



THE COMPOSITE INDEX AND HOW IT RELATES TO SOLAR DEVELOPMENT IN VIRGINIA

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Bureaucratic bookkeeping may inadvertently grind Virginia solar development to a halt. The State government is assessing this issue, and we understand the state will issue a decision in due course.

What is the Composite Index?

The Composite Index of Local Ability-to-Pay (CI) is a tool that the Virginia Department of Education uses to allocate state education funding to each county based on relative wealth. Some counties depend heavily on this funding, which could total tens of millions of dollars per year.

The CI measures the relative wealth of each county and allocates state funds in inverse proportion to the relative wealth. CI values potential sources of tax revenue, including real estate value, gross income, and retail sales. The CI calculates these measures of wealth on per capita and pupil bases, and the CI determines the proportion of the state total. The point of this is to measure how much tax revenue a county will be able to raise to fund its school system, how many students the county will spend that money on, and how that ratio compares to other counties in the state. In the end, the CI determines the percentage of particular budget items paid by the county vs. by the state. Wealthier counties with a higher CI shell out a greater proportion of these budget items themselves. An increase in the CI will increase the county's share.

How Solar Factors In

The relevant piece of the CI calculations for solar generation is the total real estate value for the county or the True Value. The Department of Taxation (DOT) calculates True Values for the Department of Education (DOE) which includes these in their CI calculations. The DOT breaks the True Value into two parts: real estate and Public Service Corporation property, which includes solar and other electrical generation equipment. The DOT calculates the value of real estate by looking at local tax assessments and property sale prices, and the State Corporation Commission (SCC) provides the 'Public Service Corporation' property values. The SCC includes solar generation facilities greater than 25 MWs in its calculations of Public Service Corporation property values.

When we bring a Virginia solar generator online, the SCC assesses the value. The SCC then reports the value of the solar farm, along with all other utility property in each county, to the DOT. The DOT combines the solar value(s) with the other elements of True Value to create the county and reports to the DOE, which uses these values to calculate the CI. The CI determines the percentage of educational funding that the county pays. Increased taxable property increases the Composite Index which reduces the share paid by the state.

How Solar is Taxed

The following provides the relevant pieces of legislation regarding tax treatment for solar generating facilities:

- VA Code § 58.1-2600

- Anyone who owns an electric generation facility over 25MW is an “Electric Supplier”
- The property of Electric Suppliers is assessed by the SCC.
- VA Code § 58.1-2606
 - All property owned by Public Service Corporations (utilities) is taxed at the real estate rate.
 - The tax on generating equipment owned by Electric Suppliers is capped at the real estate tax rate.
- VA Code § 58.1-3660
 - Solar is considered Certified Pollution Control Equipment
 - Solar under 20MWac is 100% tax-exempt
 - Solar over 20MWac is 80% tax-exempt if it is put in service after January 1, 2017

The combination of these sections of the Virginia code results in the following outcomes:

		Under 20MW	20-25MW	Over 25MW
Utility-Owned	Assessed By	SCC		
	Tax Rate	N/A	Real Estate	
	Tax Exemption	100%	80%	
Privately-Owned	Assessed By	Locality		SCC
	Tax Rate	N/A	Machine & Tools	Capped at Real Estate Rate
	Tax Exemption	100%	80%	

Hence, the Virginia code results in the following outcomes and uncertainty for solar generating facilities greater than 25 MWs:

1. Inclusion in the CI as Public Service Corporation property,
2. 80% tax exemption as pollution control equipment, and
3. uncertainty whether the CI will value the full value or the taxable value

Is Solar Taxation and CI Valuation Inconsistent

The SCC reports two different valuations to the DOT: the Full Value (or Fair Market Value) and the Assessed Value. The Full Value reports the total project cost, and the Assessed Value reports the project cost less tax exemptions. The Full Value represents what can be taxed, while the Assessed Value represents what is **actually** taxed. Historically, the DOT reported the Full Value because until recently the counties determined the relevant tax exemptions for pollution control equipment. Hence, the DOT policy ensured that some counties were not subsidizing other counties decisions to provide tax incentives.

For solar generation facilities greater than 20 MWs and brought online on or after January 1, 2017, the state provides an 80% tax exemption consistent with other pollution control equipment. If a solar facility costs \$100 million, the DOT will report the \$100 million as Full Value. And, potentially, the DOT will calculate the Composite Index using this Full Value rather than the Assessed Value which reflects the taxable value. The Full Value will cause The Composite Index for the host county to rise reflecting the new source of tax revenue, and the state would reduce its percentage of funding.

Given solar’s categorization as pollution control equipment, the state exempts \$80 million of the \$100 million. The county will tax the solar facility at the real estate tax rate increasing revenues. However, the use of Full Value - \$100 million – in the CI will reduce the state funding. This inconsistency would likely result in the state reducing county funding by an amount significantly greater than the increased tax funding the project would provide.

