Two Contrasting Markets & Approaches: Promoting Efficiency in the Province of New Brunswick and New England

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ABSTRACT

The New England states and the Canadian Province of New Brunswick represent two very different energy efficiency markets. New England, with 15+ years of efficiency program experience enjoys a mature market with good penetration of efficient technologies. In contrast, the Province of New Brunswick only recently began to promote efficient energy technologies for commercial buildings, after a lengthy period of no utility or government sponsored commercial efficiency programs. This paper will contrast the markets and explore recent programmatic approaches.

Programs explored include:

Advanced buildings (New England) – The states of Maine, Massachusetts, Rhode Island, and Vermont have recently chosen to build programs around the New Buildings Institute's Advanced Buildings suite of tools. The tools encourage designers to consider building site, envelope, HVAC, and lighting together, providing for energy efficient and healthy environments.

Performance lighting (New England) – Maine and Massachusetts, after years of offering menu driven prescriptive lighting programs, now offer an alternative that bases incentives on utilizing advanced lighting technologies to properly illuminate spaces at lighting power density (LPD) levels that are well below energy code required levels.

Bright ideas lighting (New Brunswick) – This innovative program goes upstream to New Brunswick lighting distributors to introduce High Performance (Super) T8 technologies to the region. New Brunswick bypassed the traditional retail rebate approach and designed their introductory effort in the lighting market as an upstream program with distributors, paying them incentives to stock and sell High Performance T8 lamps and ballasts as well as High Performance T8 equipped lighting fixtures.

The authors each have 1-2 years of experience with each of these programs and will explore successes and pitfalls and recommend strategies for various markets going forward.

Introduction

Recent energy supply price increases combined with climate concerns and serious electric supply problems during periods of peak demand have resulted in the development of new and expanded efficiency programs throughout the United States and Canada. Where there have been long-standing programs, program administrators have been searching for new program

ideas to reach customers that have not previously participated and/or to reach deeper into facilities in order to expand their efforts to new technologies and processes. In regions where there has never been rate-payer supported programs or where programs have been long suspended, new programs are being launched in an effort to introduce basic efficiency concepts and measures. The New England states and the Canadian province of New Brunswick are examples of contrasting market conditions and program development. The New England states of Maine, Massachusetts, Rhode Island, and Vermont are building upon years of successful energy efficiency programs operated by utility companies, efficiency utilities, and regulators. They continue to face energy supply challenges and are attempting to tackle the task of expanding their efficiency efforts. But, the low-hanging fruit has been picked and these program administrators must find ways to go beyond that fruit with new program models. The situation with efficiency programs and the market for efficient products in New Brunswick is completely different. There is no history of efficiency programs in New Brunswick; the province has long enjoyed surplus generating capacity and until recently has maintained relatively low electric pricing. (ref; Efficiency New Brunswick, Program Summary 2007)

New England Efficiency Programs

The first significant efficiency programs in New England were initiated by Massachusetts Electric (now part of National Grid) in 1987. The first programs were simple one-for-one replacement/retrofit programs with an initial focus on lighting. Incentives were available for replacing incandescent and mercury vapor lighting with high pressure sodium and metal halide. Standard T12 fluorescent lighting fixtures were retrofitted with energy saving magnetic ballasts and 34 watt T12 lamps, and/or 50% of the lamps were removed and reflectors added to fixtures. Within a few years, the programs expanded to provide incentives for new construction, custom paths for non-menu efficiency measures were added, and other New England utilities developed similar programs and/or leased programs from National Grid.

