

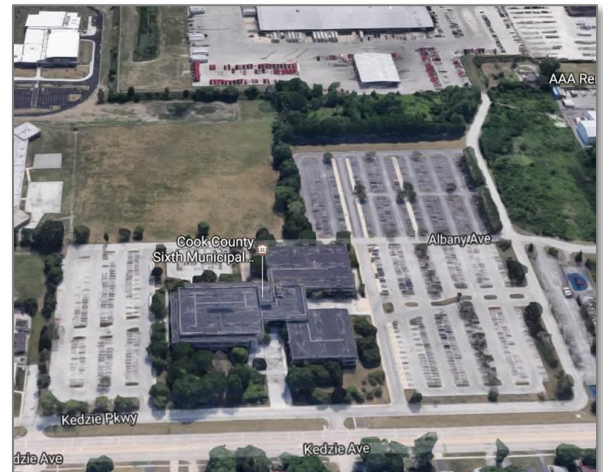
# Proposed Business Case: Public Facility Model






## Markham Courthouse

Cook County  
Community Solar  
Project



The Circuit Court of Cook County's Sixth Municipal District serves residents of more than 30 towns in the southern suburbs of Cook County. With thousands of residents, employees and others visiting the courthouse daily, the site offers a highly visible and centrally located site for community solar. This community solar project proposal combines rooftop arrays and solar carports for a system of 2 MW. The proposed array provides more than 1 GWhs of electricity to the host, offsetting 15 percent of its energy use. It also provides energy to more than 250 low-income households in the surrounding community, allowing them to save more than 50 percent on their electricity rates through this program.



<p><b>HOST SITE</b></p>  <p><b>Publicly Owned</b></p> <p>The Cook County Sixth District Courthouse building in Markham is a two story facility with more than 80,000 square feet of useable roof space and significant parking facilities across multiple acres.</p>	<p><b>OWNERSHIP</b></p>  <p><b>Developer Owned</b></p> <p>In this model, the solar developer will finance, build, own and maintain the array over the life of the system. The developer gets SRECs, ITC, MACRs and Capacity Rebate, passing on benefits to subscribers and the host site.</p>	<p><b>SUBSCRIPTION</b></p>  <p><b>Panel Lease</b></p> <p>In this model, residents subscribe by leasing panels for \$1.68 per mo. Residents would receive the Illinois Solar For All low-income incentive. This represents a 50 percent savings on the cost of their electricity.</p>	<p><b>INSTALLATION</b></p>  <p><b>Rooftop &amp; Carport</b></p> <p>With more than 80,000 square feet of roof space and nearly 10 acres of parking lots, this site offers a unique opportunity to build a system that combines rooftop and carports for a 2MW system.</p>	<p><b>SYSTEM</b></p>  <p><b>2 MW</b> <b>6,452 Panels</b></p> <p>The proposed system combines a 444 kW rooftop array and 1,556 kW of carport arrays. The combined system could be installed for an average cost of \$2.38 per watt and produce 2.5 GWhs of electricity annually.</p>
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To see the detailed report, financial models and all supporting case study material, visit the Cook County Community Solar Project:

- [Case Study Home Page](#)

To access the modelling tool used for these case studies, download the Community Solar Business Case tool here:

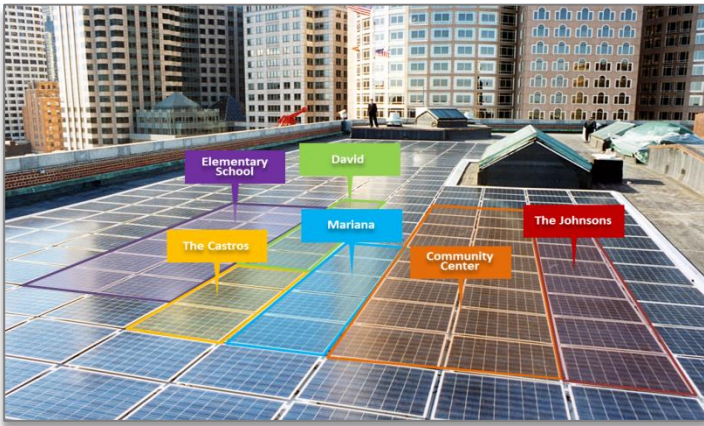
- [Business Case Tool](#)

Visit the Cook County Community Solar Map to search for properties that are suitable for community solar.

