



The City of
Worcester



Solar Ownership from a Municipal Perspective

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City Solar Approach

- The City owns and maintains 20 (21st on the way) solar installations
 - Over 12.5 Megawatts – DC
- Key drivers of Ownership model were financial benefit and ESPC financing
 - Solar revenue goes to paying off the bond to build the array and to the city's Carbon Mitigation Revolving Fund (CMRF), which funds some department salaries/projects and Solar O&M



Why Worcester Chooses Ownership



- Ownership captures full value of net metering + SMART + SRECs
- Projects have a strong ROI and build can be financed through ESPC (25A) process
- Power Purchase Agreement (PPA) = third party contracts, risk of price changes, and less \$ for the city
- Ownership = Control, transparency, long term benefit, true resiliency, and strategic planning

Greenwood St. Landfill Solar Array

- 8.1 MW – DC
- \$28M Cost
- Financed through an Energy Savings Performance Contract (ESPC) with Honeywell
- Allows the city to sell SRECs and electricity at net-metering rates, with an estimated savings of \$52 million over first 20 years and an additional \$17 million in the subsequent decade.
- Ownership means the city keeps the revenue, unlike a PPA (Power Purchase Agreement) where a third party owns the system and sells the power back to the city.



Ownership Considerations

Funding

Need up front capital or funding mechanism (bonds, grants, etc.)

Long-term Planning

30+ year lifespan - must align with site plan, confirm roof age (if applicable), building or site usage, future goals, confirm staff capacity

Operations & Maintenance

Owner bears O&M and replacement responsibility

Procurement Pathways

Can Procure under MGL Ch 149 or Ch 25A

Higher effort, but greater lifetime savings & control

Key Aspects of Build Process

- **Site Selection**

Cross Department Collaboration, Shading, Structural Load Assessment (for rooftops), Geotech (for canopies), Utility Electrical Capacity, Abutter Impact, Zoning, Easements, and Site Restrictions

- **Utility interconnection & Incentives (SMART Program, etc.)**

Start early – this will set timeline. Failure to get in the utility queue at beginning of project can potentially kill the project if capacity an issue at site. Need to know that as early as possible

- **Procurement**

Identify Pathway (149 or 25A), Bid Package to Include Scope of Work, Contract, Warranty Requirements, Performance Specifications, Etc.

- **Build**

Prevailing Wage Rates, Schedule, Site Impacts, Electrical Service Interruption(s), Worker & Site Safety

- **Commissioning**

Testing (rapid shutdown, inspections), Confirm interconnection, submit SMART Claim, Begin production monitoring, and implement O&M plan



Maintenance and Ownership Realities

- City owns monitoring, repairs, and service/repair vendor contracts
- Regular inspections, cleaning, and pest control are essential
- Flexibility for maintenance and repairs under Ch 25A but, especially if your solar PV portfolio is significant, the \$300k cap leads to many one-off repairs.
- ESPC model allows for longer term maintenance contract, which is preferable from a consistency perspective, both in terms costs and performance variability


Current Opportunity – Smart 3.0 and IRA - ITC

- Smart 3.0 significantly more lucrative than Smart 2.0

Feature	SMART 2.0	SMART 3.0 (Program Year 2025)
Rate Structure	Declining block structure (rates decrease by 4% per block for standalone, 2% per block for behind-the-meter)	Annual adjustable rates based on cost analysis
>250 to ≤500 kW AC	Varied by block and utility territory	\$0.2482/kWh
>500 to ≤1,000 kW AC	Varied by block and utility territory	\$0.2113/kWh
>1,000 to ≤5,000 kW AC	Varied by block and utility territory	\$0.1729/kWh
Compensation Term	10 years (≤25 kW) 20 years (>25 kW)	20 years (all projects)
Rate Adjustment	Fixed at time of enrollment, declined as blocks filled	Annual assessment and adjustment possible
Capacity	3,200 MW total program cap	900 MW for Program Year 2025 (annual allocation)




Current Opportunity – Smart 3.0 and IRA - ITC

- ITC – Incentives will be eliminated, but there is still time to take advantage (30% tax credit)
 - Beginning construction by July 4, 2026 is best choice as it allows more time to complete the installation – December 31, 2030
 - Beginning construction after July 4, 2026 and before December 31, 2026 is not ideal because system must begin operating by December 31, 2027 to qualify for tax credits
 - Be aware of more strict "Foreign Entities of Concern" requirements
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Key Takeaways

- Ownership provides the highest long-term value and control but requires staff to manage O&M for the lifetime of the array . Investing in solar now, especially under the ownership model, may never again be this lucrative in MA
 - PPAs fit when up front capital and/or staff capacity for O&M management is limited
 - If you want to own, make sure you have
 - Funding Source(s)
 - Staff Capacity
 - A Plan for Revenue
 - A Plan for O&M
 - A Suitable Site
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THANK YOU

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