Georgia Environmental Facilities Authority

# Strategies for Capturing Georgia's Energy Efficiency Potential

Final Report

**May 5, 2005**

powered by perspective

*This page intentionally left blank.*

Georgia Environmental Facilities Authority

# Strategies for Capturing Georgia's Energy Efficiency Potential

## Final Report

**May 5, 2005**

*Prepared for:*
Division of Energy Resources
Georgia Environmental Facilities Authority
2090 Equitable Building
100 Peachtree Street, NW
Atlanta, Georgia 30303

*Prepared by:*
Val Jensen and Eric Lounsbury
ICF Consulting
60 Broadway
San Francisco, CA 94111
(415) 677-7100

This publication was prepared with the support of the Georgia Environmental Facilities Authority (GEFA) under U.S. Department of Energy Grant Number DE-FG44-00R410761. However, any opinions, findings, conclusions, or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of GEFA.

*This page intentionally left blank.*

# Table of Contents



## List of Tables

*This page intentionally left blank.*

# 1. Capturing the Potential for Increased Energy Efficiency

## 1.1. Recapping the Potential

The *Assessment of Energy Efficiency Potential in Georgia (Assessment)*, a companion report to this paper, identifies significant potential for cost effective energy efficiency improvement in the state. Table 1 summarizes the key findings of that assessment.

**Table 1. 2010 Achievable Potential—Total Potential and Percent of 2010 Load**

| Load Type | Minimally Aggressive | | Moderately Aggressive | | Very Aggressive | |
|---|---|---|---|---|---|---|
| Reduction in Electricity Sales (MWh) | 3,338,924 | 2.3% | 8,704,577 | 6.0% | 12,546,554 | 8.7% |
| Reduction in Peak Demand (MW) | 447 | 1.7% | 1,149 | 4.4% | 1,608 | 6.1% |
| Reduction in Gas Sales (MMcf) | 7,041 | 1.8% | 16,972 | 4.4% | 21,343 | 5.5% |

Realizing this potential would produce immediate dollar savings for consumers, reductions in power plant emissions and substantial gains for the Georgia economy in the form of increased employment and personal income. However, these gains will not come about without some action to spur additional investment in energy efficiency and, as such, they represent what we have termed the policy target.

The purpose of this paper is to explore the options for reaching the target. This first section of the report describes a portfolio of energy efficiency investment programs constructed based on the detailed estimates of potential in the *Assessment*. We outline the types of measures to be pursued, the general implementation strategies, the costs and benefits associated with implementation, and the cost-effectiveness of each generic program. Section 2 examines the types of enabling policies that would be needed to support these programs. Enabling policies are those that create a publicly supported and guided process for investment in energy efficiency, such as Georgia's existing integrated resource planning process, or a public benefits fund with either utility or third party administration. Section 3 briefly reviews a number of direct intervention policies that also could spur efficiency investments. These policies could include better building code enforcement, enactment of state equipment efficiency standards, tax credits for investment in energy efficiency and so forth.

### *1.1.1. A Sample Portfolio of Energy Efficiency Programs*

In this section we describe a portfolio of energy efficiency programs that could be implemented to capture at least a substantial portion of the potential described in the *Assessment*. As a general guide to portfolio design we have used the breakdowns of efficiency potential by sector and end use described in the *Assessment*. What we describe could be considered a best practice starter portfolio. Note that these templates should be considered illustrative in the sense that, prior to actually adopting programs for implementation, more detailed designs with more precise measure impacts and costs should be prepared.

## Defining Best Practice

Energy efficiency program "best practice" is an imprecise characterization given that programs serve a wide variety of objectives, market segments and administrative models. For example, programs intended principally to effect a market transformation typically have very different designs, embody more program elements, require greater investment per unit of energy saved and are more difficult to evaluate, particularly over short periods than resource acquisition programs. Nevertheless, if a program sponsor is interested principally in changing the way a given market performs, these complications are less important to the program's success than observed market effects. In addition, how one defines the practice being studied can yield quite different results in one's conclusions about which programs offer the best examples of energy efficiency program implementation. Typically, best practice is considered a function of program result, i.e. did the program meet or exceed its objectives? An alternative view of best practice focuses on the design and execution of essential program elements, such as marketing, service delivery, program back office efficiency, etc. For example, though a particular program might not have delivered particularly stellar results overall, certain elements of its structure, such as incentive fulfillment might be considered best-in-class. Alternatively, while difficult, it is not unheard of for a program based on inefficient or flawed processes to nevertheless deliver outstanding results.

In our experience, the recipe for program success is one part good design and two parts good execution. Neither of these ingredients is entirely portable—a best practice program or program process inevitably contains locational or sponsor idiosyncrasies that have contributed to its success. One characteristic common to many of the programs described below is that the programs have been sponsored by entities that have been in the efficiency program business for years or decades. What appears today as best practice is often the product of an evolution in program planning, implementation and evaluation within experienced organizations. While a new entrant into the energy efficiency market place will certainly be able to extract value from this experience, it will be the ability of the entrant to effectively execute under its unique circumstances that will determine program success. In addition, programs often are most successful in environments conditioned to energy efficiency programs. Jurisdictions along the west and east coasts, and in Minnesota and Wisconsin have seen more or less constant program activity since the 1980s. Consumers in these jurisdictions, particularly in the commercial and industrial (C&I) sector, are more accustomed to energy efficiency programs, are more sophisticated in their understanding of efficiency investment, and are more likely to seek out programs than are customers in jurisdictions less accustomed to program activity. Thus, program marketing is easier and less costly, large customers in particular become more like program partners, the program sponsors come to understand customer motivations much better, and the sponsor and customers can engage in a virtuous cycle of program design, market reaction, and redesign.

This point leads to a final general observation; best practice should be viewed partly as a function of the experience of the program administrator and implementer. What is best practice for a utility that has been designing and managing programs for two decades will be different in some cases from what should be viewed as best for an organization just entering the field. For example, there is growing consensus that the most effective programs are those that view efficiency investment in comprehensive, systems terms. Thus, rather than focusing on individual efficiency measures, the programs adopt a "whole building" approach, or allow customers to custom-design incentives to meet their unique process needs. However, the notion that these programs are more effective is based largely on the idea that remaining large pockets of efficiency are embedded in processes rather than individual pieces of equipment.

If a utility has offered commercial lighting incentives for many years, it likely has captured a significant share of the basic fixture change-out market for large customers. Incremental savings, therefore, come from programs that extract savings from better lighting design and lighting system improvements (combining more efficient technologies and controls for example) or from programs that play off of the interactions between lighting and HVAC systems. Alternatively, as the large customer market is saturated, programs migrate into harder-to-reach small commercial segments that require not simply financial incentives, but a more intensive marketing and delivery approach. However, if a market has been largely untouched by large-scale efficiency programs, the most effective approach might well be a simple program offering incentives for basic lighting upgrades.

Given these cautions with respect to best practice transferability, we can draw the following conclusions with respect to the core elements of good (i.e. effective) programs:

- Programs should focus on technologies/market segments with relatively large untapped potential. Program designs that offer prescriptive rebates for common technologies across the entire C&I market are relatively simple to design and administer, and are very effective in tapping into large veins of efficiency potential in lighting, motors and HVAC systems. Delivery of these types of programs has effectively been commoditized and offers the lowest cost per kW of energy saved.
- Programs should leverage existing branding and delivery structures. For example, residential lighting, appliance and new homes programs built around the ENERGY STAR brand can leverage the market awareness the brand enjoys.[1] Most major retailers and many homebuilders already have developed familiarity with these programs, are used to participating in ENERGY STAR programs, and often will share marketing resources. Other leveraging opportunities might be available through participation in Consortium for Energy Efficiency (CEE) initiatives. CEE is a national, voluntary collaborative of organizations that fund energy efficiency programs. Through CEE these organizations are able to develop joint approaches to emerging efficiency opportunities.
- Programs should employ simple, straightforward program design. The more complex the design, the more difficult the implementation and administration of the program, and the greater the level of organizational capacity required to manage the program. For example, prescriptive rebate programs that employ deemed savings values and standard rebate amounts for common technologies are basic building blocks of virtually every utility program portfolio. Resource acquisition programs tend to be more straightforward and resource-efficient than market transformation programs.
- Incentives should be targeted at the point in the product value chain that yields the greatest leverage. For example, aiming incentives at large appliance retailers or manufacturers and having those entities provide the incentives to consumers would enable an administrator to achieve greater scale faster and minimizes the resources the administrator would have to deploy. Similarly, using residential HVAC distributors as the delivery vehicle for an air conditioning incentive program takes advantage of the distributors' existing networks and natural incentives to "sell-up".

[1] In fact, one major evolution in practice has been the migration away from utility branded new homes programs to ENERGY STAR-based programs that can take advantage of the valuable stock of collateral and the consistency in design standards.

- Large C&I customers can be most effectively tapped with custom incentive programs. These programs provide rebates for groups of measures based on calculated savings and have proved to be very effective at generating low cost (to the utility) savings. These programs also provide valuable tools for enhancing customer satisfaction. The design of these programs is straightforward, with the program providing an incentive threshold that customer can design projects against.
- Effective programs require close coordination of marketing, technical support and incentives.
- With the commoditization of many types of program services, it is possible for an administrator to develop and manage effective programs with significantly fewer internal resources than was the case a decade ago. It is possible and cost-effective to outsource most program implementation services.
- When working with upstream market participants such as national retailers or manufacturers, programs will be more effective if they employ structures with which these market participants are familiar. For example, if a retailer is used to working with a point-of-sale rebate, it will be most efficient to design a new program around this preference.

