

The State Energy Program: Building Energy Efficiency and Renewable Energy Capacity in the States

Nick Hall, TecMarket Works, Oregon, WI

Dr. Patrick McCarthy, Ph.D., J.D, TecMarket Works, Murfreesboro, TN

Dr. Jim Mapp, Evaluation Consultant, Madison, WI

Faith Lambert, SEP Evaluation Manager, USDOE/EERE, Washington, DC

ABSTRACT

This paper presents the results of a qualitative examination of the influence of US Department of Energy's (DOE) State Energy Program (SEP) on the formation and development of the state governments' capability to design, direct, and implement a wide range of energy efficiency and renewable energy services across the United States. The results of the study document how the long-standing DOE SEP program served as not only the foundational and formational seed that allowed state energy offices to acquire the knowledge, skills, expertise and tools to design and offer a broad range of programs, but also provide these state offices with the skills and knowledge needed to develop programs funded by other resource streams, and oversee these services provided by non-SEP efforts. The study also looks at how a broad range of essential skills and supportive tools were developed via SEP and then used for expanding those energy efficiency and renewable energy services into hundreds of different programs, products and services, including new information and incentive programs, new building codes and new appliance standards. The study concludes that based on the information collected, 80% of the state energy office's current capacity to design, direct, and implement a wide range of energy efficiency and renewable energy services is a direct or indirect result of more than 30 years of SEP efforts to develop this capacity. Essentially, the vast majority of the state energy offices current capacity to design, development and implement energy efficiency and renewable energy programs stems from the foundation developed by and through SEP and related initiatives.

Introduction

The State Energy Program (SEP) is a federal grant program administered by the Office of Weatherization and Intergovernmental Programs (OWIP) within the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE). The Program offers grants to all 50 states, five territories and the District of Columbia (hereafter "states") to support a wide range of energy efficiency and renewable energy activities that best meet each state's individual energy needs.

SEP was established in 1996 by merging the State Energy Conservation Program (SECP) and the Institutional Conservation Program (ICP), both of which had been in existence since 1976. SEP provides matching grants to the states according to a formula that includes population and energy use. In addition to these formula grants, SEP "Special Project" funds are made available on a competitive basis to carry out specific types of energy efficiency and renewable energy activities. The resources provided by DOE typically are augmented by additional funds and in-kind assistance from a number of sources, including funding from state and local governments, federal agencies, non-profit funds, public benefits funds and the private sector.

This document presents the results of a study of the influence of SEP on the establishment and growth of the energy efficiency and renewable energy capabilities within state energy offices. The primary purpose of this study is to obtain a qualitative understanding of the level of influence that SEP funds have had on the states' energy efficiency and renewable energy capacities and provide examples of how this capacity has influenced state energy efficiency and renewable energy achievements (see full report for detailed examples). This study looks back over time to assess how SEP has influenced that capacity. "SEP funding" as used in this study includes funds provided by SEP formula grants and competitive grants, Petroleum Violation Escrow (PVE) funds, and the precursors to the current SEP.

Methodology

To conduct this study, TecMarket Works used professional in-depth interviews with current and former state energy office managers and with other stakeholders familiar with SEP and the state's energy efficiency and renewable energy history. Interviews were conducted with current and former SEP managers, state legislators, managers in charge of non-SEP programs, state energy office managers, policy managers and others. These interviews were designed specifically to explore the influence of SEP on the state energy offices' capability to offer services within 11 broad programmatic areas, including:

1. Energy efficiency policy, regulation, and legislative support
2. Renewable energy policy, regulation, and legislative support
3. Energy efficiency information to the public
4. Renewable energy information to the public
5. Financial support services
6. Technical assistance services
7. Building retrofits
8. New construction
9. Building codes and appliance standards
10. Renewable energy development and deployment
11. Transportation

