15 Years of Tackling Climate Change

York Energy Steering Committee

Photographer - *Wayne Boardman*

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Final Report, December 2023

A copy of this report can be at the Town of York website:
yorkmaine.org

Introduction

When the current members of the York Energy Steering Committee (ESC) first started pulling together this final report of the Committee's work over the fifteen years from 2008 to 2023, it was a bit overwhelming. This report represents over 15 years of commitment and collaboration between the Town of York and the volunteer members of the ESC who researched, recommended, and managed projects that have made a measurable impact on our community's carbon profile. The Committee's work has spanned changes in membership and Town leadership and staff; one of our members has been with the Committee from the start in 2008!

Heartfelt thanks are owed to the volunteer Selectboards for approving funding for, and at times pitching in with the Energy Steering Committee members who were on the ground doing the work. This report also recognizes and thanks the many other volunteers and staff who contributed their time and talents for periods of time since 2008. The work has been a shining example of citizen-and-municipal-government collaboration that has gotten the attention of other Maine communities and State officials.

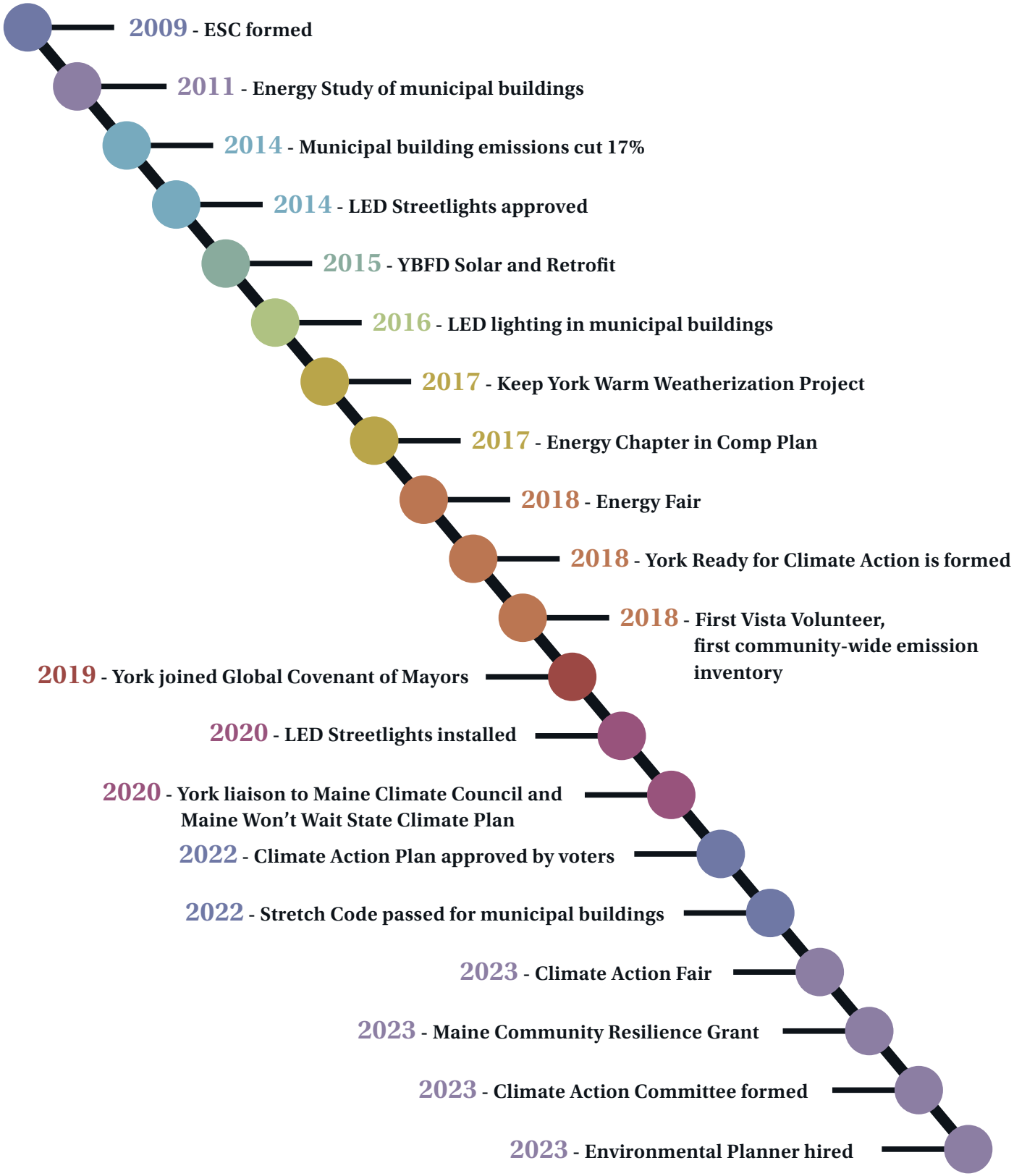
The Committee's mission was to reduce the municipal facilities' carbon emissions and to recommend to the Select Board policy decisions that would support the same goal in the overall community. Members' technical knowledge and experience varied from "minimal" to "quite a lot," and there was one ill-fated project (the now infamous pellet stove at the Parks & Rec building), but we all learned as we worked, pulling in experts at every turn. By sharing our insights and information with town leaders and citizens, and by facilitating targeted projects, the ESC has been a key catalyst for progress on the climate challenges York faces.

