

ATTACHMENT C - PHOTOVOLTAIC SYSTEMS DESIGN AND INSTALLATION PROJECT

COST ANALYSIS FEBRUARY 2025

PHOTOVOLTAIC PROJECT COST/SAVINGS

17-Oct-24

*Annual savings includes 5% utility escalation *over a 1.5 year construction period*, Year 1

***Lifecycle Savings (30yrs) includes: 5% utility escalation, *0.5%* module degradation, 30 years, NEM3 Included

**The costs (B) are offset by the kWh savings (E), resulting in lowered electrical bill (F)

****Discounted cashflow methodology includes: 5% utility escalation, *0.5%* module degradation, 30 years, NEM3 Included

CURRENT PROJECT SCOPE:														
Facility	kWh	kWh Cost	cost per kWh (ave.)	PV systems kWh generation	PV systems annual savings*	PV systems annual electrical bill**	PV systems lifecycle savings***	Constrn Cost: PV only	Constrn Cost: EVCS / Misc. Non-ITC items only	Constrn. Cost (PV + EV)	IRA funding (40% of PV only)	City Funding	Payback Period (years) ****	Payback Period (Years, No ITC)
formula			A/B			B - E				H + I	H * 40%	J - K		
DBE contract pricing for 3 sites														
Quinlan Community Center (0116367009-116367840)	383,109	\$121,336	\$0.32	483,143	\$163,067	-\$41,731	\$7,502,535	\$1,691,865	\$196,795	\$1,888,660	\$676,746	\$1,211,914	6.72	9.77
Sports Center (0116367009-116971849)	329,369	\$108,143	\$0.33	335,228	\$96,612	\$11,531	\$4,518,119	\$1,375,175	\$201,868	\$1,577,043	\$550,070	\$1,026,973	9.11	12.81
Community Hall (0116367009-116367449)	114,600	\$39,810	\$0.35	71,332	\$31,196	\$8,614	\$1,398,696	\$471,816	\$2,362	\$474,178	\$188,726	\$285,452	8.11	12.32
		\$269,289			\$290,875	-\$21,586	\$13,419,350	\$3,538,856	\$401,025	\$3,939,881	\$1,415,542	\$2,524,339		
								with 10% contingency		\$4,339,881				

REDUCED PROJECT SCOPE OPTIONS:

Cost Revision for 2 sites: Comm Hall and CSC (15% increase)

Sports Center (0116367009-116971849)	329,369	\$108,143	\$0.33	335,228	\$96,612	\$11,531	\$4,518,119	\$1,581,451	\$232,148	\$1,813,599	\$632,581	\$1,181,019	10.21	14.25
Community Hall (0116367009-116367449)	114,600	\$39,810	\$0.35	71,332	\$31,196	\$8,614	\$1,398,696	\$542,588	\$2,716	\$545,305	\$217,035	\$328,269	9.13	13.74
		\$147,953			\$127,808	\$20,145	\$5,916,815	\$2,124,040	\$234,865	\$2,358,904	\$849,616	\$1,509,288		
								with 10% contingency		\$2,594,795				

Cost Revision for 2 sites: Comm Hall and QCC (15% increase)

Quinlan Community Center (0116367009-116367840)	383,109	\$121,336	\$0.32	483,143	\$163,067	-\$41,731	\$7,502,535	\$1,945,645	\$226,314	\$2,171,959	\$778,258	\$1,393,701	7.58	10.94
Community Hall (0116367009-116367449)	114,600	\$39,810	\$0.35	71,332	\$31,196	\$8,614	\$1,398,696	\$542,588	\$2,716	\$545,305	\$217,035	\$328,269	9.13	13.74
		\$161,146			\$194,263	-\$33,117	\$8,901,231	\$2,488,233	\$229,031	\$2,717,264	\$995,293	\$1,721,970		
								with 10% contingency		\$2,988,990				

Cost Revision for 1 site: Comm Hall (15% increase)

Community Hall (0116367009-116367449)	114,600	\$39,810	\$0.35	71,332	\$31,196	\$8,614	\$1,398,696	\$542,588	\$461,179	\$1,003,767	\$217,035	\$786,732	9.13	13.74
		\$39,810			\$31,196	\$8,614	\$1,398,696	\$542,588	\$461,179	\$1,003,767	\$217,035	\$786,732		
								with 10% contingency		\$1,104,144				

Costs & Savings: Implement 3 Sites

- Annual Cost Savings: **\$290,875** projected, with **\$13.4M** 30-year lifecycle savings
- Cost of Design and Construction (\$4.4M) is **less than project budget** (\$6.3M)
- Net cost to City after IRA reimbursement: **\$2.5M** projected
- Net cost to City without IRA reimbursement: **\$4.4M** projected; \$1.5M differential and longer payback period
- Project completion timeline for NEM2.0 compliance is April 2026 (time is of the essence).

Costs & Savings: Fiscal Summary

Fiscal Summary Table

Current Funding Status (Budget)	Amount
City Approved Funds - FY 25	\$6,300,000

Projected Funding Impact (Expenses)	Amount
Encumbrances to date (Conceptual Design)	(\$59,610)
Construction Contract (\$3,939,881 base contract and \$400,000 contingency) – <i>This Action</i>	(\$4,339,881)
Construction Management	(\$225,000)
Subtotal:	(\$4,624,491)

Summary	Amount
Current Project Budget (420-99-036)	\$6,300,000
Projected Funding Impact	(\$4,624,491)
Remaining Funds:	\$1,675,509