This study is a qualitative assessment of state capacity based on a series of 68 topic interviews with 40 individuals within the 24 states. The interviews were conducted with current and former energy officials within the following states who were, or still are, involved with their state's current or past SEP initiatives in a substantial way typically involving management or state oversight responsibilities. The interviews were conducted with individuals in the following states:

1. Arkansas	9. Kentucky	17. Oregon
2. Arizona	10. Louisiana	18. South Carolina
3. California	11. Maine	19. Texas
4. Connecticut	12. Michigan	20. Utah
5. Delaware	13. Minnesota	21. Virginia
6. Florida	14. Mississippi	22. Vermont
7. Idaho	15. Montana	23. Wisconsin
8. Illinois	16. New York	24. Wyoming

Table 1. Self-Reported State Capacity to Design, Manage, and Implement Programs in 11 Key Programmatic Areas

In conducting the interviews we strove to obtain information from a representative number of states so that the sample would be representative, but would also reflect size and geographical balance. The following graphic presents the sampled states (darker shaded states) and indicates how sampled states were not only geographically distributed but also included small, medium and large states.



Figure 1. Diagram of Responding States (darker color shading)

The key weakness of this methodology is also its primary strength. The study methodology investigates the level of energy efficiency and renewable energy capacity developed by SEP within the state energy offices. The study uses in-depth interviews with key managers and stakeholders associated, directly or indirectly, with the SEP initiatives. The benefit of this approach is that very detailed expertise-building examples are identified in this study (see full report) documenting the types of skills and expertise that has lead to a vast array of SEP and non-SEP funded programmatic efforts. The weakness of this study is that it focused only on those things that are in some way SEP influenced, as reflected via the in-depth interview process. A more complete study would also focus on the individual skills and expertise acquired within the

state energy offices that were in no way affiliated with SEP (if any) as well as other non-state energy offices in the states that also influence energy efficiency and renewable energy initiatives. Another aspect of this methodology that is also strength and a weakness of the approach is that it is exclusively a qualitative assessment. The study is based entirely on in-depth interviews with SEP and non-SEP professionals that are in some way affiliated with or knowledgeable about the operations of the state energy offices. While this approach identifies a great many case examples of acquired expertise that have led and are leading to program initiatives, it is not a quantitative assessment of skill and expertise acquired by both SEP and non-SEP influenced initiatives and a comparative assessment of the results from these efforts. That is, this study does not compare SEP the effects (results) of SEP-acquired skills and capability to those acquired via of non-SEP acquired.

Overall Effects of SEP on State Capacity

As reported by the state experts interviewed for this study, SEP's resources have largely built the foundation on which states have constructed their energy efficiency and renewable energy capabilities and launched their energy efficiency and renewable energy portfolios of initiatives.

According to our respondents, SEP funding has been and continues to be one of the most important resources, if not *the* most important resource, for establishing and maintaining the capability of the states to design, manage and implement energy efficiency and renewable energy programs. While not every state energy office owes all of their current capabilities to SEP, most states interviewed indicated that SEP provided the base on which most of their accomplishments rest. States repeatedly pointed to examples in which their SEP-funded initiatives established critical policy and regulatory support foundations, or where the SEP efforts were instrumental in establishing and maintaining the expertise that was essential to the progress made in their state across both SEP funded initiatives and those not funded by SEP.

States with limited energy efficiency and renewable energy funding other than SEP reported that it is their state's SEP funding over the past 30 years that has allowed them to build and maintain the level of expertise and capability on which their current capacity rests. States with moderate levels of non-SEP energy efficiency and renewable energy funding typically reported that their SEP funds have not only established their foundation of capability, but also has enabled them to obtain the additional funding necessary to establish, manage, and direct their other initiatives. States with significant levels of non-SEP funding, including those that offer larger portfolios of services, reported that their SEP funds helped establish the enabling legislation for those efforts, helped manage and oversee those non-SEP activities, helped provide technical assistance and advice to the regulatory agencies that oversee those efforts, and/or helped expedite those undertakings in other ways. In other words, the state SEP-funded efforts have helped to enable the state's non-SEP initiatives. In many respects, SEP has served as an energy efficiency and renewable energy incubator for the states' energy efficiency and renewable energy portfolios. The words that interviewees used to describe the SEP contribution include the following:

- It is the seed that started and nurtured the state's efforts.
- It is the foundation on which our programs are built.
- We would not have an energy office without SEP.

- SEP jump-started our state's efforts.
- SEP built the energy efficiency and renewable energy road that we are going down.
- SEP funding built our state's energy office and programs.
- Everything we did and accomplished was SEP-funded.
- SEP is responsible for our energy efficiency and renewable energy capacity.
- We would not have built capacity on our own; we would not have done it.
- Our state would be severely crippled without SEP.
- SEP is the bedrock on which state energy efficiency and renewable efforts rest.

Comments like these were made by almost every interviewed professional, including current and former SEP managers, state legislators, managers in charge of non-SEP programs, state energy office managers, policy managers and others. From their perspective, SEP has not only built capacity within the state energy office, but that capacity has spilled over into building non-SEP funded initiatives as well, multiplying SEP effects beyond the SEP funded initiatives.

This opinion, that SEP is and continues to be the foundation for their energy efficiency and renewable energy efforts, was expressed even where the managers are responsible for more than just SEP. These managers have responsibilities over efforts that have much larger budgets than their SEP-funded efforts and where the interviewees no longer manage their state's SEP programs. For example, California has arguably the largest of the energy efficiency portfolio in the country, with total energy efficiency and renewable energy funding that far exceeds most other states¹, yet the California experts interviewed reported that SEP funding was and continues to be a key capacity-building resource for their building codes and appliance standards initiatives as well as other initiatives. At the other end of the size scale are states like Vermont, which reported that their public benefits programs and building code changes would not have occurred without SEP and that SEP provides the resources to oversee and guide these efforts. In between are states like Illinois and Minnesota which reported that SEP guides not only their SEP-funded initiatives, but also their public benefits programs. In these and the vast majority of the interviewed states, SEP is seen as a key driver of state capacity, management and capability which allows them to design and implement a variety of SEP-funded initiatives as well as manage and support efforts funded by non-SEP resources.

Almost every interviewee, across nearly every sampled state spanning the full range of programmatic areas, indicated that the skills and capabilities that their offices have built were due wholly or substantially to their SEP-funded efforts. States indicated that the spending rules associated with most of the grants that came through the federal SEP office were flexible enough that the funds could be applied to the areas of highest priority for each state, and that this flexibility allowed them to acquire the capacity and expertise that they now have. A number of states noted that SEP provided the resources to design and acquire approval for their public benefits programs and that their SEP-funded managers continue to oversee and guide those programs.

The capacity to build, manage and implement energy efficiency and renewable energy programs is dependent on an educated management team, supported by skilled professionals who collaborate on the initiatives undertaken within their state. These are the state's change leaders. SEP has been instrumental in building that foundation of expertise. The vast majority of states report that it is their SEP funds that have allowed and still allow them to attend educational

¹ ACEEE, The 2008 State Energy Efficiency Scorecard, October 2008, Report E086.

workshops, seminars, classes, and conferences and to team with other states to develop tools for the fields in which they work. The SEP funds have allowed attendance at professional development events in which knowledge and skills are shared and where ideas, both successful and not so successful, are exchanged. State teams were able to use SEP funds to help develop tools that have become national standard practices in the field (HERS audit and home performance assessment tools for example).

While interviewees voiced a wide range of illustrative comments about the role of SEP programs within their individual states (see full report), they almost always pointed to the way in which SEP has allowed their state to establish the foundational capabilities and then build on those capabilities. Yet none of the interviewees indicated that SEP has become irrelevant or no longer plays a critical role. Rather, just the opposite was expressed. While interviewees reported that past funding reductions made it more difficult to accomplish as much and that many states had to slow their accomplishments and/or restrict their efforts, most state experts indicated that the SEP support continues to be critical in their state because it can be used to meet their highest priority needs and fill essential gaps in their energy efficiency and renewable energy portfolio budgets. However, many state experts did note that SEP funding cuts have caused energy efficiency and renewable energy initiatives to be terminated and new opportunities to improve their state's energy recourses to be bypassed. That is, SEP funding reductions have resulted in slower and less extensive energy efficiency and renewable energy initiatives.

During the interviews, managers were asked to rate their state's capacity to design, manage and implement programs in each of the key SEP programmatic categories identified as target areas for this study. As indicated by the median scores presented in Table 2 the states rated their capacity to design, manage and implement programs as an 8 on a 10 point scale for most of the programmatic areas covered by the interviews. States rated only three programmatic areas at a 7 or less, including technical assistance services, new construction support, and transportation initiatives. Overall, states consider their capacity to design, manage and implement programs to be strong; however they do not have the same level of capacity in their transportation and new construction capabilities as they have in other programmatic areas. In the remaining programmatic areas, states consider themselves to be operating at a high level of technical capacity.

Programmatic Area	Median State Capacity Score	Percent of Capacity Caused by SEP
EE Information to Public	8	90%
Building Codes & Appliance Standards	8	90%
Financial Support	8	80%
Existing Buildings	8	80%
RE Policy, Regulatory, Legislative Support	8	80%
RE development and deployment	8	78%
RE Information to the Public	8	75%
EE Policy, Regulatory, Legislative Support	8	60%
Technical Assistance	7	83%
New Construction Support	6	75%
Transportation	5	90%
Median Across Programmatic Areas	8	80%

(1-10 Scale with 1 being very low capacity and 10 being very high capacity)

Table 2. State Capacity to Design, Manage, & Implement Programs

While the above-mentioned scores represent significant self-rated capacity, the attribution of this capacity to federal SEP (rather to other state efforts or contributions) is clearly evident. Across three of their primary programmatic areas, the state SEP and non-SEP experts indicated that SEP is responsible for creating 90% of the acquired capacity in their state. This includes the programmatic areas of providing energy efficiency information to the public, creating or upgrading building codes and appliance standards, and transportation programs. Similarly, states indicated that 80% or more of their capacity to design, manage and implement technical assistance, financial support, and existing buildings programs, as well as their capacity to support renewable energy policy, regulatory and legislative initiatives came from SEP. Across all programmatic areas, states indicated that the large majority of their past and current capacity was derived from their SEP-funded initiatives.

The information presented here is not meant to suggest that SEP has been the only resource that has helped build the states' capacity and capability. Required state matching funds and other contributions, as well as other programmatic initiatives beyond SEP have also added to the expertise, knowledge, skills and abilities acquired. For example, some of the larger states indicated that SEP funds are a minor contributor to their state's current portfolio of energy efficiency and renewable energy efforts. However, even those states reported that much of their capability and capacity to design, implement and oversee these initiatives were built by SEP and that it was SEP that provided the expertise to successfully acquire the additional funding streams. These same states reported that SEP funding has provided the flexibility to acquire additional non-SEP resources and more effectively manage their non-SEP applications. Managers point out that most of the key management staff in the state energy offices are SEP-supported positions. That is, SEP is funding, in part or in whole, the managers that have built and continue to build state capacity for SEP and non-SEP initiatives.

Interviewed experts also report that the job is not done and that, in most states, there remains a significant gap between what has been done, what is being done, and what still needs to be done. These managers recognize this challenge and report being hampered by past federal funding cuts which hindered the achievements of state and national energy efficiency, renewable energy, and climate change objectives.

