

Location, Location, Efficiency!

2017 Building Technologies Office Peer Review



U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

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Project Summary

Timeline:

Start date: August 1, 2015

Planned end date: July 31, 2018

Key Milestones

1. Documentation of DOE tools integrated in curriculum of local tech college; June 30, 2017
2. 30-50 test buildings in pipeline; July 31, 2017
3. Catalogue of Wisconsin & American made building efficiency products; September 30, 2017

Budget:

Total Project \$ to Date:

- DOE: \$203,041.69
- Cost Share: \$194,946.02

Total Project \$:

- DOE: \$750,000
- Cost Share: \$750,000

Key Partners:

Franklin Energy	MATC
Office of Energy Innovation	MKE Business Improvement Districts
USGBC-WI	M-WERC
Transwestern	BOMA-WI
Focus on Energy	

Project Outcome:

This project is focused on making it easier and therefore more compelling for building owners and property managers to develop and implement energy efficiency projects by developing solutions to key market barriers. The key outcomes include developing a streamlined process for buildings to follow to enable them to meet energy reduction goals.

Purpose and Objectives

Problem Statement:

Investment in energy efficiency has many technical and market barriers, including inadequate information and subsequently, the perception that investing in energy efficiency is too complicated and expensive.

This project's main purpose is to make the process of investing in energy efficiency less complicated, to show that it does not have to be extremely more expensive, and that it increases the overall value of the building. The project aims to arm 100+ buildings with the knowledge and resources they need to develop and implement a successful project and pursue the goal of becoming 20% more efficient over a decade.

