



EVALUATION OF THE NORTHAMPTON LEADING THE WAY AND POWERING PITTSFIELD INITIATIVES

FINAL

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1. EXECUTIVE SUMMARY

This report presents the results of the evaluation of the Powering Pittsfield and Northampton Leading the Way initiatives, also referred to as the Serrafix initiative. Both initiatives were a part of a larger EE2020 initiative led by Serrafix, a consulting group funded by Barr Foundation that offers energy efficiency, sustainability planning, and other services.

In designing the initiative, Serrafix relied on two concepts to achieve success – “concierge service” and utilizing existing relationships with community leaders and business networks. The concept of “concierge service” entails ongoing customer support and advising throughout the implementation of energy-efficient improvements, as a pathway to increasing participation and achieving deeper savings. At their core, the Powering Pittsfield and Northampton Leading the Way initiatives targeted commercial customers in selected parts of Pittsfield and Northampton. Both initiatives built upon utility-based energy efficiency programs. The implementation of the programs was funded by the utilities (Program Administrators or PAs). Serrafix designed, planned, administered, and managed the initiative, as well as was charged with developing and implementing data tracking systems. The Center for EcoTechnology (CET) acted as the lead implementer of the initiative and supported customer outreach. City and municipal leaders were tasked with customer marketing and outreach and were also involved in the planning process.

The evaluation results presented in this report draw on a review of materials related to the initiatives, interviews with the initiatives’ stakeholders, and review and analysis of the tracking data made available to the Evaluation Team. The core goals of the evaluation are to:

1. Document the goals for and specifics of the design, marketing, and implementation of the initiatives
2. Document the all-in costs that each effort incurred across all entities involved in the planning, marketing, and administration of each initiative to support an assessment of the effort’s cost-effectiveness
3. Assess performance of each initiative against its goals and evaluate depth of savings achieved
4. Present lessons learned from the initiatives and recommendations to help inform future activities

Below we present a detailed overview of the evaluation research activities that we performed and the results and findings from the evaluation. The findings are organized into the following core sections:

- Initiatives’ Design
- Initiatives’ Goals and Accomplishments
- Initiatives’ Costs
- Initiatives’ Lessons Learned

Due to similar design, the findings from the two initiatives are organized and presented together, with any relevant differences called out as needed.

Findings

Despite extensive and multi-faceted marketing and outreach efforts, neither initiative achieved the set goals or deeper savings. Because of the difficulties reconciling participation data with energy savings, the evaluation team had difficulty accurately summarizing the initiatives’ impacts. Based on the analysis, however, Northampton leading the way initiative achieved 38% of the project goal,

completing 24 out of the planned 63 projects. Powering Pittsfield initiative achieved 31% of the goals, completing 16% out of the planned 51 projects. The depth of savings analysis did not reveal either initiative achieving deeper savings.

Serrafix's theory was that through engaging city leaders and providing "concierge services" to customers, they could achieve higher energy efficiency program participation and deeper savings. The evaluation did not find evidence of the concept's impact on energy savings, however, stakeholder interviews revealed that the concept of "concierge service" is generally perceived as a valuable component of the initiatives' design that, if implemented right, has a potential to increase participation and the depth of energy savings. While PAs that we interviewed question the cost-effectiveness of the concept, they are nevertheless open to finding ways to effectively integrate concierge service in the implementation structure of their energy efficiency programs.

Evaluation research revealed that multiple factors might have prevented the initiatives from achieving their goals, including the following:

- **Timing and ramp-up period** – Both initiatives took some time to ramp up due to training needs and the need to establish coordination and customer hand-off systems between CET and the commercial program's lead vendors.
- **Implementation status of the utility-administered energy efficiency programs upon which the two initiatives built** – The initiatives launched at the start of the first Three-Year Plan implementation; at that time the implementation structures were not fully in place for some PAs.
- **Length of the funding period** – The interviewed stakeholders believe, in hindsight, that the goals of the initiatives were too ambitious for the funding timeframe given the nature of the audience (business customers), where planning and decision-making processes, especially around more complex energy efficiency projects, take time.
- **Community selection** – The size of the selected communities as well as the building stock were restrictive to achieving goals (e.g., limited number of businesses on North Street in Pittsfield¹; building stock consisting of brick buildings with flat roofs, which limited opportunities for energy efficient improvements).
- **Various ownership structures and split incentive barrier** – Businesses in targeted areas had a variety of ownership structures that required custom approaches (and therefore time) to engage each customer. Split incentives emerged as a barrier as well.
- **Stakeholder Engagement** – Both CET and PAs were engaged in the initiative toward the end of the planning process, when decisions around community selection, marketing and outreach, and implementation had already been made by Serrafix and the municipal staff.
- **Planning and Management Challenges** – The initiative experienced challenges with planning and management. Initiative stakeholders that we interviewed cited considerable resources being expended on coordination and administration (e.g., multiple meetings, status updates, etc.), which was taking a disproportionately high amount of the stakeholder time as compared to the time dedicated to customer interaction and lead generation. Data tracking systems (for both project and lead tracking) were not fully developed prior to the initiatives' launch, and were uncoordinated with the PA tracking systems. Sufficient and rigorous planning of these elements is needed ahead of the initiatives' launch to ensure smooth implementation and accurate data tracking.

