

Developing the Local Solar Energy Market

Scott R. Tess

Environmental Sustainability Manager

City of Urbana, IL

srtess@urbanaininois.us / [linkedin.com/in/scotttess/](https://www.linkedin.com/in/scotttess/)

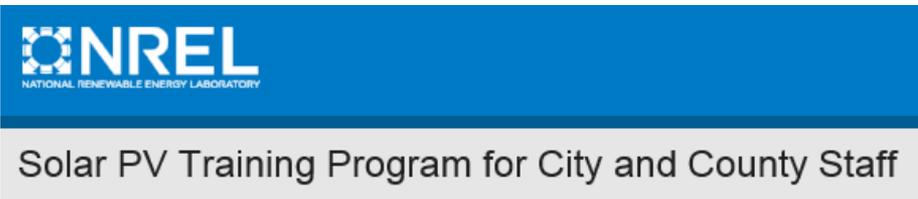


All the Above Strategy (for solar)



**GREAT PLAINS
INSTITUTE**

Better Energy. Better World.



Solar PV Training Program for City and County Staff



Relevance

- Future Energy Jobs Act



Stimulate job creation with new investments in energy efficiency, renewables, and energy innovation

Enhance Illinois' position as a leader in the clean energy economy, attracting investment and new companies to Illinois

Preserve Illinois' low energy rates for residents and businesses

DOE SolSmart



HOW WE HELP OUR COMMUNITIES RESOURCES NEWS [GET STARTED](#)

SOLSMART DESIGNEES

FILTER COMMUNITIES +



SolSmart TA Calculator_Urbana_September 30 2016 - Excel

File Home Insert Page Layout Formulas Data Review View Tell me what you want to do... Text, Scott Share

Calibri 11 Number Conditional Formatting Cell Styles

D11 =VALUE(IF(OR(C11="Intake Form", C11="TA Plan"), "10", "0"))

Foundational Categories: Permitting and Planning, Zoning, & Development Regulations

Permitting			Planning, Zoning, & Development Regulations		
Criteria	Addressed in	Points	Criteria	Addressed in	Points
P-1: Create and make available an online checklist detailing the steps of your community's solar permitting process. (Required)	TA Plan	Requirement Achieved	P2D-1: Local government has reviewed zoning requirements and removed restrictions intentionally or unintentionally prohibiting PV development. Compile findings in a memo, and commit to reducing barriers to PV during next zoning review. (Required)	TA Plan	Requirement Achieved
P-2: Provide a streamlined permitting pathway for small PV systems with turn-around time of no more than 3 days. (Required for Gold)	N/A	0	P2D-2: Allow solar by-right and as an accessory use in all major zones, and implement any zoning ordinance adjustments identified through the zoning review to improve solar-friendliness. (Required for Silver and Gold)	N/A	0
P-3: Distinguish between systems qualifying for streamlined or standard review.	N/A	0	P2D-3: Conduct review of existing planning documents and identify new opportunities to integrate PV into planning goals.	Intake Form	5
P-4: Require no more than one application form for a residential rooftop PV project.	N/A	0	P2D-4: Provide clear guidance for solar in historic and special use districts.	N/A	0
P-5a: Conduct a review of solar permit fees for residential and commercial solar.	TA Plan	5	P2D-5: Integrate solar and/or shared solar into relevant local plans (e.g. energy plan, climate plan, comprehensive plan).	Intake Form	10
P-5b: Earn additional points: Revise or demonstrate that permit fees reflect national best practices (\$400 or less for residential, and based on cost-recovery for commercial).	TA Plan	5	P2D-6: Include considerations for active and passive solar in development regulations (e.g. providing guidance for orientation of structures in subdivision regulations).	N/A	0
P-6: Review permitting process for efficiency improvements and reduce processing time to 10 days or less.	Intake Form	10	P2D-7: Provide development incentives for solar within subdivision or zoning process or as part of other development incentives (e.g. density or height bonuses for buildings which plan to install solar or tax-increment financing).	N/A	0
			P2D-8: Encourage or incentivize solar development on parking lots, vacant lots, landfills, buffer lands around uses with nuisances (refineries, wastewater plants).		

