ENERGY EFFICIENCY QUICK START PROGRAMS: A GUIDE TO BEST PRACTICES

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TABLE OF CONTENTS

A. ACKNOWLEDGEMENTS

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B. INTRODUCTION

Throughout the Southeast, energy efficiency has increasingly been found to be a cost-effective investment for achieving energy savings, cutting ratepayer bills, spurring economic development, reducing the need for new generation resources and lessening environmental impacts. As energy efficiency programs are developed, deployed and evaluated across the region, they have created a new body of knowledge on how energy efficiency operates in the Southeast, including key best practices that are most likely to result in the achievement of programmatic goals. This document captures general concepts essential to the successful development and implementation of robust program portfolios, as well as lessons learned from prior experience on the regional and national levels.

Specifically, this document focuses on "Quick Start" energy efficiency programs. In general, this term refers to a basic set of proven, high-impact programs that can be deployed quickly and help to build the infrastructure necessary for future Comprehensive Portfolio programs.

The development of a portfolio of Quick Start programs provides a unique opportunity to develop a strategic approach that will both meet short-term objectives and set the stage for long-term growth and success. Thoughtful planning of the Quick Start programs and proactive thinking regarding the transition to Comprehensive Portfolio programs can lead to better performance towards goals, more satisfied customers and more efficient program delivery. Determining the types of programs, budgets and support needs when building an energy efficiency program portfolio from the ground up can be a challenge. This document provides key findings from Quick Start programs that have already been implemented, with the intention of providing guidance and perspective for regulators and utilities that are just getting started with the program design and rollout process.

This document is intended to focus on overall considerations, and is not intended to be an exhaustive or comprehensive list of all elements to be taken into account. It is intended as a starting point, but not a conclusion. For clarity, the document first focuses on policy considerations that support strong energy efficiency programming, and then looks at program planning and implementation issues.

SEEA created this document to inform the planning, design and delivery of early-stage energy efficiency programs in the Southeast, including those currently under development in Mississippi and Louisiana. The intended audience is Public Service Commissioners, Commission staff, utilities and advisory groups.

C. POLICY CONSIDERATIONS

1. Identifying Clear Goals

Quick Start programs are intended to not only to capture real energy savings in the short term, but also to prime residential, commercial and industrial markets for increased uptake of energy efficiency over time. As such, portfolio design should be informed by clear, specific, measurable goals that reflect both short-term and long-term priorities. These may encompass both quantitative benchmarks, such as energy and peak demand savings, and qualitative goals, which may depend on regulatory mandates or priorities specific to the program administrator. Common goals include:

- Developing local and regional markets for energy efficiency by expanding energy efficiency expertise and contractor infrastructure;
- Generating energy savings for a sizable cross section of utility customers in all customer classes;
- Ensuring that customer classes receive energy efficiency investments that are roughly proportional to the amount that each class pays in to program funds;
- Raising the awareness and understanding of energy efficiency opportunities among customers;
- Addressing underserved and hard-to-reach markets, such as limited income and small business customers;
- Developing increased utility program capabilities and infrastructure;
- Lowering customer bills; and
- Increasing customer satisfaction.

As noted above, Quick Start programs should set the stage for successful, comprehensive energy efficiency opportunities over the long term. Ideally, successful Quick Start programs will either continue on into the Comprehensive Portfolio phase, or prepare customers for subsequent Comprehensive Portfolio programs, maximizing savings in the years to come. In pursuit of this objective, non-binding energy savings targets can be an appropriate option, where useful, to provide a specific target to work toward, set expectations and drive program performance. Mandatory energy savings targets are typically never set until the Comprehensive Portfolio phase, to ensure utilities have adequate time to ramp up their programs and create essential infrastructure within the communities they serve.

2. Allocating Your Energy Efficiency Investment

The level of investment that utilities make in energy efficiency programs is often measured according to a number of benchmarks. For electric utilities, this is often given in terms of program spending as a fraction of total revenues.[1] This ratio varies widely across current North American program administrators, from as little as 0.06% to over 5%, with a national median of 1.09%.[2] In the beginning, budgets for Quick Start programs will typically constitute a fraction of a percent of total revenues, but should be expected to ramp up significantly as time progresses to ensure goals are achieved.