Finally, while there are exceptions, most best practice programs have staying power. They become best practice because their sponsors have time to refine both design and implementation. Participation rates climb as program availability becomes known through market networks, and all points in the market chain have time to align with the program. Recognize that, particularly when working in the residential sector, there can be as much as a year between a new program offering and a manufacturer's ability to adjust to the program.

## Portfolio Design Principles

### A Best Practice Portfolio

Best practice typically is viewed in the context of an individual program. However, rarely is a single program deployed by an administrator; rather portfolios of programs designed to satisfy multiple market segments are the norm. It is at the portfolio level where performance matters most, and a strong efficiency portfolio, like any portfolio, is intended to balance risk in a way that ensures overall efficiency targets are met. Thus, best practice should be extended to the design and management of a program portfolio. In this context, best practice is characterized by relatively low administrative cost, overall performance, adaptability, and broad customer satisfaction. However, as every effective program fits the unique circumstances of each administrator, an effective portfolio represents the combination of programs that best meets an often broad set of specific objectives.

### Portfolio Design Principles

Although these principles appear intuitive, many portfolios are over-designed and, therefore, complex, costly to administer and less effective per incentive dollar spent.

- Flexibility is key—Individual programs should have relatively open designs that allow rapid changes and scaling if dictated by market response. Similarly, one should expect that the mix of programs and the allocation of funds to specific programs will need to change, perhaps frequently. This is not to suggest that the secret to success is frequent changes in programs—quite the opposite—the basic stability of a portfolio is enhanced by designing it to adapt to change and learning.

- Fewer programs with greater reach should be preferred. For example, a well-designed prescriptive and custom incentive program might be the only two C&I programs needed. Fewer and larger programs provide administrative economies of scale and scope, and are less likely to confuse customers. Programs targeted at specific end uses or technologies are best suited to cases in which a specific delivery approach is required to overcome some market hurdle. And while it should go without saying, fewer programs require fewer administrative resources and fewer contractors to manage.
- Program designs should be kept simple. Complexity, while sometimes necessary to address hard-to-reach markets, is not necessary for a portfolio's core programs. Complexity inevitably increases both management and implementation costs.
- Leverage trade allies and upstream market actors. Perhaps the greatest lesson learned from the last ten years of program implementation is that working with manufacturers, distributors, retailers and service allies often yields greater bang for the buck than attempting to directly influence customers.
- When beginning from a cold start, a phased approach to deployment of multiple programs works best. This is particularly the case when program management resources are limited. Even if a utility chooses to outsource much of the in-field management of program implementation, the development of internal policies and procedures, building strong internal teams and developing program management expertise takes time. Attempting to put too many programs into the field at once can easily overload management capacity and create customer dissatisfaction.

## Portfolio Summary

The right portfolio is the one that best meets an administrator's unique objectives. Nevertheless, almost every portfolio is based on the desire to simultaneously offer services to all major customer classes at the lowest cost. As a rule-of-thumb, core C&I programs such as prescriptive and custom rebate programs are the least expensive to deliver per kW or kWh saved (in the range of $600/kw–$800/kW), while programs aimed at hard-to-reach residential and small commercial markets are the most expensive (can be upwards of $2,000/kW). Therefore, the core elements of a portfolio with resource acquisition objectives will be these types of commercial and industrial programs (also made available to institutional and government customers). The least expensive and often most popular types of residential programs will typically be lighting and appliance rebate programs that can tap into retail networks already familiar with the ENERGY STAR brand. Virtually every national manufacturer and retail chain has worked with energy efficiency programs in multiple jurisdictions. Sears, for example, is a major participant in the ENERGY STAR branding campaign and participates in many rebate programs around the country.

Finally, the structure of a portfolio must take into account ongoing energy efficiency activity in the region. If other entities are already implementing programs, care must be taken to not introduce competing offers that will create market confusion.

The following table summarizes a best practice starter portfolio for capture of at least a significant portion of the potential identified in the Assessment. Note that the program templates on which this summary draws, are general and not intended to provide an operating guide for actual program implementation. Should entities in Georgia elect to pursue any or all of these programs, the essential next step would be to develop detailed program designs and implementation plans that would include more specific cost and benefit information.

The last row of the summary provides an estimate of portfolio administrative costs. Portfolio administration includes costs associated with program planning, tracking and evaluation activities. Based on our experience in the development of similar portfolios, total administrative costs can be expected to range between 10 and 15 percent of total portfolio costs depending on the existing capabilities of the administering entity and the level of evaluation activity.

**Table 2. Portfolio Summary—Cumulative Annual Savings by 2010**

| Program | Estimated Electricity Savings (GWh) | Estimated Peak Demand Reductions (MW) | Estimated Gas Savings (Mth) | Estimated Program Costs (2005-2010, $Millions) | Estimated Gross Benefits (TRC, $Millions) | Estimated Net Benefits (TRC, $Millions) | Benefit-Cost Ratio* |
|---|---|---|---|---|---|---|---|
| Residential Lighting & Appliances | 1,743 | 168 | 51 | $340 | $620 | $190 | 1.44 |
| Small C&I Hard-to-Reach | 207 | 49 | - | $32 | $61 | $20 | 1.49 |
| C&I New Construction | 186 | 27 | - | $32 | $73 | $32 | 1.76 |
| C&I Custom Incentive | 760 | 146 | 33 | $101 | $388 | $257 | 2.96 |
| C&I Prescriptive Incentive | 643 | 148 | - | $98 | $189 | $63 | 1.50 |
| Program Total | 3,539 | 538 | 84 | $603 | $1,332 | $562 | 1.73 |
| Portfolio Administration | | | | $72 | - | | |
| Total | 3,539 | 538 | 84 | $675 | $1,332 | $490 | 1.58 |

*Calculated using the Total Resource Cost Test

Also note that this portfolio does not contain load management or other demand response programs. In fact, such programs should play an integral role in a risk-balanced portfolio and will serve to keep the overall portfolio cost low. The relative amount of load management and demand response in a portfolio will vary considerably depending on who the program administrator is. If the portfolio is administered by utilities, the percentage of the total portfolio represented by these programs could be quite high, although we would argue that a balanced portfolio should include at least 50% energy-focused programs. If the portfolio is managed by another entity the percentage of demand response programs might be substantially lower since implementation of such programs outside of a utility tends to be limited for technical reasons.

## Residential Programs

### Table 3. Residential Lighting and Appliance Existing and New Homes

| | |
|---|---|
| Objective | Acquire cost-effective conservation by:<br>• Increasing sales of ENERGY STAR qualified appliances and lighting products to residential customers<br>• Educating consumers (build awareness and branding) through advertising and promotions to purchase ENERGY STAR qualified appliances and lighting products<br>• Expanding the retail penetration of ENERGY STAR qualified appliances and lighting products |
| Target Market | Residential customers of existing and new homes within Georgia. Eligible customers and retailers (independent, big box, home improvement/do-it-yourself, grocery stores, hardware, lighting specialty and showrooms) will be verified based on zip code. |
| Program Description | The program would have the following key elements:<br>• Account management—continue to build relationships with retailers and manufacturers<br>• Field services—provide retailer support for promotions, merchandising, and networking between retailers and manufacturers<br>• Training—educate retail staff on the benefits of ENERGY STAR products<br>• Co-op promotions and advertising –leverage existing funds for advertising and promoting products. Funds will be cost-shared up to a maximum amount.<br>• Consumer incentives—provided to offset the purchase price<br>• Manufacturer incentives—buydowns to assist manufacturers' retail penetration<br>• In-store promotions—leverage existing retailer promotions<br>• Marketing—develop and provide POP, advertising, in-store educational materials<br>• SPIFFs—provide an incentive for retail sales staff to promote and sell ENERGY STAR products |
| Eligible Measures | Eligible measures will include a variety of ENERGY STAR lighting products and appliances. Greatest savings opportunities will be with lighting products. |
| Implementation Strategy | Third party contractor could be retained to provide final design and to implement. Elements of an implementation strategy would include:<br>• Conduct promotions and advertising and leverage existing funds with manufacturer partnerships. Program cycles would be designed to match consumer buying cycles and retailer/manufacturer promotions.<br>  – Offering a spring CFL instant promotion at targeted stores.<br>  – Offering a room AC and dehumidifier promotion in conjunction with the national Cool Change promotion<br>• Offer instant and mail-in rebates in conjunction with retailers and manufacturers.<br>• Provide a variety of marketing materials to retailers (see Marketing Strategy)<br>• Provide retailer training and circuit riders |
| Marketing Strategy | Elements of the marketing strategy would include:<br>• Consumer brochures<br>• POP materials (clings, hang tags, shelf talkers, stickers, etc.)<br>• Print and radio ads<br>• Co-op advertising<br>• In-store promotions staffed by field staff<br>• Participation in national promotions such a Change a Light |

| | |
|---|---|
| Incentive Strategy | The incentive strategy should be flexible, with specific product incentives adjusted to fit with retailer and manufacturer campaigns. Typically, the incentives will include consumer and retailer components. |
| EM&V Requirements | Typically, measure savings would be "deemed" and adjusted periodically based on state and national evaluations. Most evaluation work would focus on establishing the net-to-gross ratio to be used in calculating net program savings. |
| Administrative Requirements | Most direct program administrative requirements will be handled by a third party implementation contractor. The Administrator will manage the procurement of implementation services, provide policy direction, and provide oversight of program QA/QC, tracking and reporting. Activities to be undertaken by the implementer include:<br>• Account management<br>• Retailer/ manufacturer coordination<br>• On-the-ground coordination with other programs<br>• Field management and delivery<br>• Tracking—data tracking including incentive and savings, customer data, and retailer data<br>• Rebate processing/fulfillment*<br>• Customer support—toll free customer service line and on-line directory of participating retail stores<br>• Reporting<br>• Marketing |
| Estimated Budget | Total 2005-2010 Program Budget: $340 Million |
| Savings Targets | Cumulative Annual Savings Through 2010<br>Electricity Savings (GWh): 1,743<br>Peak Demand Reductions (MW): 168<br>Gas Savings (Mth): 51<br>TRC Net Benefits ($Millions): $190 |
| Cost-effectiveness | Total Resource Cost Test: 1.44<br>Utility Cost Test: 1.53<br>Participant Test: 4.80<br>Rate Impact Measure: 0.37 |

## Commercial and Industrial Programs

**Table 4. Hard-to-Reach Small Customer Program**

| | |
|---|---|
| Objective | To provide energy efficiency services to small commercial, not-for-profit, government and industrial customers who typically do not participate in other efficiency programs due to relatively low energy consumption and the owner/manager's limited time and resources. |
| Target Market | Customers with an average twelve month individual facility demand of less than 100 kW, or and aggregated demand of all facilities of less than 500 kW. |
| Program Description | The program will be a direct-install retrofit program targeting small non-residential customers that are being underserved by other energy efficiency programs. To over come these barriers the program will provide efficiency surveys and audits, customer education and the installation of cost-effective lighting, air conditioning, refrigeration, and water heating improvements on a turnkey basis. Incentives, which will result in a cash flow neutral two to three year payback at normal commercial financing rates, will be provided to overcome first cost barriers. |
| Eligible Measures | The primary energy efficiency measures in this program will be lighting, HVAC and refrigeration measures typically found in small non-residential facilities. |
| Implementation Strategy | A third party contractor will be responsible for final design and all implementation activities. |
| Marketing Strategy | The program will be marketed through targeted direct mail, a Program web storefront, the program implementation contractor and trade ally contact with customers. |
| Incentive Strategy | To encourage participation in the program incentives will be set at a level that will result in a cash flow neutral situation for the customer when the customer's share of the project cost is financed for three years at a normal commercial interest rate. |
| EM&V Requirements | Energy savings estimates for measures in this program will be deemed savings values established for each measure. Verification of measure installation will be made for a statistically significant sample of projects. Actual verification requirements will be established by evaluation contractor |
| Administrative Requirements | The Program Administrator will develop the final implementation plan with the assistance of the program implementer, and monitor implementation contractor performance and goal achievement. The implementation contractor will be responsible for program marketing, project management and implementation, tracking, reporting and goal achievement. |
| Estimated Budget | Total 2005-2010 Program Budget: $32 Million |
| Savings Targets | Cumulative Annual Savings Through 2010<br>Electricity Savings (GWh): 207<br>Peak Demand Reductions (MW): 49<br>Gas Savings (Mth): 0<br>TRC Net Benefits ($Millions): $20 |
| Cost-effectiveness | Total Resource Cost Test: 1.49<br>Utility Cost Test: 2.25<br>Participant Test: 4.17<br>Rate Impact Measure: 0.45 |

## Table 5. Custom Incentive Program

| | |
|---|---|
| Objective | To deliver energy savings opportunities to commercial, government, institutional and industrial customers who are making purchase decisions for equipment replacement or modernization and industrial process improvements in existing facilities. The Program will support customers in identifying and implementing customer specific, cost-effective energy efficiency opportunities in all end uses. |
| Target Market | Existing commercial, government and industrial customers of all sizes with energy efficiency opportunities not addressed by the Prescriptive Rebate Program (See below). |
| Program Description | The Program will provide technical and financial assistance to customers to aid in the evaluation and implementation of high-efficiency opportunities which are available at the time of new equipment purchases, facility modernization, and industrial process improvement. In addition, limited technical assistance will be provided to support energy efficiency opportunity identification.<br><br>The customer will be required to share in the cost of the technical assistance study to reinforce the value of the service and maximize the potential for implementation of the cost-effective efficiency opportunities which are identified.<br><br>Financial incentives will also be available to assist in overcoming first cost barriers to efficiency measure implementation. |
| Eligible Measures | Any cost-effective electrical energy efficiency measure involving the replacement of existing equipment or the installation of new equipment in an existing facility. |
| Implementation Strategy | The program will be administered by an implementation contractor selected through an RFP or RFQ process. Energy studies and project QA/QC review and verification will be performed by the implementation contractor or third-party engineering consultants. Efficiency measure implementation and installation will be the responsibility of the customer. |
| Marketing Strategy | The Program will be marketed to customers, trade allies, industry professionals and energy service companies. Customer marketing will include general Program advertising, direct mail and other targeted marketing methods, training presentations, participation in trade shows and trade association events and personal contact by the program implementer. Outreach and training will be provided for trade allies, industry professionals and energy services companies to explain the program offerings and benefits available by utilizing the program resources in their proposals to customers. |
| Incentive Strategy | Financial incentives will be offered to offset the incremental cost of efficiency measures. The financial incentives for cost-effective efficiency measures will be based on a fraction of the incremental cost of the measure (typically 30% to 50%). However, the actual incentive could be set as the lower of the incremental cost cap, the amount of incentive needed to reduce customer payback to a predetermined level (e.g. 2 years) and a maximum cost per kW. |
| EM&V Requirements | To minimize program costs anticipated energy savings will be estimated and agreed on for all appropriate projects through a rigorous QA/QC process prior to the offer of an implementation incentive. After implementation of the efficiency measures, a post inspection will be used to confirm proper installation and conformance with the measure specification. A statistically significant number of implemented projects will be evaluated to confirm savings persistence. |
| Administrative Requirements | The Administrator will be responsible for developing the RFP or RFQ, implementation contractor selection, performance monitoring, and incentive payments.<br><br>The implementation contractor responsibilities include final program design, marketing materials, program marketing, project management and QA/QC, customer and contractor dispute resolution, tracking, reporting and program goal achievement. |
| Estimated Budget | Total 2005-2010 Program Budget: $101 Million |

| | | |
|---|---|---|
| Savings Targets | Cumulative Annual Savings Through 2010 | |
| | Electricity Savings (GWh): | 760 |
| | Peak Demand Reductions (MW): | 146 |
| | Gas Savings (Mth): | 33 |
| | TRC Net Benefits ($Millions): | $257 |
| Cost-effectiveness | Total Resource Cost Test: | 2.96 |
| | Utility Cost Test: | 2.79 |
| | Participant Test: | 6.44 |
| | Rate Impact Measure: | 0.71 |

**Table 6. C&I New Construction**

| | |
|---|---|
| Objective | The goal of this program is to capture energy efficiency opportunities which are available during the design and construction of new buildings, major renovations and tenant build-outs in the non-residential market. To secure these opportunities it is necessary to overcome barriers such as resistance in the design community to adopt new ideas, increased first cost for efficient options and tendency to design for worst-case conditions rather than efficiency over the range of expected operating conditions. The program will endeavor to overcome these and other barriers through education and outreach to building owners, design professionals, building contractors and other trade allies to introduce efficiency concepts, design facilitation, technical assistance, support for the LEED rating system, and incentives for efficient designs and measure implementation. |
| Target Market | Any commercial, industrial, government, or institutional new construction, major renovation or tenant build-out project in the planning or design stage. |
| Program Description | The New Construction Program will promote energy efficiency through a comprehensive effort to influence building design practices. The program will work with building owners/managers, design professionals, trade allies, and contractors to design and construct high performance buildings that provide improved energy efficiency, systems performance and comfort. This will be accomplished through an integrated design process that results in improved efficiency in the building envelope, lighting, HVAC and other energy consuming systems.<br><br>A key element for success in a new construction program is securing the involvement of the professional design community. The program will employ targeted marketing, training and education offerings, lunch and learn presentations, individual contact and outreach through professional organizations to engage design professionals.<br><br>The program will also offer design and implementation incentives to encourage program participation. To encourage participation of the design community and to offset the costs of considering multiple design options a multi-tier incentive will be offered to the project design teams. An implementation incentive based on the incremental costs of the efficiency measures will be offered to the building owner to help overcome the first cost barrier. |
| Eligible Measures | Any cost-effective electrical efficiency measure is eligible for consideration in the program. |
| Implementation Strategy | The Program Administrator will hire an implementation contractor that will be responsible for detailed program design and implementation. |
| Marketing Strategy | The program will be marketed to building owners and managers and to design professionals, trade allies and contractors through media events for successful projects including grand openings and open houses, case studies, direct marketing, and trade shows. The marketing to the design professionals, trade allies and contractors will be targeted at securing involvement in projects early in the design phase. |

| | |
|---|---|
| Incentive Strategy | Implementation incentives based on the incremental cost of the efficiency measures will be offered to the building owner to help overcome the first-cost barrier. As with the C&I programs aimed at the replacement/retrofit market, incentives will be offered for an array of standard/prescriptive measures. In addition, the program will have a custom component, and any cost-effective energy conservation improvement technology not covered by the standard incentive may qualify under the custom new construction measures. To encourage early program involvement in the design process and to provide partial compensation for the extra work involved evaluating multiple efficiency options an honorarium based on project size and efficiency options being addressed will be offered to the design team.<br><br>Implementation incentives will be based on the incremental costs of the efficiency measures. The actual incentive levels will be determined during the detailed implementation plan development. |
| EM&V Requirements | A set of baseline conditions based on the more energy-efficient of current building codes or standard practice will be developed for use in estimating the energy savings in all new construction projects. Individual project savings will be based on modeled performance combined with post-project verification. A statistically significant number of implemented projects will be evaluated to confirm savings persistence. |
| Administrative Requirements | The Administrator will be responsible for developing the RFQ or RFP, implementation contractor selection and performance monitoring, and incentive payments.<br><br>The implementation contractor responsibilities include final program design, marketing materials, program marketing and implementation, project management and QA/QC, customer and contractor dispute resolution, tracking and reporting and program goal achievement. |
| Estimated Budget | Total 2005-2010 Program Budget: $32 Million |
| Savings Targets | Cumulative Annual Savings Through 2010<br>Electricity Savings (GWh): 186<br>Peak Demand Reductions (MW): 27<br>Gas Savings (Mth): 0<br>TRC Net Benefits ($Millions): $32 |
| Cost-effectiveness | Total Resource Cost Test: 1.76<br>Utility Cost Test: 2.66<br>Participant Test: 4.73<br>Rate Impact Measure: 0.48 |

**Table 7. Prescriptive Rebate Program**

| | |
|---|---|
| Objective | The primary objective is to motivate commercial, government, institutional, and industrial energy consumers to select high efficiency options when making purchasing decisions by providing rebates and incentives for selected common cost-effective energy efficiency measures. |
| Target Market | Commercial, government, institutional, and industrial customers of all sizes. |
| Program Description | A principal objective of this program element is to provide an expedited, simple solution for customers interested in purchasing efficient technologies that can produce verifiable savings. The program will provide rebates for energy-efficient products that are available in the marketplace and with savings opportunities for a large number of customers in two ways. For measures where the energy savings can be reliably predicted using simple threshold criteria a pre-qualified rebate will be offered. For other measures where a uniform incentive structure is appropriate, but a simple calculation procedure is necessary to qualify the specific application, prescriptive incentives will be offered. |
| Eligible Measures | The measures selected for this program will fall into two categories; 1) measures where the energy savings can be reliably predicted by applying simple threshold conditions, and 2) measures where a uniform incentive structure is appropriate but a simple energy savings estimate is necessary to qualify the specific application. |
| Implementation Strategy | Program management will be provided by a third-party implementer who will be responsible for developing a detailed implementation plan, measure lists and rebate levels, recruiting participants, incentive processing (final fulfillment may be handled by a single entity for all financial assistance programs), and spot verification . |
| Marketing Strategy | Program marketing efforts will target customers, trade allies and the energy services industry for specific market segments where there is significant potential (e.g. lighting and motors). Customer marketing will entail targeted direct marketing, trade shows and trade association outreach. Trade ally marketing will also be an important component of the customer marketing efforts. |
| Incentive Strategy | Incentives in this program generally will be based on the incremental costs of the energy-efficient equipment and measures, with consideration given to current levels of equipment market share. |
| EM&V Requirements | Energy savings estimates for measures in this program will be deemed savings values established for each measure. Verification of measure installation will be made for a statistically significant sample of projects. Actual verification requirements will be established by evaluation contractor during detailed program design. |
| Administrative Requirements | The Program Administrator, will develop the RFP for program implementation, evaluate responses and select the implementation contractor, approve final program design, and monitor contractor and goal performance. The implementation contractor will be responsible for final program design, marketing, tracking and reporting, and goal achievement. |
| Estimated Budget | Total 2005-2010 Program Budget: $98 Million |
| Savings Targets | Cumulative Annual Savings Through 2010<br>Electricity Savings (GWh): 643<br>Peak Demand Reductions (MW): 148<br>Gas Savings (Mth): 0<br>TRC Net Benefits ($Millions): $63 |
| Cost-effectiveness | Total Resource Cost Test: 1.50<br>Utility Cost Test: 2.27<br>Participant Test: 4.21<br>Rate Impact Measure: 0.45 |

*This page intentionally left blank.*

# 2. Policy Options for Enabling Capture of the Potential

Energy efficiency programs of the type described above are implemented within a policy construct defined typically by state statute, regulatory ruling or both. In other words, implementation doesn't just happen, but is enabled by this policy construct which prescribes how and by what entity programs are designed, funded, administered and implemented. The purpose of this section is to explore briefly a variety of *enabling policy options* for consideration in Georgia.

## 2.1. Types of Enabling Policy Options

A review of policy constructs in place around the country to support energy efficiency program implementation suggests that there are two basic policy models. These models are distinguished primarily by the policy rationale used to support them. At their most basic level the models can be characterized as having either "Public Good" or a "Resource Acquisition" rationale.

The Public Good rationale argues that (1) efficiency investment confers broad benefits on society such as improved environmental quality, enhanced energy security and economic development gains (2) there are broad market barriers or imperfections to capturing energy efficiency potential that reach beyond the utility system, and that as a result (3) there is a need for a Public Good or Public Benefits energy efficiency policy model that supports energy efficiency beyond that which might be done by a utility. Because this model, in effect, severs the connection between energy efficiency and resource acquisition, there is no inherent reason why administration of public goods-based systems needs to be lodged with utilities. Therefore, a number of states have elected to assign portfolio and program administration to non-utility entities such as state energy offices, public utilities commissions or independent organizations, while other states continue to vest utilities with administrative responsibility.

The Resource Acquisition rationale argues that energy efficiency represents a more economical resource alternative to construction or procurement of new supply, transmission or distribution and, therefore, the utility should substitute energy efficiency for conventional supply. Often this model incorporates some type of integrated resource planning process, although some jurisdictions incorporate the Resource Acquisition model within utility certificate of convenience and necessity proceedings. Note that resource acquisition models tend to be more prevalent where states have not embarked on restructuring and where utilities remain more or less integrated. The link between energy efficiency and resource acquisition in this model creates a compelling case for placing administrative responsibility with utilities, although there have been exceptions to this general rule.

The following table illustrates the dispersion of these two models across the country.

**Table 8. Examples of the Application of the Two Primary Policy Models**

| Rationale for Promoting Energy Efficiency | Utility Role in Planning and Implementing EE Program | |
|---|---|---|
| | Utilities Have a Major Role | Utilities Do Not Have a Major Role |
| Public Good | CA; CT; MA; NH; RI | ME; NJ*; NY; VT; WI; OR |
| Resource Acquisition | CA; CO; GA; MN; NV; TX; UT; WI | (not observed) |
| California (CA) and Wisconsin (WI) have both the Public Good and Resource Acquisition approaches. | | |

*Administration of public benefits programs in New Jersey is under review. Currently the Board of Public Utilities (BPU) is responsible for overall policy administration of program, but the utilities continue to provide day-to-day administration. The BPU has been expected to issue requests for proposals from non-utility third parties to assume the current utility role.

There is no preferred model per se. However, as a number of states have faced need-for-power issues recently, interest in the resource acquisition model has re-emerged given its ability to integrate supply and demand-side policies. For example, the California Public Utilities Commission recently rejected a variety of options for third party administration of energy efficiency programs and opted to return programmatic administration to the utilities. A key reason cited by the Commission was its desire to link its resource acquisition and public goods policies and to focus all available funding on reducing the need for new supply-side resources.

## 2.2. The Georgia Context

Georgia has had an integrated resource planning process in-place since 1991 under which investor-owned electric utilities file plans every three years. These plans include an extensive analysis of demand-side options as well as proposed programs meeting Georgia's current cost-effectiveness standard. However, because the Georgia Commission has relied on the Ratepayer Impact Measure (RIM) as the final measure of program cost-effectiveness since 1995, very few programs actually have been proposed and implemented in recent years. In addition, because much of the utility IRP filings are shielded from public view based on confidentiality claims it is extremely difficult to assess the reasonableness of the demand-side analysis.

Thus, the existing Georgia policy context has both the required elements (in terms of the formal IRP process) to support deployment of energy efficiency programs, as well as a significant and often fatal barriers to such deployment—use of the RIM as the final standard for determining program cost effectiveness and a restrictive document disclosure policy that inhibits review and discussion of utility filings.

Most jurisdictions recognize the RIM as a valuable tool for program analysis and design, but reject its use as a final, definitive measure of cost-effectiveness. Most often, RIM is considered as a measure of the distributional or equity impact of program and is used to help structure a portfolio of programs to minimize adverse impacts on ratepayers who do not participate in energy efficiency programs. Similarly, most jurisdictions do not consider information, such as end use saturations and energy efficiency measure market penetration, market-sensitive (trade secret) except insofar as it includes specific references to contracts. Disclosure of such information is considered key to an informed discussion of the analysis process and the options to emerge.

Energy efficiency benefits considered by the RIM are equal to program energy and demand savings multiplied by avoided costs. Costs are equal to the sum of program costs (administration and incentives) and so-called lost revenues. In turn, lost revenues are equal to the product of energy and demand savings and retail prices. If retail prices exceed avoided costs, a program will have a benefit-cost ratio of less than 1.0. Even if avoided costs exceed retail prices, the difference must be greater than the sum of program costs or the benefit-cost ratio still will fall short of 1.0. Thus, it is likely and ironic that energy efficiency programs saving significant amounts of energy will be judged as inappropriate to implement if RIM is used as a strict standard. Typically, the only programs that will show a RIM benefit-cost ratio of greater than 1.0 will be those that save energy principally at the time of system peak when avoided costs often exceed price for most customers.

Perhaps the most problematic characteristic of RIM is that it is easily misinterpreted. Often it is asserted that implementation of programs with RIM scores of less than 1.0 will cause customer rates to rise. In fact, the RIM merely indicates how average revenue required per kWh changes assuming that no other factors affecting sales or revenue requirements change. Depending on how one actually calculates RIM, the calculation might not even factor in otherwise expected growth in sales. It is entirely conceivable that growth in customers or sales per customer of slightly above what otherwise would be expected would lead to lower revenue required per kWh even with implementation of an energy efficiency program. To the extent that rate impacts are to be used as the definitive measure of energy efficiency program value, then the RIM test should not be used. Instead, energy efficiency programs should be modeled within a utility resource planning model that also includes any supply-side resources being considered. The actual differences in revenue requirements should be estimated and actual rate impacts of the alternatives should be estimated using utility financial and rate models which take into account expected changes in the level of sales over time.

The immediate and practical implication of the current policy of reliance on the RIM in Georgia is that most of the potential identified as being achievable will not be implemented within the existing policy structure. Georgia will forego the substantial direct consumer benefits, reductions in emissions and macroeconomic stimulus that would accompany implementation of programs to capture that potential.

## 2.3. Alternative Enabling Policies 1: The Public Benefits Rationale

Given that Georgia already has an integrated resource planning structure in place, the most efficient enabling policy is one that would address the over-reliance on RIM. Georgia has elected for the present to forego consideration of industry restructuring to introduce retail competition or require vertical disintegration of the state's utilities. Thus, the current industry structure remains one that works well with the resource acquisition view of energy efficiency. In addition, given that the state's utilities are considering or pursuing acquisition of new resources it is appropriate to link consideration of demand-side options to decision making related to new generation and transmission.

Should such an approach be infeasible, Georgia could consider a new policy framework based on a public benefits rationale. The principal advantage to this approach is that energy efficiency would be viewed from a broader perspective where its value is determined by its ability to reduce the overall cost of energy consumption, reduce emissions and benefit the state's economy. The Rate Impact Measure would not be considered since the objective of the programs would be to promote policy objectives broader than reducing electric system costs. As suggested above, a number of states have taken such an approach. In many cases, this new approach was prompted by retail restructuring, but in others, such as Wisconsin, traditional regulation remains in-force.

### 2.3.1. Essential Elements of Enabling Policies

All enabling policy structures are built from six basic elements:

1. The Policy Foundation
2. The Policy Implementation Process
3. Portfolio and Program Administration
4. Program Implementation
5. Program Evaluation
6. The Funding Process

#### The Policy Foundation

The policy foundation establishes the rationale for undertaking energy efficiency programs. Virtually every state to have adopted an enabling policy based on the public benefits rationale has described this rationale as having the following elements:

- Lower the overall cost of electricity without reducing comfort or convenience
- Lower the emission of harmful air pollutants and decrease water consumption
- Create jobs, and stimulate the economy. [2]

In a number of states, including California, Oregon, Massachusetts, New Jersey, Vermont, New York and Wisconsin among others, this rationale is first articulated in statute and subsequently refined by the State's utility regulatory commission. As noted above, often this rationale is coupled with a broader move by the state into retail market restructuring, though that is not universally the case.

#### The Policy Implementation Process

Typically, the policy foundation is generally stated and, as is typical of many such rationales when framed by legislation, is insufficient to actually support energy efficiency program design, implementation and administration. Thus, a key function of the policy foundation is to establish the responsibility for ongoing implementation of the policy, including development of any additional, more specific policy guidance. In most states, this policy implementation responsibility has been delegated to utility commissions, although in several states, other entities have been given substantial shares of this responsibility.

In Wisconsin, the State Department of Administration and its Division of Energy is largely responsible for policy implementation.[3] The Massachusetts structure has given the Department of

---

[2] Division of Energy Resources, Commonwealth of Massachusetts, *2002 Energy Efficiency Activities in Massachusetts*, Summer 2004.

Telecommunications and Energy (DTE) authority to develop the rules under which the process of program design and administration occurs. The Division of Energy Resources (DOER) is responsible for the review and approval of utility plans prior to implementation. Simply by virtue of the amount of funding available and the extensive record, California provides a useful example of the nature of policy implementation. There the California Public Utilities Commission (CPUC) has responsibility for determining how approximately $200 million of annual public goods charge monies will be administered. The Commission determines which entities will administer the funds, which types of programs are eligible for funding, what criteria programs must satisfy to actually receive funding, and what the evaluation process and standards will be.

The key considerations in delegation of policy implementation responsibility include whether the policy implementation agency has sufficient resources for exercising policy development and oversight, and whether that entity has an organizational interest in supporting the public policy. The primary functions of policy implementation include:

- Setting energy saving/demand reduction goals
- Establishing the program administrative and implementation structure to the extent not set by statute, including selection of program administrators
- Determining broad funding allocations between statewide and non-statewide programs, and any set-asides for hard-to-reach markets
- Setting program cost-effectiveness criteria
- Setting other program selection criteria
- Establishing implementation performance standards
- Setting evaluation, measurement and verification (EM&V) protocols

## Portfolio and Program Administration

Portfolio and program administration are the functions associated with the selection and management of programs to meet the policy standards set by the entity with policy implementation responsibility. These functions are structured to answer two basic questions:

1. What type of entity is best suited to building the portfolio of energy efficiency programs that will best meet policy goals?
2. What criteria are appropriate for the construction of energy efficiency program portfolios that can satisfy these goals?

Portfolio and program administrative structures tend to vary considerably across states as a function of how states have answered these questions and whether the answers are left to a body such as a state regulatory commission of whether they are answered in statute. Unfortunately, experience with public benefits funds approaches is concentrated in the Northeast, Midwest and West, with little or no experience with such approaches in the South.[4]

---

[3] Currently the Wisconsin legislature is considering recommendations of a Governor's Task Force on Public Benefits that would transfer policy implementation authority to the State's Public Service Commission.

[4] A recent ACEEE report shows 26 states having enacted some form of public benefits mechanism since 2000. Included in this group are Virginia, Texas, Arkansas, and Oklahoma. However, only Texas maintains a funding mechanism for energy efficiency

New Jersey and California are examples of states that have given authority to set portfolio and program administrative structures to their respective regulatory commissions. Both states either have or are re-examining initial decisions with respect to administrative structures. California, while toying with the idea of administering programs through the CPUC, recently decided to return administrative responsibilities to the utilities within a tightly controlled process. The CPUC also has set very clear performance goals and portfolio standards. The New Jersey Board of Public Utilities, while originally giving the state's utilities administrative responsibility, has reclaimed that responsibility for itself and currently is considering whether to hire an independent third party administrator. A number of other states give substantial oversight responsibility to state regulatory commissions without also giving the commissions the authority to alter the basic public benefits administrative structure (Massachusetts, Vermont, Connecticut, New Hampshire, Maine, and Michigan). And a few states have either created the administrative structure through legislation with little commission oversight (Wisconsin and New York) or otherwise have given independent organizations substantial authority (Oregon).

When establishing these functions and assigning responsibility for them, important considerations include:

- Whether a single suite of statewide programs will be offered or if different portfolios of programs are appropriate for different service territories
- Whether the portfolio and program administrator will be allowed to actually implement programs as well or if implementation services must be put out to bid
- Whether program administrators will be allowed to earn performance incentives or, more generally, whether program administrators are held to performance standards
- Whether management of the EM&V process will be the responsibility of policy implementation organization or the portfolio and program administrator
- How specific will be the portfolio and program selection criteria set by the policy implementer, or if the program administrator will be allowed to determine these criteria

## Program Implementation

Often, the actual implementation of energy efficiency programs is considered to be separate from program administration. Depending on the specific structure in place in a state, the implementation function can be as narrow as simply delivering services (for example audits or direct installation of small commercial lighting measures) within a program structure designed and managed by the program administrator. Alternatively, implementation can include a full range of activities from conception and design of the program, to design and execution of marketing strategies, customer outreach, measure installation, incentive fulfillment and verification. Often, portfolio and program administrators do not have sufficient resources to perform many of these functions and they are, therefore, delegated to program implementation contractors, typically through competitive solicitation.

The policy implementer usually is the entity that determines the breadth of the program implementation function. In California, for example, the CPUC recently revised the entire policy and administrative structure for energy efficiency programs in the state. The utilities were given

programs. See Martin Kushler, Dan York and Patti Witte, Five Years In: An Examination of the First Half-Decade of Public Benefits Energy Efficiency Policies, American Council for an Energy Efficient Economy, Report Number U041, April 2004.

clear portfolio and program administrative responsibility, but are required to bid out at least 20 percent of funds to third party implementers who will be given the opportunity to propose innovative approaches reaching beyond the conventional utility-designed programs. Utilities in Connecticut and Massachusetts directly implement programs with contractor assistance, while in Wisconsin, administration is housed within the state energy office and implementation for all programs within a sector is managed by teams of contractors selected via competitive bid. In our experience, unless the portfolio and program administrator has extensive experience in program design and implementation, it is most efficient for the administrator to develop the broad outlines of the portfolio and program designs and allow program implementers—the entities with the most direct market experience—to develop final program designs. Particularly where program implementers have compensation tied to performance, they should be given the responsibility for final program design that meet basic policy and administrative criteria.

## Program Evaluation

Reduced to its most simple function, program evaluation is used to verify program energy savings and demand reductions. This function is critical when programs are implemented within a resource acquisition framework to ensure that energy efficiency in fact is deferring the need for new supply-side resources. Within a public benefits framework, evaluation works to ensure that resources are used efficiently; that funded programs in fact deliver what they promised, and that consumers are "getting their money's worth."

This simple function embodies several key activities:

- Verification that measures claimed to have been installed were in fact installed.
- Measurement and verification of the claimed per measure savings.
- Estimation of the fraction of savings attributed to the program that would have occurred even in the absence of the program (the so-called net-to-gross ratio).
- Estimation of the persistence of energy savings associated with installed measures.
- Assessment of the process used to design and deliver the program.
- Estimation of post-implementation cost-effectiveness.

> **Creating a Public Benefits Fund**
>
> Based on 2003 electricity consumption in Georgia as reported by the Energy Information Administration, and estimated annual program costs of $112.5 million per year (Table 2 above), a 0.9 mill per kWh charge would generate sufficient funding to support the program portfolio described above. The charge would represent an increase of approximately $12 (1.2%) annually per residential customer, $75 (1.4%) annually per commercial customer, and $3,000 (2.2%) annually per industrial customer.