Over the last several years, the following efficiency programs targeting businesses have been offered by New England efficiency programs:

- Prescriptive Retrofit/Replacement – Lighting, HVAC, motors, variable frequency motor drives, and limited process measures chosen from program menus
- Prescriptive New Construction – Similar to the above with measures focused on new construction and incentive levels adjusted for incremental cost
- Custom – These programs typically allow the customer or vendor to propose measures that are not included in the prescriptive programs. Incentives are based on various formulas that balance incremental cost, demand savings, and energy savings
- Comprehensive – Most of the programs also offer an enhanced incentive opportunity for projects that approach efficiency comprehensively, dealing with multiple systems in one project
- Direct Install Lighting – Most programs also offer a direct install lighting option. Typically offered to smaller customers, the programs pay for the majority of the installation, allowing the customer to pay the remainder over subsequent billing periods.
- Upstream Marketing Approaches – National Grid's Buyer's Alliance Program utilizes a competitive bid process to contracts with a local distributor to supply efficient lighting equipment at a set discounted price. In addition, Design Lights is a regional program that

for several years has provided educational and marketing support for lighting market actors. Currently, Design Lights is focused on advancing NEMA Premium Ballasts and High Performance (Super) T8 lamps in the Northeast.

With this extensive suite of programs, many customers have participated and the market penetration of energy efficient equipment has been impressive.

During the last few years, the program administrators have realized the need to reach new customers, and to entice repeat customers into participating in new projects involving different end uses or new advancing technologies. The Massachusetts utilities first expanded their direct install programs offering them to medium and large customers. That expanded the programs to customers who had not yet participated, but only simple measures were addressed and it did little to increase participation from existing customers. In the effort to expand program participation, new program models were explored. Two programs in particular represent a departure from standard energy efficiency offerings: Advanced Buildings and Performance Lighting.

Advanced buildings program – Advanced Buildings is a suite of technical resources and training modules developed by the New Buildings Institute (NBI) and designed to provide a prescriptive path for design teams wishing to create high performance commercial buildings, integrating many of the sustainable design practices promoted by LEED with efficiency program efforts. The focus is on energy efficiency and healthy environments with an emphasis on buildings under 70,000 ft^2.

Advanced buildings' getting to fifty program – Although now considered a stand alone program, Getting to Fifty was originally included under Advanced Buildings. It was established to assist building owners and design teams construct buildings that would qualify for the federal tax incentive program, the Energy Policy Act of 2005 (EPACT, 2005). Participation in the tax program requires that buildings outperform ASHRAE 90.1, 2001 by at least 50%. In addition, building subsystems (lighting, HVAC, envelope) may also qualify by outperforming the requirements of the same ASHRAE standard. Program administrators felt that since their programs offered incentives for many of the same measures that were promoted by EPACT they could increase participation by following the Getting to Fifty guidelines. Design assistance is offered along with custom incentives designed to pay a portion of the incremental cost.

Participation in Getting to Fifty has unfortunately been minimal for a variety of reasons:

- Delayed Rule Making – Program success relies on coordination with a federal tax program. It is fair to say that the federal government was very slow in developing the rules for the EPACT commercial buildings program; in fact the first year of program eligibility expired before the program rules were established.
- Limited Tax Benefits – The tax benefits did not meet the expectations of the marketplace. When first proposed, the tax program was to offer a tax credit for efficiency investments. When finally passed, credits were maintained for some sectors, but only a tax deduction was allowed for commercial building efficiency. More specifically, the rules allow qualifying efficiency investments to be 100% deducted in the first year (tax code section 179 deduction) instead of being depreciated over time.
- Tax Program Confusion – The tax benefit is still often referred to as a tax credit, with the current United States Department of Energy website introducing the program with the

statement, "The Energy Policy Act of 2005 (EPACT), signed by President Bush on August 8, 2005, offers consumers and businesses federal tax credits." Sixteen paragraphs later, the document first mentions that the benefit is a deduction (DOE website).

- Bar Set Quite High – Most states in New England utilize ASHRAE Standard 90.1 2001 as the basis for their energy efficiency code for commercial construction. Vermont and Connecticut have just within the last year adopted codes that are modified versions of 90.1 2004. Setting the EPACT program goal at 50% of energy usage compared with 90.1 2001 is establishing a standard that is difficult to reach for most design teams. During 2006, in support of EPACT, NBI conducted a study of the efficiency level of newly constructed commercial buildings. In part they reported, "NBI located approximately 100 buildings built in the past 5 years that would meet, or come close to meeting, the EPACT 05 standard. Key findings of the review included: Buildings designed to this level of efficiency represent fewer than 1 in 1,000 of buildings designed and constructed in the U.S. annually."(New Buildings Institute, 2007). Program administrators have found that design teams and/or owners are unwilling to take a leap in building performance that they feel is risky and potentially expensive.

