## Property Tax Analysis for the Gateway Solar Project



August 2025

RWE is developing the Gateway Solar Project in Randolph County, Illinois. The Project is a 250-megawatt alternating current (MWac) utility-scale solar-powered electric generation facility that will utilize photovoltaic (PV) panels installed on a single-axis tracking system. The Project will result in significant property taxes paid to the local taxing jurisdictions. The property taxes have been estimated below.

Solar energy projects increase the property tax base of a county, creating a new revenue source for education and other local government services, such as fire protection, park districts, and road maintenance. Public Act 100-0781 sets a uniform formula for the fair cash value of a solar farm similar to the uniform formula used for wind farms. This bill was signed into law by Governor Rauner in August 2018. According to this law, the fair cash value for a utility-scale solar farm in Illinois is \$218,000 per megawatt of nameplate capacity beginning in 2018 and is annually adjusted for inflation and depreciation. The inflation adjustment, known as the Trending Factor, increases each year according to the Bureau of Labor Statistics' Consumer Price Index for all cities for all items. Depreciation is allowed at 4% per year up to a maximum total depreciation of 70% of the trended real property cost basis (calculated by taking the fair cash value of the solar Project and multiplying by the Trending Factor). The total development is anticipated to result in the following property tax totals:

- Over \$43.2 million in total property taxes for all taxing districts over the life of the Project
- Over \$27.7 million in total school district property taxes over the life of the Project
- Over \$5.7 million in total county property taxes for Randolph County over the life of the Project



## The analysis contains a number of assumptions, as follows:

- The analysis assumes that the fair cash value of the solar farm is \$218,000/MW on January 1, 2018, and adjusted annually for inflation.
- The tables assume future inflation is constant at 2.23% and the depreciation is 4% annually until it reaches the maximum of 70%.
- All tax rates are assumed to stay constant at their 2024 (2023 tax year) rates. Tax rates used were 0.86324% for Randolph County, 4.19176% for Coulterville Unit School District #1, 4.18861% for Sparta Community Unit School District #140, 0.40447% for Southwestern Illinois College, 1.98363% for the Village of Sparta, 0.24812% for Coulterville Fire District, 0.34777% for Tilden Fire District, 0.46723% for Coulterville District Library, 0.50354% for Cons Road No. 1, 0.04693% for the Mental Health Board, 0.01995% for Randolph County Ambulance, 0.09449% for Sparta Airport, and 0.30831% for Sparta Hospital.
- The analysis assumes that the Project is placed in service on January 1, 2029, at a fair cash value of \$75.3 million and that the taxable value is 1/3 of the fair cash value.

- It assumes that the Project is decommissioned in 40 years and pays no more taxes after that date.
- The names of the taxing bodies used in this section come from county and state tax websites.
- The comprehensiveness and accuracy of the analysis below is dependent upon the assumptions listed above and used to calculate the property tax results. The analysis is to serve as a projection of property tax benefits to the local community and is not a guarantee of property tax revenue.
- If the inputs received from RWE, the laws surrounding renewable energy taxation in Illinois, or the millage rates in Randolph County change in a material way after the completion of this report, this analysis may no longer accurately reflect the property taxes to be paid by the Gateway Solar Project.
- No comprehensive tax payment was calculated, and these calculations are only to be used to illustrate the economic impact of the Project.







## Table 1 – Total Property Taxes Paid by the Gateway Solar Project

by the Gateway Solar	Project
Year	Total Paid
2029	\$1,636,459
2030	\$1,606,034
2031	\$1,573,438
2032	\$1,538,590
2033	\$1,501,405
2034	\$1,461,796
2035	\$1,419,675
2036	\$1,374,947
2037	\$1,327,519
2038	\$1,277,292
2039	\$1,224,165
2040	\$1,168,033
2041	\$1,108,788
2042	\$1,046,321
2043	\$980,516
2044	\$911,256
2045	\$838,419
2046	\$761,881
2047	\$730,192
2048	\$746,475
2049	\$763,121
2050	\$780,139
2051	\$797,536
2052	\$815,321
2053	\$833,503
2054	\$852,090
2055	\$871,091
2056	\$890,517
2057	\$910,375
2058	\$930,676
2059	\$951,431
2060	\$972,647
2061	\$994,338
2062	\$1,016,511
2063	\$1,039,179
2064	\$1,062,353
2065	\$1,086,044
2066	\$1,110,262
2067	\$1,135,021
2068	\$1,160,332
TOTAL	\$43,205,687
AVG ANNUAL	\$1,080,142

As shown in Table 1, a conservative estimate of the total property taxes paid by the Project starts out at over \$1.6 million and declines due to depreciation (and offset by the trending factor) until it reaches the maximum depreciation in 2047. After that, the Project is fully depreciated, and the trending factor causes the taxable value and taxes to increase. The expected total property taxes paid over the 40-year lifetime of the Project are over \$43.2 million, and the average annual property taxes paid will be over \$1.0 million.