Project Impact

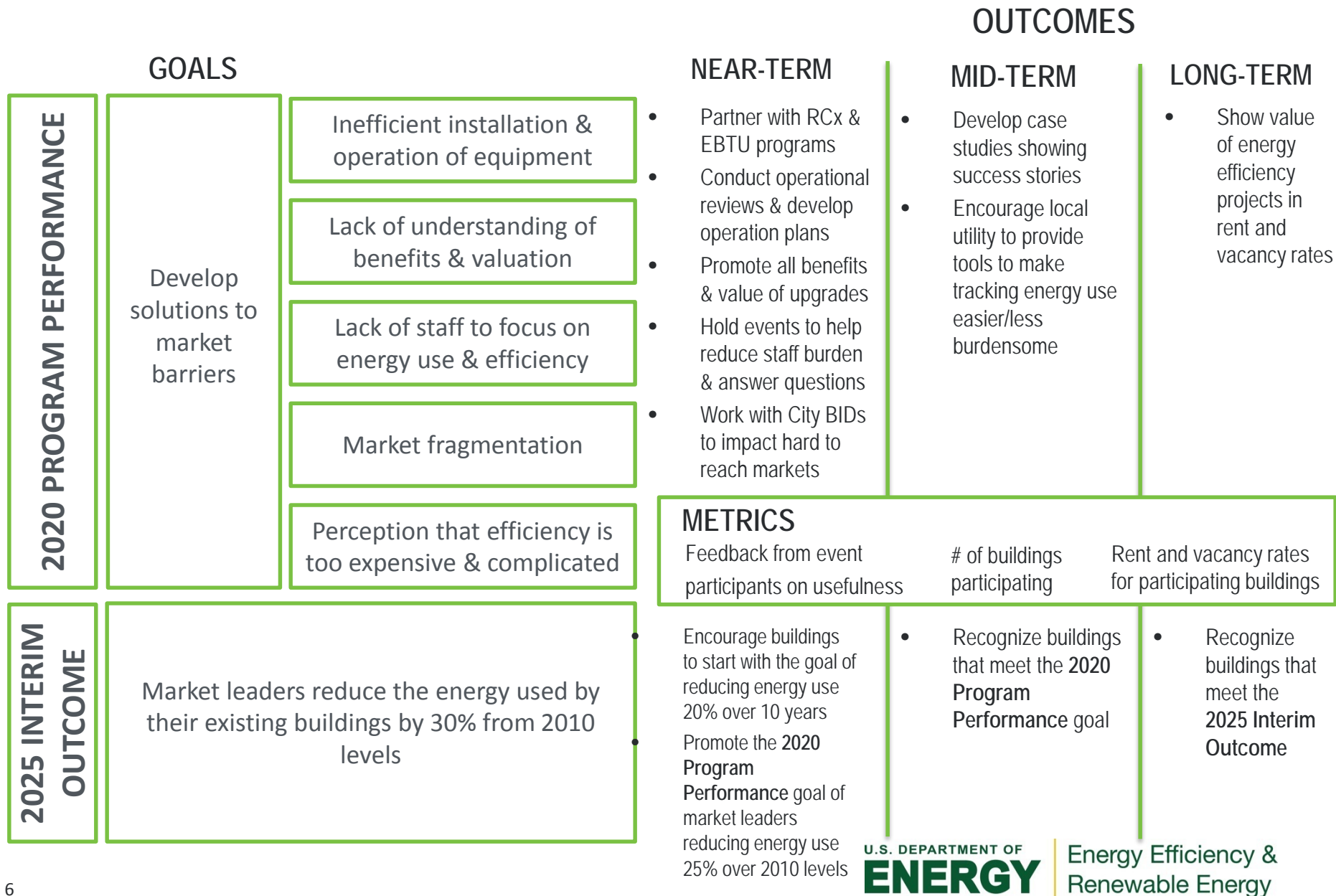
Project Outputs

- 100+ buildings provided an energy assessment report identifying viable next steps & ready to implement energy efficiency project
- Website to help navigate energy project process
- Database of WI- & US-made energy efficiency technologies

Contribution to Program Performance & Interim Goals

		OUTCOMES		
GOALS		NEAR-TERM	MID-TERM	LONG-TERM
2020 PROGRAM PERFORMANCE	Drive adoption of HITs	<ul style="list-style-type: none"> Identify/publicize HITs on website Educate contractors & building operators on HITs Identify WI & USA manufacturers of HITs 	<ul style="list-style-type: none"> Provide incentives for HITs through Focus on Energy Educate contractors & building operators on HITs Publicize HIT use on website 	<ul style="list-style-type: none"> Track implementation of HITs Publicize results on website
	Prove existing buildings can use 25% less energy than 2010 levels	<ul style="list-style-type: none"> Use city-owned buildings as examples & showcase on website Recognize participants that meet the goal 	<ul style="list-style-type: none"> Develop case studies Continue recognition of successes 	<ul style="list-style-type: none"> Set new targets for leading buildings that align with BTO 2025 Interim Outcome
		METRICS # of HITs eligible for incentives # of contractors & building operators educated # of HITs implemented		
		METRICS Source EUI reduction tracking through Portfolio Manager # of buildings meeting goal		

Contribution to Program Performance & Interim Goals



Target Market & Audience

Primary Market – Class B & C commercial office space

- 106 Class B&C Buildings
- Also will be including the following classes in order to better meet our 100+ building goal:
 - Class D Buildings
 - Other office space

Secondary Markets – small commercial, K-12 schools

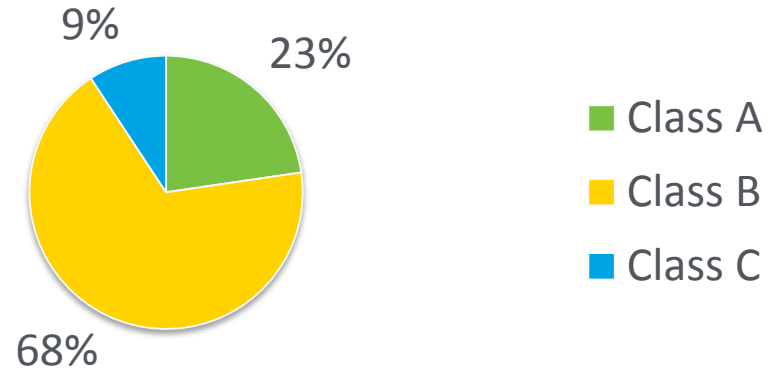
- These markets were chosen to leverage other existing programs