Conventional practice assigns evaluation an "after-the-fact" role; evaluators typically are brought into the process after a program has been designed and is underway or complete. A more effective approach, however, taps evaluators early in the process of program planning and design so that their insights with respect to program process can be embodied in design. For example, proper program design can help reduce significantly the number of number of program free riders—customers who would have undertaken energy efficiency investments even in the absence of a program. Evaluator knowledge of how programs have failed or succeeded to minimize free riders is knowledge of greatest value during program design.

Policy makers frequently express concern that evaluator involvement in the program design process creates an inherent conflict of interest, the argument being that an evaluator is less likely to be objective in reviewing a program that she helped to design. However, if the policy objective is to deliver the most effective and economical set of programs possible, failure to embed evaluation expertise in program design simply creates needless tension between implementers and evaluators and foregoes an opportunity to design the best programs possible at the outset.

### The Funding Process

A critical element of the policy framework, and one that has taken on increasing importance in a period of state budget deficits, is the process for funding public benefits programs. In virtually every state, public benefits funds are collected via a surcharge on customer utility bills. However, in some jurisdictions these funds are then transferred to a state account for disbursement by a state agency. In these cases, it has been common for state budget makers to view the funds as a potential remedy for budget deficits, and such funds have been tapped in a number of states. The Wisconsin public benefits fund, for example, has lost half of its funding to the cause of deficit reduction. Funds in Illinois and Connecticut also have been raided.

Public benefits fund stability is enhanced to the extent that annual appropriations by the state legislature are not required. The greatest level of protection is created when utilities are charged with collecting revenue to support public benefits programs (or a state commission is empowered to set charges to fund such programs) but the funds never actually leave the utility until they are disbursed for program activities. A second-best, though by no means perfect alternative, would involve collection of a dedicated fee for deposit in a trust fund, perhaps managed by a state agency that does not require annual appropriation by the state legislature.[5] The vulnerability of public benefits funding is perhaps the most powerful argument for building the policy framework around a resource acquisition rationale, where funding is provided entirely through the existing utility revenue recovery process.

## 2.4. Alternative Enabling Policies 2: The Portfolio Standard

A second alternative to the traditional resource acquisition policy framework creates an energy efficiency portfolio standard; a target percentage of existing or new load that is to be met using energy efficiency. A portfolio standard actually can work under either of the broad policy rationales outlined above, though it is most consistent with the resource acquisition perspective. As an element of a resource acquisition policy, the portfolio standard represents a very clear strategy for meeting some fraction of load growth with demand-side as opposed to supply-side resources. Under a public benefits rationale a portfolio standard would be positioned as a strategy for ensuring that consumers receive the benefit of a specified level of energy efficiency.

---

[5] A finding of a recent ACEEE study is telling. Based on a review of public benefits programs across the country, the authors of the study concluded that, "One broad interpretation supported by our observations is that any funding policy the legislature and executive branch had a hand in creating seems to be considered fair game as a target for a funding raid when a state faces a budget crisis. Thus we are forced to conclude that there is no 'bullet proof' strategy for preventing attempted raids on public benefits funds. However, as a practical matter, it does appear that approaches that do not involve the transfer of funds into the state budget for administration by a state agency may offer a little greater protection from subsequent funding raids." Martin Kushler, Dan York and Patti Witte, Five Years In: An Examination of the First Half-Decade of Public Benefits Energy Efficiency Policies, American Council for an Energy Efficient Economy, Report Number U041, April 2004, page 18.

### 2.4.1. Elements of a Portfolio Standard

A pure portfolio standard typically includes both a target level of resource (e.g. 10 percent of new load will be met with energy efficiency) and a system for trading these resources (utilities are allowed to develop their own efficiency resources to meet the standard or to purchase efficiency credits from others). This trading element can be a powerful mechanism for minimizing the costs of resource acquisition. Such systems also typically would include some type of diversity requirement to ensure that not all energy efficiency reductions come from commercial and industrial programs for example.

Practically, however, trading schemes for energy efficiency credits are untested and raise complications that renewable energy or emissions reductions credits do not. The most significant of these is the difficulty in defining and measuring an energy efficiency credit. Trading systems first denominate trading "units". For example, a renewable energy unit might be 1 megawatt-hour of generation, and emissions credits are denominated in tons of emissions reductions. These units can then be traded. For example, if power producer A can generate a renewables credit for $60 per megawatt-hour, and a utility subject to the portfolio standard can produce a megawatt-hour of renewable power for $80, if makes economic sense for the utility to buy (trade) for producer A's power as a way to meet its obligation. The legitimacy of the entire system rests on being able to easily verify that producer A generated this megawatt-hour and traded it to the utility.

Energy efficiency is, in effect, the absence of consumption; nothing actually is produced. Verification for trading purposes, therefore, requires that parties be able to reliably measure something which has no physical characteristics. While conceptually this can be done, an energy efficiency credit trading scheme places even greater emphasis on the evaluation function described above to establish clear baselines against which reductions can be measured, to verify installation and persistence of measures, and to net out free riders.

Although the trading element of a portfolio standard can significantly boost the cost-effectiveness of the energy efficiency acquired, it is not essential. Absent a trading element, a portfolio standard is essentially the equivalent of the energy or demand reduction targets utilities have been assigned by regulators for a number of years.

### 2.4.2. Examples of Energy Efficiency Portfolio Standards

Surprisingly perhaps, there are not many current examples of state energy efficiency policy frameworks that include an explicit portfolio standard. Texas legislation requires that electric utilities satisfy 10 percent of annual growth in peak demand with energy efficiency programs. Implementing regulations adopted by the Texas Public Utilities Commission establish standard offer programs as the primary instrument for meeting this target. The Illinois Commerce Commission currently is considering adoption of portfolio standards for both renewable energy and energy efficiency, although there is no current basis in statute for such a system. Legislatures in Colorado and Washington also have considered such systems, although neither has enacted such a policy.

#### Texas

Senate Bill 7 and Senate Bill 5 set an objective of using energy efficiency to supply "10% of future load growth." Programs include cost effective resource acquisition and market transformation programs (resource acquisition is emphasized). Standard offers provide the core of programs offered in Texas, with relatively modest amounts directed to market transformation efforts. The Public Utilities Commission of Texas (PUCT) retains authority to set program goals, as well as for approving so-called "program templates" that all utilities must use. Utilities are responsible for program administration with substantial direction and approval of program design by the PUCT. General Market Entities assist the Utilities in the implementation activities. The process makes no provision for the trading of efficiency-produced savings.

This model is unique in that it is linked closely with a resource acquisition target in a state that has undergone a substantial separation of procurement and delivery service. The model is also unique in that the Commission, in concert with other parties essentially designed the core set of programs, defined as program templates. The influence of energy service companies in Texas ensured that most of these templates were designed as standard offers. Finally, the model includes explicit limits on the amount of funds that can be used to support program administration, which reinforces reliance on standard offers.

## Illinois

Illinois is entering the final phase of its transition to full retail electric competition. One element of the transition planning process has been consideration of the role distribution companies and load serving entities will play in the promotion of energy efficiency. In February the Illinois Governor offered a general framework that has become the focus of discussion and likely will form the basis for a final structure. In his proposal, the Governor recommends an energy efficiency portfolio standard tied to the share of annual load growth met by energy efficiency. The fraction begins at 10 percent for the 2006–2008 period and increases to 25 percent by 2015. At last as initially conceived, the obligations could not be satisfied via trading.

## Nevada

Although Nevada does not currently have a portfolio standard for energy efficiency, it does have such a standard for renewable resources that rises from 5 percent of sales in 2004 to 15 percent by 2013. However, Nevada utilities have had an extremely difficult time meeting the standard due to a variety of non-performance issues on the part of renewable power developers. The Governor has offered legislation that would allow energy efficiency credits to offset renewable energy obligations on a one-for-one basis (one kilowatt-hour saved is the equivalent of one kilowatt-hour generated), up to 25 percent of the total renewable energy standard through 2009.

## Colorado and Washington[6]

Legislation that would have set a standard based on annual total sales (0.3% rising to 1% by 2006) was considered in 2003, but died in committee. Eighty percent of the standard would have had to be met with customer energy efficiency and other demand-side management resources. The Washington legislation also based its standard on total retail sales, with the percentage of annual sales rising from 0.75% to 0.85%. The legislation also required that 5% of savings come from programs targeted at low income customers and that up to 15% of the target could be met through combined heat and power projects.

[6] See William Prindle, Nikolaas Dietsch, et al., Energy Efficiency's Next Generation: Innovation at the State Level, American Council for an Energy Efficiency Economy, November 2003, report number E031.

### 2.4.3. Issues to Consider in Developing a Portfolio Standard

Adoption of an energy efficiency portfolio standard will require that a series of issues be resolved beyond simply determining the level at which the standard should be set. Given that, to out knowledge, no state has fully implemented such a policy framework, there is no trail of experience to guide the resolution of a number of these.

