



MEMORANDUM

TO: Lindsay Perry, Christina Skursky, Jeremy Newberger, Tim Roughan (National Grid)
FROM: Amanda Dwelley, Joanne O'Donnell, Bill Norton
DATE: September 17, 2012
RE: National Grid Rhode Island System Reliability Procurement Pilot:
Preliminary 2012 Marketing Effectiveness Findings

This memo serves as the first Marketing Effectiveness Analysis of the Rhode Island System Reliability Procurement (SRP) pilot in the towns of Tiverton and Little Compton. This report reflects information related to the program through mid- to late August 2012. Since March 2012, National Grid has increased marketing and outreach in the pilot communities to encourage participation in select statewide energy efficiency programs, and enrollment in SRP demand management offerings (programmable controllable thermostats and demand-response lighting ballasts). To determine how effective these marketing tactics have been toward meeting participation goals, this memo assesses success metrics such as inquiry rates, and energy efficiency program participation. Findings in this memo cover the period March 2012 through mid-August 2012. Full-year 2012 findings will be reported in an update to this memo in early 2013.

Program Marketing Overview

The pilot's first-year activities center on (a) enrolling residential and commercial customers in the Demand Link program, which includes demand response and direct load control pilot measures, and (b) encouraging participation in existing energy efficiency programs that may contribute to pilot savings. Specifically, the pilot seeks to install programmable controllable thermostats (PCTs) in 125 residential homes and 10 commercial facilities, and install 50 enhanced DR lighting ballasts.¹ To fulfill these goals, National Grid has increased marketing efforts for two statewide energy efficiency programs - EnergyWise and Small Business Direct Install (SBDI). These two programs each perform two functions: They are a platform for determining Demand Link eligibility and encouraging Demand Link participation, and they offer direct install energy efficiency measures that can help reduce peak load on the target substation. The pilot established 2012 energy efficiency participation goals that are double the installation goals for PCTs (250 EnergyWise participants and 20 SBDI participants).

¹ Lighting ballast goals reflect the total number of installed ballasts rather than participants - goals could be achieved by installing 50 DR lighting ballasts in one facility

Pilot marketing efforts to date (through mid-August 2012) include the following:

- Presentations by National Grid in May at two community meetings where both town administrators and the general public were in attendance
- Article posted in May in local online news outlet describing pilot initiative, offerings, and steps to sign up for an audit program
- Direct outreach (phone) to recent EnergyWise Audit participants to describe pilot offerings
- Direct mail letters in June to 12 residential customers from Tiverton and Little Compton that had an audit after January 1, 2012 and before June 1st and who also were flagged as having central air conditioning, a requirement for program participation
- Direct mail in June to 1,461 high-usage residential customers to promote pilot program.² Follow-up calls to customers that did not respond to mailing began on August 1st. Five hundred eighty-one follow-up calls have been made as of August 7th.
- Social media activities via Twitter beginning in May through August. Five tweets in total to date publicizing the availability of no cost WiFi thermostat for Little Compton and Tiverton residential customers
- Program overview flyer developed in May and provided at conclusion of residential customer audits
- Direct mail in mid-August to small business customers in Tiverton and Little Compton that highlights the availability of PCTs through the Demand Link program to eligible customers
- Door-to-door initiative beginning in mid-August to promote the pilot offerings to small business customers in Tiverton and Little Compton

These activities are in addition to business-as-usual statewide marketing that may advertise or market to customers in the pilot towns.

I. RESIDENTIAL MARKETING EFFECTIVENESS

This section describes residential marketing effectiveness from three perspectives. First, we look at counts and rates of key success metrics such as program inquiry (to RISE Engineering), EnergyWise program participation rates, and PCT application and enrollment rates for the pilot communities as a whole. Second, we look at these rates among the subset of approximately 1,500 high-usage customers who were targeted in first-year marketing. Third, we look at central air conditioning penetration rates specific to the pilot area to assess whether the pilot is “on track” to reach PCT enrollment goals.

Though the pilot officially started in March 2012, marketing activities did not begin to ramp up until June 2012. Presentations at town meetings and local press releases in both Little Compton and Tiverton began in mid-May 2012. Targeted direct marketing efforts did not begin until late May 2012, with an article in a local online news publication promoting the availability of the pilot, and social media activities via Twitter ramping up during that time. The first direct mail letters were sent

² Note that of the 1,538 high usage customers identified, direct mail letters were only sent to 1,461 customers.

in June to 12 residential customers from Tiverton and Little Compton that were flagged as having an audit after January 1, 2012 and before June 1, 2012 and who were also flagged as having central air conditioning, a requirement for participation in the pilot program. The second direct mailing letters to residential customers were also sent in June 2012 to a targeted list of 1,461 high usage customers. Follow-up calls to customers who did not respond to this direct mailing began on August 1, 2012, with 581 follow-up calls having been made to date, and with more continuing through August.