¹ High number of multi-use buildings (residential apartments above commercial businesses).

Executive Summary

Despite the challenges encountered by the initiatives, their implementation resulted in lessons learned that the Evaluation Team believes will be valuable for future planning and implementation of community-based targeted initiatives. The implementation of the two initiatives also resulted in a strong relationship and collaboration between PAs and CET. To this day, PAs are engaging CET in various capacities (lead vendor, outreach and customer support partner, etc.).

2. OVERVIEW OF EVALUATION RESEARCH ACTIVITIES

As part of the evaluation, we completed secondary data review, analysis of program tracking databases, and primary research with the initiatives' stakeholders.

- **Secondary data review.** Opinion Dynamics reviewed documentation related to the initiatives' design and implementation process, marketing and outreach materials, and implementation status update documents.
- **Program tracking database and depth of savings analysis.** Opinion Dynamics used the Powering Pittsfield and Northampton Leading the Way final performance reports filed with the C&I Management Committee submitted by the cities of Pittsfield and Northampton to identify projects that were completed through each initiative. The Evaluation Team then supplemented the reports with measure-level energy savings data provided by the electric and gas PAs (National Grid, Columbia Gas, WMECO, Berkshire Gas), which allowed the team to assess the initiatives' performance. To conduct depth of savings analysis, Opinion Dynamics compared savings achieved as a result of the initiatives to the savings listed in the Massachusetts PA annual energy efficiency program filings.
- **Primary research with stakeholders.** The Evaluation Team completed seven in-depth interviews with a total of eight individuals, including Serrafix representatives, CET, PAs, and city representatives. The interviews were performed over the course of June and July 2013.

Table 1. Overview of Completed Stakeholder Interviews

Interviewee Type	Northampton Leading the Way Initiative	Powering Pittsfield Initiative	Both Initiatives
Serrafix			✓
Lead Implementer			✓
PAs	✓✓	✓	
City Representatives	✓	✓	
Total Interviews	3	2	2

**Note that these interviews reflect a variety of perspectives across nearly all stakeholders engaged in the initiative. The Evaluation Team also considered conducting interviews with the program vendors, but after discussions with the PAs decided not to include the interviews as part of the evaluation.*

3. DETAILED FINDINGS AND CONCLUSIONS

Initiatives’ Design

The Northampton Leading the Way and Powering Pittsfield initiatives are collaborative efforts between Serrafix, the cities of Northampton and Pittsfield, energy efficiency Program Administrators or PAs (Columbia Gas and National Grid in Northampton, and Berkshire Gas and WMECO in Pittsfield), and the Center for EcoTechnology (CET) to promote participation among business customers in existing Commercial and Industrial (C&I) energy efficiency programs. These initiatives are part of a larger multi-year EE2020 effort that is designed to help cities and towns in Massachusetts cut carbon emissions from buildings by 20% by 2020.² This initiative is supported by a grant from the Barr Foundation, and is led by principles of Serrafix – a consulting group that offers energy efficiency, sustainability planning, and other services.

In designing the initiative, Serrafix relied on two concepts to achieve success – “concierge service” and utilizing existing relationships with community leaders and business networks. The concept of “concierge service” entails ongoing customer support and advising throughout the implementation of energy-efficient improvements, as a pathway to increasing participation and achieving deeper savings. At their core, the Powering Pittsfield and Northampton Leading the Way initiatives targeted commercial customers in selected parts of Pittsfield and Northampton. Both initiatives built upon utility-based energy efficiency programs. The implementation of the programs was funded by the utilities (Program Administrators or PAs). Serrafix designed, planned, administered, and managed the initiative, as well as was charged with developing and implementing data tracking systems. The Center for EcoTechnology (CET) acted as the lead implementer of the initiative and supported customer outreach. City and municipal leaders were tasked with customer marketing, outreach and lead generation and were also involved in the planning process.

The Northampton Leading the Way and Powering Pittsfield initiatives launched in September 2011 and were initially scheduled to last through August 2012. The initiatives’ implementation period was subsequently extended to last through December 2012. Table 2 below provides further detail on the design elements of each initiative.

Table 2. Overview of the Powering Pittsfield and Northampton Leading the Way Initiatives

Details	Northampton Leading the Way Initiative	Powering Pittsfield Initiative
Program Administrator	National Grid (electric) Columbia Gas (gas)	WMECO (electric) Berkshire Gas (gas)
Target Audience	Business customers	Business customers
Target Market	<ul style="list-style-type: none"> • Northampton Central Business District: <ul style="list-style-type: none"> • 516 business units • Northampton Industrial Park <ul style="list-style-type: none"> • 25 businesses • Florence and Leeds industrial clusters <ul style="list-style-type: none"> • Quantity unknown 	<ul style="list-style-type: none"> • Pittsfield Central Business District: <ul style="list-style-type: none"> • 82 buildings • 342 businesses
Existing Program	C&I Retrofit (small and large, including	C&I Retrofit (small and large, including

² Source: EE2020 Evaluation Plan. Naomi Mermin Consulting.

