



NEWPORT NEWS PUBLIC SCHOOLS

SOLAR PORTFOLIO | SEPTEMBER 2019

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Design Proposal

Sun Tribe Solar is proposing to provide the full scope of services for the five schools in the Newport News Public Schools Solar PV Portfolio, including engineering, permitting, procurement, installation, and operation and maintenance of the following designs. Full details, layout, and production can be found in the following pages.

92% OFFSET	Lee Hall Elementary School Proposed System Size: 519.8 kW DC / 480 kW AC Forecasted Year 1 Production: 772,954 kWh
82% OFFSET	Gatewood Peep PreK-8 School Proposed System Size: 182.3 kW DC / 144 kW AC Forecasted Year 1 Production: 254,305 kWh
66% OFFSET	Yates Elementary School Proposed System Size: 222.8 kW DC / 172.8 kW AC Forecasted Year 1 Production: 315,591 kWh
41% OFFSET	Heritage High School Proposed System Size: 695.3 kW DC / 600 kW AC Forecasted Year 1 Production: 969,005 kWh
40% OFFSET	Discovery STEM Academy Proposed System Size: 270 kW DC / 240 kW AC Forecasted Year 1 Production: 395,370 kWh

All work is designed and installed per NFPA 70, VUSBC 2015 and IBC 2015 codes, and the system will be engineered and installed with rapid shutdown, compliant with NEC 2014.

Energy Education

As part of this proposal, Sun Tribe Solar will offer a grant for solar education programming in support of Newport News Public Schools. The grant can be used with the National Energy Education Development (NEED) Project with the amount to be determined based on teacher and student participation in each school. Sun Tribe Solar has a successful history of partnering with the NEED Project to support and improve science and energy education in participating schools, improve environmental sustainability at the local level, and broaden and improve the teaching of energy and environmental issues and content in classrooms of all grades and learning abilities.

Third Party Ownership Agreements

To ensure that every organization can realize its clean energy future, Sun Tribe Solar offers third party ownership agreements that require no capital expenditure. Sun Tribe Solar will design, install, own, operate, and maintain rooftop or ground-mounted solar systems, selling clean, renewable energy at or below the current utility cost.

Sun Tribe Solar is pleased to offer the following terms to Newport News Public Schools. Further cash flow details can be found in the following pages.

Upfront Cost	\$0
Ongoing Maintenance	\$0
Production Risk	\$0
Energy Price	\$0.0918
Annual Escalator	0%
PPA Term	30 Years
Forecasted Lifetime Savings	\$4,178,314

Cooperative Procurement

The procurement path for this PPA could utilize the following cooperative procurement language found in the Westmoreland County School Board RFP # WCPS2018-1 Solar Power Purchase Agreement Services, dated May 8, 2018.

“Cooperative Contracting: This procurement is being conducted by WCPS in accordance with the provisions of Virginia Code § 2.2-4304. If agreed to by the contractor, other public bodies may utilize this contract. The Contractor shall deal directly with any public body it authorizes to use the contract. WCPS, its officials and staff are not responsible for placement of orders, invoicing, payments, contractual disputes, or any other transactions between the Contractor and any other public bodies, and in no event shall WCPS, its officials or staff be responsible for any costs, damages or injury resulting to any party from use of WCPS’ contract. WCPS assumes no responsibility for any notification of the availability of the contract for use by other public bodies, but the Contractor may conduct such notification.”

