

USING PROGRAM EVALUATION TO ENHANCE CLIMATE INVESTMENTS

The Challenge: Maximizing the Impact of Climate Funding

Rapid and sustained technological innovation is needed for society to meet its climate goals. Recent legislation — including the Infrastructure Investment and Jobs Act (IIJA), Inflation Reduction Act (IRA), and CHIPS and Science Act — provides an unprecedented investment to tackle this challenge. As federal agencies take on the challenge of implementing the influx of new climate funding, how can they maximize the impact of this new funding to accelerate climate innovation? In a [new report](#), Harvard professor Joe Aldy examines how integrating program evaluation in the design and implementation of these new clean energy policies can help the U.S. government make the most of these investments this decade.



How Can Program Evaluation Help?

Program evaluation refers to the employment of a systematic method for collecting, analyzing, and using information about the effectiveness of a policy or program. Program evaluations are especially useful for determining the direct, causal impact of a policy or program.

Program evaluation can help improve policy outcomes by:

- Facilitating the learning necessary for policymakers to make policy better over time, thereby increasing the likelihood of achieving climate goals while reducing costs;
- Helping identify new policy needs and informing policy updates, thereby ensuring policies and programs are responsive to changing conditions;
- Enabling more effective cross-agency coordination by ensuring everyone has access to the same information on program impacts;
- Demonstrating policy effectiveness, which can help enhance public support by increasing confidence that government investments are being used wisely to benefit the American people; and
- Limiting the risk of ‘project failure’ by, at a minimum, making every project a learning opportunity

In short, program evaluation offers an avenue for continuous learning and improvement that is uniquely suited to addressing the complexities of the climate challenge.

Key Takeaways: Best Practices for Program Evaluation

Lessons learned from the last major climate investment bill, the American Recovery and Reinvestment Act of 2009, as well as analyses and reviews performed by regulatory agencies point to best practices in program evaluation that could be adopted today. These include:

- **Institutionalize Program Evaluation**

The White House should commit to a climate program evaluation strategy, publish results publicly, and develop interagency reporting structures to heighten visibility and opportunities for buy-in stakeholders and the media. For example, agencies could report a common set of program metrics to the Office of Management and Budget (OMB) and/or present an annual report to Congress offering a scorecard of clean energy progress.

- **Provide Guidance**

OMB should issue cross-cutting and agency-specific guidance documents for how to conduct program evaluations (like Circular A-4 guidance on regulatory impact analysis), soliciting input from relevant scholars and stakeholders and making draft guidance available for public comment.

- **Identify Priority Outcomes to Evaluate**

Agencies should identify the priority outcomes that merit measurement and analysis. Potential priority outcomes could include greenhouse gas emissions reductions, deployment of zero-carbon energy technologies, aggregate costs and costs per ton of emissions avoided, the benefits of improved air quality, and the distribution of these outcomes across socio-demographic characteristics, regions, and industries.

- **Identify Programs with Significant Learning Potential**

Focus initial evaluations on programs and policies with the greatest potential for learning, such as those with long time horizons, those that may offer positive learning spillovers, and those that involve multi-agency coordination.

- **Plan Ahead**

Develop an evaluation plan and data protocols when the program or policy is being designed. Planning ahead helps ensure that researchers can estimate the causal impact of policy interventions (e.g., by collecting the necessary data and building in quasi-experimental features before the program begins). To best accomplish this, agencies should create dedicated evaluation teams comprised of in-house experts as well as visiting staff from statistical agencies.

- **Take Advantage of Natural Experiments**

Where possible, utilize counterfactuals or randomized control trials to isolate the effect of the program or policy – e.g., by collecting data on both program participants and non-participants or comparing variations in outcomes across states. For instance, researchers could use variations in program implementation between states to ascertain causal impacts of a program.

- **Make Results Public**

Make evaluation plans available to the public (e.g., through an online repository) and develop a plan for how to communicate the results of evaluations (e.g., highlighting key findings, identifying outstanding questions, addressing how the performance evaluation could improve the policy design over time).

Learn more about program evaluation by reading the full report [here](#).