Infrastructure	government)	government)
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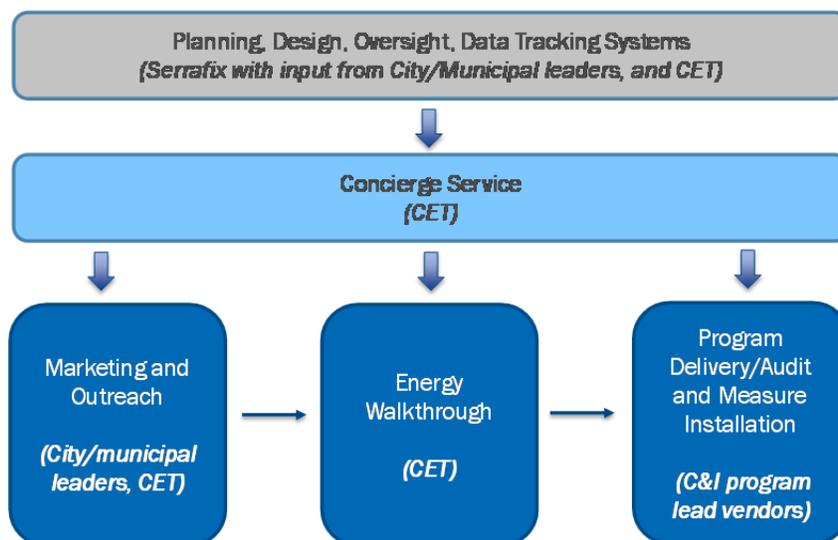
The initiatives relied on a concept of “concierge service” designed and overseen by Serrafix to achieve the participation and energy savings goals. Concierge service was implemented by CET and was designed to guide Northampton and Pittsfield commercial property and business owners through the participation process from start to finish, identify opportunities for energy efficiency improvements, and provide support and assistance at any point in the process.

Beyond concierge service, both initiatives relied on the existing energy efficiency C&I program infrastructure. Through the concierge approach, the initiatives’ stakeholders were hoping to encourage business owners and decision-makers to take a whole-building approach to energy efficiency and identify energy efficiency opportunities across a variety of equipment and system types, thus achieving more and deeper savings.

As previously mentioned, Serrafix was charged with planning, designing, and overseeing the initiative, as well as with developing implementation and data tracking systems. CET was responsible for conducting energy assessments and identifying opportunities for the PA energy efficiency programs, directing business owners and/or decision-makers to the appropriate program(s), working with the lead vendors to manage direct installation projects, and generally acting as a resource for businesses throughout the entire process. Where appropriate, CET encouraged businesses to take a whole-building approach to energy-efficient improvements. The city officials were also involved in the initiative by providing marketing and outreach, as well as general oversight and management.

Marketing efforts included mailers to businesses in the target areas from the mayor of each city, introducing CET as the “concierge” entity and providing phone numbers for CET and the mayor’s office; in-person door-to-door outreach; initiative-branded web-pages; press releases and publications in the local media; and events, among other tactics.

Figure 1. Graphical Depiction of the Initiatives’ Framework



Initiatives' Goals and Accomplishments

The Powering Pittsfield and Northampton Leading the Way initiatives were designed to address the three core goals outlined in Table 3 below. Short-term goals for the initiative period were set around program participation and the number of businesses receiving upgrades in target areas within each community. The initiatives also included longer-term goals of contributing to the EE2020 goal of reducing energy use by 20% by 2020.³

Table 3. Powering Pittsfield and Northampton Leading the Way Initiatives – Overview of Goals

#	Goal	Time Frame
1	<p>Achieve both significant whole-building efficiency upgrades and in-unit business efficiency upgrades:</p> <p>Northampton Leading the Way Initiative</p> <ul style="list-style-type: none"> ➤ 10% of downtown commercial and non-profit/institutional units (56 units) ➤ 25% of small to medium industrial firm square footage in Northampton Industrial Park and Florence and Leeds industrial clusters (7 units) <p>Powering Pittsfield Initiative</p> <ul style="list-style-type: none"> ➤ 15% of downtown commercial and non-profit/institutional units (~51 units and ~12 buildings)⁴ 	By Pilot End
2	<p>Achieve participation levels in the gas and electric PA's energy efficiency programs that exceed the proportional shares of the utilities' overall goals for the program period and encourage further and deeper energy saving commitments from business owners:</p> <p>Northampton Leading the Way and Powering Pittsfield Initiative</p> <ul style="list-style-type: none"> ➤ Adoption of two- to three-year energy improvement plans that commit building owners to significant building efficiency upgrades that go beyond what is immediately feasible in the first year 	By Pilot End
3	<p>By year 2020, reduce building energy use by 20%:</p> <p>Northampton Leading the Way Initiative</p> <ul style="list-style-type: none"> ➤ In downtown commercial buildings ➤ In Northampton Industrial Park ➤ In Florence and Leeds industrial clusters <p>Powering Pittsfield Initiative</p> <ul style="list-style-type: none"> ➤ In downtown commercial buildings 	By 2020

The review of the final reports filed by the cities of Pittsfield and Northampton with the C&I Management Committee and analysis of program tracking data supplied by the PAs revealed limited accomplishments of the initiatives within the pilot implementation timeframe. Figure 2 below provides an overview of customer movement from outreach to project completion, and indicates drop-out rates at each step. Note that this graphic is based solely on the performance reports filed with the C&I Management Committee. Further down in the report, the Evaluation Team describes the difficulties the PAs had in locating all of the reported projects in the PA program tracking data, and the inability of the Evaluation Team to match savings estimates for each completed project.