For all of these markets, the project is targeting building owners, operators, and decision makers

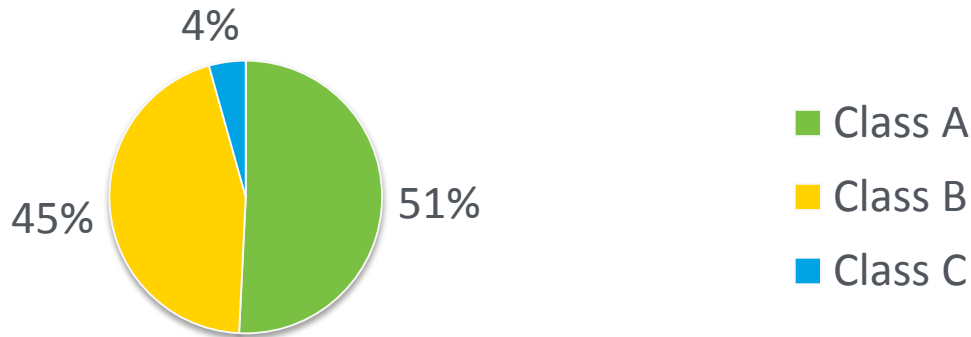
Size of the Market

The Downtown Milwaukee Business Improvement District (BID) accounts for >43% of the office market in the Milwaukee area.

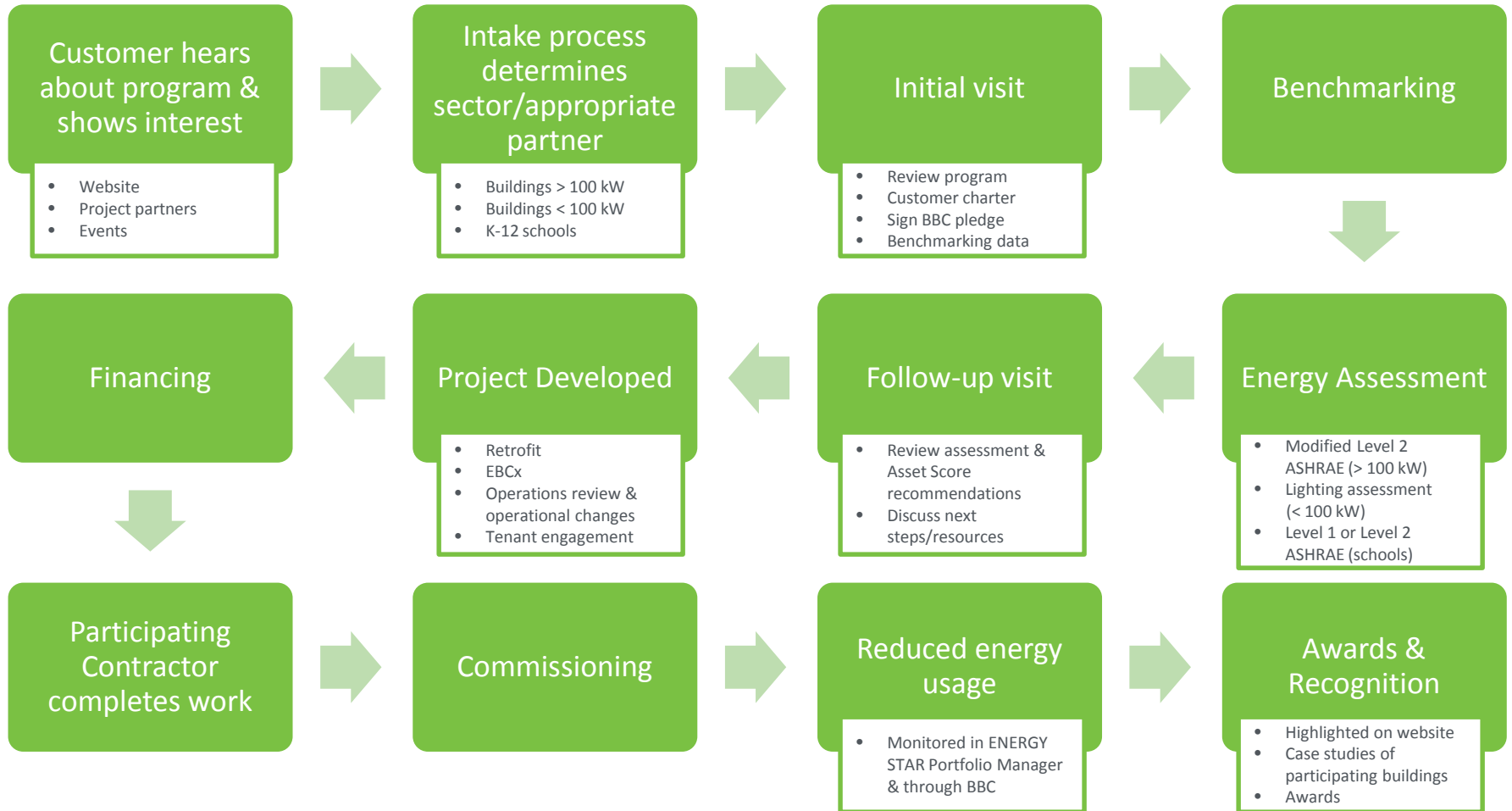
Buildings by Class in Downtown Milwaukee