This Final Report of the Energy Steering Committee provides an overview of our journey and an institutional memory of some highlights and standouts, and offers a few insights for our successors, the Climate Action Committee, as it embraces the next phase of the work.

Current & Past Members

- **Jeff Beaudoin**
  - first Chair of York Energy Steering Committee 2008
- **Wayne Boardman**
  – Chair of York Energy Steering Committee 2009 - 2014
- **Hilary Clark**
- **Susan Covino**
  - Co-Chair 2020 – 2023
- **Catherine Giffen**
- **Nan Graves**
- **Eric Hopkins**
  – First Chair of York Energy Efficiency Committee 2008
- **Clark James**
- **Liz Kinzley**
- **Stephen Kosacz**
- **Len Loomans**
  - Co-Chair 2020 – 2023
- **Deborah McDermott**
- **Paul McGowan**
- **Harry Mussman**
- **Phyllis Newman**
- **Rozanna Patane,**
  - Chair 2015 - 2020
- **Cynthia Raymond**
- **Chris Ring**
- **Gerry Runte**
- **Victoria Simon**
- **Kiki Tidwell**
- **David White**

A Short History of the York Energy Steering Committee



The York Energy Steering Committee, a Selectboard-appointed group, evolved out of the York Energy Efficiency Committee led by Eric Hopkins in 2006. That Committee's efforts resulted in a solar panel installation on the York Middle School and a recommendation that the Selectboard create a municipal committee to tackle the job formally. The Selectboard responded in 2009 by establishing the York Energy Steering Committee (ESC). Current member Wayne Boardman was named the second Chair of the ESC, a post he held until he also joined the York Planning Board, where he continues to guide York's transition to a low-carbon community in his role as Board Chair. The mission of the Committee was and is still to recommend energy conservation and renewable energy options that shrink the carbon footprint of the town of York.

The first thing the new committee did was a 2011 energy study of York's municipal buildings – essentially, a detailed to-do list. Then, over the next several years, York citizens did something remarkable. They approved four annual budgets of $100,000 each, a brainstorm of Rob Yandow, Town Manager at the time, giving the Committee the funds needed to get that list done. This was supplemented by a few small grants in 2014 and, in 2015, a larger grant from the Seacoast Energy Initiative (SEI) and Efficiency Maine for solar on the York Beach Fire Station. All of these funds were dedicated to the ESC's goal of cutting carbon emissions and saving taxpayer money by performing energy efficiency and renewable energy retrofits on municipal properties.

