

# Utility-Scale Solar

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Joe Lerch, AICP

Director of Local Government Policy

Virginia Association of Counties



# Factors Leading to Current Growth of Utility-Scale Solar in Virginia

- Cost of utility-scale solar has dropped 66% since 2010 and is projected to decline by 3.6% per year in the next 10 years;
- Approximately 48% of Fortune 500 companies have sustainability and renewable energy commitments; and
- 2018 General Assembly set goal for investor-owned utilities (IOUs) to construct (or purchase) up to 5,000 MW of solar capacity by 2028.



## Other Factors Leading to Growth of Utility-Scale Solar in Virginia

- Permit by Rule (PBR) – 2009 General Assembly allows solar generation of 100 MW or less to bypass State Corporation Commission (SCC) approval. **However, still subject to local zoning & land use authority;**
- 2017 General Assembly - Permit by Rule (PBR) – (1) Increases the threshold solar generation from 100 MW to 150 MW to bypass State Corporation Commission (SCC) approval; and (2) allows utilities and electric cooperatives to participate in PBR; and
- Tax incentives at federal, state, and local level (M&T mandated by VA General Assembly).

# **State-mandated Exemption for Machine & Tool Tax (M&T)**

## **100% exemptions for:**

- 20MW or less (interconnection request filed on or before 12-31-2018);
- 20MW or less that serve public or private colleges; and
- 5MW or less (interconnection request is filed on or after 1-1-2019).

## **80% exemptions for:**

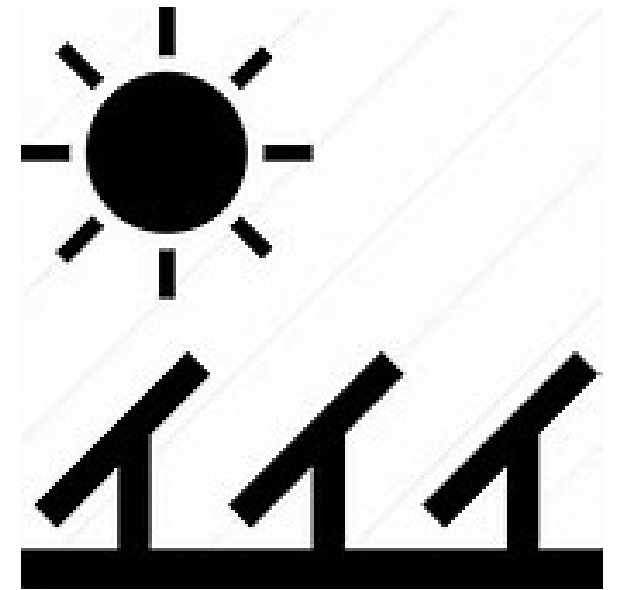
- Projects greater than 20MW (interconnection requested filed before 7-1-2018)
- Greater than 20MW and less than 150MW (interconnection request was filed after 7-1-2018);

## **Local Option for 150MW and above**

**Exemption for 20MW-150MW sunsets January 1, 2024**

# Impact of Applicable Local Government Taxes on Utility Scale Solar

- M&T Tax exemption does not apply to the real estate – potential offset for loss in M&T revenue;
- Nuance in application of M&T – projects greater than 25 MW then are taxed at the applicable real estate rate;
- Rollback taxes on real estate due on land no longer eligible for use valuation (farmland, timber); and
- Real estate currently assessed under agricultural use designation will change to industrial/commercial use designation.



## **Impact of Applicable Local Government Taxes (cont.)**

Depreciation schedule for value of utility-scale solar equipment

- Virginia State Corporation Commission (SCC) Public Service Taxation Division developed a depreciation schedule for the fair market value (FMV) of utility-scale solar equipment (above 25 MW);
- Years 1 through 5 the taxable FMV is 90% of original capitalized costs; and
- Percentage of taxable FMV declines steadily years 6 through 23, and reaches a floor of 10% in year 24 and beyond.

# Impact of Applicable Local Government Taxes (cont.)

Ex. calculation of projected M&T revenue (year one)

Greater than 25 MW Less than 150 MW facility

County	Capitalized Cost of Equipment	SCC Depreciation Value	Local Assessment Ratio Value	Taxable Value	Tax Revenue
Appomattox	\$100,000,000	\$90,000,000	\$87,264,000	\$17,452,800	\$113,443
Chesterfield	\$100,000,000	\$90,000,000	\$83,250,000	\$16,650,000	\$158,175
Dinwiddie	\$100,000,000	\$90,000,000	\$83,196,000	\$16,639,200	\$131,450
Halifax	\$100,000,000	\$90,000,000	\$90,918,000	\$18,183,600	\$87,281
King and Queen	\$100,000,000	\$90,000,000	\$84,654,000	\$16,930,800	\$89,733
Lunenburg	\$100,000,000	\$90,000,000	\$84,438,000	\$16,887,600	\$64,173
Nottoway	\$100,000,000	\$90,000,000	\$76,203,000	\$15,240,600	\$73,155

Sources: Virginia Assessment/Sales Ratio Study - Feb. 2019  
Virginia Local Tax Rates 2018 – Weldon Cooper Center

# Impact of Applicable Local Government Taxes (cont.)

Ex. calculation of projected M&T revenue (25 years cumulative)

Greater than 25 MW Less than 150 MW facility - \$100 million value

County	Estimated Tax Revenue through 25 years
Appomattox	\$1,871,876
Chesterfield	\$2,609,975
Dinwiddie	\$2,168,993
Halifax	\$1,440,190
King and Queen	\$1,480,648
Lunenburg	\$1,058,888
Nottoway	\$1,210,022

Sources: Virginia Assessment/Sales Ratio Study - Feb. 2019  
Virginia Local Tax Rates 2018 – Weldon Cooper Center



# Impact of Applicable Local Government Taxes (cont.)

Ex. calculation of projected M&T revenue (25 years cumulative)

## Comparison of RE Rate vs. Actual M&T Rate

County	Estimated Tax Revenue 25 years	Estimated Tax Revenue 25 years M&T Statutory Rate
Appomattox	\$1,871,876	\$9,647,360
Chesterfield	\$2,609,975	\$2,747,343
Dinwiddie	\$2,168,993	\$9,060,349
Halifax	\$1,440,190	\$3,780,498
King and Queen	\$1,480,648	\$3,073,044
Lunenburg	\$1,058,888	\$5,015,786
Nottoway	\$1,207,096	\$3,394,958

Sources: Virginia Assessment/Sales Ratio Study - Feb. 2019  
Virginia Local Tax Rates 2018 – Weldon Cooper Center