

Districtwide Solar Cost Comparison

	Current	PPA - large - Forefront	PPA - small - Forefront	Purchase – Forefront	District Project funded by Bond
System Size KW	N/a	5,690	2,886	2,886	2,886
% offset	N/a	85%GC, 81%CC	33% GC, 55% CC	33% GC, 55% CC	33%, 55% CC
Storage System Size KW	N/a	840	740	740	740
Annual kWh Consumption	11,857,372	11,857,372	11,857,372	11,857,372	11,857,372
kWh created by solar	0	9,635,558	4,926,631	4,926,631	4,926,631
kWh purchased from utility	11,857,372	2,221,814	6,930,741	6,930,741	6,930,741
Rate	Average \$0.175/kWh + 2.5% annual increase	\$0.115/kWh for solar kWh	\$0.115/kWh for solar kWh	\$0/kWh for solar kWh	\$0/kWh for solar kWh
		+ (\$0.175/kWh + 2.5% annual increase for utility kWh)	+ (\$0.175/kWh + 2.5% annual increase for utility kWh)	+ (\$0.175/kWh + 2.5% annual increase for utility kWh)	+ (\$0.175/kWh + 2.5% annual increase for utility kWh)
Purchase Cost	n/a	n/a	n/a	\$9,152,238	\$17,717,877 est.
Annual PPA payment	n/a	\$1,108,089	\$566,563	\$0	\$0
Storage payment	n/a	\$82,105	\$45,838	Included in purchase	\$1,184,000 + software and personnel
Annual Utility payment	\$2,028,393	\$674,085	\$1,249,960	\$1,249,960	\$1,249,960
First Year Total Electric Expenditure	\$2,028,393	\$1,864,279	\$1,862,361	\$10,702,198	\$14,122,260

Payback Period (Years)	n/a	Immediate	Immediate	12 years	Bond funds, nothing to payback
PV Savings Projection year 1	n/a	\$167,877	\$166,032	No savings until 12 year payback	\$773,438 less replacement fund and O&M costs
Savings Projection 20 years	n/a	\$14,972,578	\$14,832,994	\$12,485,128	Unknown due to costs and risks
O&M Cost	n/a	Included	Included	Included	If staff, 2 people per site; if maintenance contract, need quotes. Est. \$400k/year in house, contract \$200k/year
Sinking fund	n/a	n/a	n/a	n/a	\$50,000 annual
O&M Contract length	n/a	20 years	20 years	10 Years	annual
Operational Guarantee	n/a	95% annual true up	95% annual true up	90%	0%
Risk	n/a	No Risk	No Risk	Some Risk	Full Risk of construction and of operational performance.
Timing	n/a	Winter 2019	Winter 2019	Winter 2019	Spring 2021 earliest
DSA Processing	n/a	Pre-approved	Pre-approved	Pre-approved	6 month approval process

*Due to the step down of the ITC tax credit, currently a 30% credit, at the end of 2019, these PPA and purchase costs will increase after 2019.

**Large PPA projected savings should increase as current pricing is based on 2018 rates rather than 2019.

***Bond purchase price, storage purchase price, construction and engineering costs are based on National Renewable Energy Laboratory 2018 estimates.

****Estimated construction cost and site survey costs added to the material cost– based on industry standards and research, cost per panel. Number of panels were taken from small size arrays, as indicated by solar proposals.