

City of Aurora Vacant Land Use Analysis

Conversion from Agricultural Farming to Solar Farming

Maximizing Land Lease Revenue RFQ Bid Results and Financial Benefit Analysis

July 26th, 2023

“The City of Lights....Powered by the Sun”



Guiding Principles

- Find Alternative Revenue for Vacant Land
 - Airport Sites 1+2 and Landfill at Sullivan+ Rt 25
 - Solar Land Lease \$1,600 to \$2,000 acre per year
- Return State Mandated Expense to the City of Aurora
 - Collected by ComEd and Distributed by State of Illinois
 - Paid By All ComEd Business and Residential Customers
- Lower ComEd Electric Costs
 - City Residents and Businesses
 - Low Income Qualified Families
 - City Owned Properties
- Be Good Stewards of the Land
- Support Illinois Clean Energy Initiative
- Return “City Owned” Vacant Land to the Tax Roles
- No City of Aurora Investment

Solar Land Lease Concept

- Competitively Bid to Certified Solar Companies
 - Registered with State of Illinois Solar Program
 - Engineered, Owned and Operated by winning Bidder
 - Land Lease Paid to City of Aurora
- Winning Bidder gets “Option” to Develop Vacant Land
 - Perform “Due Diligence” on Proposed Site
 - **ComEd Infrastructure Requirements/Investment**
 - **Site Specific Soil and Terrain Survey**
 - **FAA Requirements and Mandates**
 - **Secure Illinois Solar Funds**
 - Lease Option from 3 to 5 years, Solar Company to Assume Tax Obligation Property
- Core Successful Bidder Criteria
 - Electric Infrastructure Investment by Bidder
 - Lease Paid Per Acre
 - Total Lease Revenue for Term
 - Type of Solar Field Proposed - Speed to Energizing Field - Experience

RFQ Bid Requirements + Results

- 6 Qualified Bidders
 - US Solar, SunCode, NexAmp, Forefront, 548 Energy Solution, GRNE Energy
 - All Registered with State of Illinois Solar Program
- Core Bid Requirements
 - BASE CASE (Defined Lease Rental Due to Expected Utility Capacity)
 - Airport Site 1 – 30 Acres
 - Airport Site 2 – 30 Acres
 - Rt25+ Sullivan Landfill Site 3 – 18 Acres
 - BEST CASE (Size Defined by Bidder)
- Per Acre Lease Rates from \$1,700 to \$3,500
 - Annual Escalator from 0% to 3%
- ComEd Infrastructure Commitment from \$3 Million to \$13 Million
- City of Aurora Revenue (30 to 40 year minimum term)
 - Base Case-**Avg. Annual Revenue** from \$156k to \$441k **Term Revenue** from \$4M to \$17M
 - Best Case-**Avg. Annual Revenue** from \$370k to \$826k **Term Revenue** from \$13M to \$33M