Figure 1 – Percentages of Property Taxes Paid to Taxing Jurisdictions

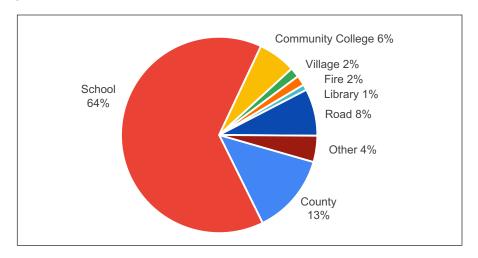










Table 2 shows an estimate of the likely taxes paid to the following taxing bodies: Randolph County, Southwestern Illinois College, the Village of Sparta, Coulterville Fire District, Tilden Fire District, and Coulterville District Library. According to Table 2, the total amounts paid over 40 years are over \$5.7 million for Randolph County, over \$2.6 million for Southwestern Illinois College, over \$693 thousand for the Village of Sparta, over \$214 thousand for Coulterville Fire District, over \$495 thousand for Tilden Fire District, and over \$403 thousand for Coulterville District Library over the Project's lifetime.

Table 3 shows an estimate of the likely taxes paid to the remaining taxing bodies. According to Table 3, the total amounts paid over 40 years are over \$3.3 million for Cons Road No. 1, over \$311 thousand for the Mental Health Board, over \$132 thousand for Randolph County Ambulance, over \$598 thousand for Sparta Airport, and over \$824 thousand for Sparta Hospital over the Project's lifetime.



Table 2 – Tax Benefits from the Gateway Solar Project for the County and Other Taxing Bodies

