

Montana Smart Schools Fund

A strategy to prioritize schools for climate solutions in Montana

Overview:

Recently, many Montana communities have been struggling to upgrade aging school infrastructure. With inflation, increased property taxes, and climbing energy rates, lowering costs for schools is more important than ever. With funding support from EPA's Climate Pollution Reduction Grant (CPRG) Program, Montana Department of Environmental Quality (DEQ) is developing a state [Priority Climate Action Plan](#). Through this plan, Montana has an historic opportunity to revitalize aging infrastructure in K-12 schools, reduce energy costs and carbon emissions, and prepare students for the rapidly emerging clean energy economy. We recommend that the Montana DEQ, in coordination with its [Smart Schools program](#), submit a \$50 million implementation grant application to the EPA by April 1. This proposal will lower costs for schools across the state and deliver tangible benefits for Montana families using federal funds.

Through this proposal, Montana schools would have the opportunity to 1) conduct a comprehensive energy audit and develop an energy action plan to ensure that money is spent in the most effective manner; 2) apply for state assistance to implement priority actions and leverage other funding opportunities; and 3) expand technical and vocational training opportunities for students to meet growing demand for skilled workers in high-paying careers related to energy auditing and efficiency, renewable energy production, and electrification. This initiative will be open to all Montana schools while prioritizing high-need schools that serve areas that are considered [disadvantaged by Inflation Reduction Act \(IRA\) definition](#) or serve Title 1 students. This would ensure that the highest need communities receive badly-needed funds achieving desired justice and equity outcomes. The primary purpose of the proposal is to help offset upfront capital investments, while reducing long-term energy costs.

Program Description:

Energy audits and action planning – A first round of funds would be broadly available for school districts to conduct or update energy audits and develop action plans that reflect school priorities and effectively, measurably reduce emissions. Action plans for new or existing school facilities could include energy efficiency upgrades, HVAC improvements, renewable energy systems, energy storage and microgrids, electrification, and acquisition of electric school buses. Action planning should include opportunities for student engagement. For schools that complete an energy audit and action plan, the program would support school capacity to implement sustainability measures in ongoing operations. While reduced energy costs would offset many operational expenses, funds also would be available through DEQ's Smart Schools program for ongoing student engagement in sustainability efforts. As the 2008 MSU-OFS Facility Condition Inventory Manual notes, "Often, people responsible for making budget or resource allocation decisions know that buildings, and the systems contained therein, are deficient, but they know few details about those deficiencies." These audits ensure that Montana schools utilize funds in the most effective manner.

Implementation fund – Most of the funding would be dedicated for a competitive grant program, primarily for capital improvements envisioned in the aforementioned action plans. Proposals that leverage community and regional partnerships and other funding sources would be prioritized. Funding could also be used for monitoring and reporting systems that track energy usage and emissions. It's important to note that while some of these capital investments involve significant upfront costs, they offer long-term savings in operational expenses saving Montana families money.