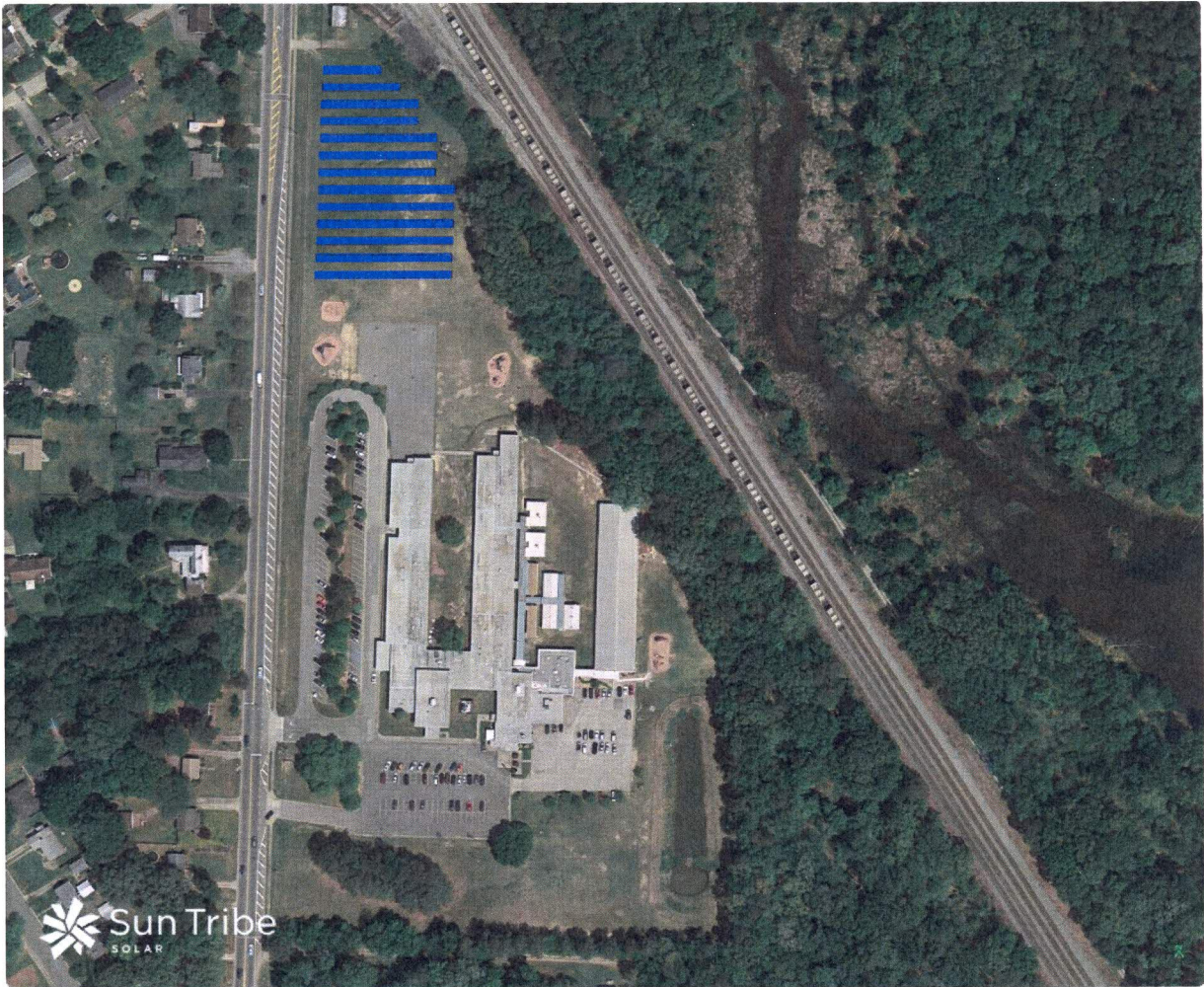
30 Year PPA

Inputs and Key Financial Metrics

PPA Escalation Rate	0%	Term	30	Electricity Escalation Rate	3.08%
Starting PPA Rate	\$0.0918	Total Payments	\$6,807,723	Federal Income Tax Rate	0%
Upfront Payment	\$0	PV Degradation Rate	0.6%	State Income Tax Rate	0%

Years	PPA Payments	Electric Bill Savings	Total Cash Flow	Cumulative Cash Flow
Upfront	-	-	-	-
1	-\$248,548	\$253,153	\$4,606	\$4,606
2	-\$247,056	\$259,638	\$12,582	\$17,187
3	-\$245,565	\$266,019	\$20,454	\$37,642
4	-\$244,074	\$272,548	\$28,474	\$66,115
5	-\$242,583	\$279,226	\$36,643	\$102,758
6	-\$241,091	\$286,056	\$44,965	\$147,723
7	-\$239,600	\$293,043	\$53,443	\$201,166
8	-\$238,109	\$300,189	\$62,080	\$263,246
9	-\$236,617	\$307,496	\$70,879	\$334,125
10	-\$235,126	\$314,970	\$79,843	\$413,968
11	-\$233,635	\$322,611	\$88,976	\$502,944
12	-\$232,144	\$330,425	\$98,282	\$601,226
13	-\$230,652	\$338,414	\$107,762	\$708,988
14	-\$229,161	\$346,582	\$117,421	\$826,409
15	-\$227,670	\$354,932	\$127,262	\$953,671
16	-\$226,178	\$363,467	\$137,289	\$1,090,960
17	-\$224,687	\$372,192	\$147,505	\$1,238,464
18	-\$223,196	\$381,109	\$157,913	\$1,396,377
19	-\$221,705	\$390,222	\$168,518	\$1,564,895
20	-\$220,213	\$399,535	\$179,322	\$1,744,217
21	-\$218,722	\$409,052	\$190,330	\$1,934,547
22	-\$217,231	\$418,776	\$201,545	\$2,136,092
23	-\$215,739	\$428,711	\$212,971	\$2,349,063
24	-\$214,248	\$438,860	\$224,612	\$2,573,675
25	-\$212,757	\$449,228	\$236,472	\$2,810,147
26	-\$211,266	\$459,819	\$248,553	\$3,058,700
27	-\$209,774	\$470,636	\$260,861	\$3,319,562
28	-\$208,283	\$481,682	\$273,399	\$3,592,961
29	-\$206,792	\$492,963	\$286,171	\$3,879,132
30	-\$205,300	\$504,482	\$299,181	\$4,178,314
Totals:	-\$6,807,723	\$10,986,037	\$4,178,314	-

