Energy Efficiency:
A Smart Climate Solution for Wildlife

Energy-saving policies could reduce climate change risks to species like the pika, polar bear, and puffin, all of which are seeing their habitats threatened by rising temperatures. Climate change is already degrading the health of ecosystems around the country, including through reduced snowpacks and earlier spring run-off, massive wildfires, and the spread of tree-killing pests.[1] The most important step in combating climate change is stemming the current rate of climate-disrupting carbon emissions—and providing accessible funding to improve energy efficiency across the U.S. is one way to both help consumers and slow the decline of climate-sensitive species.

Image by Karen Arnold from Pixabay.

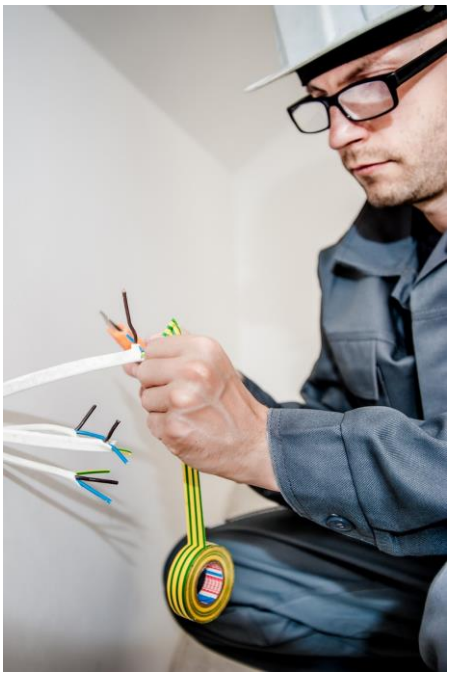
One of the most cost-effective ways to reduce emissions from energy production in the U.S. is to reduce demand for electricity. Cutting electricity use in homes, commercial buildings, and industrial processes has the potential to move the world towards the goals established

by the Paris Agreement. In fact, reducing energy demand worldwide can achieve more than 44 percent of the emissions reductions needed to stabilize the climate.[2]

In the United States, smart energy efficiency investments can cut emissions by as much as 300 million metric tons (MMT) in the residential sector, 267 MMT in the commercial sector, and 360 MMT in the industrial sector by 2050.[3]

Altogether, this would be the equivalent of 200 million passenger vehicles being driven for a year, or the energy use of 100 million residential homes. Reducing harmful climate pollution on this scale can make a big difference for people, wildlife, and the economy. Energy efficiency improvements also create more jobs per dollar invested than traditional energy supply investments, and they result in significant consumer savings.[4]

Yet, in practice, many of the smart improvements to residential and commercial buildings and industrial processes have been limited due to a big up-front price tag. Therefore, the National Wildlife Federation recommends creating an Energy Efficiency State Revolving Fund (SRF) at the Department of Energy that incentivizes energy efficiency installations in commercial and residential buildings, plus industrial settings. With an initial federal investment of **$25 billion,** the Energy Efficiency SRF would fund projects in every state that could result in significant emissions reductions and energy savings, with local employment and environmental benefits.



Images by skeeze (left) and Michal Jarmoluk (right) from Pixabay.

This Energy Efficiency State Revolving Fund (SRF) would assist states with the financing of energy efficiency projects. Examples of eligible projects include: upgrades of heating/cooling systems; use of energy efficient lighting, appliances, electronics, and water heaters; installation and upgrades of building control technologies; supporting installation of geothermal water heating systems; industrial combined heat and power; and sensors and controls that improve process performance.

Because each state program will recycle repayments of the loan principal and interest earnings back into their funds, as well as leverage private sector capital through interest buy-downs and loan guarantees, the EE SRF can induce and leverage billions of dollars in new investment at relatively low cost to the federal government.

It is also important to ensure that disadvantaged communities and low income families have access to the benefits of energy efficiency. As it may be difficult for these groups to secure loans, we recommend a significant parallel funding increase for the Weatherization Assistance Program—**$1 billion**—to provide more direct financial assistance for home and community efficiency projects.

While Congress should continue to examine significant, economy-wide climate policy solutions like a carbon fee, the world's scientists have made clear we do not have time to waste. All nations must implement policies *within the next twelve years* that can eventually result in net zero emissions by mid-century.[5]

Near-term emissions reductions are essential to minimize climate threats to people and wildlife. Energy efficiency is an excellent place to start.

For additional details on an Energy Efficiency State Revolving Fund concept, please contact: Shannon Heyck-Williams, Director, Climate & Energy Policy, heyckwilliamss@nwf.org or 202-797-6632.

---

[1] U.S. Global Change Research Program 2018. Fourth National Climate Assessment. https://www.globalchange.gov/nca4

[2] International Energy Agency. Energy Efficiency 2018: Analysis and Outlooks to 2040. https://webstore.iea.org/market-report-series-energy-efficiency-2018

[3] CO2 abatement potential estimates come from the open-source Energy Policy Simulator (https://us.energypolicy.solutions/scenarios/home). Abatement estimates reflect a high-deployment energy efficiency scenario with energy efficiency standards, high take-up of efficiency investments, retrofitting of existing buildings, and electrification of building components. These potential abatement estimates are generally similar to other studies (https://www.nrdc.org/sites/default/files/americas-clean-energy-frontier-report.pdf).

[4] American Council for an Energy-Efficient Economy 2011. How Does Energy Efficiency Create Jobs? https://aceee.org/fact-sheet/ee-job-creation

[5] Intergovernmental Panel on Climate Change 2018. Special Report: Global Warming of 1.5° C. Summary for Policymakers. https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers/