

## Create a Carbon Free Schools Initiative that installs 4 gigawatts of solar power by 2030 and requires energy efficiency improvements at all public schools.

Climate Jobs Recommendation

Background and Details

A Pro-Worker, Pro-Climate Illinois Carbon-free public schools will save taxpayers money, create thousands of jobs for Illinois workers, reduce greenhouse gas emissions and pollution, improve academic performance, and promote public health. This can be achieved by installing 4 gigawatts of solar power by 2030, dedicating new renewable energy credits (RECs) for solar power generated by public school districts and requiring utility companies to buy a sufficient percentage of the RECs, creating a low-interest loan fund to support financing, leveraging federal tax incentives, and pairing solar projects with energy efficiency initiatives. The program would require \$10 billion (\$2.50 per watt) (NREL, 2018). The Illinois Power Agency's (IPA) Adjustable Block Program would be amended to increase the value of RECs if they are generated by public school districts and other entities with high social impact (e.g., colleges and universities, public buildings, and hospitals). The initiative would prioritize Tier 1 and Tier 2 schools first, based on a State feasibility audit on solar and energy efficiency for every district in Illinois.

**Public school districts currently account for 12% of total energy consumption in Illinois.** In total, Illinois' public school districts spend an estimated \$322 million per year on energy costs. At the same time, Illinois' school districts require \$9 billion in structural repairs and heating, ventilation, and air conditioning improvements. Pairing roof replacements, electrical upgrades, and building improvements with new solar systems can deliver substantial cost savings. Schools can save between 25% and 33% on annual energy costs by prioritizing energy efficiency improvements (DOE, 2002; Farese et al., 2009).

Installing 4 gigawatts of solar power by 2030 and prioritizing energy efficiency initiatives at Illinois' public school districts would create jobs and save money for schools. Installing 4 gigawatts of solar power by 2030 would cut carbon emissions by 9 million metric tons (12%), equivalent to powering 897,000 homes (AWEA, 2020). This investment would support more than 67,000 total jobs across Illinois, including more than 25,000 direct jobs for skilled construction workers (IMPLAN, 2020). Installations would be financed by 1.5%-interest loans over 20 years through a new state-run revolving loan fund at the IPA capitalized by the State with support from the federal government and RECs averaging \$60 for contract terms of 15 years. This would cost the *average* household about \$6 on its monthly utility bill, but differential pricing would ask commercial and industrial properties to pay more and would provide credits to low-income residents and seniors. The initiative would prioritize the "ownership model," with school districts owning the solar arrays themselves, and would pay prevailing wages. Any school using the power purchase agreement (PPA) model would be required to include a project labor agreement (PLA). Over 25 years, solar power would save the *average* school district \$3.2 million (\$127,000 per year) and energy efficiency improvements could save an additional \$2.9 million (\$115,000 per year. As a result, the Carbon Free Schools Initiative can save schools nearly \$5.2 billion over 25 years.

Figure 1: Economic Impact of Installing 4 GW of Solar Power at Public Schools in Illinois, 2022-2030

Economic	Jobs Created	Worker Income	Total Economic	
Impacts	Over 8 Years	Over 8 Years	Output in Illinois	
Direct	25,300	\$3.3 billion	\$10.0 billion	
Indirect	15,800	\$1.4 billion	\$6.5 billion	
Induced	26,200	\$1.5 billion	\$4.3 billion	
Total Impacts	67,300	\$6.2 billion	\$20.8 billion	

Figure 2: Total Savings from Carbon Free Schools Initiative at Illinois Public Schools Over 25 Years

		Energy Savings Over 25 Years	
Improvement	Assumptions	Average District	All Districts
Solar System Installations	RECs average \$60 and IPA loans at 1.5%-interest	\$3.17 million	\$2.70 billion
Energy Efficiency Upgrades	Conservative 25% energy savings with improvements	\$2.88 million	\$2.46 billion
	\$6.05 million	\$5.16 billion	