Although the program has supported few completed projects, there have been some positive aspects of promoting the Getting to Fifty model:

- Increased Awareness – The program has exposed design teams, developers, and program staff to numerous concepts and tools that assist in the design of efficient buildings.
- Energy Savings Harvested – The adoption of strategies promoted by Getting to Fifty produces energy savings whether or not the building projects actually meet the 50% goal. Envelope, HVAC, and lighting strategies promoted by the program were often adopted and were many times awarded incentives through other program vehicles such as prescriptive or custom measure paths.

Advanced buildings' core performance program – Core Performance is described by NBI as, "Advanced Buildings' step-by-step simplified approach to achieving predictable energy savings in small- to medium-sized buildings without the need for modeling. It also provides work-saving tools for professionals already experienced in sustainable design." (New Buildings Institute, 2007)

Prior to the development of Core Performance, NBI developed and distributed a tool called E-Benchmark and then simply Benchmark. Benchmark closely followed the model established by ASHRAE Standard 90.1, specifying higher efficiency levels than those called for in 90.1 2001. Core Performance was introduced in 2007 as an update and replacement for Benchmark. Core Performance follows the 90.1 model less closely and includes provisions that are not included in 90.1. What makes Core Performance unique is that it offers a prescriptive path to energy efficiency that is backed by extensive modeling. Using E-Quest, a modeling tool based on the DOE-2 modeling engine, NBI modeled sample building, performing over 30,000 modeling runs (New Buildings Institute 2007, 14) to determine the efficiency impacts of the included measures. If all measures are implemented, the resulting building should perform at a level that use 25%–40% less energy than a similar building built to standard 90.1 2004, or about 35%–50% less energy than a similar building built to 90.1 2001. (New Buildings Institute, 2007) The actual results will depend on building type and usage, climate zone, and construction details.

National Grid, NSTAR Electric, Western Massachusetts Electric, Public Service of New Hampshire, Efficiency Vermont, Efficiency New Brunswick, and Efficiency Maine are all in the process of developing design assistance and incentive programs utilizing the Core Performance protocols. National Grid, Efficiency Vermont, and Efficiency Maine are first out of the gate and are finalizing programmatic details as this paper is being written and will be supporting projects by late spring 2008.

Advantages of Core Performance:

- Simple, Accurate Path – The development of prescriptive measures backed by actual DOE-2 based modeling runs allows design teams to accurately predict building performance without the time and expense of modeling the project.
- Access to Resources – NBI is making a suite of tools and resources available to program participants. These resources are downloadable through a password protected web-based library. Unlike paper published resources, the content will be continuously updated with new materials such as case studies and advancing techniques and technologies.
- LEED Recognized Protocol – Core Performance is currently recognized as an accepted protocol for compliance with the USGBC's LEED rating system (up to 5 energy & atmosphere points). It is the only path that does not require DOE-2 modeling of the project to obtain these credits.
- Recognized by Other Protocols – Core Performance is also recognized by the Collaborative for High Performance Schools (CHPS) rating system, the previously discussed EPACT tax deduction program, and various state protocols for efficient buildings such as those in New Mexico and Connecticut.
- Replaces "Rules-of-Thumb" – Small- and medium-sized construction projects are rarely performance modeled. Instead designers use "rules-of-thumb" in order to size HVAC systems, select and space lighting fixtures, size service transformers, etc. These "rules-of-thumb" include such simple rules as: heating/cooling BTUs/ft² for all commercial building types; amps/ ft² for transformer sizing; and repeated fixture spacing (8'x10') of the typical 2'x4' 3-lamp lighting fixture. All rules-of-thumb by their very nature include safety factors that harm efficiency levels. Core Performance prescriptive measures replace rules-of-thumb in participating projects. For example, lighting loads are based on lighting power density levels that are lower than code or "rules-of-thumb" allow; HVAC systems must be sized to predicted building loads; and differing HVAC loads, such as process loads must have dedicated systems with dedicated controls.