[1] Gas utility revenue information is less readily available, so this metric is less useful.
[2] ACEEE, 2013 State Energy Efficiency Scorecard, http://www.aceee.org/sites/default/files/publications/researchreports/e13k.pdf.

Investments in the neighborhood of 2.0-2.5% of revenue are typically comprehensive, on par with leading national programs, while 1% represents a solid investment and a reasonable goal for programs to reach by the beginning of the Comprehensive Portfolio phase.

Represented below is a model for a reasonable ramp-up period that several southeastern utilities have followed. These are approximate values, but are suggestive of relative scale:

- In the first year, investing a little less than 0.2% of revenues yielded savings of about 0.1% of sales;
- In the second year, 0.3% of revenues yielded savings of about 0.2% of sales; and
- In the third year, 0.4% of revenues yielded savings of about 0.35% of sales.[3]

The American Council for an Energy-Efficient Economy (ACEEE), a national authority on energy efficiency best practices, publishes an annual scorecard that assesses state-by-state progress on energy efficiency programs and policies, and evaluates state electric and natural gas budgets based on investment. These numbers reflect nationwide performance, and can be used to assess how programmatic spending measures up:[4]

Electric Efficiency Program Budgets as a Percent of Statewide Utility Revenues	Points Assigned
4.00% or greater	5.0
3.60% - 3.99%	4.5
3.20% - 3.59%	4.0
2.80% - 3.19%	3.5
2.40% - 2.79%	3.0
2.00% - 2.39%	2.5
1.60% - 1.99%	2.0
1.20% - 1.59%	1.5
0.80% - 1.19%	1.0
0.40% - 0.79%	0.5
Less than 0.40%	0

To assess the relative level of investment for natural gas energy efficiency programs, ACEEE ranks portfolios by the ratio of total portfolio budget divided by the number of residential customers:[5]

[3] Jenah Zweig, Overview Information on Ramping up First-Time, Quick Start Energy Efficiency Programs for Utilities in the South.

[4] ACEEE, Table 11 and Table 12.

[5] Reliable natural gas revenue data are difficult to find, which is why ACEEE opted to employ a methodology utilizing spending, normalized by the number of natural gas customers.

Natural Gas Efficiency Program Budget Range ($ per residential customer)	Points Assigned
$50 or greater	3.0
$41.00 - $49.99	2.5
$32.00 - $40.99	2.0
$23.00 - $31.99	1.5
$14.00 - $22.99	1.0
$5.00 - $13.99	0.5
Less than $5.00	0

Within a given program or set of programs, decisions must be made regarding administration, adequate levels of staffing, marketing, tracking, accounting and evaluation, measurement and verification (EM&V).

- As a rule of thumb, administrative allocations should be kept to a minimum where possible. Aside from direct program dollars, allocating the appropriate amount of the portfolio budget to EM&V and marketing is critical for the success of these Quick Start Programs. Marketing is generally **10 to 15 percent** of program budget, and the inclusion of trade allies can further lower these costs.
- Robust EM&V is an essential component of any successful energy efficiency program. EM&V should typically be kept within **three to five percent** of program budget. In cases where program budgets are small, and three to five percent is not adequate to accomplish effective EM&V, EM&V budget allocation will likely exceed this amount. During the Quick Start phase, EM&V costs will likely be higher than in later years due to the need to create and establish new management and tracking systems.

In general, it is important to note that budgets for new programs are not necessarily indicative of the eventual "steady state" budget, and that numbers will likely shift as programs get off the ground.

3. Ensuring Programs Are Accessible to All Ratepayers

Quick Start programs should encompass offerings that provide energy efficiency opportunities to all customer classes. Consideration should to be given to the specific needs of each customer segment, because some—especially limited income residential customers and small business customers—may experience unusually large financial challenges to participating in programs. Within a set of programmatic offerings, funding allocations may be determined by existing regulatory mandates, goals and priorities. For example, if peak demand savings is a priority, then programs may be weighted toward

those that address peak-savings measures, such as high-efficiency cooling programs. The balance of program offerings may also be determined by the magnitude of energy savings potential by customer class or the magnitude of energy sales within each customer class.

Quick Start programs typically focus on creating adequate infrastructure, through means such as: raising awareness of energy efficiency, building a base of participating contractors who are qualified to install energy efficiency technologies and motivating the purchase and installation of energy efficiency measures or equipment. Broadly speaking, Quick Start programs are typically incentive programs, which offset a portion of the costs of efficiency investments, and can be categorized as either:

- **Prescriptive programs:** programs that offer a specific fixed rebate to all customers who meet the program requirements for equipment purchased and rate class. Prescriptive programs are typically mass-market programs that provide rebates at retail for efficient lighting or appliance purchases, or small commercial programs that reduce program overhead by offering fixed rebates for the installation of efficient lighting or controls; or
- **Custom programs:** programs that analyze the energy efficiency opportunities for a specific customer, calculate the expected savings that the customer will achieve and offer an incentive for making improvements specific to the economics of the project that the customer installs. Typically, custom programs are used for larger commercial and industrial (C&I) customers, but they are sometimes also used for Comprehensive Portfolio residential retrofit programs.

Generally, Quick Start programs reflect basic, “tried and true” approaches to energy savings, and should constitute the majority of a portfolio during ramp-up. Market transformation programs and pilot programs should constitute only a limited portion of a Quick Start portfolio. In the beginning, program portfolios generally have a limited prescriptive measure mix and a dominance of lighting measures, but expand with the implementation of the Comprehensive Portfolio phase.

4. Setting Customer Incentives

Customer incentives are intended to address market barriers to energy efficiency, as delivered through a given program. Given that these barriers may vary depending on sector, customer class and market conditions, there is no “one-size-fits-all” rule for setting incentives. In the planning stage, designers should look within each customer type and market segment, identify the barriers within each of them and put in place incentives that directly address these barriers.

In addition, program administrators may find it useful to conduct surveys to determine the incentives necessary to entice customers to complete an upgrade or purchase a new piece of efficient equipment, and use this information to set incentive levels.

Incentives may take several forms:

- Financial (rebates, discounts and financing; in general, 50 percent of a measure cost is considered the upper bound);
- Non-financial incentives (support services, technical assistance, education and training, information sharing); and
- Bundled incentives.

In addition, they may be offered at different points within the value chain:

- Upstream (manufacturers, builders, standards organizations);
- Midstream (retailers, realtors, distributors); and
- Downstream (homeowners, building owners/operators, industrial facilities).[6]

It is also worth noting that incentives may be bundled to allow for a more integrated approach that addresses multiple barriers within each market segment or customer class. Financial rebates are important, but they are unlikely to drive market uptake without the necessary educational and informational complement.

Initially, incentive levels may need to be higher to attract the attention of suppliers and customers, but they can often be ratcheted down or eliminated over time as markets mature. They should be substantial enough to invite participation, but conservative enough to maintain program budgets and prevent oversubscription.

Financing has continued to emerge as an appropriate tool for addressing the first costs of energy efficiency investments. While financing may be an attractive and necessary option in some cases, in others simple rebates or incentives may be more appropriate.

5. Validating Cost-Effectiveness

Cost-effectiveness tests are important tools to ensure that program dollars are invested in a way that reflects the best interest of ratepayers. They capture important impacts—both costs and benefits—that warrant careful consideration prior to implementation. Depending on the specific regulatory context, cost-effectiveness tests may not be required for Quick Start programs. However, whether required or not, the tests listed below can serve as valuable tools to assess program cost-effectiveness, particularly for programs that will transition into the Comprehensive Portfolio phase.

Cost-effectiveness tests return a benefit-cost ratio, also known as a BCR or BC. A BCR result that is greater than 1.0 indicates that the benefits are greater than the costs. There are a number of standard cost tests, as defined in the California Standard Practice Manual[7] and explained in the National Action Plan for Energy Efficiency (NAPEE):[8]

Test	Acronym	Key Question Answered	Summary Approach
Participant cost test	**PCT**	Will the participants benefit over the measure life?	Comparison of costs and benefits of the customer installing the measure.

[6] U.S. Environmental Protection Agency, Customer Incentives for Energy Efficiency Through Program Offerings, http://www.epa.gov/cleanenergy/documents/suca/program_incentives.pdf.

[7] California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, http://www.cpuc.ca.gov/NR/rdonlyres/004ABF9D-027C-4BE1-9AE1-CE56ADF8DADC/0/CPUC_STANDARD_PRACTICE_MANUAL.pdf.

[8] NAPEE, Understanding Cost-Effectiveness of Energy Efficiency Programs, http://www.epa.gov/cleanenergy/documents/suca/cost-effectiveness.pdf.

Program administrator cost test	**PACT**	Will utility bills increase?	Comparison of program administrator costs to supply-side resource costs.
Ratepayer impact measure	**RIM**	Will utility rates increase?	Comparison of program administrator and customer costs to utility resource savings.
Total resource cost	**TRC**	Will the total costs of energy in the utility service territory decrease?	Comparison of program administrator and customer costs to utility resource savings.
Societal cost test	**SCT**	Is the utility, state or nation better off as a whole?	Comparison of society's costs of energy efficiency to resource savings and non-cash costs and benefits.

While these tests serve as the industry standard, they may be modified in individual applications to account for local conditions or data.

As best practice, the Total Resource Cost test (TRC)—or, as an emerging option, the Societal Cost Test (SCT)—is recognized as the "gatekeeper" of energy efficiency cost tests. Of the standard cost tests, the SCT provides the broadest range of energy efficiency costs and benefits, delivering a balanced perspective of programmatic impacts. The TRC is the second-most comprehensive test used in energy efficiency program screening, provided that program impacts, including non-financial ones, are incorporated into the analysis.[9] Many jurisdictions have implemented the TRC or SCT as a "pass-fail" metric at the portfolio level after first demonstrating that the portfolio will meet other policy objectives. In some cases, other tests are required to provide context on specific impacts and distribution of benefits, or a multi-part criterion is established. In other words, a program may be required to pass the TRC or SCT, but achieve a minimum Rate Impact Measure (RIM) test value, which indicates near-term impacts on utility rates but does not capture comprehensive, long-term impacts on customer bills or other system benefits.

As mentioned above, tests may be applied at different levels. Application at the portfolio level allows for inclusion of individual programs or measures that do not pass cost tests on their own, but are important in fulfilling larger objectives. These may include offerings that address a specific customer class, allow for application of emerging technologies or drive market transformation. In addition, portfolio-level screening can encourage program administrators to take risks, piloting concepts and approaches that can pay off significantly for ratepayers long-term. Analyzing programs solely in isolation, without a comprehensive perspective of program impacts, is limiting and does not support holistic energy efficiency programming and long-term planning.

[9] Regulatory Assistance Project and Synapse Energy Economics, Energy Efficiency Cost-Effectiveness Screening, http://www.raponline.org/document/download/id/6149.

6. Following Best Practices for Calculating Avoided Costs

"Avoided costs" is a term used to describe the dollar value of the investments and energy purchases that utilities would have had to make if energy efficiency had not occurred. By implementing energy efficiency programs these investments and purchases are avoided. Avoided cost calculations have two main components:

- **Avoided energy costs:** a function of energy-related benefits based on the need to procure or generate less wholesale electric energy and natural gas, and associated savings in delivery losses.
- **Avoided capacity costs:** reflect capacity-related benefits based on reduced wholesale electric capacity purchases, deferred or eliminated construction of new facilities, and/or deferred upgrades in system reliability. Avoided capacity costs reflect two categories of savings: (1) generation/purchases and (2) transmission and distribution savings.

Because avoided costs constitute the primary metric against which energy efficiency measures, programs and portfolios are compared, it is important that they take into account the full benefits and costs of energy efficiency to the extent possible, including water savings, avoided emissions, ratepayer health and comfort, and other non-energy benefits. A good example of this in the Southeast is the Arkansas Public Service Commission, which is currently working to determine a standardized avoided cost for carbon and other non-energy benefits through open docket No. 13-002-U.[10]

To the extent possible, avoided cost calculations should be standardized by utilities operating within the same regulatory jurisdiction. This will allow consistent program benchmarking analysis and EM&V, enable jointly offered programs and facilitate more streamlined regulatory review.

7. Developing a Cost Recovery Framework to Encourage Utility Investment

Cost recovery is an essential component of meaningful utility investments in energy efficiency. The generally accepted cost recovery framework is typically referred to as the "three-legged stool," consisting of: (a) program cost recovery, (b) lost revenue recovery and (c) investment incentives.[11]

a) **Program Cost Recovery:** reimburses utilities for spending on program essentials. In most states, these costs are treated as "expenses" in rate cases–in other words, added into the revenue formula and recovered.
b) **Lost Revenue Recovery:** enables utilities to recover revenues that would have been accrued in the absence of energy savings from approved customer energy efficiency programs.
c) **Performance Incentives:** allow a financial return on energy efficiency investments, placing them on par with supply-side investments. These performance incentives are paired with meeting or exceeding stated voluntary or mandatory goals.

[10] Arkansas Public Service Commission Docket No. 13-002-U, In the Matter of the Continuation, Expansion and Enhancement of Public Utility Energy Efficiency Programs in Arkansas, available at http://www.apscservices.info/efilings/docket_search.asp.
[11] ACEEE, The Old Model Isn't Working: Creating the Energy Utility for the 21st Century, http://aceee.org/files/pdf/white-paper/The_Old_Model_Isnt_Working.pdf.

Program cost recovery should only include incremental new costs that relate to energy efficiency programs, not costs that are being recovered in some other manner. They include rebates, incentives paid to customers, program implementer costs, administrative costs related to program operation and other direct costs.

To prevent over- or under-recovery, true-up mechanisms that compare actual utility energy efficiency program implementation performance to the approved plan should be put in place. Program costs recovered via riders should be adjusted to reflect a reconciliation of any over- or under-recovery for the prior year and the approved budget for the current program year.

Ideally, the instruments that utilities use to recover their costs, such as rate riders, should be as standardized as possible. This will be integral in ensuring utilities are setting appropriate targets and receiving fair compensation for performance. For those concerned about funds from one customer class potentially subsidizing the programs of another customer class, funds can be separated between residential, commercial and industrial programs. Utilities and regulators can then develop riders that are specific to each customer class, eliminating any potential cross-subsidization.

8. Providing Incentives for Exemplary Performance

In the case that utility performance incentives are allowed for the Quick Start phase, regulators should consider requiring a benchmark for performance based on percentage of verified net savings with a provision for a true-up later. Savings are considered verified when they have been reviewed by a qualified independent evaluator–separate from the program implementer–to confirm that the methods and assumptions used to develop the savings estimates follow industry best practices.

Well-designed incentives can put utility investment in energy efficiency on par with investments in supply-side resources. Incentives–generally, either tiered or volumetric–should be rich enough to motivate program administrators to achieve or exceed their goals, but should also be capped to prevent excessive payouts, which is typically achieved by defining a certain percentage of program spending within a specified timeframe as the incentive ceiling.

As a general rule, incentives should reward goal achievement that exceeds requirements, and not reward performance that fails to meet minimum requirements. Incentives should be scaled to encourage incremental improvements, with a defined minimum achievement required to earn any incentive at all.

Regulators and administrators may also choose to implement a framework that accounts for multiple performance incentive factors that clearly reflect energy efficiency program goals, such as separate incentives for hitting energy and capacity savings targets or participation and workforce development metrics, in addition to net benefits.

Some states chose to penalize utilities that do not meet voluntary or mandatory goals. In general, positive incentives are recommended for encouraging goal attainment.

D. PROGRAM PLANNING AND IMPLEMENTATION

1. Knowing Where Programs Are Headed in the Long Term

When executed well, Quick Start programs can pave the road to success for subsequent Comprehensive Portfolio programs. Quick Start programs provide a means of introducing concepts, participation approaches, contractors and brands into markets. If these things are done with an eye to future programs, then subsequent launches will be easier and less costly because the market has already been primed. For example, if one of the Quick Start programs offered is a residential audit and direct install program that does not provide incentives for comprehensive retrofits, but a retrofit program is likely for the Comprehensive Portfolio phase, then the Quick Start program should make it a priority to emphasize the importance of installing retrofit measures and should secure from participants agreements to be contacted with subsequent incentive offers for comprehensive measures. Participants in the audit and direct install program should also be tracked in a database, so that when the Comprehensive Portfolio program becomes available, it is easy to generate a list of all Quick Start participants who constitute "warm leads" for Comprehensive Portfolio programs.

Market confusion is a major roadblock to energy efficiency program delivery. Spending time and ratepayer dollars to raise awareness of one program, and then switching gears to a new program, is bound to cause confusion, and customers may not have the patience to sort through the competing messages.

2. Keeping Program Offerings Simple and Streamlined

As previously mentioned, the term "Quick Start" refers to tried and true program models with a demonstrated track record of success, and therefore, have a high probability of providing aggregate ratepayer benefits to the majority of ratepayers. One of the reasons that Quick Start programs are able to ramp up so quickly is that they keep their messages, offers and participation processes clear and easily understood. Overly complex program designs and participation processes that are not intuitive will discourage participation and limit success. In this vein, program administrators should start with successful program approaches from other program administrators as a framework, but should then be sure to contextualize and tailor them to local conditions.

Program ramp-up time is an important consideration in the Quick Start phase. Some programs can be launched quickly and deliver savings results within a relatively short time frame, while others take longer to gain traction in the marketplace. Quick Start portfolios should be weighted toward the former, rather than the latter.

Coordinating with other program administrators from the start may require more behind-the-scenes logistics, but may also allow for streamlined processes for customers that leverage opportunities for greater participation and savings. Specifically, coordinated program delivery when utility territories are adjacent or overlapping may allow for a more integrated approach to program design, a simpler marketing message, and the delivery of more uniform, straightforward offerings. Importantly, this can eliminate customer confusion and lead to greater participation. Programmatic offerings that are

conducive to electric and natural gas coordination include residential energy audits, commercial and industrial consumer process audits, and heating and air system tune ups and replacements.

3. Developing a Baseline

Without good baseline information, Quick Start programs may overlook potential savings opportunities or target their portfolio in a manner that does not maximize overall energy savings within a given market. Many program administrators conduct potential studies, which establish the magnitude of the opportunity for long-term, cost-effective energy efficiency savings and the types of opportunities that exist in specific market areas. They may also solicit stakeholder input from customers, trade allies and others. In determining where market research and characterization is allocated across a portfolio, administrators may decide to target resources toward the very largest markets, or those that are least understood.

While a formal potential study is not necessary at the Quick Start phase, and may actually impede programs' ability to get off the ground quickly, an initial, high-level analysis using publicly available information may be useful in taking into account jurisdiction-specific characteristics prior to embarking on Quick Start program development and execution.

Once programs have been operational for a few years and the initial groundwork has been laid in terms of training, systems development, workforce education and other key infrastructural elements, it may be appropriate to perform a potential study to identify additional opportunities and orient future efforts.

If a potential study is not feasible or desirable in the short term, there are other ways to gather information regarding energy efficiency in a given market. Local equipment wholesalers and contractors can provide information on the efficiency of equipment that they typically sell and install. Potential studies conducted for other jurisdictions may be similar enough to local markets to provide some value in determining baseline practices. National data from the Consortium for Energy Efficiency (CEE), ACEEE and the U.S. Environmental Protection Agency (EPA) can also be informative. The primary focus is to identify energy-efficient technologies and practices that are not typically mainstream and whose broader acceptance will cost-effectively reduce energy use.

Another option to consider in the planning phase is a workforce assessment, analyzing the existing contractor resource base. A trained, credentialed workforce is the cornerstone of project marketing and delivery, and if the market is lacking in these actors, early efforts will need to focus on building up their numbers. On the residential side, program administrators may want to determine how many BPI-certified energy auditors and installers currently work within their service territory, and on the commercial side, program administrators may choose to look at contractors available in the commercial lighting, building and HVAC sectors. If either market is lacking, it is important to assess the time needed to reach critical mass.

4. Coordinating with Supporting Players

Utility-run energy efficiency programs are most effective when there is buy-in and support from others within the organization, including management, information technology, legal, power supply, transmission, distribution and other departments. General awareness and collaboration among all parties involved in administering and delivering programs can streamline programmatic processes and allow for feedback and subsequent adjustments to improve overall performance.

Externally, it is critical to begin to engage the broader community and solicit their feedback on programs. Frequent, transparent and consistent reporting on program progress can also be a good way to effectively engage key stakeholders, maintain positive community relations, and invite involvement and participation. Best practices include some component of analysis and public reporting of results, even if not all of the data is made public, to ensure prudence of ratepayer investments and to showcase the accomplishments of the programs.

5. Leveraging Existing Efforts

To the extent possible, program administrators should identify and build upon existing efforts that are well-established. For example, it is strategic to leverage existing utility channels and brands, which are already recognized and understood by customers. In addition, the national ENERGY STAR and Better Buildings programs have high levels of brand awareness and can be a reliable way to garner customer trust and attention.