Other planned activities in the coming months include email blasts in September (exact date TBD) to residential customers that had an audit after January 1, 2012 and that were identified as having central air conditioning. Additionally, National Grid is beginning to use paid advertising (banner ads and newsletter ads) with a local online media outlet, and will continue social media activities to promote the pilot. The findings in this report regarding progress-to-date against program goals should be considered very preliminary, as pilot marketing has only occurred on a larger scale for about three months, and future marketing activities are scheduled to occur.

A. Residential Success Metrics

EnergyWise Program Participation

Participation in the EnergyWise program is a key measure of (a) the pilot's success marketing EnergyWise, and (b) the pilot's potential to recruit Demand Link participants. To assess the impact of pilot marketing, we look at trends in program participation in the pilot area, compared to trends in participation in similar, non-pilot towns in the same period. It is important to look at increases in participation in the context of participation in other towns, to determine what increase we might expect due to business-as-usual statewide marketing.

We identified a set of comparison towns that have been exposed to business-as-usual program marketing, but have not been part of recent energy efficiency pilots. The Appendix explains the selection criteria and compares housing and demographic data for these towns. In aggregate, the comparison towns serve as a counterfactual to represent what trends we would expect to see in the SRP pilot towns in the absence of the pilot (but with business-as-usual marketing).

In this report we will examine annual participation counts and rates, comparing 2012 YTD with the baseline period (2009-2011). Though 2012 does include two months that are not in the pilot period, due to the relatively low counts and natural seasonal fluctuations in participation, we believe it is better to look at full-year data at this stage in the pilot. Additionally, since National Grid is reaching out to all 2012 EnergyWise audit participants to offer Demand Link and could meet Demand Link goals from the entire pool of 2012 EnergyWise participants, it is helpful to look at full-year 2012 participation to understand Demand Link enrollment potential. When these marketing effectiveness numbers are updated in early 2013 we will consider augmenting 2012 results with a part-year 2012 analysis (starting in either March 2012 or May 2012, when direct marketing activities began).

The table below shows annual participation counts from each of these communities.³ Participation in the SRP communities (first column) was fairly stable in 2009-2011, with between 82-90 audits per

³ Participation counts are based on the number of facilities with site visits in each year, where year is determined by the month in which the site visit occurred, and facilities could have had more than one electric account audited (if multifamily). Visits are assigned to a region based on the town name.

year.⁴ In the first 8.5 months of 2012, nearly the same number of audits was completed as for each of the three previous full calendar years (actually a 2% increase). In contrast, audits in the comparison communities through mid-August 2012 are about 13% below their 2009-2011 average annual level. In the absence of SRP marketing, but in the face of increasing statewide program goals, we would have expected the number of audits in the pilot area to be about 18% below previous full-year numbers; however, they are slightly higher than this benchmark.⁵ From this perspective it appears that the EnergyWise participation rate under the pilot is higher than it may have been with business-as-usual statewide marketing (i.e., slightly better than the comparison communities).

Table 1. EnergyWise Audits in SRP Pilot and Comparison Communities

Period	SRP Pilot Communities	Comparison Communities
Baseline (2009-2011 Average)	86.3	684
2009 (12 months)	82	635
2010 (12 months)	90	609
2011 (12 months)	87	808
2012 YTD (8.5 months)	88	592
Percentage difference from Baseline	2%	-13%

Visits among customers on the two sub-feeders of concern may be slightly lower than overall visits in these towns. About 58% of site visits conducted in Tiverton and Little Compton ZIP codes 02878 and 02837 in 2011 and 2012 YTD can be tracked to the accounts of customers on Tiverton substation. Two factors could be driving this difference. First, the customer list represents account numbers at a specific point in time - here, February 2012. Customers who were previously on this substation and received audits in 2011 may have moved, or customers new to this substation (since February 2012) could have signed up for audits since moving in; in either case, they would not be on the account list. Second, the ZIP codes that generally define the pilot area may contain customers who are not on substation 33. For the purposes of marketing effectiveness analysis, we will assess the volume and rate of EnergyWise participation for all customers in the two towns, as program marketing such as town meetings and press releases may reach all customers.⁶

⁴ We compare these full year counts with 2012 YTD instead of adjusting 2012 numbers to communicate the scale of the program and opportunity to recruit Demand Link participants from among this group.

