



COUNTY OF LOUISA

MEMORANDUM

TO: Board of Supervisors

FROM: Chris Coon, Deputy County Administrator

DATE: February 12, 2024

RE: Draft Financial Framework for Solar Siting Agreement

Purpose:

This draft framework aligns with Virginia Code § 15.2-2316.7 and Louisa County's Solar Ordinance, ensuring that financial contributions from solar projects effectively support housing programs, agricultural land conservation, stream restoration, and Harmful Algal Bloom (HAB) mitigation.

Land Requirements for Solar Development

Considering setbacks, vegetative buffers, fencing, and stormwater management, the land needed per megawatt (MW) is approximately 12-15 acres. With increasing efficiency of solar panels, the total number of MW could be between 100 MW and 150 MW on 1,200 to 1,500 acres.

Solar Capacity (MW)	Land Requirement (Acres)	Land Requirement (Square Miles)
100-150 MW	1,200 - 1,500 acres	1.88 - 2.34 sq. mi.

Annual Financial Compensation per MW

- Low-End (0.075%): \$117,075 per MW
- Current Policy (0.1%): \$156,100 per MW
- High-End (0.125%): \$195,125 per MW

Total Funds Available at 100-150 MW Capacity:

- Low-End: \$11.7 million/year
- Current Policy: \$15.6 million/year
- High-End: \$29.3 million/year

Allocation of Solar Siting Agreement Funds

Per Policy, 25% of funds are allocated to Housing Programs, with the remaining 75% distributed among Agricultural Land Protection (Purchase of Development Rights - PDRs), Stream Restoration, and HAB Mitigation.

Funding Category	Allocation (%)	Low-End (\$11.7M)	Current (\$15.6M)	High-End (\$29.3M)	Annual Impact
Housing Programs	25%	\$2.93M	\$3.90M	\$7.33M	Homes Receiving Assistance: 275–732 Repairs: ~725 homes
Agricultural Land Protection (PDRs)	30%	\$3.51M	\$4.68M	\$8.79M	One-Time Payment per Acre: ~\$27,638 Acres Conserved: ~127–318 acres
Stream Restoration	22.5%	\$2.63M	\$3.51M	\$6.59M	Miles Restored: ~0.57–1.42 miles
HAB Mitigation on Lake Anna	22.5%	\$2.63M	\$3.51M	\$6.59M	Projects Funded: ~10–26 Lake Area Mitigated: ~104–260 acres

40-Year Projection of Cumulative Impact

1. Housing Programs

- Number Homes Able to Receive Assistance: 5,840 – 29,280 total units
- Total Home Repairs: 6,360 – 29,000 homes repaired

2. Agricultural Land Protection (PDRs)

- Acres Conserved: 5,080 – 12,720 total acres
- Square Miles Protected: 7.94 – 19.875 sq. mi.

3. Stream Restoration

- Miles Restored: 22.8 – 56.8 total miles

4. HAB Mitigation on Lake Anna

- Total Area Mitigated: 4,160 – 10,400 acres
- Percentage of Lake Anna Covered (Lake Anna = 13,000 acres): 32% – 80% of the lake treated

Summary of Financial Compensation Impact

- Utility scale solar projects would help provide significant annual revenue for key community investments.
- Over 40 years, these funds will protect thousands of acres of farmland, restore critical waterways, and improve housing access.
- HAB mitigation efforts will help protect Lake Anna, potentially addressing up to 53% of the lake's surface.