- [Community Solar Map](#)

# Community Solar

Community solar is a solar photovoltaic (PV) installation that provides energy, financial benefits, or both to multiple participants. Participants, also called Subscribers, can buy or lease a share of the community solar installation and receive credits on their electricity bill for the power generated by that share. Subscribers can be households, businesses or anyone with an electric bill.



## System Design

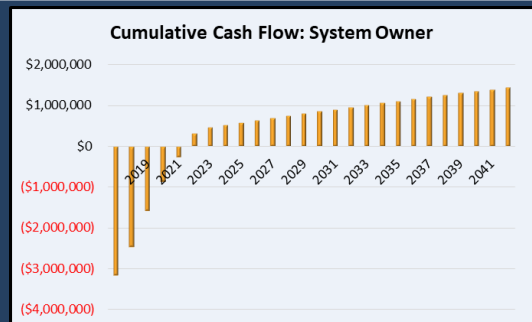
While the site offers significant rooftop space for solar, obstructions and setback requirements made the useable space much smaller. By adding carports, the proposal maximizes the system capacity. This affects the financial model by bringing down the overall IRR because of the additional costs to install carports. Because of the increased capacity, the overall returns, however, are much higher over time for the solar developer, the host site and the subscribers.

## Business Model

The business model assumes a developer-owned system. While there will be incentives for public agencies made available through Illinois Solar For All in 2018, the need for upfront capital and the risks associated with customer acquisition and maintenance make a host-owned system less attractive. This model would allow the developer to take advantage of SRECs, incentives and tax benefits, passing incentives to the host site and subscribers, with a moderate return.

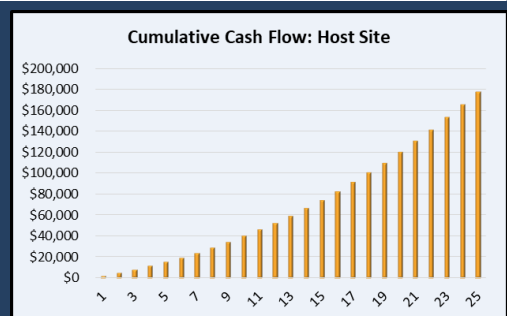
### Solar Developer/System Owner Metrics

25-Year Costs.....	(\$6,581,092)
25-Year Revenues.....	\$8,015,527
25-Year Net Benefits.....	<b>\$1,434,435</b>
25-Year Net Present Value (NPV).....	\$57,901
Return On Investment (ROI).....	21.8%
Payback Period.....	4.5 years
Internal Rate of Return (IRR).....	8.5%
SREC Value (1 MW-2 MW Block).....	\$45.00/MWh
SREC Adder Value-Subscriber Type.....	\$0
SREC Adder Value-100% Low-Income.....	\$4.05/MWh



### Host Site Metrics: Leasing and Anchor Subscription

25-Year Costs.....	(\$843,871)
25-Year Revenues.....	\$1,385,692
25-Year Net Benefits.....	<b>\$541,821</b>
25-Year Net Present Value (NPV).....	\$114,851
Upfront Investment/Financing.....	\$0
Average Annual Revenue (25 years).....	\$21,363
SREC Value (1 MW-2 MW Block).....	\$45.00/MWh
SREC Adder Value-Subscriber Type.....	\$0
SREC Adder Value-100% Low-Income.....	\$4.05/MWh



\*All SREC and SREC Adder values are assumptions. See Overview for more details.