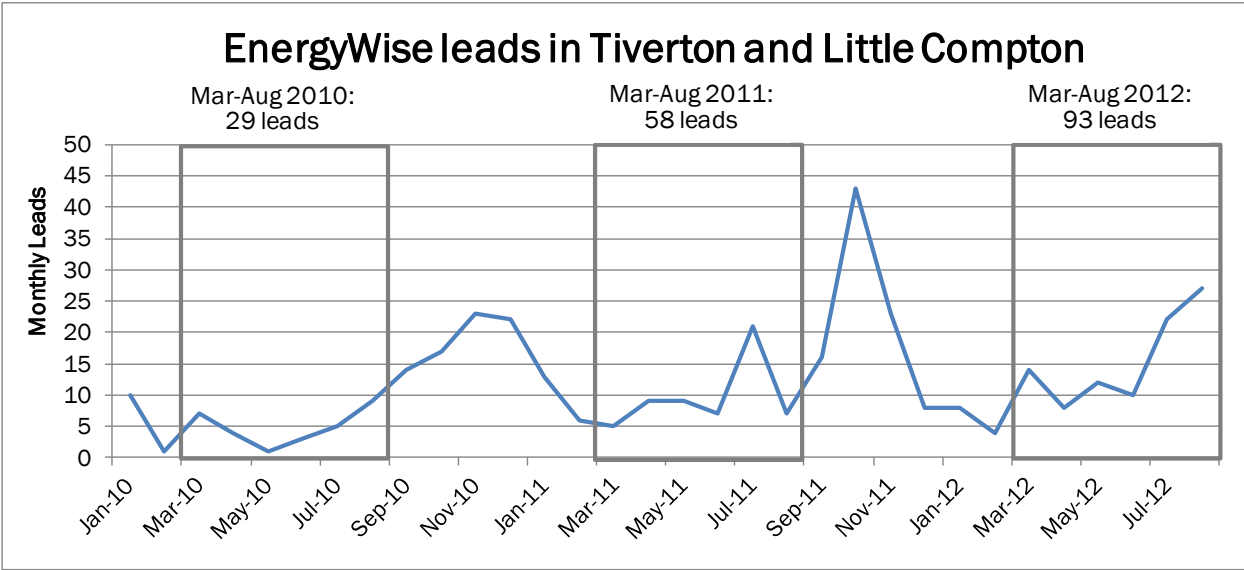
⁵ While it is logical that 2012 YTD numbers from 8.5 months are lower than full calendar year counts, all communities face increasing energy efficiency installation and participation goals based on statewide goals, therefore it is difficult to define the exact percentage difference that may be expected 8.5 months into a calendar year vs. previous years, and a comparison group of communities provides one method of benchmarking performance.

⁶ For the purpose of Focused Energy Efficiency Impact Evaluation, we will develop a methodology that can account for these discrepancies – for example, judge incremental participation for the towns overall, but only apply an incremental participation or installation rate to measures installed among substation 33 customers. This methodology is under development and will be delivered in December 2012.

Residential Leads & Inquiries

We also looked at EnergyWise audit requests of the program implementer, as a potential leading indicator of program participation. The chart below shows that leads were 60% higher in March through August of 2012 compared with March through August of 2011. While the lead volume suggests that more customers will participate in EnergyWise this year than last, it is uncertain whether lead volume increased due to pilot marketing or enhanced statewide marketing.

Figure 1. EnergyWise Leads, 2010 – 2012 YTD



The goal of 250 EnergyWise audits represents a 182% increase over average annual participation in 2010 and 2011, respectively. For comparison, during the 18 months of the Aquidneck Energy Action pilot, EnergyWise audits increased by 126% compared with the 18 months prior to the pilot. However, the Aquidneck pilot did not see a substantial uptick in EnergyWise participation until about one year into the program (coinciding with enhanced marketing). At this stage in the pilot it is still too early to judge whether the pilot is on track to achieve participation goals, since some ramp-up period may be expected, and marketing efforts did not pick up until summer 2012.

Demand Link Leads & Participants

The pilot directs residential customers to call RISE Engineering to sign up for an EnergyWise home energy audit as the first step to participating in the pilot. Past audit participants who had received their audit beginning January 1, 2012 are also encouraged to call RISE for more information. RISE generally asks customers how they heard about the program, and records this information. However, for the pilot, customers who either call in asking about the Demand Link program or call in for the EnergyWise program in general – but are eligible and eligible for Demand Link – are recorded as a Demand Link lead.

From March 1, 2012 to August 26, 2012, 26 customers (28% of leads) were classified as Demand Link leads. Of the 25 Demand Link leads with known account information, 20 were part of the high-usage customer targeted direct mail list (n=1,461). It is unclear from program tracking how other customers flagged as “Demand Link” learned of the program – e.g., direct mail, email blast, town meeting, or the RISE call center representative. Going forward, as more customers may come in from

general marketing (i.e., outside of a targeted list), we recommend that the program implementer (a) record how customers heard about the program separately from their program interest and/or Demand Link status, and (b) attempt to record “how heard” for more customers in the pilot program area.⁷ This will allow the Evaluation Team to assess what marketing channels may be driving customers to call RISE regarding EnergyWise and Demand Link.

Demand Link thermostat installations through August 27th total 12 thermostats in 10 customer homes. The installation count is slightly lower than the number of leads, as some leads are not eligible for the program. Among the nine installations for which we have customer account information, six customers were part of the high-usage customer targeted direct mail campaign. At this stage in pilot implementation it is too early to conclude whether the direct mail program is effective in driving interest in Demand Link (compared with other sources, like the site auditor, or local press).

