



DATE
SUBJECT

March 27, 2023
Solar Panel Property Tax

MEMO

More than half of U.S. states (including [IN](#), [IL](#), [IO](#), and [KS](#)) have property tax incentives for solar panels ([NCSL 2018](#)). These incentives lower property taxes by either entirely (IN, IO, KS) or partially (IL) mitigating the increase in assessed value because of a solar panel installation.

- Some states authorize property tax exemptions but allow municipalities to provide an exemption at their own discretion ([NCSL 2018](#)).

Some state property tax incentives vary based on project size.

- In South Dakota, solar facilities are taxed based on the maximum energy they can produce ([SDCL § 10-35-18](#)). Solar energy systems that produce less than 5 megawatts (median price for a 5 megawatt facility is \$8.5 million; [EERE 2023](#)) receive a tax exemption on the first \$50,000 or 70% of their assessed value, whichever is greater ([SDCL § 10-4-44](#)).

Missouri

Real property in Missouri, which includes the land itself, growing crops, buildings, structures, improvements, and fixtures on the land, is taxed differently according to its use ([STC n.d.](#)).

Assessment. Residential property is assessed at 19% of market value, agricultural land is assessed at 12%, and commercial property is assessed at 32% ([STC 2019](#)). Property taxes on real property are then determined based on the assessed value.

Exemptions. In 2013, solar energy systems that are not planned to be resold were excluded from property tax evaluations in MO ([RsMO 137.100 \(10\)](#)).

- In August 2022, the Missouri Supreme Court deemed the law unconstitutional in [Johnson vs. Springfield Solar](#), stating that MO Constitution article X, [sections 4\(a\)](#) and [4\(b\)](#) do not allow for the legislature to provide tax exemptions that are not already listed in [article X](#).
- Solar energy systems are no longer excluded from property taxes. There are no property tax exemptions for wind energy systems.
- Real estate and personal property used exclusively for agriculture are exempt from property taxes ([RsMO 137.100 \(4\)](#)).

Property tax incentives have a limited impact on new project deployments.

Direct cash incentives (e.g., rebates and grants) are associated with the largest increase in residential solar installations ([Matisoff 2017](#); [Sarzynski 2012](#)).

- Direct cash incentives have the strongest impact when combined with financial aid and net metering –the ability for electricity customers to sell electricity that they generate (e.g., solar energy) back to the grid ([MOST 2022](#)).

Property tax incentives are relatively ineffective at increasing new solar project development ([Matisoff 2017](#); [Sarzynski 2012](#)). More research is needed to understand the impact of property tax incentives on the construction of utility scale solar projects.