Overall, both initiatives saw similar success converting customers to participants – customer conversion rates of 5% and 4% for Northampton Leading the Way and Powering Pittsfield, respectively. A considerable number of business units identified by the City representatives for

³ Source: EE2020 Evaluation Plan. Naomi Mermin Consulting.

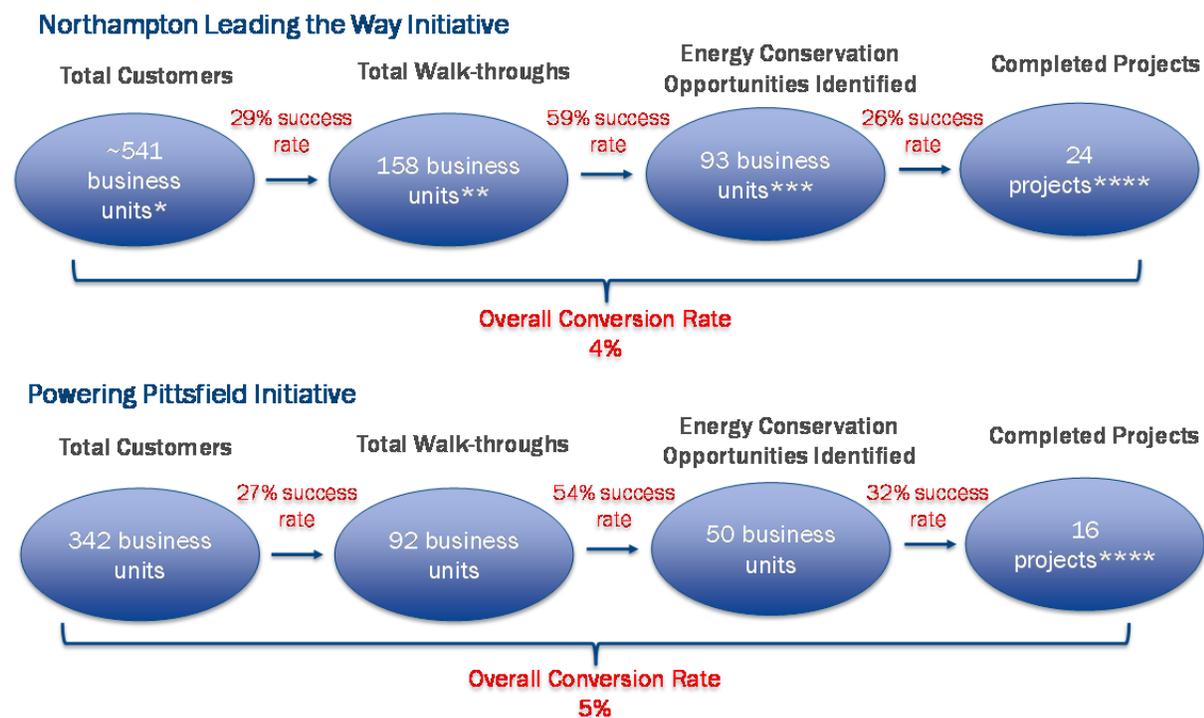
⁴ This metric is based on multiplying the number of units and buildings in the target area (number of units = 342; number of buildings = 82) by the percent goal (15%).

outreach and participation did not undergo the initial walk-through assessment performed by CET. While the evaluation team did not explore in detail the reasons for not conducting walk-throughs at all identified for outreach businesses, review of the initiatives' materials suggests that lack of customer interest/cooperation was one of the reasons.

Opportunities for energy-efficient improvements were identified in about half of business units that underwent initial walk-throughs. The outreach and concierge service efforts resulted in 24 and 16 projects completed in Northampton and Pittsfield, respectively.

While these achievements are below the set goals, it still might be that the initiative resulted in a higher uptake of projects or deeper savings than the past timeframe within the same communities or within the same implementation time frame (controlled for past participation) in similar communities where there were no energy efficiency initiatives administered at the same time. Limited evaluation budget prevented this analysis. Furthermore, the number of energy efficiency opportunities identified by CET during the outreach process (93 for The Northampton Leading the Way initiative and 50 for The Powering Pittsfield initiative) can support goal achievement beyond the timeframe of the initiative. In fact, as discussed further, stakeholder interviews revealed that additional projects were either in the pipeline or completed after the end of the initiative, which resulted in additional energy savings. However, because of the insufficient data tracking systems as well as limited evaluation budget, the evaluation team did not conduct the analysis attempting to identify those projects and associated savings.