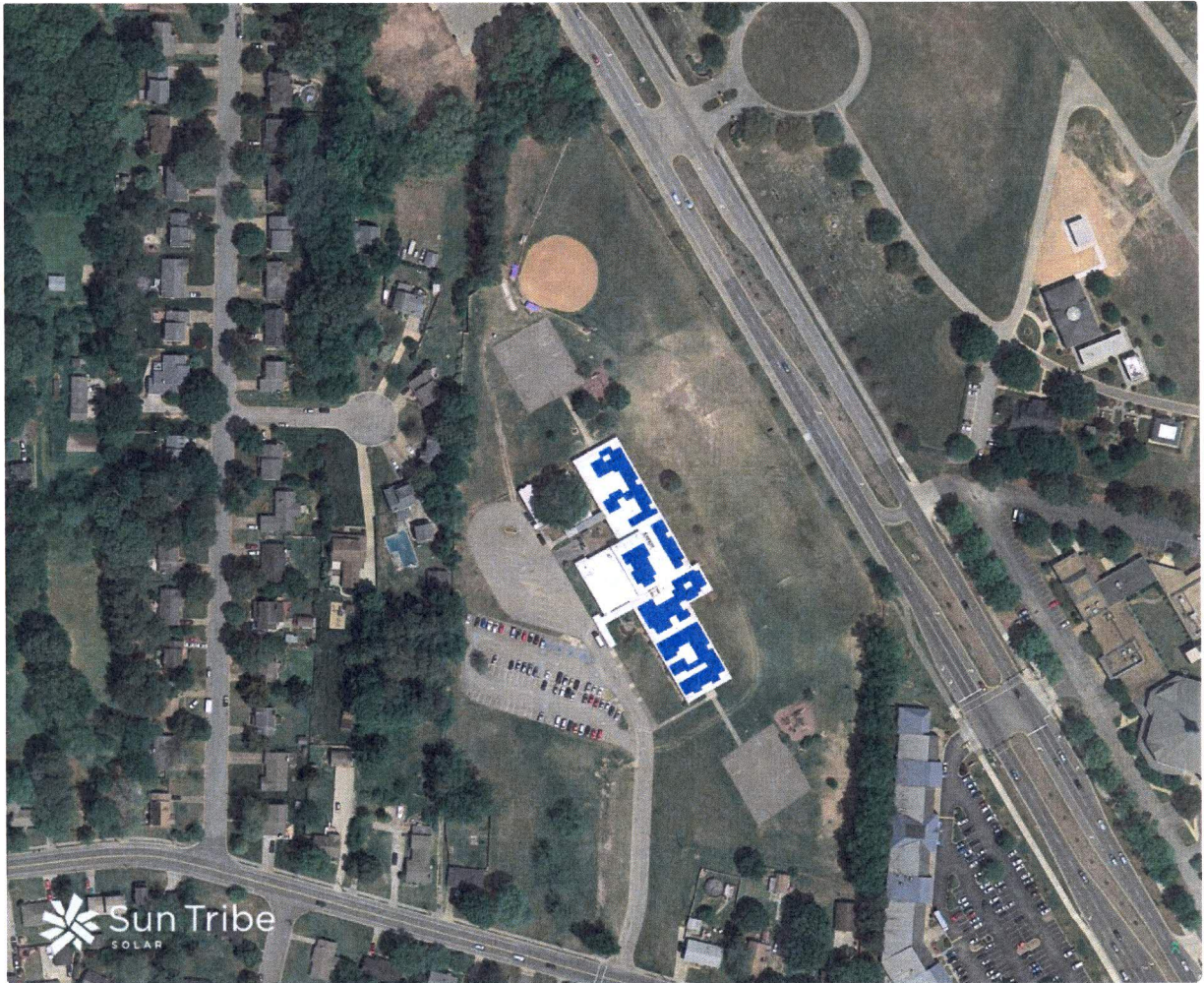
Lee Hall Elementary School Proposed System



Gatewood Peep PreK-8 School Proposed System



Yates Elementary School Proposed System



Heritage High School Proposed System



Discovery STEM Academy Proposed System



*Assumes Tree Removal