In 2014, when the Budget Committee and voters expressed waning support for energy upgrade ballot items, the ESC realized we had to increase voters' and town officials' awareness of the work that was being done and the need to continue. The ESC continued to oversee energy improvements in municipal buildings, but it broadened its focus and over the next several years the Committee reached out into the community with weatherization services, an energy fair, a public forum, regular newspaper coverage, and, importantly, by forming partnerships with other community organizations such as York Ready for Climate Action, York Community Services, Habitat for Humanity, York Rotary, Southern Maine Planning and Development Commission (SMPDC), as well as Efficiency Maine and Town department heads and staff, local contractors – basically anyone who would work with us to get stuff done.

And the Committee turned a laser beam on two large, important projects that would capture the public's attention and dramatically demonstrate the potential of carbon-reducing investments: solar panels on the Beach Fire Station and LED streetlights throughout town.

The solar project was highly visible – the panels could be easily spotted by anyone passing by the Fire Station, and the Chief himself commented at a Selectboard meeting about how much money taxpayers were saving from the project. The LED streetlight project was complex and took years to move through the approval process (first proposed in 2014, installed in 2020) but the results were so beneficial that one Selectboard member commented that "this is a no-brainer."

The other significant part of the ESC's work from 2018 through 2022 was making the case to the Selectboard for a specific commitment to address climate change. But how to do that with a fact-based message that was specific, understandable, and actionable for the Selectboard?

Enter the Committee's first Vista Volunteer in 2018. Lucy Brennan spent the year developing the first greenhouse gas (GHG) emissions inventory of the entire community. Lucy presented the inventory to the Selectboard in late 2018, along with the ESC's recommendations to join the Global Covenant of Mayors and commit to reducing York's carbon emissions entirely by 2050 – a monumental step.

The data were compelling and York Ready for Climate Action mobilized citizens to express their strong approval at key Selectboard meetings. By 2020, the Selectboard had funded the development of the York Climate Action Plan, which followed closely on the publication of the state plan, Maine Won't Wait, and was one of the first local plans in Maine. The Plan was adopted by voters in 2022. At the same time, a member of York's ESC participated in developing the State plan when she was appointed to the Maine Climate Council Buildings Working Group to contribute an "on-the-ground" perspective to the process. York's experience with the Vista program prepared us to recommend that the State establish a climate corps statewide of Vista-Americorps members. That recommendation was accepted, and a program was created and is managed today by the State Volunteer Office.

The York Climate Action Plan updated the GHG emissions Inventory, involved citizens in creating the Plan's strategies, and established the Climate Action Committee charged with implementation.
The ESC, with major support from York Ready for Climate Action, was the champion and moving force behind York's Climate Action Plan and the resulting Climate Action Committee.

We celebrate the Climate Action Committee! It is to them as well as to Town leaders and citizens that the Energy Steering Committee, as we retire, now offers this institutional memory, our insights and the built foundation of the work completed, in the spirit of helping the work go forward.

2011

In 2011, the first task out of the gate, an energy study of municipal buildings, identified 50 "Energy Conservation Measures" (ECMs) – recommendations that the ESC tackled over the next several years. (York's 2022 Climate Action Plan demonstrated that buildings represent 74% of York's carbon emissions, so the 2011 focus on buildings was a good decision in retrospect.)

2013 -14

By 2013, the municipal building improvements included extensive insulation and air-sealing in the Police Station and Senior Center, Village Fire, Beach Fire, Town Hall, Grant House, Public Works Garages, Public Library, and the York School Buildings, and replacement of the Grant House boiler with a pellet stove. In 2015, the pellet stove was discovered to be faulty and required an additional investment; in 2022 it was replaced with a propane boiler for the ground floor. Heat pumps are planned for the second floor.

The Committee established a database of energy use in public buildings that documented over 10 years of kWh of electricity, gallons of heating oil and other data that provided important information to the Climate Action Plan in 2022.