- **Basis for the standard—**A portfolio standard can be based on sales, energy production or demand and can be applied only to incremental load or total load. A sales target will tend to favor programs with a high load factor and energy efficiency programs generally, while a demand-based target will favor demand response programs and efficiency programs targeted at end uses that contribute significantly to peak demand. The energy efficiency portfolio standards in-place or under consideration apply the standard to incremental load, although there is no conceptual reason, particularly if the standard serves a public benefits rationale, why it couldn't be applied to total load. Clearly, if applied to total load, the standard would be set at a much lower percentage (e.g. 0.5% of load annually rising to perhaps 1% of load annually).
- **Portfolio balance—**As noted, depending on the basis for the standard, energy efficiency or demand-response programs will tend to be naturally favored. If a demand-based standard is applied, it will be important to set a cap on the amount of demand-response that can be used to meet the standard. If an energy-based standard is applied, it will be necessary to develop a clear process for crediting demand-response programs, which while extremely valuable to the utility system, will contribute little to an energy-based standard.
- **Verification—**By definition, a portfolio standard requires determination as to whether or not the standard is being met. Given that energy efficiency programs eliminate kilowatt-hours and kilowatts, verification is more complex than it would be for renewable standards wherein performance can be metered and baseline issues are much less important. A viable efficiency portfolio standard will require clear EM&V protocols, specified in advance, for verifying annual performance. These protocols must establish the process for determining the baseline against which performance will be measured. The International Performance Monitoring and Verification Protocol (IPMVP) provides an industry standard for verification.
- **Trade-ability—**In theory a portfolio standard could be configured such that credits, denominated in megawatt-hours or kilowatts reduced, would be created, certified and traded. Any energy-using entity in the state could be allowed to generate such credits through energy efficiency or demand reduction investments and sell the credits to the utilities having the portfolio standard obligation. The selling of such credits would provide the funding for the actual projects. A trading scheme would almost certainly lower the total cost of meeting the standard, avoiding, at a minimum, costs associated with program design and administration. However, unless the standard is configured to require acquisition of efficiency from multiple market segments, a trading-based program is likely to lead to a fairly narrow set of projects, most likely in the C&I sector. Introduction of trading also likely increases the complexity of verification, and would require that some entity be given the responsibility for certifying credits.

## 2.5. Alternative Enabling Policies 3: Emissions Credit Set-Asides

A third alternative enabling policy would embed funding support for energy efficiency within an emissions reduction set-aside program. Regulations governing the NOX SIP-call with its cap-and-trade system permit states to set-aside a fraction of available emissions credits for energy efficiency and renewable energy. The US EPA guidance suggests 5% to 15% as a reasonable range. Thus, some number of credits would be made available to sponsors of energy efficiency projects who, upon demonstration that at least one ton of NOX emissions were avoided, would be granted the credits which could then be sold on the NOX market. The value of the credits could then be used to offset the cost of the energy efficiency programs.

A number of states, including Indiana, Massachusetts, Maryland, New Jersey, New York and Ohio have adopted or are considering adoption of energy efficiency set-asides under the NOX SIP-call, and there is a wealth of information available regarding the structure of a viable set-aside program.[7] The recently promulgated Clean Air Interstate Rule (CAIR) similarly allows state set-aside programs.

Such set-asides can, in fact, provide valuable, though incremental support for energy efficiency and renewable energy projects, and represent a much-needed integration of state energy and environmental policy. And while in-and-of-themselves, such systems cannot be expected to contribute substantially to the capture of energy efficiency potential at the scale discussed in this report, they can represent significant first steps towards a policy framework that rewards energy efficiency for its contribution to environmental quality and economic development.

Given the extent of in-depth investigation that has occurred related to set-aside programs, we will not attempt to outline all of the elements of such a system for Georgia. However, the key elements of such a system should be designed to minimize the uncertainties associated with the award of allowances. Any program attribute that creates risks that an allowance might not actually be awarded will reduce the value of the allowances. Therefore:

- The set-aside should be of sufficient size to attract attention and to warrant the administrative investment required to verify and allocate such credits. If the allocation is too small, potential investors in energy efficiency are likely to discount the likelihood that they actually will be able to receive credits for their investments.
- Verification protocols must be clear and efficient. Not only must the administering agency have a set of clearly-defined processes for verifying efficiency savings (and thus emissions reductions), potential efficiency investors need to know ahead of time how projects will be evaluated so that they can make informed decisions regarding the risks that a project will fail to meet verification standards. The more complex the verification process, the more

[7] For example, *Creating an Energy Efficiency and Renewable Energy Set-Aside in the NOX Budget Trading Program: Designing the Administrative and Quantitative Elements*, Volume 2, U.S. EPA, EPA-430-K-00-004, April 2000*, Indiana NOx Budget Trading Program: Energy Efficiency & Renewable Energy Set-Aside Guidance Manual*, Office of Air Quality, IDEM, January 31, 2003, *Draft Ohio EPA Guidance Manual: Energy Efficiency/Renewable Energy and Innovative Technology Projects*, (undated), and *Adopting a Georgia Energy Efficiency and Renewable Energy Set Aside, Submitted to the Georgia Environmental Protection Division Air Protection Branch as part of the Regional NOX SIP Public Comment Process*, prepared by Georgians for Clean Energy, Southface Energy Institute, Southern Alliance for Clean Air and the Renewable Energy Policy Project, 7-15-02.

expensive it will be for the efficiency investor and the lower will be the value of the allowance.

- The allowance reservation processes must be clear. Typically, allowances will not actually be awarded until after the performance of a project is verified. This process, even if conducted efficiently, can lead to the value of the allowances being significantly discounted. To be of greatest value, allowances must be "reservable" through a process that allows potential efficiency investors to assess the likelihood that they will actually be awarded allowance reservations.
- Logical aggregation systems should be encouraged. Allowances cannot be awarded in less than one ton amounts. Individual energy efficiency projects rarely will achieve this scale, and thus must be aggregated to the minimum scale. Maximum leverage from allowance set-asides can be achieved by pre-aggregating projects, for example via government, utility or third-party energy efficiency programs.

As suggested above, the value of emission allowances is likely to be low relative to typical energy efficiency project costs. As an indication of the amount of leverage provided, we have calculated the allowance value associated with the C&I Prescriptive Incentive Program described earlier. The following table shows the derivation of the allowance value. For simplicity we assume that the number of allowances that can be awarded exceeds the program's savings. In addition, we assume that the allowances are renewed each year for six years.

**Table 9: Illustration of the Allowance Value of Energy Efficiency**

| | | | |
|---|---|---|---|
| 1 | Estimated total savings for the period 2005—2010 (kWh) | 321,500,000 | 643,000,000 total savings divided by 2, since only ozone season savings count. Assume half of annual savings occur in the 5 ozone season months. |
| 2 | Estimated number of allowances | 241 | (kWh * 0.0015 lbs/kWh)/2000. |
| 3 | Estimated value of allowances | $482,000–$964,000 | Assume allowance value of between $2,000 and $4,000. |
| 4 | Estimated incremental cost of the measures associated with the savings | $111,857,600 | Based on ICF energy efficiency potential analysis |
| 5 | Percentage of incremental cost covered by allowance value | .43%–.86% | Row 3 divided by row 5 |

While these numbers should be viewed as purely illustrative, it is true that the allowance value through a set-aside program for NOX is not likely to be sufficient, by itself, to stimulate efficiency investments. And if the value of allowances cannot by itself, or in combination with other incentives, be shown to stimulate actions that would not otherwise have happened, one could argue that the State's emissions baseline already reflects the efficiency projects. Therefore, a set-aside program is less likely to serve as a free-standing enabling policy, than an element of a broader effort to boost efficiency investment.

*This page intentionally left blank.*

# 3. Direct Intervention Policies

While enabling policies create a policy framework for subsequent actions to promote efficiency investments, direct intervention policies act directly on the market to produce energy savings. The most common direct intervention policies include:

- Building codes
- Appliance/equipment efficiency standards
- Tax credits

Generally speaking these policies produce significant energy savings by eliminating the least efficient technologies and practices from the market. A comprehensive energy efficiency strategy would use direct intervention policies to set an efficiency floor, and enabling policies to stimulate consumer investment in measures above this floor.

We will not provide a detailed discussion of each of these policy types; The American Council for an Energy Efficient Economy (ACEEE) has produced an extensive review of a variety of state policy options in a 2003 paper entitled *Energy Efficiency's Next Generation: Innovation at the State Level*[8], which examines each of these and several other policy options in detail. Rather, we provide a brief synopsis of each option.

## 3.1. Building Codes

Given that building energy use accounts for as much as one-third of all energy use, states have traditionally looked to adoption of building codes, with strong energy efficiency elements, as fundamental elements of an effective energy policy. Our analysis of efficiency potential confirms the important role of efficiency in reducing both electricity and gas consumption for heating and cooling. However, current Georgia codes "on the books" already are relatively strong with respect to energy efficiency. Georgia has adopted the 2000 IECC with 2003 and 2005 state amendments for new residential structures and ASHRAE/IESNA 90.1-2001 for commercial buildings.

Although these codes apply to any buildings constructed in the state, Georgia law allows local jurisdictions to choose which of the State's mandatory codes to enforce. Apart from the authority to selectively enforce codes, local code compliance is a serious issue nationally. Even in states considered progressive in their approach to energy efficiency policy suffer from spotty enforcement of otherwise effective codes, resulting in significant lost energy efficiency opportunities. Despite the fact that the U.S. Department of Energy has spent close to $30 million providing outreach and training to states and local code officials, compliance remains an issue.

The statewide codes adopted for Georgia, while not the most stringent of those adopted by states such as California, Minnesota and Florida, are nonetheless as good as or better than many states. Before considering efforts to strengthen the statewide codes further, the State should more formally assess current code compliance. If substantial under-compliance is found and is not compensated by over-compliance in homes built above code, resource might be better spent addressing systematic reasons for under-compliance (lack of training and technical assistance, builder opposition, etc.).

---

8 Prindle, et al. 2003.

An option to consider in conjunction with the enabling policies described above is implementation of a new home performance program such as ENERGY STAR. If properly implemented such programs have the effect of raising the general level of builder performance and increasing code compliance through builder competition. Alternatively, or in conjunction with such a performance program, Georgia could consider provision of tax credits to builders exceeding certain energy and environmental standards.