B. Targeted Customer Success Metrics

National Grid selected 1,461 high-usage customers for a direct mail campaign.⁸ On June 26, 2012 a direct mail letter was sent out to these customers, and follow-up calls began on August 1st to those customers who have not responded to the direct mail letter. These customers had average annual consumption of 14,996 kWh and average summer consumption of 5,992 kWh.⁹ Through mid-August, 38 of these customers have either inquired about EnergyWise or participated, including 11 program participants. As of mid-August, 20 of these targeted customers expressed interest in Demand Link, and 6 have completed or scheduled Demand Link installations.

Leads from this targeted list represent 36 of the 93 EnergyWise leads from these two towns between March and mid-August 2012 (39%). Note that the targeted list represents 17-29% of residential customers in Little Compton and Tiverton, so the inquiry rate is slightly higher than the natural rate we’d expect from 1,461 residential customers.¹⁰ Customers from this list represent 11 of the 67 EnergyWise participants from March through mid-August (16%).¹¹

National Grid also reached out to 12 customers who had completed EnergyWise audits in early 2012 and had central air conditioning, to attempt to recruit them for the Demand Link program. Based on Demand Link tracking data through mid-August, it does not appear that any of these customers have scheduled a Demand Link installation.

⁷ For about 53% of all EnergyWise leads from this period, information on how customers heard about the program is blank or classified as “unknown”

⁸ About 1,538 high usage customers were identified, and direct mail letters were sent to 1,461 customers.

⁹ Usage information is based off the initial database of 1,538 high usage customers

¹⁰ This list represents 17% of all residential customers in Tiverton and Little Compton as of August 2012 (based on ZIP code) and 29% of all residential customers on substation 33 as of February 28, 2012.

¹¹ The difference between leads and participants may be due to the gap between inquiry and an initial site visit, which is typically a few weeks but could be as short as a few days or as long as a few months.

C. Central Air Conditioning Opportunity Size

In this section we compare multiple data sources with central air conditioning tracking to determine whether there is high enough central air conditioning penetration among residential customers and EnergyWise participants to yield 125 WiFi Programmable Controllable Thermostat participants in 2012. At present, EnergyWise participation *and* central air conditioning are prerequisites for the Demand Link program (among other internet connectivity factors), so the incidence of central air conditioning in the pilot area, and specifically among past EnergyWise program participants, is critical for assessing whether Demand Link participation goals can be met.

- For the State of Rhode Island, National Grid estimates a central air conditioning penetration rate of 32% and window air penetration rate of 53%.¹²
- Penetration rates among potential EnergyWise program participants appear to be lower, ranging from about 20-24%
 - Of the 379 EnergyWise leads from January 2010 through mid-August 2012, 77 (20.3%) had central air conditioning
 - Looking at the 277 EnergyWise audits completed between January 2010 and early August 2012, 20.9% of homes had central air conditioning.
 - Of the 81 EnergyWise audits between January and early August 2012, 19 homes (23.5%) had central air conditioning. The slight difference between the 2012 YTD and 2010-2011 penetration rate is not statistically significant.
- Central air conditioning penetration rates among customers who have expressed interest in demand-side management offerings show slightly higher penetration rates.
 - Tendril/EmPower Pilot: 72 customers from Tiverton & little Compton applied for the pilot; not all qualified.¹³ Among all who applied, 40% have central air conditioning, 25% have room air, and 36% have neither.
 - Demand Link leads: Of the 25 customers who were classified as Demand Link leads through August 13th, 14 (56%) have central air conditioning.¹⁴
 - Still, the relatively small number of customers who have expressed interest in Demand Link indicates that it may be difficult to rely on this group (i.e., customers who actively inquired) to achieve WiFi thermostat installation goals.

¹² Page 8 of SRP proposal to RIPUC

¹³ 39 of 72 participated; some did not qualify, while others qualified but then opted out. Those who participated in EmPower will be invited to participate in the SRP pilot in 2013.

¹⁴ The higher penetration rate of CAC among Demand Link leads may be related to lead tracking processes, wherein some customers who call in about EnergyWise in general may be classified as Demand Link leads after the program implementer assesses whether customers have CAC, and offers the program (i.e., eligibility rather than initial inquiry drives classification). At present it is not possible to determine what proportion of customers inquiring about Demand Link or PCTs directly have CAC.

With a goal of 125 Demand Link thermostat installations and the 2012 YTD central air penetration rate of 23.5% among EnergyWise participants, about 533 participants would be needed to yield 125 minimally-qualified households (i.e., with CAC).¹⁵ Even if such participation levels occur, it is unlikely that all households with central air conditioning will (a) meet other pilot requirements, such as wireless internet, and (b) be interested in participating. Based on Demand Link installations scheduled and completed installations to date (10 households) and EnergyWise audits completed since March (67), the conversion rate is less than 1 Demand Link installation of every 6 EnergyWise participants. Based on these very preliminary numbers we estimate that more than 600 EnergyWise participants – and increased eligibility of participants (for Demand Link) – may be needed to yield enough qualified & interested customers to achieve 125 Demand Link installations.

