

Developing an Effective State Clean Energy Program: A Blueprint for Success

The American Recovery and Reinvestment Act provides an unprecedented level of federal funding (\$3.1 billion) to state energy programs to support investments in energy efficiency and renewable energy technologies. Clean Energy States Alliance (CESA), a nonprofit coalition representing state clean energy programs across the country, has prepared this series of briefs to assist state energy offices in designing programs to make effective use of these federal and other available funds.

Designing an Effective State Clean Energy Program

This briefing paper summarizes innovative approaches and practices that have worked effectively for state clean energy programs across the country. The paper focuses on the scope of **programmatic activities and administrative issues** that states should consider in designing an effective clean energy program. Other papers in this CESA series describe recommendations on specific types of program offerings (loans, grants, rebates).

Overall Program Approach

There are several major strategic approaches that clean energy programs are taking today. Many of the funds use a combination of the models identified below:

- **Project Development Model:** uses financial incentives, such as production incentives and grants, to directly subsidize clean energy project installation. This is the prevalent approach used by state funds today.
- **Market-Driven Investment Model:** uses loans and equity investment to support clean energy companies and projects. This approach can leverage the effect and duration of the short-term federal stimulus funding.
- **Industry Development Model:** uses business development grants, marketing support programs, resource assessments, technical assistance, education, and demonstration projects to build clean energy infrastructure.

Setting Guiding Goals & Objectives

States should tailor their program offerings to meet the state's particular clean energy objectives and needs. The following goals may be useful to consider:

- Promote the development and use of clean energy technologies and projects in-state.
- Support a diversified portfolio of clean energy technologies that will benefit ratepayers, leverage private investment, and have positive impacts in terms of economic development, employment opportunities, and environmental attributes.
- Encourage the start-up and expansion of clean energy businesses and industry clusters.
- Remove market barriers related to development and deployment of renewable energy.

Developing Program Offerings

States should take a "portfolio" approach in designing clean energy programs. Multiple program designs, careful use of professional judgment, and a willingness to experiment with a variety of program offerings are keys to success. A well-balanced program portfolio might include:

- **Technical assistance** and project feasibility support.
- **Rebates** for the installation of small renewable energy systems (e.g., less than 10 kW of capacity per installation)



with funding available on a rolling, first-come, first-serve basis to qualified projects.

- **Grants** for medium and large-scale renewable energy projects (e.g., greater than 10 kW) with funding awarded by competitive solicitation.
- **Loans** for renewable energy system installations as well as manufacturers and service providers. Loans allow the state to deploy capital and recover it with a return, to be used again.
- **Equity and subordinated debt investments** in companies involving renewable energy products and processes.
- **Business development grants** to assist companies that are likely to have commercially viable products in the near term.

Establishing Clear Operating Principles

The state program should operate according to clear, transparent principles, including:

- All investments should be undertaken according to stated criteria and procedures established by a governing board.
- The program administrator should monitor and evaluate all activities to ensure that monies are expended in an efficient and effective manner.
- Programs should provide long-term, consistent, stable support for target markets and technologies.
- Program rules should not impose unreasonable barriers or costs on program participants.

Grant and investment Criteria

The state program should establish specific investment criteria to ensure that potential projects are rigorously evaluated and that funds are allocated in a fair and cost-effective manner. To this end, the following types of funding criteria should be considered:

- **Financial leverage.** Not all of the funding for projects should come from the state program. In fact, the state

program should attempt to maximize its effect by leveraging funding available through the federal government, private investors, companies, and consumers. As such, the degree of leverage will enter into funding decisions.

- **Energy produced**—the degree to which a project contributes to renewable energy generating capacity in the state.
- **Grid and peak load benefits**—the ability of a project to reduce electricity distribution bottlenecks.
- **Market transformation**—the degree to which a project will help to build market demand for a technology.
- **Replicability** of the project model.
- **Financial assuredness** of the project.
- **Visibility** of the project.
- **Economic value added**—the extent of the additional in-state economic value created as a result of the development, production, and use of renewable energy resources.

Organizational Culture

Although using public funds, state clean energy programs should consider adopting attributes of both marketing organizations and private investment funds.

- **Market Development.** Program managers need to conduct active outreach to build awareness of the state program and to attract good projects.
- **Technical Assistance.** Program managers should be willing and capable of providing technical and financing assistance to aid system owners and project developers in bringing projects to fruition.
- **Financial and Technical Due Diligence.** Managers need to be capable of conducting a rigorous level of financial and technical due diligence for projects.
- **Entrepreneurial Know-how.** A clean energy program should have the authority necessary to respond to market forces in a flexible and entrepreneurial manner.



- **Understanding of Clean Energy Markets.** Fund managers must be current on clean energy markets and market barriers to be able to develop effective programs.

Program Evaluation and Communication

Formal periodic evaluation is an essential element both as a feedback loop for program managers as well as in gaining the support of policymakers and the public.

Important components of the evaluation should include:

- Setting program metrics, such as the amount of renewable energy capacity installed and energy produced, private dollars leveraged through public support, the use of standard benefit-cost tests, and an estimate of job creation through program spending.
- Establishing project tracking systems to apply these metrics.
- Preparing periodic reports for policymakers, regulators and the public highlighting program results, program challenges and future plans.

**For more information or assistance in developing
an effective state clean energy program, contact
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