What Is The Impact On The Counties

The idea behind adjusting state funding based on county wealth is that new development will pay more in taxes than the county loses in state funding, so the county is ultimately better off. If state funding is cut based on 100% of a project’s Fair Market Value (FMV), but the county can only collect tax on 20% of its FMV, the county will experience a net decrease in revenue.

To provide an example, we calculated the net revenue impact for a hypothetical \$100 million solar plant in a representative county under both scenarios: the Composite Index incorporates i) the FMV (100%) and ii) the Assessed Value (20%). If the Composite Index utilizes the FMV the county experiences a net revenue loss, and if the Composite Index utilizes Assessed Value the county experiences a net revenue gain.

Fair Market Value: Assuming the FMV is included in Composite Index, a \$100 million solar generator provides the county a net decrease of \$68 thousand in year one.

FMV Value	New Tax	Drop in State Funding	Net Revenue
\$100,000,000	\$80,000	- \$147,597	- \$67,597

FMV punishes economic development and defeats the purpose of the tax exemption. The Commonwealth provides tax exemptions to promote public welfare. If counties lose money every time a solar farm is developed, counties will deny permit applications.

Assessed Value: If DOT uses Assessed Value to calculate solar facilities contribution to the CI, a \$100 million solar generator provides the county a net increase of \$52 thousand in year one.

Assessed Value	New Tax	Drop in State Funding	Net Revenue
\$20,000,000	\$80,000	- \$27,917	\$52,083

The state is aware of this inconsistency in their treatment of tax exemptions and they are working on a resolution.

The timing for a decision is an important issue. The uncertainty and in some cases incorrect beliefs that a decision has been made to use the FMV is causing the county permitting processes to stall. Projects are being placed at risk because of this bottleneck in permitting coupled with the funding requirements for the interconnection processes. Further, counties that have permitted utility-scale projects may regret their decision if they believe these projects will result in a net revenue loss. Many projects have received their county CUP / SEP permit, but these projects have yet to file for their building, electrical and other construction permits.

Appendix – Relevant Citations

Electric Generation Taxed at Real Estate Rate

§ 58.1-2600. Definitions.

- A. "Electric supplier" means any person owning or operating facilities for the generation, transmission or distribution of electricity for sales, except any person owning or operating facilities with a designed generation capacity of twenty-five megawatts or less.

§ 58.1-2606. Local taxation of real and tangible personal property of public service corporations; other persons

- C. ... generating equipment that is reported to the Commission by electric suppliers shall be taxed at a rate determined by the locality but shall not exceed the real estate rate applicable in the respective localities.

80% Tax Exemption for Solar

§ 58.1-3660. Certified pollution control equipment and facilities.

- A. Certified pollution control equipment and facilities shall be exempt from state and local taxation pursuant to Article X, Section 6 (d) of the Constitution of Virginia.
- B. (Effective January 1, 2017) " 'Certified pollution control equipment and facilities' shall mean any property, including real or personal property, equipment, facilities, or devices, used primarily for the purpose of abating or preventing pollution of the atmosphere or waters of the Commonwealth ... Such property shall also include solar energy equipment, facilities, or devices owned or operated by a business that collect, generate, transfer, or store thermal or electric energy whether or not such property has been certified to the Department of Taxation by a state certifying authority. For solar photovoltaic (electric energy) systems, this exemption applies only to (i) projects equaling 20 [mW.ac] or less ... initial interconnection request ... filed ... on or before December 31, 2018; (ii) ... 20 [mW.ac] or less... serve any of the public institutions of higher education ... (iii) 80 [% exemption] initial interconnection request ... after January 1, 2015, and greater than 20 [mW.ac] ... in service on or after January 1, 2017, (iv) ... 5 [mW.ac] or less ... initial interconnection request ... on or after January 1, 2019, and (v) 80 [% exemption] all other projects [>] 5 [mW.ac] ... interconnection request ... on or after January 1, 2019. [Exemption sunsets for > 20 mW.ac for construction starts after January 1, 2024.]

Composite Index

2016 Acts of Assembly, Chapter 780, Item 139 A. Definitions

4.a. "Composite Index of Local Ability-to-Pay" - An index figure computed for each locality. The composite index is the sum of 2/3 of the index of wealth per pupil ... and 1/3 of the index of wealth per capita.... The indices of wealth are determined by combining the following constituent index elements with the indicated weighting: (1) true values of real estate and public service corporations as reported by the State Department of Taxation ...

Public Service Corporations

§ 56-1. Definitions

"Public service corporation" or "public service company" includes gas, pipeline, electric light, heat, power ... and all persons authorized to transport passengers or property as a common carrier.

True Value of Public Service Corporations

Department of Taxation - 2014 Virginia Assessment/Sales Ratio Study

Total estimated true value for public service corporations was nearly \$41.8 billion; that figure includes the value reported by the State Corporation Commission, as well as, the estimated true value of railroad and interstate pipeline transmission property.

State Corporation Commission – Instructions for Filing the Annual Tax Report of Electric Companies

Please report all certified pollution control equipment in Schedule 13 of this report for assessment and the exemption will be noted on the final assessment statement.