In summary, it is too early to tell what the long-term conversion rate might be since the pilot is just ramping up. We suggest (a) monitoring the relationship between EnergyWise participation, Demand Link eligibility and conversion to Demand Link installations, and (b) exploring this issue further in 2013, in a focus group format. Further research could reveal potential changes to program outreach, messaging or incentives that National Grid may be able to implement before summer 2014.

II. COMMERCIAL MARKETING EFFECTIVENESS

There are 445 commercial customers in Tiverton and Little Compton on substation 33. The majority of these customers (412 customers, or 93%) are small C&I. The SRP pilot is focusing on Small C&I customers to increase participation in the Small Business Direct Install Program (SBDI), and Demand Link.

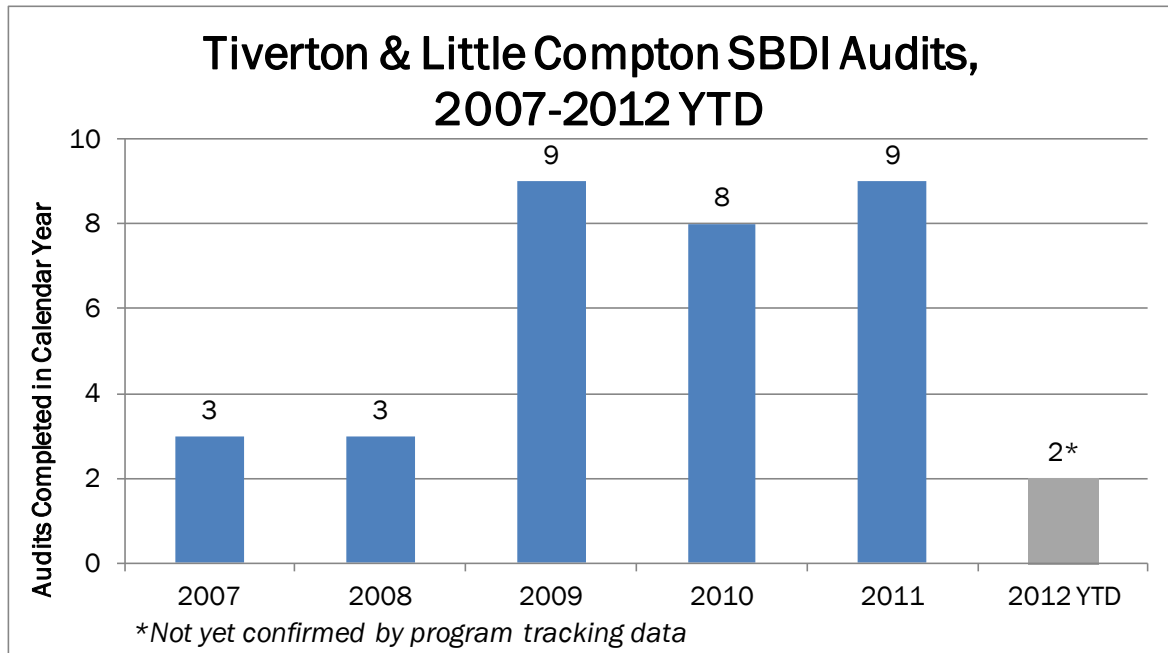
Outreach to C&I customers through direct mail began in mid-August 2012. National Grid mailed letters to all Small C&I customers in the area describing free energy evaluations (the SBDI program) and free WiFi programmable controllable thermostat as part of the Demand Link program. Door-to-door outreach efforts to follow up with customers who received the direct mail piece began in mid-August and may continue into the early fall if necessary.

Through mid-August, three customers have inquired about Demand Link. Two appear to have been audited already, although SBDI participation cannot be confirmed through program tracking data (which includes audits invoiced or paid through August 15th). These two customers were deemed ineligible for DR lighting ballasts based on their operating hours, though they may be eligible for WiFi thermostats.

Participation in the SBDI program does not yet show an increase over previous years. Through mid-August, no completed audits have been recorded in National Grid's program tracking data. This may be due to completed audits not showing up in the program tracking data until they are invoiced. Based on additional information provided by National Grid, participation in previous years has been 8 or 9 customers per year, as shown in Figure 2.

¹⁵ Assuming similar penetration rates as EnergyWise participation increases.

Figure 2. Annual Small Business Direct Install Audits in SRP Pilot Area



These results to date should be considered very preliminary, as outreach efforts are just ramping up, and will continue throughout the fall. Participation counts will all be updated in the full-year 2012 report, to be delivered in the first quarter of 2013.

III. DISCUSSION

These preliminary results represent activity during a ramp-up period, in which awareness is just starting to build, and customers are beginning to understand program offerings. Therefore these results should not be interpreted as a trend or forecast.

Though preliminary, participation counts and central air conditioning penetration rates show that it may be a challenge to reach 2012 participation goals within calendar year 2012. After a few more months as customers are exposed to more marketing and outreach, and National Grid reinforces messages through multiple channels, participation rates may increase. Based on trends in the Aquidneck pilot, it may take up to a year after the official “start” of a program to see an uptick in participation.

Since DR events will not begin until 2014, in the event that 2012 participation is less than desired, there is sufficient time in 2013 and early 2014 to gather more customer feedback on marketing and program offerings (through surveys or focus groups), optimize marketing efforts, and change program offerings, all of which we understand that National Grid is planning.

APPENDIX

A. Incremental Participation Approach

For assessing the pilot's effectiveness in driving increased inquiry and participation in statewide program, we use a comparison group of nearby towns as a proxy for what participation rates and trends would have occurred in the absence of the pilot. The same comparison group of towns will be used to assess an incremental participation rate and incremental savings for Focused Energy Efficiency Impact evaluation. The details of this approach will be delivered as a separate methodology in December 2012.

Incremental participation is the increase in participation in the two pilot towns that would not have happened without the pilot. We will apply a difference-in-differences approach to determine incremental participation. First we will compare the participation rate in the SRP pilot area in the time period under evaluation (here, 2012) to participation the pilot area during a baseline period (we recommend using 2009-2011). Second, we compare this difference in participation in Little Compton and Tiverton between the pilot and baseline periods with the difference in savings in a matched comparison region between the same pilot and baseline periods. The incremental participation analysis compares statewide program activity in the towns targeted by the pilot effort to savings from the same programs in the comparison region. This analysis essentially controls for natural trends, i.e., changes in program participation that would have occurred even without the pilot. This is important because overall statewide goals for energy efficiency programs in Rhode Island increased in 2010 and 2012, and will continue to increase.

Because the pilot and comparison groups are different (a) in terms of numbers of accounts, and (b) in terms of their pre-pilot participation rates, the comparisons must be made in terms of a percent increase between the pre-pilot and pilot period, rather than a change in the number of participants.

As an example:

Assume pilot group participation (P) to be:

P_{base} = Avg. of 80 audits
per year

P_{2012} = 250 audits

P_{change} = 177.8% increase

Assume comparison group participation (C) to be:

C_{base} = Avg. of 700 audits
per year

C_{2012} = 800 audits

C_{change} = 14.3% increase

The "lift" or incremental change attributable to the pilot is 177.8% - 14.3% or 163.5% increase. This number can be applied to the pilot area baseline period count (80 audits) to show that 147.1 audits are incremental. Without the pilot, we would have expected to see a 14.3% increase in audits in the pilot group (or 102.9 expected audits). Instead we saw 250 audits- of these, 147.1 can be considered incremental, or attributable to the pilot program.