Rentable Square Footage in Downtown Milwaukee



Approach



Approach

Key Issues:

1. Change in small business program implementer
 - Delayed launch of small commercial segment of program
 - Working with new implementer (current partner) on process
2. Staff & program partner turnover & capacity
 - Program knowledge continuity & capacity of program to function at highest level
 - Exploring possibility of engaging interns in some of the more basic work, continuous communication with partners on task status
3. Slow rate of interest in program
 - Not as many buildings in pipeline as we would like
 - Ramping up engagement of appropriate sectors & utilizing other partnerships to spread the word

Distinctive Characteristics:

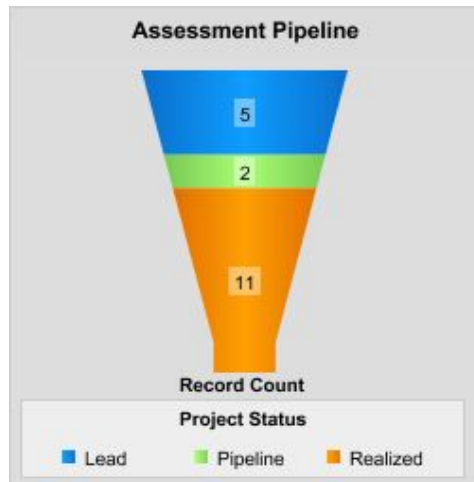
Highly collaborative on non-customer facing process – limit amount of leg work on part of customer

Progress and Accomplishments

Accomplishments:

- 8 partner contracts executed
Allows partners to invoice and fully participate in work of program
- Program and new website launched to the public
Began program outreach to building community
- Newsletter launched
More robust promotion of all of programs offerings

Market Impact:



- 34 buildings have taken the BBC pledge
- 13 assessments (2 schools not included in graphic)
- \$191,000+ annual savings identified
- 1,482,229 kWh of potential energy savings
- At least 1 building has gone through entire process of completing a project and receiving incentives

Awards/Recognition: None

Lessons Learned

- Partner/staff capacity & turnover
- Identifying correct building contact to approach about the program
- Issues posed by Milwaukee redevelopment market
 - Baseline generation/data accessibility due to change in ownership, significant changes in occupancy, etc.
 - Impact of assessment due to large changes in use of buildings

Project Integration and Collaboration

Local Utility

The program has made partners at the local utility aware of the resources available for buildings. This has generated a number of leads to date and has allowed the program to appropriately direct buildings to the correct resource.

