CITY COUNCIL
AGENDA ITEM STAFF REPORT

MEETING DATE:	AUGUST 26, 2025
TITLE:	AN ORDINANCE AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH GRP WEGMAN IN RELATION TO THE INSTALLATION OF SOLAR PANELS AT THE WASTEWATER TREATMENT PLANT IN THE CITY OF COLLINSVILLE, ILLINOIS
DEPARTMENT:	PUBLIC WORKS
PROJECT MANAGER:	TROY TURNER, PUBLIC WORKS DIRECTOR
REQUESTED ACTION:	APPROVAL
STRATEGIC PLAN GOAL(S):	GOAL #4: INVEST IN PUBLIC INFRASTRUCTURE
ATTACHMENTS:	ORDINANCE, AGREEMENT

OVERVIEW

The subject ordinance authorizes an agreement with GRP Wegman for the materials and installation of a solar energy system at the Wastewater Treatment Plant located at 300 Simpson Street. The project includes the installation of a ground mounted system. The approximate cost of the project is $6,472,846. The estimated offsets of incentives is $4,913,771, in addition to operational cost savings in reduced utility expenses.

EXECUTIVE SUMMARY

The Wastewater Treatment Plant has the largest energy consumption of all City's facilities located within Ameren Illinois territory. The facility used 2,955,949 kilowatt hours (kWh) based on 2024-2025 utility records for an annual expense of $318,823. The project cost for the solar energy systems is $6,472, 846. The solar panels will offset an estimated 3,053,956 kWh (103%) in operational savings. The City will be eligible for $1,803,232 in Illinois Solar Renewable Energy Credits (SRECs), $521,400 Inverter Rebate, and $2,589,139 (40% construction cost) in federal solar investment tax credits (ITC). The project payback period is year six (6). For more information on the project costs, power savings, and tax credits, see Cost Recovery Details on page 3.

In October of 2023 the City executed an agreement with GRP Wegman for the materials and installation of a solar energy system at the Wastewater Treatment Plant contingent upon a successful application to the Illinois Solar for All Program (ISFA). Unfortunately, the ISFA application was rejected because the Wastewater Treatment Plant was not considered a qualified critical service provider per the Illinois Power Agency. City staff requested that GRP Wegman provide an analysis of the project which did not include the IFSA incentives. The estimated offset of incentives dropped from $5,332,804 with the ISFA incentives to $4,913,771 without – a difference of $419,033, changing the payback period from <1 to 5.9 years.

Overall, staff believes the $4,913,771 in incentives (76% of the total project cost) makes the project worthy of pursuit due to the Wastewater Treatment Plant being the largest energy user of all City facilities, which will off-set 103% of the energy consumption at the plant.

FEDERAL TAX CREDIT

The solar investment tax credit (ITC) can be claimed on federal corporate income taxes for 40% of the cost of a solar photovoltaic (PV) system that is placed in service during the tax year. In 2022, Congress passed the Inflation Reduction Act (IRA) which extended the 30% ITC for systems starting construction by 2033, with a domestic content bonus of 10%, providing a 40% total tax credit. Organizations that do not pay federal taxes, like non-profits and local governments, can take advantage of tax credits through a direct pay option.

FINANCING

The City will bid out a short-term loan utilizing bank financing for ten (10) years to fund the project. A ten (10) year loan will give the City the flexibility to pay off the note upon receipt of the reimbursements without penalty and provide adequate time to receive reimbursement without default, in case of an unforeseen delay in incentive funding. Once the incentive funding is received, the funds will be directed to the loan payment immediately to minimize interest charges to the City.

OWNERSHIP & MAINTENANCE

There are a variety of ways to implement a solar project, including a direct purchase agreement, solar leases/power purchase agreements (PPA), and community solar programs where multiple individuals or entities share the benefit of a single solar installation. The subject solar project is a direct purchase agreement where the City will own the solar arrays installed at the facility. The City will also be responsible for the maintenance of the equipment. Maintenance includes routine cleaning, inverter maintenance, monitoring system costs, and electrical related work.

2025 CAPITAL IMPROVEMENT PLAN PROJECT

This solar project with GRP Wegman is identified in the 2025 Capital Improvement Plan (CIP).

RECOMMENDATION

Staff recommends approval of an ordinance suthorizing the Mayor to execute an agreement with GRP Wegman in relation to the installation of solar panels at the Wastewater Treatment Plant.

COST RECOVERY DETAILS

City of Collinsville - WWTP (40% ITC)

Inputs & Key Assumptions

Federal Tax Credit (ITC)	40%
Electricity Escalation Rate	2.5%
PV Degradation Rate	0.5%