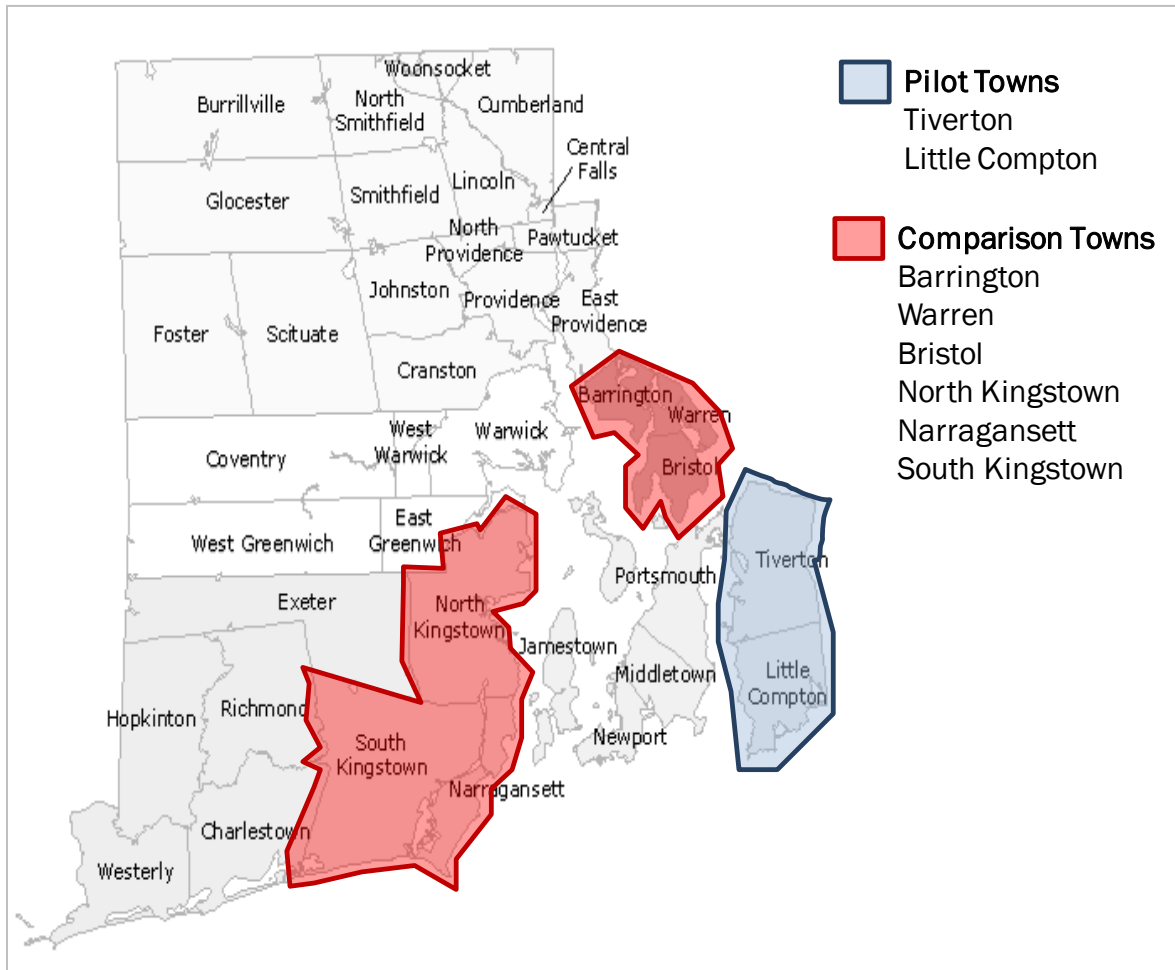
B. Comparison Community Selection

Our community comparison selection process focused on similarities in the residential customer base. Given the relatively smaller expected contribution of commercial customers to pilot goals (approximately 19% of kW reduction) and the relatively small size of the commercial customer base, we prioritized residential similarities over commercial. Specifically, we aimed to identify Rhode Island communities for which:

- EnergyWise participation trends over past few years are similar (i.e., similar rates of increase from year to year)
 - National Grid has aggressive statewide goals for many energy efficiency programs, and expects participation rates to increase everywhere relative to previous years
 - Similarities in participation trends over time may reflect similarities in unobservable factors like receptivity to statewide marketing, as well as similarities in observable factors like demographics or housing.
- Residents may have similar incentive and ability to retrofit homes (assessed by owner occupancy, single-family homes, housing values, and seasonal usage patterns)
 - Because seasonal usage patterns are difficult to measure, the Evaluation Team decided to instead include comparison towns that were most geographically similar (i.e. eligible towns and towns on the southwestern edge of Narragansett Bay)
- Residents may have similar housing stock, related to opportunity and incentive to retrofit (assessed primarily by geographic proximity, year home is built, heating fuel)
 - Even though the majority of the pilot area does not receive National Grid gas service, gas heating in other communities may affect their interest in EnergyWise
- Towns did not participate in the Aquidneck Energy Action pilot

Based on the criteria above, we propose to include the following towns in the comparison group: Barrington, Bristol, Warren, Narragansett, North Kingstown, and South Kingstown.

Figure 3. SRP Pilot and Comparison Communities



Source: Rhode Island Department of Labor and Training

Table 2 shows that the SRP pilot towns have the higher owner occupancy and single-family home rates of the potential comparison community groups.¹⁶ Home values and income are fairly similar across communities (though SRP towns have very slightly lower average income, which may be related to slightly more heads-of-household over age 65). One of the largest differences is in the proportion of homes heated by electric or gas. The majority of homes in the pilot area use oil heat, and few use gas, whereas potential comparison communities have a fairly even mix of oil and gas. Looking across all factors, it appears that South Kingstown is most similar in terms of housing and demographics.

¹⁶ We group the communities based on geography to illuminate slight differences.

Table 2. Housing and Income Characteristics of SRP Pilot and Comparison towns

Subject	SRP Pilot	All Comparison Communities	Barrington, Bristol, Warren	Narragansett, N. Kingstown	South Kingstown
Residential Households¹⁷	7,836	46,930	19,236	17,101	10,593
Demographics					
Pct Owner Occupied	80.5%	73.4%	72.1%	73.8%	75.1%
Median Household Income	\$65,441	\$69,814	\$69,812	\$68,963	\$71,192
Head-of-Household Age 65+	30.2%	24.1%	26.0%	21.5%	25.0%
Housing					
Pct Single-Family	81.0%	73.8%	67.7%	76.0%	79.9%
Home built 1990 or later	23.2%	17.9%	11.1%	18.6%	27.3%
Pct Utility Gas Heat	8.1%	38.8%	44.9%	41.1%	24.1%
Pct Electric Heat	6.3%	10.0%	8.2%	11.7%	10.7%
Median Home Value	\$361,025	\$373,961	\$370,250	\$378,516	\$373,200

Source: US Census American Community Survey 2006-2010 (5-year estimates)

Next we look at trends in audit participation over a multi-year period within each community. Table 3 and **Figure 4** show similar information, first in counts and then in rates (participants as a percentage of all Census-defined households in the area). Participation is relatively stable in the pilot communities from 2009-2011, though the potential comparison communities show a few differences in trends, including (a) larger increases from 2010 to 2011 (24% - 41%) compared to almost no change in the SRP towns, and (b) higher counts in 2009 vs. 2010 for two of the three sets of towns.