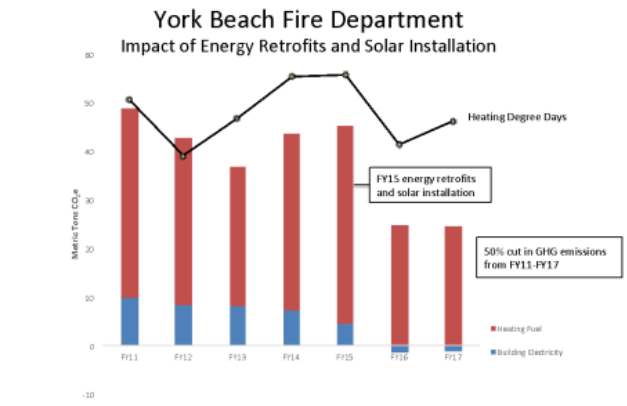
"I had $5,000 left in my heating account budget at the end of last fiscal year."
- Chris Balentine, York Village Fire Chief (at end of June 2014)

York Village Fire Department – Photo courtesy of Wayne Boardman

In 2015 the solar system on the York Beach Fire Station was installed.

The project was paid for by a $94,758 Seacoast Energy Initiative (SEI) grant and was installed by ReVision Energy – a 28-kw grid-tied system that was shortly followed by a building energy retrofit including roof insulation, heat pumps and LED lighting that piggy-backed on a renovation project the Fire Station had planned at the time. The building improvements dramatically cut the energy used, and the solar panels immediately offset the fire station's annual electrical consumption.

"My usual $350/month electricity bill dropped to a credit of $1.38 in August 2015 – so now I'm helping pay Town Hall's electricity bill."
- Dave Bridges, York Beach Fire Chief



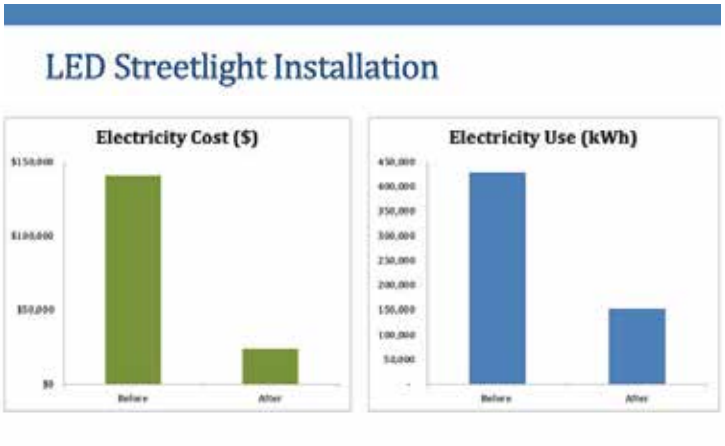
Energy retrofits and solar installation significantly reduced GHG emissions associated with heating fuel and building electricity.

No matter how we measure it, and even if York had paid for the retrofit and solar panels without the grant, this project was a winner. Savings over the life of the equipment (approximately 30 years) is projected to be about $363,000, and the Town's return on investment (as if we had paid the entire cost) projected to be 11% for the retrofit and 6% for the solar panels, with a simple payback of 8 years and 17 years, respectively. After the 17 years (2032), electricity will be essentially free throughout the panels' 30- plus year lifespan.

Importantly, the solar panels and retrofit together would cut an extraordinary 233 tons of CO2 – the equivalent of the carbon-scrubbing power of 225 acres of Maine forest.

In 2015 the LED streetlights project was launched. The ESC, in partnership with Public Works Director Dean Lessard, gained the Selectboard's approval and voters endorsed the project in 2016 to purchase our streetlights from CMP and replace them with LEDs. The project was complex and it took a second approval from both the Selectboard and voters, but in 2020 we finally installed the lights.

This project provided a stunning pay-off for energy reduction and tax savings for York citizens. As soon as it was installed, the Town achieved the projected 67% cut in the streetlights' energy consumption and the streetlights have since exceeded the projected cost savings of approximately $120,000 a year. After three full years of operating, FY2022 savings to taxpayers was over $126,000 and FY2023 was over $122,000.