Top 3 Detailed Bids

Solar Bidder Name:	US SOLAR		SUNCODE		NEXAMP	
	BASE CASE (Defined Area)	BEST CASE (Proposed Area)	BASE CASE (Defined Area)	BEST CASE (Proposed Area)	BASE CASE (Defined Area)	BEST CASE (Proposed Area)
Assumption/Quote						
Total Acreage Airport Site #1	30 Acre Lease	80 Acre Lease	30 Acre Lease	132 Acre Lease	30 Acre Lease	30 Acre Lease
Total Acreage Airport Site #2	30 Acre Lease	40 Acre Lease	30 Acre Lease	30 Acre Lease	30 Acre Lease	30 Acre Lease
Sullivan + Rt25 Site # 3 (Brownfield)	18 Acre Lease	18 Acre Lease	18 Acre Lease	18 Acre Lease	18 Acre Lease	18 Acre Lease
Total Acreage	78	138	78	180	78	78
Size of Solar Farm Airport Site #1 (MW)	4.60	10.00	5.00	21.60	5.00	5.00
Size of Solar Farm Airport Site #2 (MW)	4.60	5.00	5.00	5.00	5.00	5.00
Size of Solar Farm Sullivan+Rt25 (MW)	3.77	3.85	2.80	2.80	2.40	2.40
Total Solar Farm Size - All Locations (MW)	12.97	18.85	12.80	29.40	12.40	12.40
ComEd Interconnection Fees Site #1	\$3,100,000.00	\$7,000,000.00	\$1,500,000.00	\$6,500,000.00	\$1,000,000.00	\$1,000,000.00
ComEd Interconnection Fees Site #2	\$3,100,000.00	\$4,000,000.00	\$1,500,000.00	\$1,500,000.00	\$1,000,000.00	\$1,000,000.00
Sullivan + RT 25 Site #3	\$1,500,000.00	\$2,000,000.00	\$1,500,000.00	\$1,500,000.00	\$500,000.00	\$500,000.00
Total ComEd Interconnection Fees	\$7,700,000.00	\$13,000,000.00	\$4,500,000.00	\$9,500,000.00	\$2,500,000.00	\$2,500,000.00
ComEd Interconnection Investment per KW	\$593,677.72	\$689,655.17	\$351,562.50	\$323,129.25	\$201,612.90	\$201,612.90
ComEd Interconnection Investment per Acre	\$98,717.95	\$94,202.90	\$57,692.31	\$52,777.78	\$32,051.28	\$32,051.28
Due Dilligence Period	3 to 6 months	3 to 6 months	Airport Completed	Airport Completed	12 months	12 months
Have you Determined ComEd Line Capacity?	NO	NO	YES	YES	NO	NO
Have you Determined Sub Station Capacity?	NO	NO	YES	YES	NO	NO
Has ComEd Pre-App been Submitted?	YES	YES	YES	YES	YES	YES
Has ComEd Pre-App been Completed?	NO	NO	Aiport- No Sullivan	Aiport- No Sullivan	NO	NO
Option Years	1 year + 2 years	1 year + 2 years	3 year Option	3 Year Option	5 Years	5 Years

Top 3 Detailed Bids

Solar Bidder Name:	US SOLAR		SUNCODE		NEXAMP	
	BASE CASE (Defined Area)	BEST CASE (Proposed Area)	BASE CASE (Defined Area)	BEST CASE (Proposed Area)	BASE CASE (Defined Area)	BEST CASE (Proposed Area)
Assumption/Quote						
Annual Lease Per Acre Site # 1	\$3,250.00	\$3,250.00	\$3,000	\$3,000/\$2,000	\$3,500.00	\$3,500.00
Annual Lease Per Acre Site # 2	\$3,250.00	\$3,250.00	\$3,000	\$3,000	\$3,500.00	\$3,500.00
Annual Lease Sullivan+Rt25 Site # 3	\$3,250.00	\$3,250.00	\$3,000	\$3,000	\$3,500.00	\$3,500.00
Lease Term	20 + 4 - 5Yr	20 + 4 - 5Yr	35 Year + 5 year	35 Year + 5 year	25 Year Base	25 Year Base
Annual Escalation/Increase %	2%	2%	3%	3%	1.50%	1.50%
Total 1st Year Revenue Site #1	\$97,500.00	\$260,000.00	\$90,000.00	\$294,000.00	\$105,000.00	\$105,000.00
Total 1st Year Revenue Site # 2	\$97,500.00	\$130,000.00	\$90,000.00	\$90,000.00	\$105,000.00	\$105,000.00
Total 1st Year Revenue Sullivan + Rt25 Site #3	\$58,500.00	\$58,500.00	\$54,000.00	\$54,000.00	\$63,000.00	\$63,000.00
Total Annual 1st Revenue	\$253,500.00	\$448,500.00	\$234,000.00	\$438,000.00	\$273,000.00	\$273,000.00
Total 30 Year Revenue Site #1	\$3,955,338.00	\$10,547,701.00	\$4,281,787.00	\$16,616,052.00	\$3,941,561.54	\$3,941,561.54
Total 30 Year Revenue Site #2	\$3,955,338.00	\$5,273,850.00	\$4,281,787.00	\$4,281,787.00	\$3,941,561.54	\$3,941,561.54
Total 30 Year Revenue Sullivan+Rt25 Site #3	\$2,373,233.00	\$2,373,233.00	\$2,569,072.00	\$2,569,072.00	\$2,364,936.93	\$2,364,936.93
Total Annual 30 Year Revenue	\$10,283,909.00	\$18,194,784.00	\$11,132,646.00	\$23,466,911.00	\$10,248,060.01	\$10,248,060.01
Average Annual 30 Year Revenue	\$342,796.97	\$606,492.80	\$371,088.20	\$782,230.37	\$341,602.00	\$341,602.00
Total Infrastructure Investment + City Revenue	\$17,983,909.00	\$31,194,784.00	\$15,632,646.00	\$32,966,911.00	\$12,748,060.01	\$12,748,060.01
Total 40 Year Revenue Site #1	\$5,889,193.00	\$15,704,516.00	\$6,786,113.00	\$22,167,970.00	\$5,698,128.86	\$5,698,128.86
Total 40 Year Revenue Site #2	\$5,889,193.00	\$7,852,258.00	\$6,786,113.00	\$6,786,113.00	\$5,698,128.86	\$5,698,128.86
Total 40 Year Revenue Sullivan+Rt25 Site #3	\$3,533,516.00	\$3,533,516.00	\$4,071,668.00	\$4,071,668.00	\$3,418,877.32	\$3,418,877.32
Total Annual 40 Year Revenue	\$15,311,902.00	\$27,090,290.00	\$17,643,894.00	\$33,025,751.00	\$14,815,135.04	\$14,815,135.04
Average Annual 40 Year Revenue	\$382,797.55	\$677,257.25	\$441,097.35	\$825,643.78	\$370,378.37	\$370,378.37
Total Infrastructure Investment + City Revenue	\$23,011,902.00	\$40,090,290.00	\$22,143,894.00	\$42,525,751.00	\$17,315,135.04	\$17,315,135.04