Skills and Expertise Acquired by SEP

The experts interviewed for this study were asked to describe the types of skills that their office has acquired as a result of offering SEP and SEP-influenced services. The list of acquired skills (below) is extensive; however it is essential for the reader to have an understanding of the many types of skills that SEP has constructed in the states because it is these skills that the states have used to design, manage and implement a wide range of programs over an extended period of time. This presentation is included in this paper to allow the reader to have a more focused understanding of the types of skills that SEP has constructed within the states, but also to understand how these SEP acquired skills are valuable to the successful design and implementation of a wide range of initiatives, regardless of their funding source. The key responses to that inquiry are as follows:

Policy, Regulatory and Legislative Skills

- Understanding of the policy setting process and the documentation and support needed to set, influence, and change state energy policy.

- Understanding of the legislative process and how legislation is developed, supported, and passed. Policy analysis skills to predict the impact of various policy changes on technologies, markets, operations and costs.
- Drafting of legislation and writing policy and position documents and submitting evidence to support legislative considerations.
- Understanding of decision frameworks and how to inject new information into decision frameworks so that the information will be accepted and acknowledged.

Technical Skills

- Engineering and technology systems design and operational knowledge to be able to understand the physical and engineering principles pertaining to how, why and under what conditions technologies provide savings or renewable energy.
- Commissioning and retro-commissioning skills to make sure buildings are operating well and to identify where opportunities can be found.
- Cost effectiveness analysis techniques to understand what technologies and standards have the greatest economic benefit.
- Auditing and building assessment skills to be able to identify what changes are needed to save energy and to understand key factors affecting building savings potential.
- Building science and systems knowledge to understand not only how to audit buildings, but acquire an expert understanding of how building systems work and what can be done to the building or the management system to save energy.
- Understanding of building control equipment, systems, software and operations.
- Renewable energy technology and equipment fundamentals and an understanding of how they work and how to configure and deploy them.
- Loan development, processing, and monitoring skills to ensure adequate performance, including developing alternative financing approaches, formation and management of revolving fund accounts, tax issue resolution, project financing assistance and other expertise required to develop, provide and service loans and loan systems.
- Financial payback and net present value scenario building skills for different decisions and equipment or policy issues.
- Taxing and tax system skills to understand and manage incentives and credits.
- Performance contracting skills and approaches including technology assessment, savings analysis, and payment systems.
- Programming and software development tools and support processes to build the right tools for state programs.
- Social marketing and behavior change inducement skills focusing on how to influence consumer behavior and decisions.
- Database construction, data synthesis, and statistical analysis skills needed to form opinions and decisions and take actions in response to data findings.
- Modeling skills to set up and conduct engineering, econometric, statistical and change analysis models to inform decisions.
- Physical and chemical property relationships and interactions to understand how energy flows and heat-change systems work.
- Thermodynamic flow and analysis skills to understand energy impacts and conditions.

Team Building Collaboration

- Understanding of the consensus building process and how to work with different interest groups to build agreement, gain support, identify resistance, and build documentation to work with collaborators, allies and stakeholders. Knowledge and skills of how to establish agreements with multiple stakeholders who can have competing or conflicting, as well as compatible interests or perspectives.
- Trust-building skills so that stakeholders can have confidence in the information provided.
- Partnership building skills to develop partnerships across organizations and interests that can work together to accomplish an objective.

Professional Skills

- Understanding of the code change process and the steps involved.
- Knowledge of how to write and update codes and standards and how to build a code and standard change case with the required economic and technical support analysis that can hold up under close examination and testing.
- Expertise in building code change demonstrations and conducting cost effectiveness tests to inform stakeholder and consumer positions and interests.
- Expertise in how to work with state and national groups to change codes or standards.
- Knowledge of how to design and conduct a demonstration to show proof of concept and performance on which programs, policies, codes or standards can be based.
- Materials development skills to develop and design materials that are effective at accomplishing a number of educational or behavior change goals.
- Call center skills and information dissemination skills including web site design and operation and effective ways to place information in the market.
- Educational skills to be able to teach and communicate concepts and ideas that result in behavior change.
- Information development skills related to educational tools and materials for the public as well as for workshops and classroom training.
- Training skills that are effective at educating and training students, attendees and stakeholders.
- Listening and guidance skills so that opinions and perspectives can be addressed in a way that is supportive and can accomplish key objectives.
- Management skills including administrative, reporting, financial control and other associated operational skills.