## 3.2. Appliance/Equipment Efficiency Standards

ACEEE estimates that, on average, states could decrease peak demand by 490 MW and 2 billion kilowatt-hours, with net savings of $1 billion by 2020, by adopting a suite of appliance/equipment efficiency standards. Savings of this magnitude would represent a significant portion of our estimate of achievable potential. The Appliance Standards Awareness Project has developed model state legislation for enactment of such standards, as well as a state-by-state analysis of the costs and benefits of standards adoption.

## 3.3. Tax Credits and Tax Exemptions

A number of states have adopted a variety of tax credit instruments as inducements to energy efficiency investments. For example, an assessment of New York's green building tax credit for builders of resource efficient homes found that builders were exceeding energy code requirements by over 30 percent for very little incremental cost.[9] A 2002 ACEEE report on state tax credits identified four states offering tax incentives for efficient equipment, and four offering incentives for energy efficient or green buildings.[10] The fiscal impact of these programs varies widely. New York and Oregon have capped annual outlays for their respective tax credit program, although both states were considering lifting the caps. In Oregon, the annual cost of the credit had been approximately $20 million. Based on its research, ACEEE concluded that sales tax exemptions were the most effective and least-cost tax incentive for encouraging purchases of energy efficient equipment, while tax credits were most appropriate for encouraging efficient building practices. The study also suggests applying caps to the total amount of credits available per year to strike a balance between the desire to encourage efficiency and the seemingly constant pressure on state budgets. One option for Georgia to consider would be a small public purpose fee on energy sales that would fund a tax credit or a sales tax exemption. As a rough benchmark for gauging fiscal impact, the Maryland sales tax rebate is estimated to cost approximately $0.20 to $0.40 per capita. Using the 2000 Census for Georgia these estimates would translate into approximately $3.3 million per year. Oregon's residential energy tax credit which covers a wide range of high efficiency equipment is estimated to cost approximately $3 million to $4 million annually, or slightly over $1.00 per capita.

---

9 As described by Prindle et al., 2003, page 33.

10 Elizabeth Brown, Patrick Quinlan, Harvey Sachs and Daniel Williams, *Tax Credits for Energy Efficiency and green Buildings: Opportunities for State Action*, American Council for an Energy Efficient Economy, March 2002, report number E021.

# 4. Finding the Right Approach

No single metric can be used to differentiate among the options described above for purposes of a decision to adopt one or more options. The options vary widely with respect to administrative complexity, administrative resource requirements, energy saving potential, customer costs, and public policy rationale. Moreover, accurately estimating even the tangible costs and benefits associated with the options is difficult because at least some classes of costs and benefits—administrative costs for example - are highly case specific and depend on the current capabilities of Georgia's utilities, state and local agencies and potential third party administrators.

In an effort to provide some basis for comparison we have prepared the following table illustrating a scoring of options based on a number of qualitative and quantitative criteria. Information presented representing the costs and savings associated with the options have been drawn from several sources and thus are not strictly comparable. Our review of these sources suggests however, that the data do support at least a general comparison. Several points should be noted with respect to interpretation of the table values.

- Where possible, all energy and demand savings values are Georgia-specific. Where the values are not Georgia-specific they are so noted.
- For all enabling options described above, we have assumed that an identical portfolio of programs yielding equivalent savings under all policy structures would be implemented. In other words, we assume that the only variable across these options is the administrative structure and its associated complexity and cost.
- We have not included the tax credit or building code options in the comparison. Our review of available comparative information shows the existing credits to be highly customized to individual states. More important, this information does not provide consistent estimates of energy savings and what evaluation information that is available suggests that tax credits may carry a fairly high ratio of free riders (customers who would have made the purchase even without the tax credit). With respect to building codes, as we note above, Georgia has adopted what are considered relatively good energy efficiency codes, and thus improvements would be incremental. Moreover, a reasonable estimate of additional savings from more stringent codes would require an analysis that is beyond the scope of this project. Finally, the extent of code enforcement is as important as the code requirements, and it is generally recognized that actual savings fall somewhat to far short of what would be expected if all code provisions were rigorously and uniformly enforced.

Note that the final three columns represent subjective rankings with 0 or 1 being the lowest cost or best option. The use of "0" indicates that the option would entail little or no additional cost of complexity since the structure already exists.

**Table 10. Comparison of Policy Options**

| Policy Option | Demand Reduction (MW)—2020[2] | Energy Savings (GWh)—2020 | Net Benefit ($B) | Net Benefit per MW Reduction | Policy Admin Cost[6] | Administrative Complexity | Sustainability |
|---|---|---|---|---|---|---|---|
| IRP | 726[1] | 8,146 | $1.6 | $2.2M per MW | 0 | 0 | 4 |
| Public Benefits—Utility Admin | 726[1] | 8,146 | $1.6 | $2.2M per MW | 3 | 3 | 4 |
| Public Benefits—State Admin | 726[1] | 8,146 | $1.6 | $2.2M per MW | 4 | 5 | 6 |
| Public Benefits—3rd Party Admin | 726[1] | 8,146 | $1.6 | $2.2M per MW | 5 | 6 | 5 |
| Portfolio Standard | 726[1] | 8,146 | $1.6 | $2.2M per MW | 2 | 1 | 3 |
| Set-Asides | 393[3] | 4,421 | $.9[4] | $2.2M per MW | 2 | 4 | 2 |
| Appliance[5] Standards | 641 | 2,155 | $1.6 | $2.5M per MW | 1 | 2 | 1 |

*Notes:*

1. We assume that the IRP and Public Benefits enabling policies would all support an identical set of measures and programs. For purposes of this table, the peak and energy savings are set equal to the estimate of achievable potential under the Moderately Aggressive scenario.
2. The numbers reported for the IRP and Public Benefits options are for 2018, the last year for which projections were available.
3. The demand reduction and energy savings associated with the set-aside option were calculated assuming a 2009 Georgia NOX budget of 66,321 tons and a 5% energy efficiency set-aside (3,316 tons). We first calculated the energy savings required to generate the set-aside allowances and then estimated peak reduction based on the energy efficiency "capacity factor" (energy savings/(peak savings*8760) found in our assessment of Georgia efficiency potential (approximately 75%).
4. The net benefit for the Set-aside option was calculated using the same net benefit per MW reduction calculated for the IRP and Public Benefit options, based on the assumption that the mix of programs and program resource costs would be approximately the same.
5. The values reported for the Appliance Standards option are from the Appliance Standards Awareness Project's State-by-State Energy, Economic, and Environmental Benefits from New Appliance and Equipment Efficiency Standards summary found at http://www.standardsasap.org/a051_ga.pdf. The values reported are for Georgia.
6. Policy administrative cost is the cost incurred to establish and maintain the policy as opposed to the cost of administering programs. Under an IRP option, for example, policy administrative costs would be those associated with periodic plan filings and reviews, external evaluation and so forth. Under a Public Benefits-3rd Party structure, these costs would be associated with establishing and maintaining the third party administrative entity. For example, the cost to support the Oregon Energy Trust runs at between 13% and 16% of total costs, the remainder being spent on program administration and implementation.

Clearly, the information presented can lead to a variety of interpretations and we stress that it should be used only to develop a general sense of the attributes of alternative policies. Nevertheless, we believe that several observations bear noting.

- The greatest improvements in energy efficiency are offered through successful adoption of the enabling policies. Certainly, the savings levels shown in the table require a concerted policy and resource commitment. Further, unlike in the case of the appliance efficiency standards option where savings are more-or-less automatic once the standards are adopted, capturing the savings through enabling policies requires repeated adoption of programs and periodic funding renewal. Nevertheless, only the enabling policies provide the mechanism for capture of savings approaching what we have estimated to be achievable.
- The fact that Georgia already has an IRP process in-place creates a significant advantage in terms of administrative cost and complexity. All that prevents this process from being an extremely effective vehicle for capture of significant efficiency potential is the use of the Ratepayer Impact Measure as the definitive measure of program value. At the same time, however, the “RIM” policy is the product of intensive discussion, and likely will not be changed absent a fundamental shift in perspective among policy makers.
- Among the enabling policies, an efficiency portfolio standard, particularly like the simple structure in place in Texas, offers a relatively low-cost and administratively straightforward approach. The principal advantage of a portfolio standard among the enabling options is that it does not require collection and allocation of public benefits funds which could be subject to re-appropriation during the state budgeting process. If structured properly, a portfolio standard also avoids the periodic complexity of an IRP proceeding. If agreement can be reached at the outset with regard to acceptable program structures, the only ongoing policy administrative function is evaluation and oversight.
- An appliance and equipment efficiency standards policy entails much lower policy administrative cost than all options apart from IRP. A variety of organizations have developed sample standards, and a number of states having already implemented standards provide examples for specific statutory and regulatory language. ACEEE estimates that typically a state appliance and equipment standards program can be administered with less than one full-time person.
- Finally, the substantial efficiency potential that exists in Georgia, will be captured only through sustained attention and investment. A weakness with most enabling policies historically, particularly if major elements of the policies are in the hands of regulatory commissions, is that policy structures and funding levels have tended to fluctuate. In very few states has there been sustained, consistent investment over a period of more than a few years. The set-aside and appliance standards options offer the prospect of greater sustainability, largely because they do not require substantial recurring resource commitments, and are managed outside of the sometimes contentious utility regulatory process.

As with most matters of public policy, finding the right approach to capturing Georgia’s energy efficiency potential requires striking the right balance between competing policy aims. Given the policy environment in the State, the principal trade-off would seem to be between an “enact-able” policy structure that supports capture of at least some efficiency potential and a perhaps more effective structure that will be more difficult to enact.

*This page intentionally left blank.*