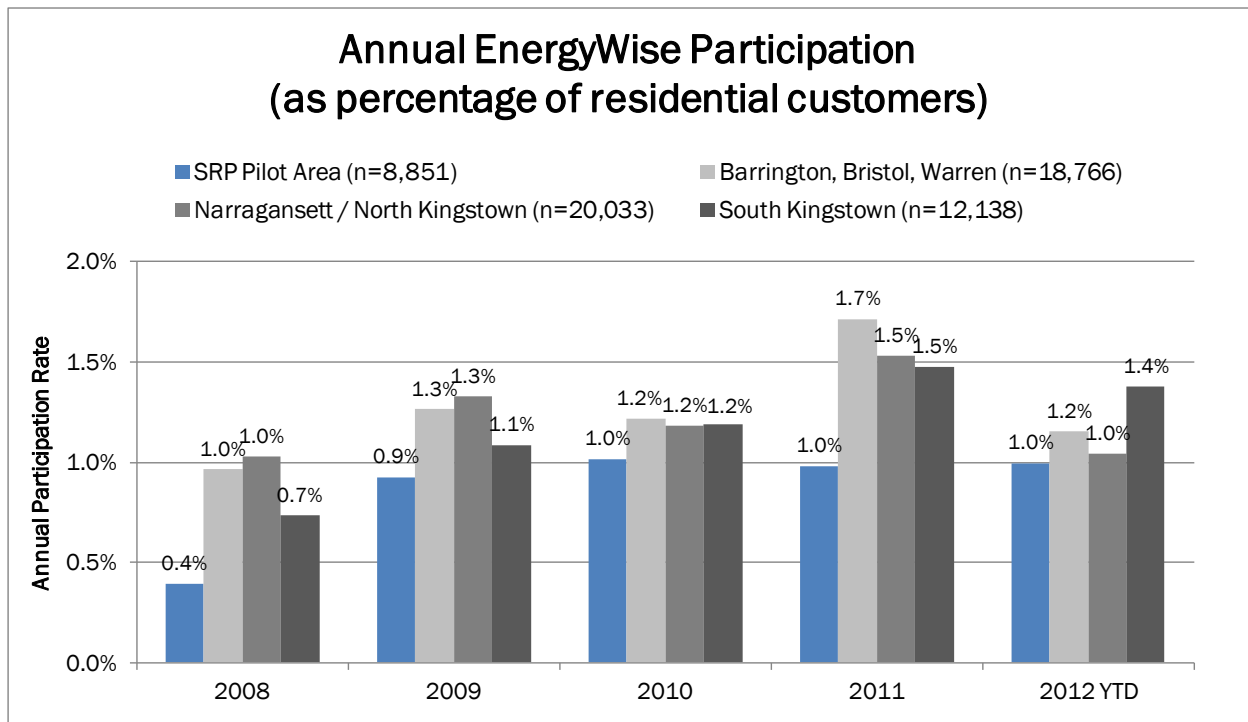
We recommend including a larger group of towns than smaller (e.g., just Narragansett, North Kingstown, South Kingstown), to buffer against future localized participation trends that may be due to community efforts or media that is not affiliated with statewide programs. Though Barrington, Bristol and Warren are the least similar in terms of housing stock, these towns are close in terms of age, income and home value. They are also closest geographically to the pilot communities and may share unobservable characteristics (like common employers, or media sources), that may influence future participation. Finally, annual participation trends are not markedly different across comparison communities, though all three comparison communities showed a larger increase from 2009 to 2011 than observed in the pilot communities. Because we are most concerned with assessing a longer-term trend in participation, we recommend including all of these potential comparison communities. Throughout the course of process and impact evaluation in 2013, as well as in future years, we will continue to assess whether any of the potential comparison towns deviates substantially from the group in a way that may affect difference-in-differences impact evaluation or marketing effectiveness analysis.

¹⁷ The Census defines households as occupied housing units; these counts are not perfectly equivalent to residential customer counts.

Table 3. EnergyWise Audit Participation in SRP Pilot and Comparison Towns, 2008-2012

Year	SRP Pilot Communities		All Comparison Communities		Barrington, Bristol, Warren		Narragansett / N. Kingstown		South Kingstown	
	Count	% Increase over previous year	Count	% Increase over previous year	Count	% Increase over previous year	Count	% Increase over previous year	Count	% Increase over previous year
2008	35		476		181		206		89	
2009	82	134%	635	33%	237	31%	266	29%	132	48%
2010	90	10%	609	-4%	228	-4%	237	-11%	144	9%
2011	87	-3%	808	33%	322	41%	307	30%	179	24%
2012 YTD (8.5 months)	88	1%	592	-27%	216	-33%	209	-32%	167	-7%

Figure 4. EnergyWise Participation in SRP Pilot and Comparison Towns, 2008-2012



Our analysis will define a three-year pre-pilot period (2009-2011) as the baseline. This ensures that we have sufficient data in the baseline period to estimate participation across a variety of marketing activities (which, though statewide, may have stimulated program activity in different areas, at different times). It is not so long as to include 2008, which does not have participation rates in line with 2009-2011 for any of the communities.