Top 3 Detailed Bids

Solar Bidder Name:	US SOLAR		SUNCODE		NEXAMP	
Assumption/Quote	BASE CASE (Defined Area)	BEST CASE (Proposed Area)	BASE CASE (Defined Area)	BEST CASE (Proposed Area)	BASE CASE (Defined Area)	BEST CASE (Proposed Area)
Bidder Takes Responsibility for Property Tax Bill	YES	YES	YES	YES	YES	YES
ABP PROGRAM - Y/N	YES	YES	YES	YES	YES	YES
NON ABP PROGRAM - Y/N	YES	YES	YES	YES	NO	NO
Illinois Solar for All Community Solar - Y/N	YES	YES	YES	YES	NO	NO
Bee + Butterfly Pollinator Program - Y/N	YES	YES	YES	YES	YES	YES
Honey Harvest Program - Y/N	YES	YES	Potentially	Potentially	YES	YES
Solar System Type - Fixed/Tracker	Tracker/Fixed	Tracker/Fixed	Tracker/TBD	Tracker/TBD	Tracker/Fixed	Tracker/Fixed
Battery Program	YES - Grid Stability	YES: Grid Stability	Potentially	Potentially	TBD	TBD
City of Aurora Subscription (Savings %)	10%	10%	15%	15%	15%	15%
Aurora Resident Subscription (Savings %)	10%	10%	15%	15%	15%	15%
Low Income Subscription Plan (Savings %)	50%	50%	50%	50%	30%	30%
Fencing Requirement/Type Fence	Farm Style	Farm Style	We are flexible	We are flexible	Chain Link	Chain Link
Owner Y/N	YES	YES	YES	YES	YES	YES
Owner Built? Y/N	YES	YES	YES	YES	YES	YES
Financial Strength (D + B Rating)	See Notes	See Notes	Finance Letter	Finance Letter	N/A	N/A
Capital Partner	Self-Funded	Self-Funded	Crayhill Capital	Crayhill Capital	See Attached	See Attached
Equity Eligible Partner?	Equity Solar Illinois	Equity Solar Illinois	Work With City	Work With City	NO	NO

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DEVIATIONS FROM AIRPORT DESIGN STANDARDS

- 1) SOUTHWEST CORNER OF OBJECT FREE AREA ENCLOSED BY AIRPORT SERVICE ROAD APPROXIMATELY 988' BEYOND RUNWAY 33 END.
- 2) NORTHEAST CORNER OF OBJECT FREE AREA ENCLOSED BY LOCALIZER SHELTER AT APPROXIMATELY 950' BEYOND RUNWAY 27 END.