Figure 2. Northampton Leading the Way Initiative – Customer Movement to Project Completion



*Note that this number is approximate and does not include a small number of target customers in the Florence and Leeds clusters.

**Note that based on the final report filed by the city of Northampton with the C&I Management Committee, walk-through areas included not just business units but also common areas maintained by building owners.

***Note that the opportunities were identified across 37 buildings and in the majority of cases (81%) were based on the assessment of the building as a whole.

****Note that this number represents the total number of installations or projects. It is possible that some of the installations were performed in the same unit. Limited data tracking and the amount of time elapsed since the end of the

initiative prevented the Evaluation Team from obtaining more accurate and relevant information. Also note that according to the final report, additional Direct Install and Custom projects were in the pipeline.

As shown in Table 4 below, both initiatives achieved about a third of the expected goal. Note that the source of these data are the final reports filed by the cities of Pittsfield and Northampton with the C&I Management Committee. The Evaluation Team was unable to assess the achievement of the longer-term goals because of the lack of tracked data and baseline metrics.

Table 4. Overview of Initiatives' Performance Against Goals

Initiative	Completed Projects		
	Goal	Achieved	% of Goal
Northampton Leading the Way	63	24*	38%
Powering Pittsfield	51	16*	31%

**Note that this number represents the total number of installations or projects. It is possible that some of the installations were performed in the same unit. Limited data tracking and the amount of time elapsed since the end of the initiative prevented the Evaluation Team from obtaining more accurate and relevant information. Also note that according to the final report, additional Direct Install and Custom projects were in the pipeline.*

The Evaluation Team faced considerable difficulties locating and matching projects reported as completed in the city reports to the PA program tracking data.⁵ The difficulty stemmed primarily from the lack of tracking data and more specifically unique identifiers, such as customer business names, account IDs, or premise IDs in the city reports and inability to reconcile the data from the city reports with the CET tracked data. Budgetary considerations prevented full investigation of discrepancies and accurate matching of all projects.

Of the 24 projects reported as completed as part of the Northampton Leading the Way initiative,⁶ the Evaluation Team was unable to find matches for three projects. The remaining projects matched either exactly or with a fairly high degree of confidence. For the Powering Pittsfield initiative, we were unable to find matches for nine out of 16 projects. None of the projects were matched using exact match criteria. Nevertheless, the Evaluation Team was able to find matches for seven projects with a fairly high level of confidence. Table 5 below provides an overview of the types of projects completed as part of the initiatives. As can be seen in the table, most projects that we were able to match were prescriptive lighting and gas direct install projects.

During the pilot period, the initiative was unable to achieve completion of more complex and comprehensive custom projects that it set its goal to do. The reason for that can be that generally, complex and comprehensive energy efficiency projects in the commercial sector take time to plan and fund and sometimes take multiple years to move from planning to completion. The interviews with the initiatives' stakeholders revealed in fact that there were projects reaching fruition after the end of the initiative. Because of the limited evaluation resources and lack of data tracking systems, the evaluation team did not pursue further investigation of the impacts of these initiatives.

⁵ This step is necessary to match energy savings to projects.

⁶ Based on the final performance reports filed by the cities of Northampton and Pittsfield with the C&I Management Committee.

Table 5. Types of Energy Efficiency Projects Completed as Part of the Initiatives

Project Type	Northampton Leading the Way Initiative		Powering Pittsfield Initiative	
	#	%	#	%
Lighting project	13	62%	7	100%
Refrigeration project	2	9.5%	0	0%
Gas direct installation project	2	9.5%	0	0%
Custom electric installation	2	9.5%	0	0%
Custom gas installation	2	9.5%	0	0%
Total	21	100%	7	100%
<i>Unable to find matches in the PA tracking data</i>	3	--	9	--

Table 6 below provides an overview of the energy savings achieved through the initiatives. Please note that the data in Table 6 only reflects savings that we were able to match through the PA tracking data (21 projects from Table 5 above for the Northampton Leading the Way initiative and seven projects for Powering Pittsfield initiative). Our inability to match all projects means that there might be additional energy savings completed through the initiative that are not accounted for in the table below.

Table 6. Energy Savings Achieved through the Initiatives

Initiative	Electric Savings (kWh)	Gas Savings (Therms)	Combined (Electric and Gas) Savings (Mmbtu)
Northampton Leading the Way	155,488	1,942	725
Powering Pittsfield	97,944	0	334

**Note that these are the savings from the projects that the evaluation team was able to match to the PA data.*

In terms of the depth of savings, per-project savings achieved as part of the initiatives do not exceed 50 mmbtu.⁷ This is much lower than what is generally achieved by the PAs in their service territory. Based on our analysis of the 2010 and 2011 PA filings with the Department of Public Utilities (DPU),⁸ on average per-project savings achieved through C&I programs vary from 162 to 262 mmbtu, depending on the PA. Higher savings at the statewide level can be explained by a variety of reasons. One can be inherent differences in the types of participants (e.g., more large commercial and industrial projects in urban areas and other parts of the state).

