

# CITY OF BATAVIA

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**DATE:** March 22, 2011  
**TO:** Public Utilities Committee  
**FROM:** Steven Allen, Senior Project Engineer  
**SUBJECT:** Resolution 11-24-R Approving Electric Budget Amendment  
Resolution 11-25-R Authorizing Agreement to Install 25kW Solar System  
Motion to Waive Formal Bidding

**Summary:** In 2009 the City of Batavia Electric Utility was awarded an American Recovery and Reinvestment Act (ARRA) grant to install a 25kW solar system on the roof of the Public Works Garage. The installation of this system will be funded by an Electric Utility budget amendment and funding from the Illinois Department of Commerce and Economic Opportunity (DECO).

**Background:** Electric Utility staff solicited proposals from three renewable energy companies located in Northern Illinois. Rather than sealed bids, a matrix evaluation approach was taken to evaluate the proposals due to the wide variety of solar panels and components available. The evaluation matrix can be found in Appendix A of this memo. All submittals were technically acceptable and had references of work they have recently performed. After evaluating the proposals Staff has reached a decision to award the installation of the solar system to New Edison Energy of Batavia, IL. New Edison Energy provided the lowest total cost for system installation and monitoring. They will also be using solar panels manufactured by Wanxiang Solar in a factory located in Rockford, IL. The Resolution associated with the award of the installation is 11-25-R.

The amount of the New Edison Energy proposal is \$162,995.00. This includes a structural evaluation of the Public Works Garage roof, installation of the panels and inverters, 1 year of maintenance and training, and a monitoring module for system operational data. Staff is recommending a 10% contingency be added to the New Edison Energy proposal in the amount of \$16,300.00. To cover these unbudgeted costs Staff is proposing budget amendments to the following accounts:

- \$90,779.00 – Electric Department Grant Revenue: 21-00-4232
- \$179,295.00 – Electric Department Contractual Services: 21-64-6355

These budget amendments are associated with Resolution 11-24-R.

**Staff recommendations:**

- Recommend Public Utilities Committee and City Council approve a motion to waive formal bidding for the installation of a 25kW Solar System on the Public Works Garage roof
- Recommend Public Utilities Committee and City Council approve Resolution 11-24-R, Approving Electric Budget Amendment
- Recommend Public Utilities Committee and City Council approve Resolution 11-25R, Authorizing Agreement to Install 25kW Solar System

## APPENDIX A

	Vendor 1	Vendor 2	Vendor 3
	SoCore Energy	New Edison Energy	Renewable Energy Alternatives
<b>System Size</b>	25.15 kW	26.88 kW	25.2 kW
<b>Panel Vendor</b>	Solarfun	Wanxiang	Wanxiang
<b>Panel Wattage</b>	235 W	280 W	280
<b>Panel Quantity</b>	107	96	90
<b>Panel Warranty</b>	25 year - no description provided	5 year materials and workmanship; 10 years 90% peak power production; 25 years 80% peak power production	5 year materials and workmanship; 10 years 90% peak power production; 25 years 80% peak power production
<b>Additional Panel Notes</b>	Chinese made panels.	Panels from Rockford, IL factory.	Panels from Rockford, IL factory.
<b>Inverter Vendor</b>	Enphase	Fronius	Sunny Boy
<b>Inverter Type</b>	Micro	Wall Mount	Wall Mount
<b>Inverter Quantity</b>	107	3	4
<b>Inverter Warranty</b>	15 years	10 years; 5 year exemption at \$1,806 each	10 Years
<b>Inverter Output Voltage</b>	120/208/240 - single phase	120/240/277 - single phase	120/240/277 - single phase
<b>Additional Inverter Notes</b>	Micro inverters are placed at each panel and use a daisy chain cable to connect to the main panel. Due to the output voltage being 120/208, requires step up transformer to 277/480. Step up installation included in price	Panels are combined to get appropriate inverter input voltage. "Home Run" DC cable to inverter. Inverter output to connect to existing 480 panel.	Panels are combined to get appropriate inverter input voltage. "Home Run" DC cable to inverter. Inverter output to connect to existing 480 panel.
<b>Mounting Hardware</b>	Clips to standing seam on roof	Clips to standing seam on roof	Clips to standing seam on roof
<b>Monitoring Equipment</b>	YES - Included	YES - Adder \$2,610	YES - Included
<b>Did Vendor Provide an Alternate Proposal?</b>	NO	NO	NO
<b>Additional Option Adders</b>	US Made panels for \$8,051	Structural Analysis: \$2,500 - \$4,500; Expanding system to 33.621kW for \$37,075.50; New Edison Energy remote display board \$1,100	Expanding system to 30.2 kW for \$18,550; Windspire or Honeywell Turbine options

<b>Other Comments</b>	This company is located in Chicago and has done many installations for both municipal and commercial clients. ARRA requires all manufacturing for a public project to be from material manufactured in the US. This requires that the US made panel adder be included at in the proposal price below. Original price without adder is \$158,230.	This company is located in Batavia. They have done installations for schools and other municipal and commercial clients. Other proposals included the monitoring and structural examination. This must be added to the final price for good comparison. Original price without monitoring and structural evaluation is \$157,885.	This company helped us develop the system for submittal to DCEO to receive the grant. They are located in Northbrook and have many commercial and municipal clients.
<b>Is Bid Technically Acceptable?</b>	YES	YES	YES
<b>Recommendation:</b>	Award the project to the technically acceptable bidder.		
<b>Proposal Price</b>	\$166,281.00	\$162,995.00	\$163,550.00