EXISTING MODIFICATION OF AIRPORT DESIGN STANDARDS

REVISION	DESCRIPTION	DATE
1	RUNWAY 15 ROFA - SERVICE ROAD	08-08-08-08-23
2	RUNWAY 33 ROFA - FENCE	
3	RUNWAY 27 ROFA - LOCALIZER SHELTER	

RUNWAY SAFETY AREA DETERMINATIONS

REVISION	DESCRIPTION	DATE
1	RUNWAY 33 ROFA - METADORS	
2	RUNWAY 9 ROFA - FENCE	

LEGEND

ITEM	9R	27L	15	33	18	36	9L	27R
RUNWAY SAFETY AREA WIDTH	500	500	500	500	150	150	120	120
RUNWAY SAFETY AREA LENGTH PRIOR TO LANDING THRESHOLD	600	600	600	600	300	300	240	240
RUNWAY SAFETY AREA LENGTH BEYOND RUNWAY END	1000	1000	1000	1000	300	300	240	240
RUNWAY OBJECT FREE AREA WIDTH	800	800	800	800	500	500	250	250
RUNWAY OBJECT FREE AREA LENGTH BEYOND RUNWAY END	1000	1000	1000	1000	300	300	240	240

GENERAL NOTES

- 1) BASE MAP WAS DEVELOPED USING "AS BUILT" CONSTRUCTION DRAWINGS, EXHIBIT "A" PROPERTY LINE MAP, PREVIOUS AIRPORT LAYOUT PLAN AND 2014 AERIAL MAPPING.
- 2) EXISTING CONDITIONS WERE EVALUATED USING FAA ADVISORY CIRCULAR 150/5300-13, CHANGE 13.
- 3) THE BUILDING RESTRICTION LINE ENCOMPASSES THE RUNWAY PROTECTION ZONE, THE RUNWAY OBJECT FREE AREA, NAVD, CRITICAL AREAS, AND AIRPORT AREAS WITH LESS THAN 35 FOOT CLEARANCE UNDER THE FAR PART 77 SURFACES.
- 4) INNER PORTION OF THE APPROACH SURFACES HAVE BEEN SHOWN TO SUPERSEDE RUNWAY PROTECTION ZONES WHERE THEIR DIMENSIONS ARE THE SAME.
- 5) APPROACH SURFACES ARE DEPICTED TO A HEIGHT OF 50' ABOVE THE RUNWAY END ELEVATION. SEE THE AIRPORT AIRSPACE DRAWING FOR DEPICTION OF FULL PART 77 SURFACES.
- 6) PRECISION OBSTACLE FREE ZONE OF 300 FEET LONG BY 800 FEET WIDE WILL APPLY TO RUNWAY 9 END UNDER APPLICABLE CONDITIONS LISTED IN 150/5300-13.
- 7) SEE APPLICABLE INNER PORTION OF THE APPROACH SURFACE DRAWING FOR OBSTACLE FREE ZONE PENETRATIONS.

Site #2

DEVIATION	APPROVAL DATE
RUNWAY 33 RSA - WETLANDS	
RUNWAY 9 RSA - FENCE	

LEGEND		
EXISTING	FUTURE	DESCRIPTION
		ACQUIRER PROPERTY
	N/A	RIGHT OF WAY (R.O.W.)
	N/A	RUNWAY CENTERLINE
	N/A	FAA PART 77 SURFACES
	N/A	RUNWAY PROTECTION ZONE (RPZ)
	N/A	ABFELD PAYMENT
	N/A	REPAIRS
		ACQUIRER BUILDINGS
		LODGES AND QUARTERS
		AVIATION ENGINEERING
		BUILDING RESTRICTION LINE (B.R.L.)
		LODGE AND QUARTERS SAFETY AREA (R.S.A.)
		OBJECT FREE AREA (O.F.A.)
		RUNWAY VISIBILITY ZONE (R.V.Z.)
		AIRCRAFT PARKING LIMITS (A.P.L.)
		US-CLASS, SLUGS ANTENNA & CRITICAL AREA
		US-LOCALIZER ANTENNA & CRITICAL AREA
		ACQUIRER REFERENCE POINT (A.R.P.)
		RUNWAY END IDENTIFIER LIGHTS
		APPROACH LIGHT IDENTIFIER (ALIS)
		PRECISION APPROACH PATH INDICATOR (PAPI)
		PRECISION APPROACH PATH INDICATOR (PAPI)
		AUTOMATED SURFACE OPERATING SYSTEM (ASOS)
		WATERFLOOD LIGHT
		ACQUIRER ROTATING BEACON
		WIND CONE
		WIND TIE AND SEGMENTED CIRCLE
		LAKES
		GRASSING CONTROLS
		FENCE OR PONDING OR DRAINAGE WAY