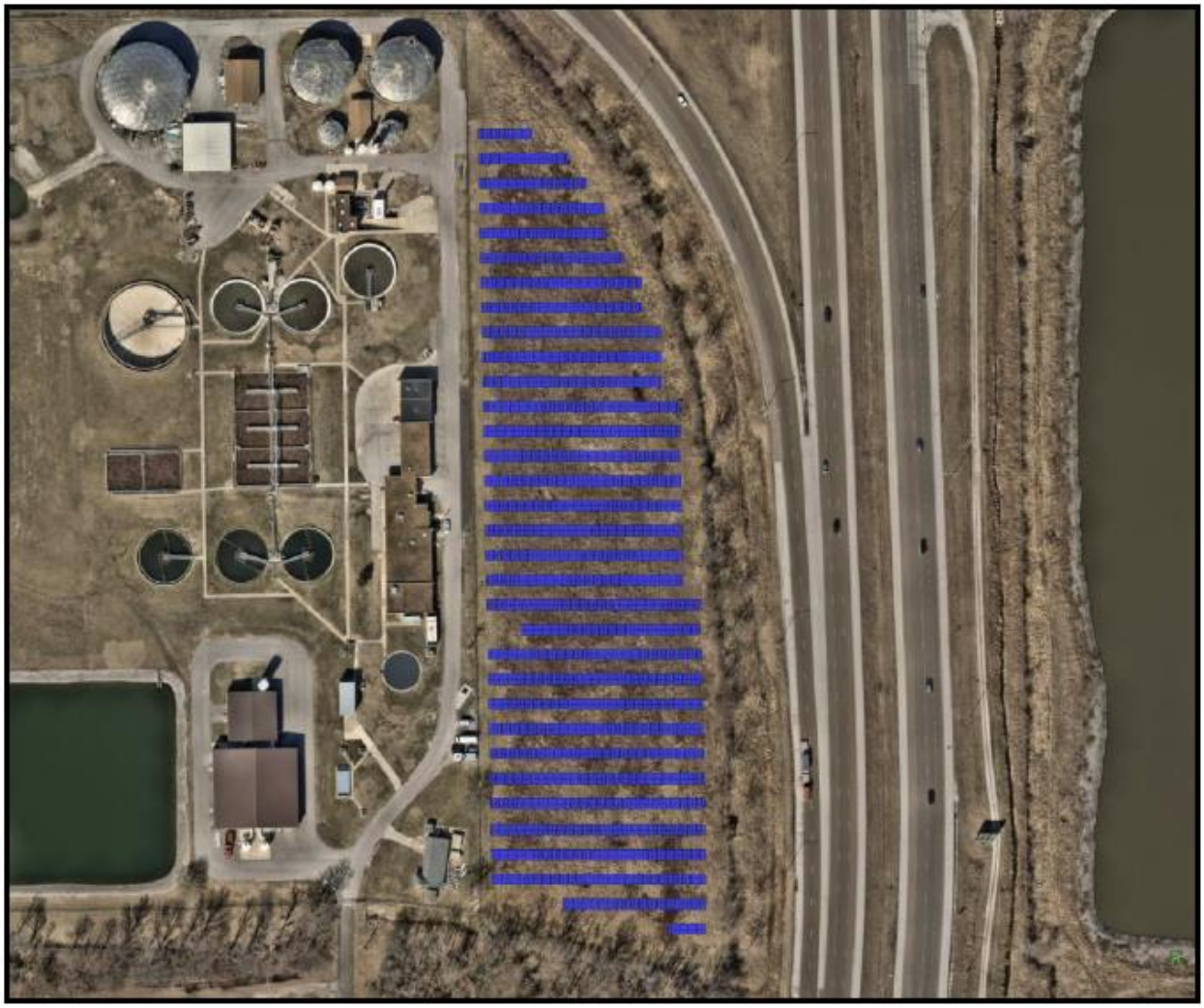
Year	Project Cost	Power Savings	Illinois SRECs	Inverter Rebate	Federal Investment Tax Credit (ITC)	SREC Fees	Annual Cash Flow	Cumulative Cash Flow
Initial	($6,472,846)					($108,723)	($6,581,570)	($6,581,570)
1		$318,823	$281,170	$521,400	$2,589,139	($103,096)	$3,607,436	($2,974,134)
2		$325,160	$265,549				$590,709	($2,383,424)
3		$331,622	$265,549				$597,172	($1,786,252)
4		$338,213	$265,549				$603,763	($1,182,490)
5		$344,935	$265,549				$610,485	($572,005)
6		$351,791	$265,549				$617,340	$45,336
7		$358,783	$265,549				$624,332	$669,668
8		$365,914					$365,914	$1,035,582
9		$373,186					$373,186	$1,408,768
10		$380,603					$380,603	$1,789,371
11		$388,168					$388,168	$2,177,539
12		$395,883					$395,883	$2,573,422
13		$403,751					$403,751	$2,977,172
14		$411,775					$411,775	$3,388,948
15		$419,959				$140,585	$560,544	$3,949,492
16		$428,306					$428,306	$4,377,798
17		$436,819					$436,819	$4,814,617
18		$445,500					$445,500	$5,260,117
19		$454,355					$454,355	$5,714,472
20		$463,385					$463,385	$6,177,857
21		$472,595					$472,595	$6,650,452
22		$481,988					$481,988	$7,132,440
23		$491,567					$491,567	$7,624,007
24		$501,337					$501,337	$8,125,344
25		$511,301					$511,301	$8,636,645
26		$521,463					$521,463	$9,158,109
27		$531,827					$531,827	$9,689,936
28		$542,397					$542,397	$10,232,333
29		$553,178					$553,178	$10,785,511
30		$564,172					$564,172	$11,349,683
Totals	($6,472,846)	$12,908,759	$1,874,466	$521,400	$2,589,139	($71,234)	$11,349,683	

Notes:

SRECs = Solar Renewable Energy Credits
SREC, Inverter Rebate, and ITC are reflective of current incentives available and may be subject to change at any time mean
Means of financing could affect the Federal Tax Credit, please consult a tax professional
SRECs shown are based on 2025-26 pricing
Year 1 is the first year the system is energized
Estimated additional demand savings of 184 kW at the current rate for a savings of $1,541 are not included in the annual power savings.

CONCEPT SITE PLAN

The conceptual site plan of the Wastewater Treatment Plant below identifies the approximate location of the ground mounted solar panels would be located contingent upon property acquisition.



SAMPLE GROUND MOUNT SYSTEMS