An important caveat to this analysis is that a limited timeframe of the initiatives could have precluded the completion of large comprehensive projects, which generally bring deeper savings with them. Large commercial and industrial energy efficiency projects frequently take a long time to come to fruition due to longer planning process and a need for considerable investment that takes longer to procure. While core PA programs essentially have as much time as they need to lay the groundwork and bring large projects to completion, limited timeframes for both initiatives could have been a barrier to getting those projects and achieving deeper savings.

⁷ Comparisons in mmbtu are necessitated by the presence of electric and gas savings, but are no indicator of the number of projects that generated gas savings in the PA filings.

⁸ The filings were supplied to us by the PAs.

The evaluation team recognizes that generally a similar community (with similar types of commercial building structures and types, geography, etc.) and a similar timeframe should be used in the comparison of the per-project savings. However, given budgetary considerations, the evaluation team was only able to perform a more generic statewide comparison analysis.

Table 7 below provides an overview of depth of savings analysis. The per-project/participant savings estimates were achieved by dividing the total savings by the total number of projects/participants.⁹ In addition to the consideration listed above, please note the caveats around the analysis provided as footnotes to the table. Due to the caveats, the analysis and results presented in the table below should be treated with caution.

Table 7. Depth of Savings Analysis

Savings	Northampton Leading the Way Initiative			Powering Pittsfield Initiative		
	TOTAL (in Mmbtu)	National Grid (in Mmbtu)	Columbia Gas (in Mmbtu)	TOTAL (in Mmbtu)	WMECO (in Mmbtu)	Berkshire Gas (in Mmbtu)
Mmbtu/project achieved through the initiative*	35	31	49	48	48	No Projects
Mmbtu/participant from 2010 PA Filing**	312***	258***	N/A	128***	110***	N/A
Mmbtu/participant from 2011 PA Filing**	223***	195***	332***	197***	184***	109***
Mmbtu/participant from 2010-2011 PA Filings (Combined)**	262***	222***	N/A	162***	147***	N/A

*The Evaluation Team used savings from the projects that we were able to match to the PA data. The reports submitted by the cities of Pittsfield and Northampton also contained estimates of total gas and electric savings achieved through the initiative. Per-project savings, however, do not vary considerably if the latter estimates were to be used.

**Please note that the analysis only includes projects and savings achieved through the Small and Large Retrofit C&I programs. The estimates exclude the New Construction and Major Renovation programs.

***Note that for National Grid, Berkshire Gas, and Columbia Gas, savings are evaluated, which makes the comparison to unevaluated savings used in the analysis of the initiatives under evaluation unequal.

⁹ Based on the PA definition of participants and the initiatives' definition of projects, we believe that the comparison is adequate.

Initiative Costs

The Evaluation Team was charged with collecting and documenting any available information on the costs incurred by the Powering Pittsfield and Northampton Leading the Way initiatives. The results of the research are presented below. Overall, for both initiatives, only limited cost information was available or shared with the Evaluation Team.

Northampton Leading the Way Initiative Costs

Overall, the Northampton Leading the Way initiative incurred \$138,898 in costs. These include funds spent on the marketing and administration of the initiative, equipment and installation costs (in the case of the Direct Install programs), and incentive payments.¹⁰ The funding that Serrafix received is unclear and was not revealed to the Evaluation Team.

Table 8. Northampton Leading the Way Initiative Costs

Cost Inputs	National Grid	Columbia Gas	Serrafix	Total
Program Administration & Marketing (Source: PAs)	\$31,250.00	\$22,622.50	Unknown	\$53,872.50
Installation, Equipment, & Incentive Costs* (Source: PA program tracking data)	\$74,038.00	\$10,987.09	N/A	\$85,025.09
Total	\$105,288.00	\$33,609.59	–	\$138,897.59

*Note that costs associated with the installation and incentive payments were derived from the PA tracking data and only represent a subset of projects that we were able to match (21 out of 24 projects for Northampton Leading the Way initiative)

In addition to the above documented costs, both PAs and city officials spent staff time conducting outreach and coordinating the initiative. Those costs, however, are not clearly tracked, and the Evaluation Team was only able to obtain estimates.

Table 9. Northampton Leading the Way In-Kind Hours Donated

Entity	Hours
National Grid (Source: PAs)	Unknown
Columbia Gas (Source: PAs)	Unknown
Energy Conservation Officer (Source: Stakeholder interviews)	20
Center for EcoTechnology (Source: Stakeholder interviews)	16
Total	36

Note that the source for these estimates is from the final report filed by the City of Northampton with the C&I Management Committee. Based on stakeholder interviews, these hours are likely lower than what was expended. A more accurate estimate is unavailable.

¹⁰ Note that the Evaluation Team subtracted customer copayments from the total equipment and installation costs. The copayment amount for these projects is \$35,886.43 (derived using Customer Copay and Participant Cost data fields).

Powering Pittsfield Initiative Costs

Overall, the Powering Pittsfield initiative incurred \$95,505 in costs. These include funds spent on the marketing and administration of the initiative, equipment and installation costs (in the case of the Direct Install programs), and incentive payments.¹¹ The funding that Serrafix received is unclear and was not revealed to the Evaluation Team.