Summary of costs and savings for the LED streetlight project for fiscal years 2019–2023.

Summary	FY2019	FY2020	FY2021	FY2022	FY2023
Baseline (2019 + 3%/yr)	$ 148,554	$ 153,011	$ 157,601	$ 162,329	$ 167,199
Actual Operating Cost	$ 147,447	$ 111,804	$ 37,754	$ 27,929	$ 37,775
Interest on Debt	$ ---	$ ---	$ 8,932	$ 7,600	$ 7,000
Savings		$ 41,207	$ 110,915	$ 126,800	**$ 122,424**
Cumulative Savings					**$ 401,345**

In 2016 the four annual $100,000 voter allocations were exhausted with the completion of the energy retrofit on the York Beach Fire Station and LED lighting upgrades in municipal buildings; future funding would come from specific Town budget allocations.

2016

While the ESC navigated the streetlight journey, we multi-tasked. In 2016, at the request of the Planning Board, the ESC drafted an Energy Chapter for York's Comprehensive Plan and voters approved it in 2017 with an 86% vote.

The 2017 Energy Chapter provides both general guidance and five specific goals whose echoes can be heard in the Climate Action Plan adopted by the voters in May of 2022. "Fostering an energy-efficient culture takes time, but when we are all thinking routinely about how to improve our energy efficiency, our goals will be met as a simple outcome of doing our work well."

Goal 1. Energy and Climate:
Reduce greenhouse gas emissions (GHG) through energy efficiency projects, conservation measures and renewable energy initiatives in four categories.
Municipal Operations - Commercial/Business - Residential - Schools

Goal 2. Sustainable Transportation:
Reduce the environmental impact of vehicles in York and create a safe environment for alternative transportation options.

Goal 3. Waste Reduction:
Increase York's recycling rate through encouraging purposeful purchasing, reuse, recycling, and composting.

Goal 4. Community Engagement:
Develop collaborative partnerships that build support for community initiatives and increase awareness about sustainable programs, policies, and practices.

Goal 5. Measuring and Communicating Progress:
Establish clear milestones that are achievable and rewarded.

In **2016 through 2018, LED lighting upgrades** were installed in municipal buildings and at the Route One maintenance facility the Town acquired from the State. These projects cut 33 tons of carbon dioxide per year, delivered a payback time under four years and projected over $60,000 in savings over 10 years to York voters on the municipal building lighting, a return on investment of 185%.

The **2016-2017 Keep York Warm** weatherization project formed a partnership with York Community Services (YCSA), Habitat, York Rotary and Efficiency Maine to bring weatherization services to our low- income families, helping them to save on energy bills and creating safer and healthier homes.

SUPPORTERS

YCSA neighbors helping neighbors
York Community Service Association
a non-profit supporting our community

Habitat

ROTARY INTERNATIONAL
York, Maine

efficiency MAINE

Efficiency Maine's Low Income Energy Savings Program (LIHESP) helped to pay energy auditors and transformed our $7,300 Rotary grant into over $20,000 of weatherization work for homeowners. Volunteer students, Rotary members, Yankee Thermal and STP Home Performance employees, Selectboard members and many others worked alongside ESC members to build window inserts at the York Masonic Hall. The program delivered 11 home energy audits and weatherization services, 58 window inserts, 30 LED lights and 6 carbon monoxide monitors to 6 homeowners and 5 renters, and was recognized by Efficiency Maine for excellence in innovation and the only one of its kind at the time in Maine at their annual program review in 2017 — see https://www.efficiencymaine.com/collective-purchase-initiatives/. Habitat continued to provide weatherization services after 2017 and today Window Dressers provides that service to all households on a rolling basis.

2018

In **2018 the ESC held an Energy Fair** at the newly renovated Beach Fire Station with vendor exhibits, raffles, games, food, music and electric car displays to introduce York residents to vendors and demonstrate practical ways to benefit from energy efficiency and clean energy.