Introduction **Foundational Categories** Special Focus Categories Summary TA Plan Actions

82%

Solar for Municipal Facilities

Cash purchase

- Need cash up front
- Avoid financing fees
- Tax exempt doesn't capture tax incentives
- Avoids transmission charges
- Your maintenance

Power Purchase Agreement

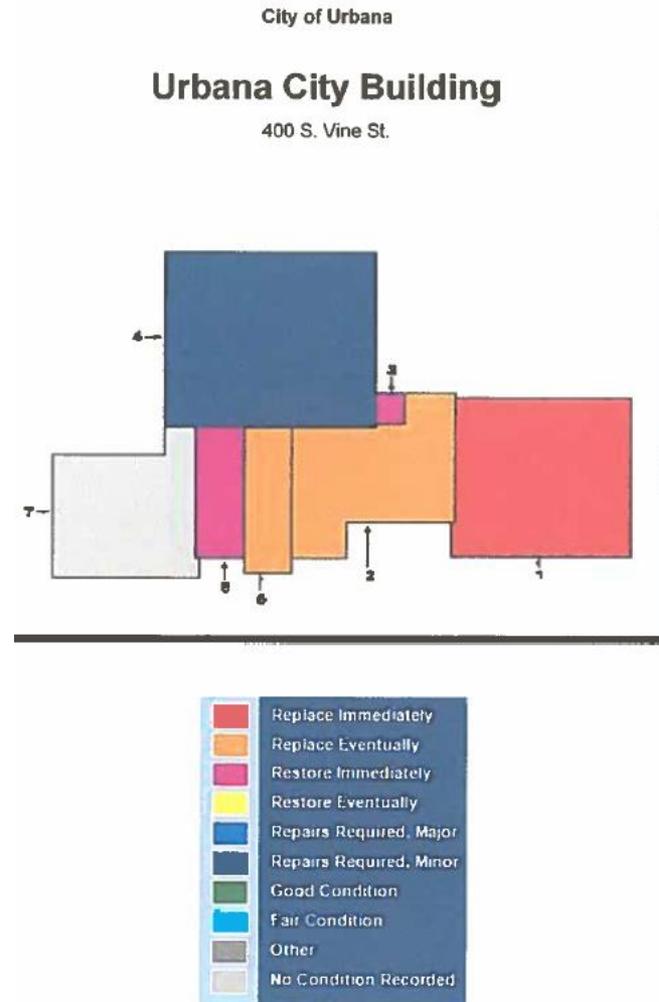
- No money down
- You pay \$/kwh produced
- Investor can monetize tax credit and share value
- Avoids transmission charges
- Investor's maintenance

Community Solar

- No money down
- You pay \$/kwh at agreed upon volume
- Investor can monetize tax credit
- Have to pay transmission charges
- Investor's maintenance

Municipal Solar Procurement

- Rooftops



Municipal Solar Procurement

- Proposals received
 - Existing volumetric cost
 - \$0.089/kWh
 - Solar Proposals
 - \$0.087/kWh year 1
 - \$0.051/kWh year 1
 - With annual price escalators
 - No distribution fees



Municipal Solar Procurement

- Arbor Shop



Community Bulk Purchase (Solarize)

- City/Non-profit program w/ competitively selected installer
- Solar Power Hour events
- Limited time bulk pricing that declines with volume



Community Bulk Purchase (Solarize)

Year	Educated	Leads	Systems Installed	Total Installed /kW	Average Installed /kW	Base \$/watt	Installed \$/watt
2016	280	421	80	604	7.55	\$3.16	\$3.57
2017	363	396	58	447	7.74	\$2.99	\$3.11
*2018	429	431	41	498	12.14	\$2.99	\$3.42

Leasing Underutilized Property

- Closed landfills
- Surplus land
- Receive
 - Lease payment
 - Electricity (optional)
 - Tax revenue



Urbana's Closed Landfill

Urbana Landfill Parcels and 2ft Contours



Leasing Underutilized Property



Take Aways

- Request for Quotes and cash flow analyses are familiar things that we all do
- You'll know your site(s) are viable for solar if an installer gives you a competitive power price



Questions

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