Table 10. Powering Pittsfield Initiative Costs

Cost Inputs	WMECO	Berkshire Gas	Serrafix	Total
Program Administration & Marketing (Source: PAs)	\$40,350.00	\$13,450.00	Unknown	\$53,800.00
Installation, Equipment, & Incentive Costs* (Source: PA program tracking data)	\$29,193.49	\$12,511.50	N/A	\$41,704.99
Total	\$69,543.49	\$25,961.50	--	\$95,504.99

*Note that costs associated with the installation and incentive payments were derived from the PA tracking data and only represent a subset of projects that we were able to match (7 out of 16 projects for Powering Pittsfield initiative)

In addition to the above documented costs, both PAs and city officials spent staff time conducting outreach and coordinating the initiative. Those costs, however, are not clearly tracked, and the Evaluation Team was only able to obtain the estimates, as shown in the table below.

Table 11. Powering Pittsfield In-Kind Hours Donated

Entity	Hours
WMECO* (Source: PAs)	332
Berkshire Gas (Source: PAs)	50
City of Pittsfield Mayor's Office** (Source: Stakeholder interviews)	175
Center for EcoTechnology (Source: Stakeholder interviews)	13
Total	520

*Note that this is a very rough estimate based on the PA feedback.

**Note that these hours are based on the interviews and not the final report filed by the city of Pittsfield. The hours span multiple staff members.

¹¹ Note that the Evaluation Team subtracted customer copayments from the total equipment and installation costs. The copayment amount for these projects is \$23,603.05 (derived by using Total Customer Cost data field).

Initiatives' Lessons Learned

Due to the limited number of completed projects and magnitude of energy savings, as well as the inability to effectively demonstrate to the PAs (the core funding source of the initiatives) the value of the “concierge service” concept, both the Northampton Leading the Way and the Powering Pittsfield initiatives were discontinued. The implementation of the initiatives, however, resulted in valuable lessons learned and considerations for future community-based initiatives. Below we present the evaluation findings broken by topic area, and provide recommendations for future initiatives based on the findings from this evaluation effort.

The Value of the “Concierge Service”

Reactions to the effectiveness and value of the concept of “concierge service” are mixed. City officials and municipalities interviewed as part of the evaluation believe that given the multitude and complexity of the PA-administered energy efficiency programs, concierge assistance is a highly valuable tactic to keep business customers engaged with and facilitate participation in the energy efficiency programs, as well as encourage deeper adoption of energy efficiency through helping identify more opportunities for improvement.

CET, the implementation partner for both initiatives, also considers concierge service a highly valuable element of the program design and implementation structure that can help keep businesses engaged, assist them in navigating the complex structure of PA-administered energy efficiency programs, and identify and customize energy efficiency opportunities available through those programs. As a support point, CET cited commercial customers being unique in terms of their business type, ownership structure, and energy needs, and suggested that approaching them in a customized fashion would allow for deeper savings.

PAs, while noting the limited effectiveness of the concierge service in the case of the Northampton Leading the Way and Powering Pittsfield initiatives specifically – overall agree that if designed and implemented differently, the idea of “concierge service” and support could be of value in educating customers about the variety of energy efficiency opportunities across fuel types and programs. However, PAs question the cost-effectiveness of such services, and are concerned with the ability to implement them in a way and on a scale that will meet the cost-benefit requirements of energy efficiency programs.

Consideration for future efforts. Consider exploring ways of integrating the concept of concierge service more efficiently and cost-effectively into the programs’ implementation structure.

Stakeholder Involvement and Relationships

Based on the interviews with the PAs and the lead implementation partner staff, the timing of their involvement with the initiatives was inadequate. More specifically, both PAs and CET were engaged with the initiatives at the tail end of the design and planning phase. Initial planning was done by the Serrafix Team and the cities' officials. According to the interviewees, this limited collaboration and contribution to the design of the initiatives. Both PAs and CET strongly believe that bringing them to the table earlier and having collaborative discussions around the initiatives' planning and design would have allowed the initiatives to avoid some of the challenges that they encountered, such as lack of potential for energy efficiency in the selected geographic area,¹² coordination of the training efforts, and marketing and outreach tactics.

The initiative, however, brought opportunities for new relationships and collaboration. PAs in both Pittsfield and Northampton recognized the role that CET played and has continued to play by engaging CET in the implementation of their commercial energy efficiency programs after the end of the Powering Pittsfield and Northampton Leading the Way initiatives.

Consideration for future efforts. Consider engaging all stakeholders early on in the planning process. This can result in a stronger initiative design, better understanding of the design elements by all parties, and closer collaboration throughout the implementation process.

Initiatives' Timing

Based on the interviews with key stakeholders, the timing of the coordination of the initiative and a constricted funding period posed barriers to the goal achievement. The success of the initiatives was stunted by the long startup time required to get the program elements and marketing in place. Interviewees specifically pointed out that PAs went through a steep learning curve to train and educate Serrafix and CET about the variety of PA energy efficiency programs and offerings, as well as establish the relationships and communication channels between CET and the lead vendors for the C&I programs.