In terms of delivering more marketing "bang for the buck," program administrators should leverage manufacturer and retailer resources through cooperative promotions. Similarly, to enhance the value of a given incentive, it is helpful to design rebates to stack on top of state and federal tax credits, where available. On the financing side, program administrators may find it advantageous to build upon energy performance contracting and other financing program options. Finally, when designing low-income programs, administrators should coordinate their offerings with the federal Low-Income Home Energy Assistance Program (LIHEAP), Weatherization Assistance Program (WAP) and their existing delivery models.

6. Building Your Program Infrastructure

Even when a program is just getting off the ground, it is important to ensure that it has adequate staffing and is focused on the development of a robust infrastructure, including tracking and accounting systems that will support programs over the long term. A strong tracking system containing accurate data is a critical tool for providing exemplary customer service, and is also necessary for meaningful evaluation efforts. Any system that is implemented should have built-in safeguards for protecting consumer data, while allowing for aggregate savings reports. It is also critical to start building education and trade ally networks that will drive savings during both Quick Start and Comprehensive Portfolio phases. While education and network building may only constitute a small portion of the programmatic budget, they are two of the most essential focus areas to spend adequate time and resources on from the very beginning.

In general, it is important to involve evaluators early on, even when designing programs and program tracking systems. By soliciting evaluator feedback on the front end, program administrators can create a seamless data environment that streamlines evaluation processes and facilitates the incorporation of back-end analysis into overall program strategy and refinement. Evaluators will likely have context on what is track, how it is tracked and what level of granularity is appropriate.

Quality assurance is another key element of a successful program. Credentialing and accreditation requirements should be folded into the program design process, along with adequate training, monitoring plans, and oversight and feedback mechanisms to support these standards.

7. Determining an Effective EM&V Framework

As noted above, EM&V constitutes a critical component of effective energy efficiency programs. Broadly speaking, EM&V has three primary objectives:

- Documenting program impacts and determining whether a program (or portfolio of programs) met its goals;
- Identifying ways to improve current and future programs by determining why program-induced impacts occurred; and
- Supporting energy demand forecasting and resource planning by understanding the historical and future resource contributions of energy efficiency compared to other energy resources.[12]

In general, third-party evaluators are recommended. They may be hired by program administrators, but should be a separate provider from the program implementer to ensure neutrality.

Deemed savings are a widely recognized, streamlined approach to estimating energy and demand savings, usually used with programs targeting simpler efficiency measures with well-known and consistent performance characteristics. This method involves multiplying the number of installed measures by an estimated (or deemed) savings per measure, which is derived from historical evaluations.[13] They are best applied in the case of cross-cutting measures with little variability according to setting, weather or context, or where more extensive measurement and verification activities would prove cost prohibitive.

Commissions that are ramping up energy efficiency programming may want to use a consistent Technical Reference Manual (TRM) to allow an equitable comparison between programs and enhanced coordination between utilities. TRMs describe standards and protocols for verifying, measuring and evaluating energy savings.[14] TRMs generally contain deemed savings values, which as part of a TRM or as standalone resources provide an inexpensive alternative to measuring and verifying the impacts of energy efficiency measures.

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[12] Regulatory Assistance Project, Energy Efficiency Evaluation, Measurement and Verification, http://www.raponline.org/document/download/id/7064.

[13] U.S. Environmental Climate and Energy Program, http://www.epa.gov/statelocalclimate/definitions/deemed-savings.html.

[14] In the Southeast, Arkansas has developed a TRM, and is currently on its third iteration. Arkansas Public Service Commission, Arkansas Technical Reference Manual Version 3.0, http://www.apscservices.info/EEInfo/TRM.pdf.

Deemed savings values and TRMs generally should not be viewed as static, and program administrators should consider ways to develop a feedback loop, so that deemed savings values are periodically updated to reflect program experience, new technologies, and new appliance standards and codes.

E. CONCLUSION

This document is intended as a starting point, and SEEA looks forward to continuing the conversation, providing additional information on targeted issues within this document or new issues as they arise.

SEEA is focused on empowering stakeholders and leadership across the Southeast to be successful at their work and achieve their objectives. We hope that this document has been useful in providing perspective around energy efficiency program essentials, and fostering additional dialogue around energy efficiency's role in shaping a strong, economically vibrant region.

F. ADDITIONAL RESOURCES

American Council for an Energy-Efficient Economy (ACEEE). Leaders of the Pack: ACEEE's Third National Review of Exemplary Energy Efficiency Programs. June 2013. http://www.aceee.org/research-report/u132.

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