Possible Pitfalls with Core Performance:

- Project Suitability for Comprehensive Approach – The intention of Core Performance is that all measures be complied with, and this is how it is being adopted by most efficiency programs. However, some building projects may not lend themselves to adopting all measures, and program managers must decide how to deal with partially complying projects.
- Sample Building Modeling – It is possible, and perhaps likely, that some buildings will not fit the molds of the sample buildings that were modeled by NBI. Modeling these projects individually will be expensive.

- The Devil Is in the Details – Matching modeled performance with actual performance relies on careful construction and attention to details. It would be impossible to argue that design teams and program managers have historically been successful in control jobsite construction details.

Efficiency program managers are finding that Core Performance is bringing to the table design teams that have previously not participated. It allows teams to use a more flexible approach than typical prescriptive measure approaches allow, but avoids the time and expense of the project modeling required by most custom approach programs.

Performance lighting – Performance Lighting is a lighting efficiency program that is based on installing advanced lighting technologies at lighting power density (LPD) levels significantly lower than code and standard practice dictate. The first Performance Lighting program was offered by NSTAR Electric beginning in 2005. This initial program offered an incentive based on installed lighting power reductions compared with the Massachusetts Energy Code's lighting power density allowances for space and/or building types. Although this program basically worked well, there were few safeguards to control free ridership and assure quality lighting. Some projects qualified for incentives simply by incorporating designs that supplied lighting levels below IESNA recommended lighting levels, utilizing standard practice technologies and techniques. In effect, standard projects with low quality lighting were receiving incentives.

After the initial program year, ERS consulting worked with NSTAR and National Grid to revise Performance Lighting. The concept of rewarding of reducing the project LPD was retained; however, three important features were added:

- Enhanced incentives (second tier) were offered for incorporating lighting fixtures and controls with advanced features. The first tier is now being eliminated as the availability of advanced systems improves. The second tier includes such lighting approaches as indirect lighting that takes advantage of brightness factors and improved uniformity to achieve acceptable lighting levels at low LPDs and lower illumination levels.
- Lighting quality provisions were added to the requirements. These include glare control, color rendering standards, and IESNA lighting level thresholds.
- Project review protocols were added to eliminate program gaming on LPD levels. Each project is re-measured for building and/or space area; ineligible areas (mezzanines, crawl spaces, dead storage) are removed from calculations; lighting fixture rated wattages are checked against manufacturer specification; and space category is checked for consistency with ASHRAE standard space assignments.

With these amendments, Performance Lighting has promoted projects with quality lighting systems that consume far less energy than similar projects with standard, code compliant, lighting systems.

Advantages of Performance Lighting:

- Lighting Design Flexibility – Lighting designers do not like to follow prescriptive approaches and bristle at the idea of being told what fixtures to install by efficiency program representatives. Performance Lighting offers designers the flexibility of

selecting lighting fixtures and controls from a huge array of available advanced equipment.

- Savings Compared to Code – Prescriptive (incentive per fixture) programs offer no guarantee that projects use less energy than code requires. In fact, some projects with LPDs much higher than code requires have received incentives through prescriptive programs. When Performance Lighting was first introduced, many projects already accepted under prescriptive programs were reviewed for a possible "upgrade" to Performance Lighting. It was discovered that many project spaces, especially office and classroom spaces, had been designed with LPD higher than either Performance Lighting or the Massachusetts Code allows.
- Familiar Methodology – Energy codes require LPD calculations. Therefore, design teams are familiar with the concepts and the basics of calculating compliance.