This was further exacerbated by the C&I program implementation status. At the time of the initiatives' launch, PAs were at the start of the 2010-2012 Energy Efficiency Program Cycle (2009-2011 Three-Year Plan), and as a result a variety of efforts were still underway to finalize the design and start the implementation of the Direct Install Gas Energy Efficiency programs and move forward program integration across gas and electric PAs.¹³ The goal setting process for either initiative did not seem to take into account factors that could affect performance, such as being in the first year of the Three-Year Plan, and more importantly, the first year of PAs implementing statewide energy efficiency programs.

In addition to slower than expected implementation, one other factor hindering the ability to gauge the true success of the initiatives, according to the interviewed stakeholders, was the short implementation time frame. Planning and execution of energy efficiency projects in the commercial segment is more complex and more capital-intensive. Securing capital and planning capital improvements, especially more complex and comprehensive ones can take several years. This

¹² This is especially true of the Powering Pittsfield initiative, where the selected area was highly restrictive from the point of remaining potential as well as building structural characteristics (brick buildings with flat roofs).

¹³ Berkshire Gas did not implement their natural gas Direct Install program until 2011.

initiative was planned to last a year. Stakeholders that we interviewed recognize, in hindsight, that goals set for the initiatives were too ambitious for the timeframe, and believe that the funding period was too short to show measurable and deep savings. However, a CET representative that the Evaluation Team interviewed mentioned that to this day they are seeing energy efficiency projects being completed as a result of the initiatives. This might point to the presence of additional savings. However, those savings will be hard to trace and attribute to the Serrafix initiative with confidence without conducting additional research.

Consideration for future efforts. When planning future community-based initiatives, stakeholders should consider the specifics of the target audience, and allow for ramp-up time, and the status of the other efforts that the initiatives' performance might depend on.

Goal Setting and Baseline Establishment

The goals set for each initiative were not clearly defined. This sentiment is supported by several stakeholders (among them, PAs and CET). No baselines were set prior to the start of the initiatives against which the initiatives' achievements would be measured.

Consideration for future efforts. To accurately measure the success of any initiative, the initiative's goals and success criteria should be clearly defined and baselines should be established for all metrics.

Community Selection and Consideration of Barriers to Energy Efficiency

Community selection does not appear to have been strategic to allow the initiative to meet energy-saving goals. The interviewed stakeholders acknowledged that selected geographies and building types restricted the ability to meet savings goals from both size and existing potential perspectives. More specifically, the Powering Pittsfield initiative targeted only one street with a challenging building stock (brick buildings with flat roofs), thus limiting possible improvements to lighting. Furthermore, according to the interviewed stakeholders, areas targeted by the initiatives had businesses with a mix of ownership models that required custom approaches to each. A split-incentive barrier was commonly encountered, and working through it took time and effort from both CET and the city officials.

Consideration for future efforts. When planning future community-based initiatives, consider the specifics of the target audience and target area. Conducting research to understand barriers to energy efficiency might be highly beneficial, and should be performed during the planning and goal-setting stages of the initiative, so needed interventions are integrated as part of the initiative design.

Initiatives' Implementation

Overall, CET and the lead vendors worked well together delivering the two initiatives. However, multiple outreach efforts attempted by a variety of entities (CET, municipal staff, PA lead vendors) caused confusion among potential customers. This is especially the case for the Powering Pittsfield initiative. As a result, due to the oversaturation of marketing, CET's Marketing Team has been asked to avoid targeting Pittsfield in the near future.

Another common concern that surfaced during the stakeholder interviews was the time spent coordinating, reporting, and overseeing the initiatives. Interviewees felt that significantly more time was spent developing, administering, and reporting on the initiatives' status than the actual implementation (including interaction with the lead vendors and customers). The interviewed stakeholders cite weekly and monthly meetings, status update reports, and multiple requests for

the initiatives' tracking data. Both CET and the PAs believe that administrative tasks were taking a disproportionately high amount of the time as compared to customer interaction and lead generation. They also recognize the burden that it placed and the unnecessary expenditures it resulted in.

Consideration for future efforts. Streamlining program delivery and developing clear but simple ways of information sharing and customer hand-off will help save time and resources, resulting in a more efficient delivery of the future initiatives.

Initiatives' Tracking and Reporting Systems

The tracking of key metrics, budgets, and accomplishments appears to have been poorly established, uncoordinated, and inconsistent. According to stakeholder interviews, the Serrafix Team was in charge of establishing data tracking systems and working with CET on implementing them. However, the amount of work that Serrafix performed in the area was limited, and according to CET, they had to develop most of the systems and processes to track marketing and outreach, audits, and completed projects.

Furthermore, data tracking systems were not coordinated or integrated with the PA program tracking databases, and data sharing processes were not in place prior to the initiative launch. The lack of a proper data tracking system is reflected in the PAs' inability to locate projects reported as completed through the initiatives in their program tracking databases, and the Evaluation Team's inability to match a considerable number of projects recorded by CET and Serrafix to PA tracking databases.

Consideration for future efforts. Establishing data tracking and sharing systems and mechanisms prior to launch is critical to accurately tracking the initiative's success. Developing such systems will allow stakeholders to measure achievements and success more accurately, manage resources more effectively, and make mid-course corrections as needed.