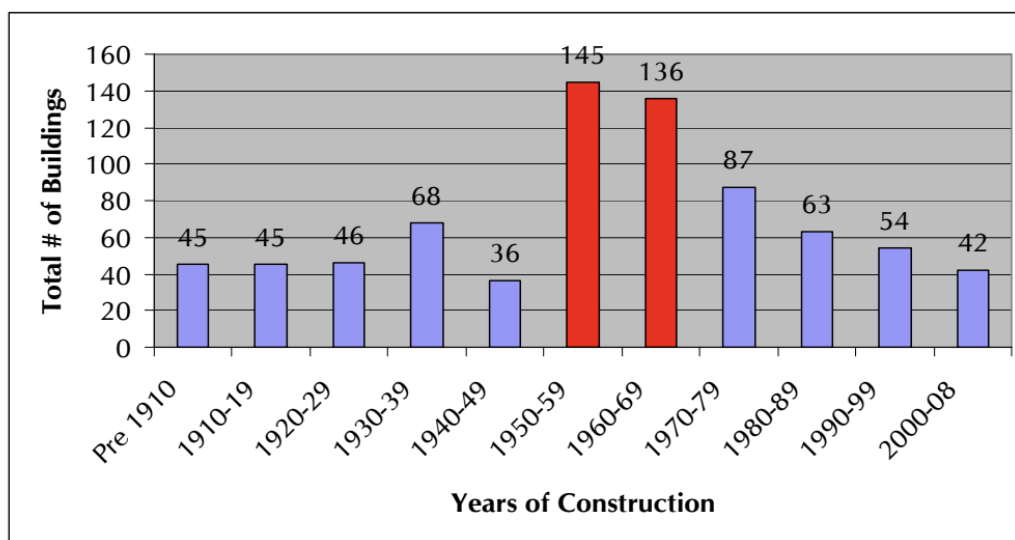
Technical/vocational training and workforce development – In addition to embedding sustainability concepts and practices in student learning activities, funding would strengthen school programs that offer technical education for critical energy trades, such as HVAC, electrification, and energy efficiency. One objective would be to expand educational bridges between high schools and Montana’s community/tribal colleges, Joint Apprenticeship and Training Committees, and other institutions of higher education to build a homegrown workforce.

Increasing capacity at DEQ – Implementing a statewide grant program can be difficult and this proposal would ensure that DEQ’s Smart Schools program has the funds and capacity to administer this proposal.

A Golden Opportunity to Invest in School Infrastructure

In addition, Montana’s school infrastructure is aging and will soon reach a critical point in which upgrades will be needed. The state’s 2008 K-12 Public Schools Facility Condition Assessment reads “statewide, there has not been a significant investment in new buildings, and many of the school construction projects in the last few decades have been additions.” Since 2008, we estimate that the maintenance backlog has increased in most parts of the state. Unfortunately, the need for increased investment into school infrastructure coincides with inflation and significant increases to cost-of-living in Montana, putting strain on families and communities.

Building Age



*These figures are based on known building ages. This is approximately a 30% sampling, which is statistically indicative of the State’s trends.

Schools represent the third largest sector of commercial building energy usage in the United States. Public K-12 school buildings in the United States account for 7.8 billion square feet of building space. Approximately 17% of the U.S. population, including students and school staff, spends their day connected to a school. The annual energy expenditure for K-12 schools in the country is \$12.5 billion. The educational sector's energy consumption exceeds 2,000 trillion BTUs per year, and district-wide energy savings could result in substantial financial resources redirected to classrooms. The average public school, covering about 60,000 square feet, emits approximately 320 MTCO_{2e} and spends over \$100,000 on electricity and gas annually. Space heating, cooling, computing, and lighting are significant contributors to energy usage. Additionally, the school bus fleet, primarily diesel-powered, represents the largest public transportation fleet in need of electrification, comprising about 480,000 buses. ([New Buildings Institute, 2021](#))

In Montana, the annual emissions of the operation of public K-12 buildings are estimated at 200,000 metric tons of carbon dioxide emissions (MTCO_{2e}) ([Why K-12 Should Feature in America's National Climate Strategy, p. 14](#)). In addition, emissions per sq. foot of schools in Montana is approximately 7,000 metric tons, 11th highest in the nation. This figure underscores the significant impact and scale of emissions produced by our state's public school facilities, and the opportunity to reduce these emissions and while simultaneously reducing the tax burden on Montanans.

Compatible funding streams:

- IIJA 40109, State Energy Program
- IIJA 40541, Grants for Energy Efficiency and Renewable Energy Improvements as Public School Facilities
- IIJA 71101, Clean School Bus Program
- IIJA Division J, Title VI, Pollution Prevention Grants
- IRA 60101, Clean Heavy-Duty Vehicles
- IRA 60106, Funding to Address Air Pollution at Schools
- IRA 60501, Neighborhood Access and Equity Grant Program

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