Performance Lighting Pitfalls:

- Understanding Lamp and Ballast Power – Lighting fixtures typically use less, or more, than power than their nominal wattage indicates depending on the ballast selected. This is a confusing situation for many practitioners.
- Understanding Advanced Lighting Technologies – Direct/indirect fixtures, high efficiency recessed fixtures (so called "volumetric" fixtures), premium efficiency lensed and parabolic troffers, and color corrected ceramic metal halide fixtures are just a few of the technologies that created confusion among practitioners due to poor understanding of their benefits or simply a lack of knowledge about them. Participants needed extensive "hand-holding" in order to advance projects to the richer second tier.
- Advancing Energy Codes – Energy codes have long been viewed as the "least efficient construction that the law allows." New versions of Standard 90.1 are more aggressive and are being designed to "push" standard practice. (ASHRAE 90.1 2004)
- Poor Code Compliance Tools – Although practitioners are familiar with LPD calculations and compliance, the compliance tool almost universally utilized is the DOE supported COM*check*. Because COM*check* allows the user to input whatever wattage they wish for ballasts, lamps, and fixtures, COM*check* cannot be reliably used for Performance Lighting compliance.

With Performance Lighting, program administrators are able to offer an approach similar to code compliance that promotes advancing technologies, assures savings compared with code, and most importantly, brings previous non-participants into their programs.

New Brunswick Efficiency Programs

In stark contrast to New England, there is no history of efficiency programming in the Province of New Brunswick. The province has long enjoyed a surplus of generating capacity and continues to be a net exporter of electricity.

Recent environmental and economic concerns have changed the political climate and New Brunswick is now introducing its first efficiency programs. Cost effective programs are needed to avoid the cost of constructing and operating the next large generating station in the province, with current plans calling for a second nuclear power plant at Point Lepreau. They are

facing the same situation that New England faced in 1987: introducing the concept of ratepayer funded efficiency efforts and influencing the purchasing decisions of the various market actors.

Efficiency New Brunswick (ENB) was established in late 2006 by the provincial government as a Crown Corporation to design and deliver in the province. The primary challenge faced by ENB was to build new programs that would be quickly adopted by the public and deliver energy savings to the province. Starting with little public awareness, few employees, and few resources, initial programs needed to have a short design and implementation cycle, be easily understood, and be able to be managed by a small staff.

Bright ideas program – The first commercial sector program launched by ENB was the Bright Ideas Lighting Initiative (Bright Ideas). Bright Ideas works with the lighting supply community to quickly bring energy-efficient High Performance "Super" T8 (HPT8) and Reduced Wattage T8 (RWT8) commercial lighting technologies into the province. The initiative incorporates an approach that directs incentives "upstream" to commercial lighting distributors, rather than paying incentives to end users.

In the early program development stage, suppliers and specifiers in New Brunswick were surveyed regarding the stocking practices of T8 lighting lamps, ballasts, and fixtures. The results of those surveys indicate that HPT8 and RWT8 products were not in stock and were virtually unknown in the province, with suppliers expressing a belief that special orders of the product would be expensive – on the order of 20%-30% more expensive than conventional T8s. In point of fact, price deltas were not actually that significant. Two knowledgeable sources (the regional Osram Sylvania and Phillips lighting representatives) quoted much smaller margins – on the order of CAD $1.00 / lamp and CAD $2.00 – $3.00 / ballast, approximately a 5-10% increase in first cost for the lamp/ballast system.

With these field findings, conditions were ripe to introduce the HPT8 and RWT8 technologies into New Brunswick and transform the market to make these products the market standard in a relatively short period of time. Because of the influence of other North American programs that had been promoting and providing incentives for this product 18 to 24 months earlier, manufacturers were producing ample product, which could be expected to be available to the New Brunswick market at a modest incremental price delta. All that remained was to pull it into the market through a combination of incentives that neutralize the delta and information and marketing that make buyers aware of its efficiency and electricity cost savings, compared to the standard T8 product.

Initiative overview – Bright Ideas provides incentives directly to electrical distributors for qualifying equipment. On a monthly basis, electrical distributors submit sales totals of qualifying equipment to Efficiency New Brunswick and receive reimbursement. Distributors simply run a sales report, using SKUs for the qualifying equipment and exporting the data to an Excel spreadsheet format. Sales information also contains a "shipped to" address for larger purchases, so it is possible for Efficiency New Brunswick to determine the location of the installations and inspect them as necessary to assist with measurement and verification.