Table 2 - Tax D	enents non	i the Gateway Solai	i roject for th	c county and o	ther raxing bo	aics
Year	Randolph County	Southwestern Illinois College	Village of Sparta	Coulterville Fire District	Tilden Fire District	Coulterville District Library
2029	\$216,869	\$101,614	\$26,262	\$8,117	\$18,762	\$15,285
2030	\$212,837	\$99,725	\$25,773	\$7,966	\$18,413	\$15,001
2031	\$208,517	\$97,701	\$25,250	\$7,804	\$18,040	\$14,696
2032	\$203,899	\$95,537	\$24,691	\$7,632	\$17,640	\$14,371
2033	\$198,971	\$93,228	\$24,094	\$7,447	\$17,214	\$14,023
2034	\$193,722	\$90,768	\$23,459	\$7,251	\$16,760	\$13,653
2035	\$188,140	\$88,153	\$22,783	\$7,042	\$16,277	\$13,260
2036	\$182,213	\$85,376	\$22,065	\$6,820	\$15,764	\$12,842
2037	\$175,927	\$82,431	\$21,304	\$6,585	\$15,220	\$12,399
2038	\$169,271	\$79,312	\$20,498	\$6,335	\$14,644	\$11,930
2039	\$162,231	\$76,013	\$19,645	\$6,072	\$14,035	\$11,434
2040	\$154,792	\$72,527	\$18,744	\$5,794	\$13,392	\$10,910
2041	\$146,940	\$68,849	\$17,794	\$5,500	\$12,712	\$10,356
2042	\$138,662	\$64,970	\$16,791	\$5,190	\$11,996	\$9,773
2043	\$129,941	\$60,884	\$15,735	\$4,863	\$11,242	\$9,158
2044	\$120,763	\$56,583	\$14,624	\$4,520	\$10,448	\$8,511
2045	\$111,110	\$52,061	\$13,455	\$4,159	\$9,613	\$7,831
2046	\$100,967	\$47,308	\$12,227	\$3,779	\$8,735	\$7,116
2047	\$96,768	\$45,340	\$11,718	\$3,622	\$8,372	\$6,820
2048	\$98,925	\$46,351	\$11,979	\$3,703	\$8,558	\$6,972
2049	\$101,131	\$47,385	\$12,246	\$3,785	\$8,749	\$7,128
2050	\$103,387	\$48,442	\$12,520	\$3,870	\$8,944	\$7,287
2051	\$105,692	\$49,522	\$12,799	\$3,956	\$9,144	\$7,449
2052	\$108,049	\$50,626	\$13,084	\$4,044	\$9,348	\$7,615
2053	\$110,459	\$51,755	\$13,376	\$4,134	\$9,556	\$7,785
2054	\$112,922	\$52,909	\$13,674	\$4,226	\$9,769	\$7,959
2055	\$115,440	\$54,089	\$13,979	\$4,321	\$9,987	\$8,136
2056	\$118,014	\$55,295	\$14,291	\$4,417	\$10,210	\$8,318
2057	\$120,646	\$56,529	\$14,610	\$4,516	\$10,438	\$8,503
2058	\$123,336	\$57,789	\$14,935	\$4,616	\$10,670	\$8,693
2059	\$126,087	\$59,078	\$15,268	\$4,719	\$10,908	\$8,887
2060	\$128,899	\$60,395	\$15,609	\$4,824	\$11,152	\$9,085
2061	\$131,773	\$61,742	\$15,957	\$4,932	\$11,400	\$9,287
2062	\$134,712	\$63,119	\$16,313	\$5,042	\$11,654	\$9,494
2063	\$137,716	\$64,526	\$16,677	\$5,154	\$11,914	\$9,706
2064	\$140,787	\$65,965	\$17,049	\$5,269	\$12,180	\$9,923
2065	\$143,926	\$67,436	\$17,429	\$5,387	\$12,452	\$10,144
2066	\$147,136	\$68,940	\$17,817	\$5,507	\$12,729	\$10,370
2067	\$150,417	\$70,478	\$18,215	\$5,630	\$13,013	\$10,601
2068	\$153,771	\$72,049	\$18,621	\$5,755	\$13,303	\$10,838
TOTAL	\$5,725,767	\$2,682,801	\$693,360	\$214,303	\$495,359	\$403,550
AVG ANNUAL	\$143,144	\$67,070	\$17,334	\$5,358	\$12,384	\$10,089
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Table 3 – Tax Benefits from the Gateway Solar Project for Other Taxing Bodies

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Year	Cons Road No. 1	Mental Health Board	Randolph County Ambulance	Sparta Airport	Sparta Hospital
2029	\$126,503	\$11,790	\$5,012	\$22,678	\$31,240
2030	\$124,151	\$11,571	\$4,919	\$22,256	\$30,659
2031	\$121,631	\$11,336	\$4,819	\$21,805	\$30,037
2032	\$118,937	\$11,085	\$4,712	\$21,322	\$29,372
2033	\$116,063	\$10,817	\$4,598	\$20,806	\$28,662
2034	\$113,001	\$10,532	\$4,477	\$20,258	\$27,906
2035	\$109,745	\$10,228	\$4,348	\$19,674	\$27,102
2036	\$106,287	\$9,906	\$4,211	\$19,054	\$26,248
2037	\$102,621	\$9,564	\$4,066	\$18,397	\$25,342
2038	\$98,738	\$9,202	\$3,912	\$17,701	\$24,384
2039	\$94,631	\$8,820	\$3,749	\$16,964	\$23,369
2040	\$90,292	\$8,415	\$3,577	\$16,187	\$22,298
2041	\$85,712	\$7,988	\$3,396	\$15,366	\$21,167
2042	\$80,884	\$7,538	\$3,205	\$14,500	\$19,974
2043	\$75,797	\$7,064	\$3,003	\$13,588	\$18,718
2044	\$70,443	\$6,565	\$2,791	\$12,628	\$17,396
2045	\$64,812	\$6,041	\$2,568	\$11,619	\$16,005
2046	\$58,896	\$5,489	\$2,333	\$10,558	\$14,544
2047	\$56,446	\$5,261	\$2,236	\$10,119	\$13,939
2048	\$57,705	\$5,378	\$2,286	\$10,345	\$14,250
2049	\$58,991	\$5,498	\$2,337	\$10,575	\$14,568
2050	\$60,307	\$5,621	\$2,389	\$10,811	\$14,893
2051	\$61,652	\$5,746	\$2,443	\$11,052	\$15,225
2052	\$63,027	\$5,874	\$2,497	\$11,299	\$15,564
2053	\$64,432	\$6,005	\$2,553	\$11,551	\$15,912
2054	\$65,869	\$6,139	\$2,610	\$11,808	\$16,266
2055	\$67,338	\$6,276	\$2,668	\$12,072	\$16,629
2056	\$68,839	\$6,416	\$2,727	\$12,341	\$17,000
2057	\$70,375	\$6,559	\$2,788	\$12,616	\$17,379
2058	\$71,944	\$6,705	\$2,850	\$12,897	\$17,767
2059	\$73,548	\$6,855	\$2,914	\$13,185	\$18,163
2060	\$75,188	\$7,008	\$2,979	\$13,479	\$18,568
2061	\$76,865	\$7,164	\$3,045	\$13,779	\$18,982
2062	\$78,579	\$7,324	\$3,113	\$14,087	\$19,405
2063	\$80,331	\$7,487	\$3,183	\$14,401	\$19,838
2064	\$82,123	\$7,654	\$3,254	\$14,722	\$20,280
2065	\$83,954	\$7,825	\$3,326	\$15,050	\$20,733
2066	\$85,826	\$7,999	\$3,400	\$15,386	\$21,195
2067	\$87,740	\$8,177	\$3,476	\$15,729	\$21,668
2068	\$89,697	\$8,360	\$3,554	\$16,080	\$22,151
TOTAL	\$3,339,920	\$311,281	\$132,326	\$598,743	\$824,798
AVG ANNUAL		\$7,782	\$3,308	\$14,969	\$20,620
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Table 4 – Tax Benefits from the Gateway Solar Project for the School Districts