Construction & Engineering Working Group

This working group engages with the contractor sector and is helping to demonstrate how contractors can help connect buildings to resources, as they are in the field and know what projects are happening.

Milwaukee Business Improvement Districts

Each business improvement district represents a direct connection to the building and business owner community of the city. They know what projects are happening in their area and can directly connect with the small building market.

Partners, Subcontractors, and Collaborators



Customer management;
Business implementer



School implementer



Marketing; Event
development; Awards



Technology integration



Workforce development



Tenant engagement;
Commissioning



Marketing; Promotion;
Awards



Integrate technologies into
incentive program



Workforce development;
marketing



Program administrator

Communications

MKE Sustainability Summit Session

- April 13, 2016

USGBC-WI Blog Series

- Fall 2016

Launch Event

- September 21, 2016

Feature in MKE Blueprint

- Fall/Winter 2016

Program Newsletter

- December 2016 – 54.8% open rate – 14.7% click rate
- January 2017 – 47.9% open rate – 14.3% click rate
- Currently have 89 subscribers

BOMA-WI Luncheon

- February 8, 2017

Milwaukee BID Council Presentations

- Informal: June 9, 2016
- Formal: February 22, 2017

Next Steps and Future Plans

Next Steps

- Continue building out program website
- Continue outreach and marketing to engage more buildings in the program and provide more energy assessments
- Re-launch K-12 and small commercial market programs
- Engage contractor market to identify buildings and promote energy efficiency

Future Plans:

The project would like to include more peer-to-peer learning through a smaller version of the Better Buildings SWAP series that is taking place on the national level. This would have multiple benefits, including the potential to re-engage with buildings that have not taken part in program offerings, share best practices among leaders, and push these leading buildings to go farther in their energy reduction goals.

REFERENCE SLIDES

Project Budget

Project Budget: \$1,500,000

Variations: Due to delays in getting all partner contracts executed and a slow start to reaching prospective building candidates, the project is behind the original spend plan. In addition, funds have been shifted among partners due to underspending on salaries and the departure of a partner. The funds not spent in the first year+ of the program were moved forward in the timeline and were used to augment marketing and outreach efforts.