The initial set of qualifying technologies offered in the initiative was limited to HPT8 ballasts, fixtures that contain the HPT8 ballast, HPT8 lamps, and high efficacy RWT8 lamps. The criteria developed by the Consortium for Energy Efficiency (CEE) for HPT8 and RWT8 lamps and ballasts are being used to determine eligibility. With this narrow focus, Efficiency New Brunswick introduced a very straightforward program that can be built upon as the market

matures. The limited product selection allows the market to become comfortable with this delivery mechanism and Efficiency New Brunswick as an organization. ENB is currently evaluating the addition of other lighting technologies such as high-intensity fluorescent systems and automatic lighting controls to the initiative.

The incentives for the initiative are designed to offset 100% of the incremental cost of qualifying products in most situations. Average incremental cost was determined through a pricing survey of T8 lamp, ballast, and fixture sales representatives in New Brunswick, at varying levels of volume. In addition to a product incentive, distributors are offered a small "transaction incentive" to offset stocking, inventory, and participation costs.

Advantages to the upstream approach – The upstream distributor incentive approach addresses several market barriers that limit implementation of HPT8 technology in the marketplace and inhibit market transformation. These barriers include:

- Higher First Cost **–** While the delta is narrowing, HPT8s continue to be more costly then conventional T8 lamps and ballasts. First cost almost always dominates other decision criteria, such as performance or life-cycle cost.
- Product Lead Time – Increasing the time required to complete projects leads to increases in billable hours or change orders, both of which raise project budgets. This creates a tremendous bias in favor of known technology, tried-and-true building design, and conventional lighting specification.
- Product Unavailability/Stocking **–** Distributors are reluctant to stock high efficiency equipment if demand is uncertain and competition remains largely first-cost based.
- Lack of Information **–** The lack of clear, unbiased information about the costs and savings of energy-efficient equipment is a major issue for professionals designing new buildings, and building managers seeking replacement equipment.
- Lack of Experience with the Product **–** With little or no experience with a product, design professionals and trade allies will be hesitant to specify or install the product.

Efficiency New Brunswick designed the Bright Ideas Lighting Initiative to address all of these barriers. An upstream incentive approach significantly reduces time and cost concerns and can also address stocking issues by paying incentives directly to distributors, who can then determine how to factor those incentives into their price points.

Another advantage of the distributor incentive approach is that the administrative costs associated with processing of incentives or rebates can be significantly lower. Efficiency New Brunswick interacts with a relatively few number of vendors rather than processing numerous applications from individual end-users and paying individual incentives. This predictable, straightforward process is streamlined, efficient, and produces accurate program data.

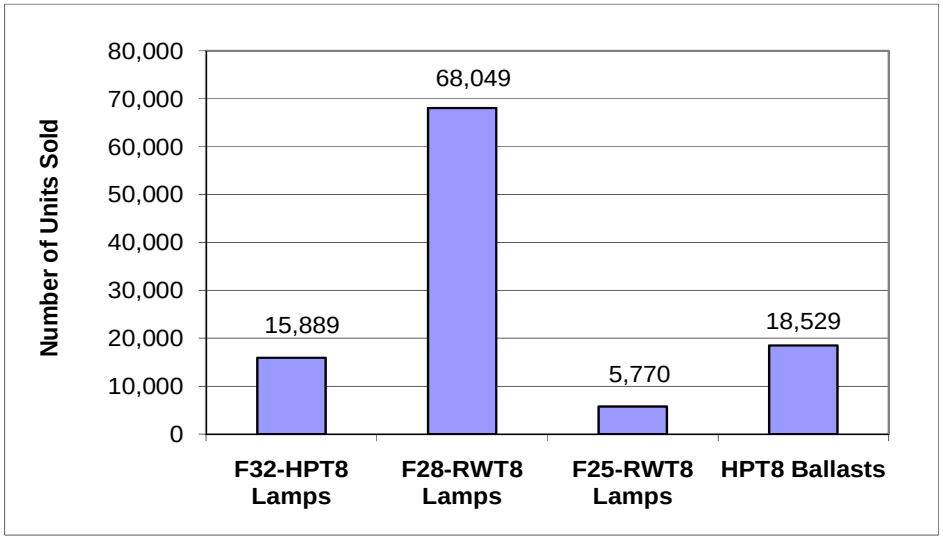
Also, utilizing the existing sales force of manufacturers and distributors is key to creating a successful program with a small staff. By creating the business case for distributors to sell only the more efficient technology, the goals of Efficiency New Brunswick are aligned with those of the distributors. This cooperation reduces the amount of marketing, outreach, and education that is required in implementing downstream incentive programs.

