



# 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

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### **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.

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