The SEP Capacity evaluation report (*The State Energy Program: Building Energy Efficiency and Renewable Energy Capacity in the United States*) includes a chapter presenting a large number of case-study examples documenting how these SEP acquired skills have lead directly to the design, implementation and management of a number of SEP and non-SEP energy efficiency and renewable energy initiatives within the sampled states. The page limits of this paper exclude the ability to present these case examples in this paper. However readers are encouraged to obtain the evaluation report and examine the types of SEP and non-SEP programs initiatives that have been accomplished via the SEP efforts directly and indirectly from the SEP acquired skills. These include the on-going assessment of code opportunities and the development, adoption and up-dating of state building codes for both residential and commercial structures; the adoption of state appliance standards and the move to a national appliance standard; the establishment and expansion of energy efficiency loan programs that keep re-lending dollars to new energy

efficiency projects; the technical and policy support that lead directly to legislation approving utility DSM programs and the funding of the oversight efforts to make sure these programs are effective; the development of new software that is used across the United States to identify energy efficiency opportunities in buildings; the development of a wide range of technical assistance services that have lead directly to energy projects; and a host of additional accomplishments.

Overall Effects of SEP on State Readiness for the Future

A part of the interview with state-level experts focused on how their state's SEP-acquired expertise is expected to impact their state's ability to acquire, design, manage and implement future energy efficiency and renewable energy initiatives. The responses to this question were similar across the states and across the different programmatic areas. Most state experts responded by pointing out that it is precisely because of the capacity built by SEP over the years that their state was in a position to conduct the program planning necessary for the submission of applications for effective use of the \$3.1 billion provided for SEP in 2009's American Recovery and Reinvestment Act (ARRA).

According to most all of the interviewed experts and stakeholders, SEP is the country's energy efficiency and renewable energy foundation on which much of the current capacity to move forward is based. That is, states indicated that without the capability, knowledge, expertise and market operations information provided by or in conjunction with the SEP-funded efforts, their states would not have been able to put together an ARRA plan over the short planning horizon required by the ARRA, would not have had such a focused and well structured plan, or would have had a plan that did not reflect the state's needs or market conditions as effectively. Essentially, the respondents reported that SEP has provided a substantial portion of the capability that states now have to design, manage and implement energy efficiency and renewable energy programs and that this condition is also present even with the addition of other funding. States report that it is precisely because of the acquired capacity and the associated capability that the state energy offices have built via SEP that they are ready to move forward with ARRA-funded energy efficiency and renewable energy programs, projects and initiatives. Several state experts reported that their ability to move forward with public benefits charge programs² was enabled by their SEP capacity foundation. Typical comments provided by the interviewed experts focusing on their state's ability to go forward with ARRA and other efforts include:

- SEP has already developed the capability in our office to move forward.
- Our capability is grounded in SEP; the platform is ready to move forward.
- SEP has already built the infrastructure to move forward.
- We have become national experts because of SEP.
- The partnerships, relationships, and networks are in place and ready to go forward.
- SEP was the seed that built the foundation that is now ready.
- Without SEP, we would not now be ready.
- We are ready to expand our efforts because of SEP.

² Public benefits charge funded efforts are those that are funded via a fee added to customer's utility bills that are then collected and used to implement energy efficiency programs typically administered by utility companies or non-profit organizations.

- SEP has helped us move to where we are today; we are ready for the future.
- Because of SEP we can move these funds out the door to good projects.
- SEP is the lifeline of our future capacity.
- Without SEP and ARRA we would be eroding the capacity to go forward in our state.
- SEP has provided the in-house foundation of skills that help us advise, develop and deploy.
- We are now trained and ready because of SEP.
- SEP is responsible for our foundation of future energy efficiency and renewable energy progress.
- SEP support created our state's capability for future development.
- We know what works because of SEP.