Pitfalls of the Upstream Approach **–** The upstream distributor incentive approach also has some disadvantages:

- Information Tracking Problems – It can be difficult to secure information about the ultimate program beneficiary and the location of the equipment installation, particularly for small over-the-counter sales. Because distributors sell some share of their products to contractors, who then take the product directly to job sites themselves, the distributors cannot easily provide end-user information for some customers. Larger orders are easily tracked by the "shipped to" address that identifies the job site. For smaller over-the-counter sales, it is difficult to collect this site specific information, such as building type, operating hours, and customer satisfaction.
- Incentive Pass-through – There is no guarantee that distributors and contractors actually pass the resulting price reduction on to the end-user. In most situations, competition and market forces will ultimately resolve this, but a variety of financial arrangements will be experienced.
- Program Traction with End Users – It may prove difficult for Efficiency New Brunswick to obtain due credit from end-users for the economic advantages offered by the program. End user awareness is critical for the long-term political sustainability of any efficiency incentive program. Efficiency New Brunswick is attempting to minimize this issue by making the approach as public as possible through direct marketing to contractors, trade-allies, and end-users.

Efficiency new Brunswick bright ideas program progress – After only 12 months of program activity, the program successes have exceeded expectations. Visits with participating distributors in preparation of this report has demonstrated that 50% of distributors have replaced their standard T8 product with HPT8 and RWT8 product, now offering only the more efficient options to their customers. Sales of qualifying product have increased from near zero before program launch to more than 108,000 units after 12 months. (See Table 1). This is estimated to be approximately 30% market penetration of all T8 lamp/ballast sets sold in New Brunswick in 2007.

Figure 1. Total Qualifying Product Sales by Type after 12 Months



The resulting energy savings are estimated to be between 891 and 2,302 MWh in the first year of program operation. Demand Savings are estimated to be between 0.1 and 0.26 MW. The upper range of savings is estimated to be 3.2% of the total annual indoor lighting electric energy consumption in New Brunswick. These savings estimates will be further refined with the results of a market assessment that is currently underway.

Conclusion

Considering that they are contiguous regions, New England and New Brunswick share little commonality when it comes to the market for efficient products and efficiency programs. The programs recently introduced, and outlined in this paper, represent approaches directly targeted to the regional market being addressed.

New England program administrators are faced with the challenge of competing with their own successes. Hundreds of thousands of commercial-industrial customers have participated, installing efficient lighting, HVAC, motors, process equipment, and even envelope measures. New customers must be reached and previous participants must be enticed into pursuing new opportunities at their facilities or incorporating new design techniques and technologies in their new construction projects. The recently introduced programs are designed to exploit those opportunities. Design practitioners who previously resisted in participating in traditional prescriptive programs are embracing the opportunity to participate in programs that allow the flexibility to reward efficient designs that represent alternative approaches to energy efficiency. Additionally these programs are able to immediately recognize and incorporate new technologies without waiting for institutional approval.

By contrast, Efficiency New Brunswick has chosen to enter the marketplace with a simple program that attracts established market actors and entices them to change their stocking practices, replacing their standard inventory with high efficiency product that will be moved at no incremental cost to the contractor and/or end user. This has allowed ENB to quickly bring energy efficient lighting equipment to the marketplace without a large programmatic infrastructure. With a simple but effective program up and running, the province can branch into more aggressive efforts that reach expanded technology areas and markets.

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