Year	Coulterville Unit School District #1	Sparta Community Unit School District #140
2029	\$47,044	\$1,005,283
2030	\$46,169	\$986,593
2031	\$45,232	\$966,570
2032	\$44,230	\$945,162
2033	\$43,161	\$922,319
2034	\$42,023	\$897,988
2035	\$40,812	\$872,112
2036	\$39,526	\$844,636
2037	\$38,162	\$815,501
2038	\$36,719	\$784,646
2039	\$35,191	\$752,010
2040	\$33,578	\$717,527
2041	\$31,875	\$681,133
2042	\$30,079	\$642,759
2043	\$28,187	\$602,335
2044	\$26,196	\$559,788
2045	\$24,102	\$515,045
2046	\$21,902	\$468,027
2047	\$20,991	\$448,560
2048	\$21,459	\$458,563
2049	\$21,938	\$468,789
2050	\$22,427	\$479,243
2051	\$22,927	\$489,930
2052	\$23,438	\$500,855
2053	\$23,961	\$512,024
2054	\$24,495	\$523,442
2055	\$25,041	\$535,115
2056	\$25,600	\$547,048
2057	\$26,171	\$559,247
2058	\$26,754	\$571,719
2059	\$27,351	\$584,468
2060	\$27,961	\$597,501
2061	\$28,584	\$610,826
2062	\$29,222	\$624,447
2063	\$29,873	\$638,372
2064	\$30,540	\$652,608
2065	\$31,221	\$667,161
2066	\$31,917	\$682,039
2067	\$32,629	\$697,248
2068	\$33,356	\$712,797
TOTAL	\$1,242,042	\$26,541,437
AVG ANNUAL	\$31,051	\$663,536



The largest taxing jurisdictions for property taxes are local school districts. However, the tax implications for school districts are more complicated than for other taxing bodies. School districts receive state aid based on the assessed value of the taxable property within their district. As assessed value increases, the state aid to the school district is decreased.

Although the exact amount of the reduction in state aid to the school districts is uncertain, local project tax revenue is superior to relying on state aid for the following reasons: (1) the solar project can't relocate – it is a permanent structure that will be within the school district's footprint for the life of the Project; (2) the school district can raise the tax rate and increase its revenues as needed; (3) the school district does not have to deal with the year-to-year uncertainty of state aid amounts; (4) the school district does not have to wait for months (or even into the next Fiscal Year) for payment; (5) the Project does not increase the overall cost of education in the way that a new residential development would.