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FUTURE AIRPORT LAYOUT

POTENTIAL SOLAR SITES

ITEM	RUNWAY						
	9R	27L	15	33	18	36	9L 27R
RUNWAY SAFETY AREA WIDTH	500	500	500	500	150	150	120 120
RUNWAY SAFETY AREA LENGTH PRIOR TO LANDING THRESHOLD	600	600	600	600	300	300	240 240
RUNWAY SAFETY AREA LENGTH BEYOND RUNWAY END	1000	1000	1000	1000	300	300	240 240
RUNWAY OBJECT FREE AREA WIDTH	800	800	800	800	500	500	250 250
RUNWAY OBJECT FREE AREA LENGTH	1000	1000	1000	1000	300	300	240 240

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (22x34).

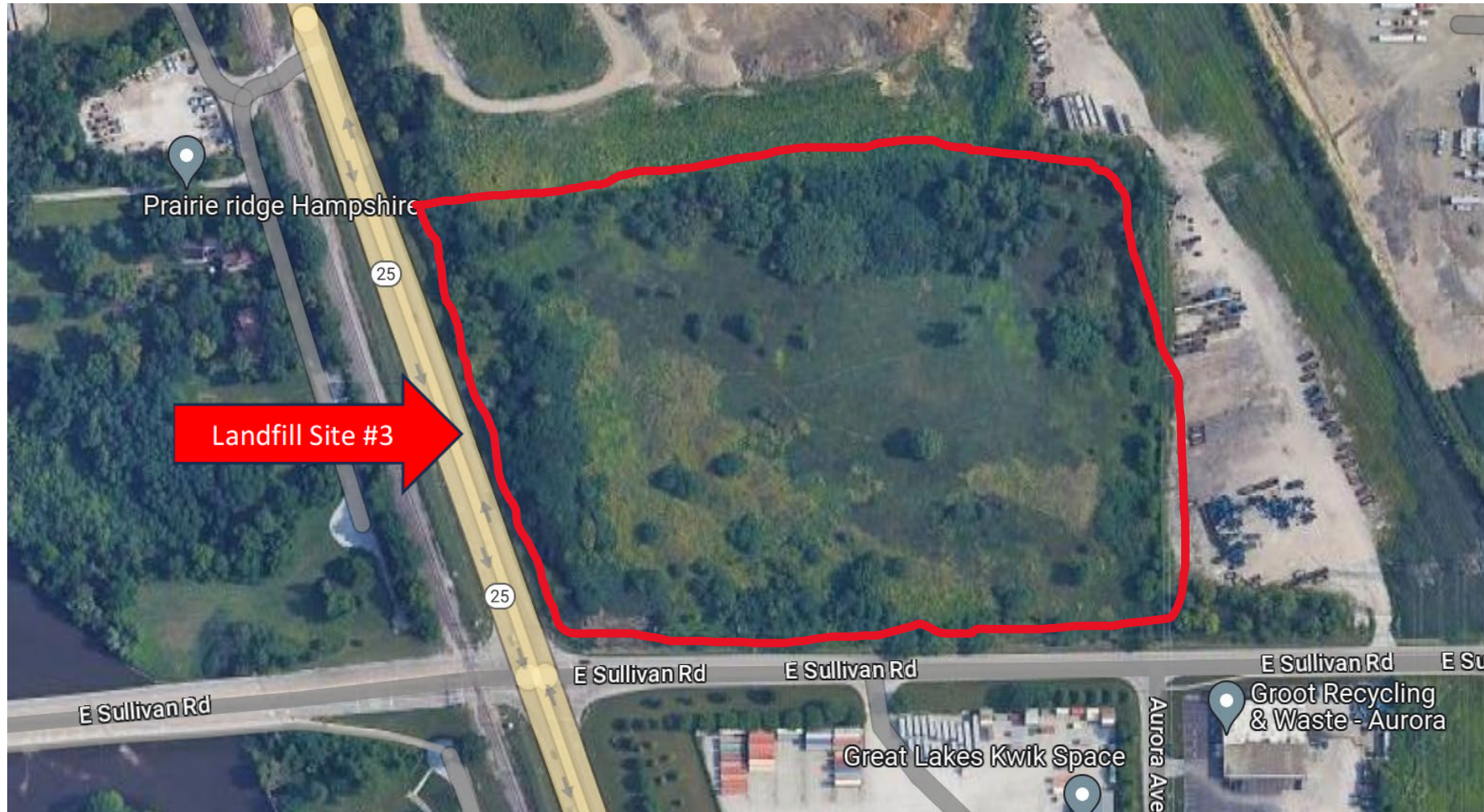
PATH: K:\172850501\draw\exhibit
FILE: ex - potential solar sites.d
UPDATE BY:
SURVEY BOOK #
XREF DWG:
XREF DWG:
DATE:

REVISIONS		
NO.	BY	DATE

DESIGN BY: BW
 DRAWN BY: JRO
 CHECKED BY: BW
 APPROVED BY: BW
 DATE: 8/18/2017
 JOB No: 17285-01
 SHEET

1 OF 1

Rt 25 + Sullivan Road (Landfill) Site 3



Summary Community Benefits

SunCode Energy

	BASE CASE (Defined Lease Area)	BEST CASE (Proposed Lease Area)
Total Acreage Airport Site #1	30 Acre Lease	132 Acre Lease
Total Acreage Airport Site #2	30 Acre Lease	30 Acre Lease
Sullivan + Rt25 Site # 3 (Landfill)	18 Acre Lease	18 Acre Lease
Total Acreage	78	180
Size of Solar Farm Airport Site #1 (MW)	5.0 MW	21.6 MW
Size of Solar Farm Airport Site #2 (MW)	5.0 MW	5.0 MW
Size of Solar Farm Sullivan+Rt25 Site #3 (MW)	2.8 MW	2.8 MW
Total Solar Farm Size All Locations (MW)	12.8 MW	29.4 MW
ComEd Interconnection Fees Airport Site #1	\$1,500,000.00	\$6,500,000.00
ComEd Interconnection Fees Airport Site #2	\$1,500,000.00	\$1,500,000.00
Sullivan + RT 25 Site #3	\$1,500,000.00	\$1,500,000.00
Total ComEd Interconnection Fees	\$4,500,000.00	\$9,500,000.00
Total 40 Year Revenue Airport Site #1	\$6,786,113.00	\$22,167,970.00
Total 40 Year Revenue Airport Site #2	\$6,786,113.00	\$6,786,113.00
Total 40 Year Revenue Sullivan+Rt25 Site #3	\$4,071,668.00	\$4,071,668.00
Total Annual 40 Year Revenue	\$17,643,894.00	\$33,025,751.00
Average Annual 40 Year Revenue	\$441,097.35	\$825,643.78
New Annual Tax Revenue Airport Site #1	\$39,453.87	\$170,495.39
New Annual Tax Revenue Airport Site #2	\$39,453.87	\$39,453.87
New Annual Tax Revenue Sullivan+Rt25 Site #3	\$22,885.15	\$22,885.15
Total New Annual Tax Revenue (Estimate)	\$101,792.89	\$232,834.41

Summary Community Benefits



SunCode Energy

Assumption/Quote

City of Aurora Subscription (Savings %)
Aurora Resident Subscription (Savings %)
Low Income Subscription Plan (Savings %)

BASE CASE (Defined Lease Area)	BEST CASE (Proposed Lease Area)
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15%	15%
15%	15%
50%	50%

Estimated Annual Savings for Residents	\$102.00	\$102.00
Estimated Annual Savings for Low Income Residen	\$360.00	\$360.00

Enviromental Benefits

Bee + Butterfly Polinator Program - Y/N	YES	YES
Annual Green Energy Produced (kWh)	19,450,000	39,550,000
Program Green Energy Produced (kWh)	778,000,000	1,582,000,000
Carbon Reduction - Pounds	741,948,191	1,387,930,068
Pounds of Coal Not Burned	376,997,012	705,197,625
Annual Homes Powered By Solar	2,431	4,944
Program Homes Powered By Solar	97,240	197,760