s values. “We’re parks and recreation, so that’s one of our missions—to be stewards of the land and preserve our resources,” Collins said. “So this is really exciting.”

Project Details

- Total panels purchased: 720
- System size: 170.4 kW
- Cost after rebates: \$630,388
- 20-year net payback: \$1.75 million

To put the environmental savings into perspective, CEC predicts that the clean energy generated by the park district's panels is equivalent to the following:

Environmental Benefits

- Vehicle miles saved: 10.46 million
- Number of trees planted: 14,234
- Pounds of CO2 emissions prevented: 9.23 million