Table 4 shows the direct property tax revenue coming from the Project to Coulterville Unit School District #1 and Sparta Community Unit School District #140. This tax revenue uses the assumptions outlined earlier to calculate the other tax revenue and assumes that 5% of the Project area is in Coulterville Unit School District #1 and 95% of the Project area is in Sparta Community Unit School District #140. Over the 40-year life of the Project, the school districts are expected to receive over \$27.7 million in tax revenue.

Having considered all these benefits, it is still important to determine the net impact of the solar energy project after taking into account the reduction in school funding from the State of Illinois. Determining the reduction in state aid is complicated by the fact that there is a new law for distributing state funds to education.

On August 31, 2017, Governor Rauner signed into law PA 100-0465 that fundamentally changes the way that the state distributes state aid to school districts. The "Evidence Based Funding" (EBF) consists of two parts - a Base Funding Minimum and a Tier Funding. The Base Funding Minimum is based on what the district received in the previous fiscal year. Some call this the "Hold Harmless" provision and ensures that there are no "losing" districts in the transition to the new funding formula. The Tier Funding is additional money that is distributed in higher portion to the districts that demonstrate a higher need under the new formula. Because of the "Hold Harmless" provision, no school district will see a reduction in their General State Aid (GSA) from what they received in the year before the solar farm was installed. However, the higher Equalized Assessed Value (EAV) caused by the solar farm could reduce its eligibility for new money allocated in the state budget.

There are several sources of uncertainty with the new school funding formula concerning this new money. First, the total amount of new funding to be distributed over the ten years from the passage of the law is unknown at this point. It will be determined year-by-year in the state budget passed by the legislature and signed by the governor. For FY21, no new money was allocated for the school funding formula in the state budget. For FY 22-26, new money was restored in the state budget. Second, data for the formula funding changes each year based on the school's student population and its "need" and it is difficult to forecast its school's student population over time. Third, each school district is competing with all other school districts for this new funding and so the EAV and student population for all other school districts in the state will impact what a single school district receives. Fourth, the school district's EAV could also change due to other property changes in the district.

For FY26, Coulterville Unit School District #1 had 75% adequacy, was assigned Tier 1 status, and will receive \$26,896 in "new money." Sparta Community Unit School District #140 had 73% adequacy, was assigned Tier 1 status, and will receive \$277,571. As outlined in Table 4, there is no year in which Coulterville USD #1 receives less than \$20,991 or Sparta CUSD #140 receives less than \$448,560. If new money is allocated in the future, it is unlikely that the district will lose all of the "new money" and their EBF funding cannot go down from the previous year. Thus, the school districts will receive a net positive flow of funds because of the solar project if "new money" remains the same.



## **About the Authors**



Bryan Loomis, MBA

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Bryan Loomis has been conducting economic impact, property tax, and land use analyses for Strategic Economic Research since 2019. He has performed or overseen over 200 wind and solar analyses and provided expert testimony for permitting hearings and open houses in many states, including Colorado, Kansas, Indiana, Illinois, and Iowa. He improved the property tax analysis methodology at SER by researching various state taxing laws, implementing depreciation and taxing jurisdiction millage rates, and incorporating other factors into the tax analysis tool. Before working with SER, Bryan ran a consulting agency that collaborated with over 30 technology startups on their growth and marketing strategies. Bryan received his MBA from Belmont University in 2016.



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Deborah Dingess leads property tax research across all 50 states, focusing on tax codes, case law, and incentive structures. Deborah's responsibilities include classifying project costs, determining appropriate depreciation methods, and researching tax incentives. She also develops and refines research templates, reviews property tax models used in reports, and supports stakeholders by providing property tax guidance. Prior to this role, Deborah held senior tax positions in the energy and healthcare sectors, managing multi-state tax compliance and tax technology automation initiatives. Deborah received her Master of Science in Taxation degree from the University of Cincinnati in 2021 and is an IRS Enrolled Agent (EA) candidate.

Strategic Economic Research, LLC (SER) provides economic consulting for renewable energy projects across the U.S. We have produced over 400 economic impact reports in over 35 states. Research Associates who performed work on this project include Paige Afram, Amanda Battaglia, Lindsey Cohn, Sawyer Keithley, Clara Lewis, Ethan Loomis, Hannah Loomis, Nita Loomis, Jessica Lucht, Mandi Mitchell, Russell Piontek, Isabelle Piwowarczyk, Tim Roberts, Krista Rust, and Ashley Thompson.