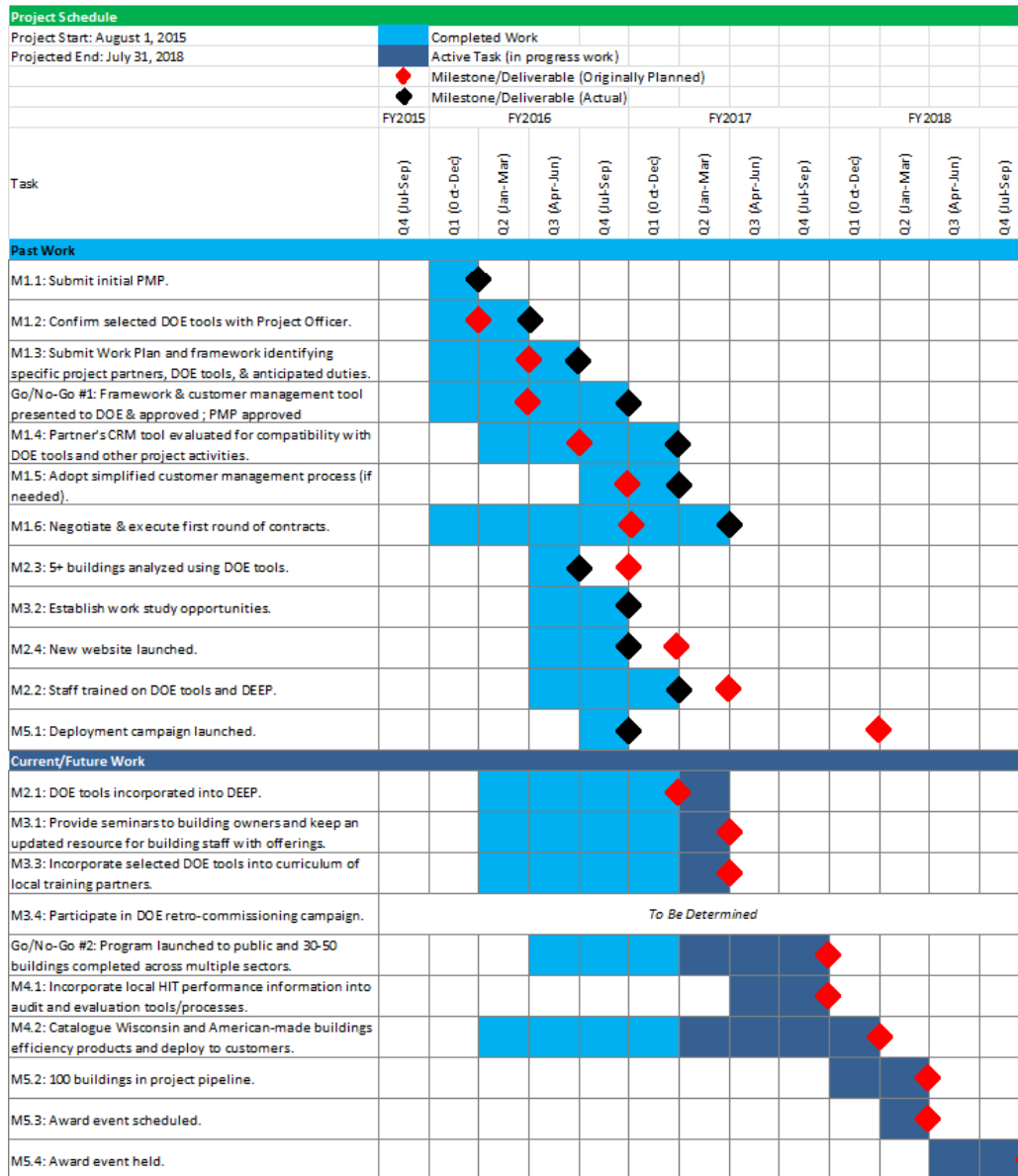
Cost to Date: 26.5%

Additional Funding: We have utilized sponsors for program events to help with costs. This has represented \$1500 to date and we plan to expand this opportunity in the future.

Budget History

August 1, 2015 – FY 2016 (past)		FY 2017 (current)		FY 2018 – July 31, 2018 (planned)	
DOE	Cost-share	DOE	Cost-share	DOE	Cost-share
\$125,439.73	\$108,941.61	\$321,400.31	\$343,138.24	\$303,159.96	\$297,920.15

Project Plan and Schedule



Note on M1.2 missed date:

Had verbally confirmed tools with Project Officer, got confirmation in writing later after working through some issues with one of the tools

Note on M1.3 missed date:

This milestone was missed by two weeks – the chart misrepresents the length of time by which it was missed. Conversations with partners were ongoing during this time and were needed to complete a relatively accurate work plan.

Note on Go/No-Go #1 missed date:

Early in the project there was a lot of confusion over when the Go/No-Go checkpoints would occur. The original date did not meet the parameter of having no more than 12 months in a budget period. Everything was submitted by the revised date and the completed date is the quarter when confirmation was received.

Note on M1.4 missed date:

The determination of compatibility for the partner's CRM tool was ongoing as new functionalities were explored. The final conclusion that it could perform as needed and was working well was delayed only to make sure that it continued to perform well.

Note on M1.5 missed date:

This milestone ended up not being needed. The completed date reflects when the final decision was made that no alternative management process was needed.

Note on M1.6 missed date:

The last two contracts out of the eight total took longer to execute than planned due to the incorporation of USGBC-WI chapter into the larger USGBC network and a change in staff in the City of Milwaukee's Purchasing Department.