It is clear from the above comments, representative of the input received during the interviews, that the support provided by SEP has made a critical contribution to existing state capacity and that it is the platform from which future state efforts are being launched. Additional state and programmatic area-specific comments regarding state readiness can be found in the full report.

How States Have Dealt With Changes in SEP Funding

Over the years, total levels of SEP and SEP-related funding (PVE, ICP, Competitive SEP grants, etc.) have fluctuated. One explanation for this is that the priority assigned to energy efficiency and renewable energy has changed with different state and federal administrations and legislative bodies. Additionally, economic trends affecting federal and state budgets have affected SEP allocation levels. These changes have had an effect on the ability of the states to develop and implement energy efficiency and renewable energy programs and to establish policies under which these programs function. As would be expected, in general, capacity tended to be greater, more services were offered, and a larger number of end-uses and market sectors were addressed during periods of stronger SEP funding.

The focus of this section of the paper is on how states have coped with the changes in funding levels that have occurred over time. Many of the interviewed experts noted that periods of contracting budgets required hard choices about staffing and services. These choices impacted not only the state's capacity to design, manage and implement programs and projects but also the resulting accomplishments, and speed of accomplishment, within their programmatic areas. Half of the 24 states interviewed indicated that there were times in their SEP implementation history that they had to lay off key staff critical to their state's reservoir of energy efficiency and renewable energy expertise. The remaining states indicated that they were able to allow attrition to keep staffing levels consistent with funding streams or that they had moved staff from SEP funded to non-SEP funded efforts. Regardless of the way in which a state adjusted staffing levels to match available funding, the SEP budget changes directly impacted state capacity to implement programs and initiatives which save energy or increase renewable energy supplies.

During the interviews, the states that had to give up key staff or adjust operations to match funding streams were asked what impacts those changes had on their capabilities, programs and services. The following responses were provided by the interviewed managers.

- Closed our office and merged with another organization.
- Laid-off some of our experienced / skilled management and staff including:
- Shifted duties to remaining staff and focused efforts more narrowly.
- Reduced the number of projects.
- Stopped offering or significantly reduced programs or program services.
- Lowered staff uniformly across most programs funded by SEP.
- Reduced program scope and contracted with third party vendors.
- Relied more on un-funded others to help deliver services.
- Moved from efficiency and renewable energy to economic development projects.
- Replaced technical expertise and services with small grant managers.
- Focused only on those things that were legislatively mandated.

Most all interviewed experts indicated that the flexibility of how SEP funds are spent is a key factor in allocating their staff to programmatic areas and states have had to grow and reduce their focus on key energy efficiency and renewable energy objectives to match the ability of their state to accomplish objectives that are important to their state.

Conclusion

This study documents the opinions of state energy office officials and other professionals affiliated either directly or indirectly with SEP, regarding the influence that SEP has had and is having on their office's capability and expertise to design, manage and implement energy efficiency and renewable energy initiatives. According to the interviewed professionals, SEP has provided the majority of the capacity building foundation on which their state's SEP-funded initiatives rest and has been a key factor in their office's ability to offer or provide expertise to non-SEP funded programs and initiatives. The study documents that 80% of the skills and expertise needed to design, manage and implement energy efficiency and renewable energy initiatives that are implemented by or coordinated with their office was acquired via SEP. The study also documents that the ability of the state energy offices to design, manage and implement future initiatives rests on the capabilities that SEP has established within their state energy offices.

References

This paper is the result of a single evaluation conducted in 2010. There have been no other studies of this nature conducted on energy efficiency and renewable energy programs or on SEP prior to this study. That study is:

June 30, 2010, TecMarket Works, The State Energy Program: Building Energy Efficiency and Renewable Energy Capacity in the United States, prepared for Oak Ridge National Laboratory under contract to the USDOE/EERE/OWIP.