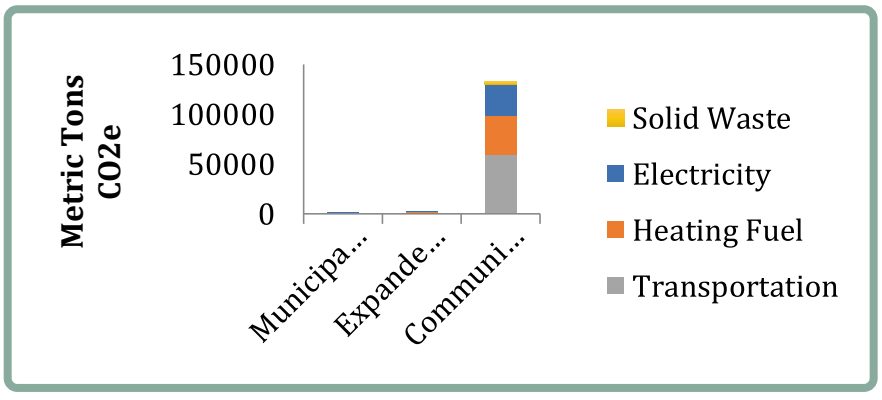
YES FAIR
Practical Solutions for Energy Efficiency & Sustainability in Your Home

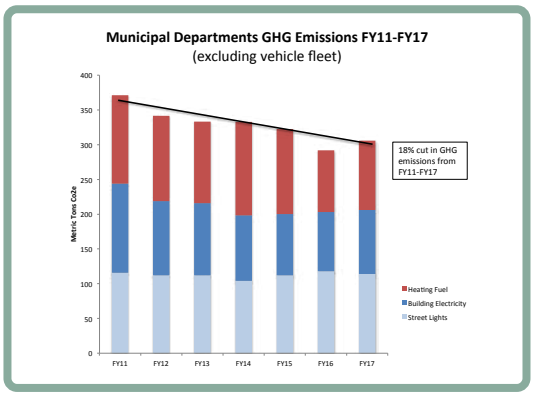
2018 was the year York Ready for Climate Action (YRCA) sprang into being – at the YES Fair! Founder Mac McAbee set up a table, people stopped to talk, and YRCA was born. Mac's vision was of a citizen-led group that did not have the constraints of a Town-appointed committee and that could help move the Town toward a specific commitment to cut greenhouse gas emissions by a certain date. That goal was realized in 2019 (see section below about the Selectboard signing the Global Covenant of Mayors in 2019).

In 2018 the ESC hired its first Americorps-Vista Volunteer. In all, four outstanding VISTA members (Volunteers in Service to America) served York's Energy Steering and Recycling Committees1, an arrangement with benefits all around. VISTA members receive valuable experience, and in some cases have gone on to careers in climate-related fields. And they greatly enhanced the capacity of the ESC.

Goodwill Industries of Northern New England

AMERICORPS VISTA





Vista emissions benchmarking showed that emissions from the Town operations had come down 18% since 2010

The first GHG emissions inventory of the whole community was presented to the Selectboard in late 2018 by our first Vista member, Lucy Brennan. Data and information from this inventory were the initial drivers for the ESC's recommendation to join the Global Covenant of Mayor and make a formal commitment to cut the community's GHG emissions. **York Ready for Climate Action** organized a citizens' expression of support that encouraged the Selectboard to make the commitment.

2019

In **2019**, the Selectboard adopted the ESC's recommendations to:

- **Join the Global Covenant of Mayors (GCOM).**
- **Commit to reducing GHG emissions by 50% by 2030 and 100% by 2050.**
- **Create a community-driven, inclusive Climate Action Plan that identifies measurable strategies to achieve the emissions reductions.**

GLOBAL COVENANT *of* MAYORS *for* CLIMATE & ENERGY

The GCOM Agreement was signed by Steve Burns, Town Manager at the time, and plans were made to create a Climate Action Plan with deep citizen involvement. Since 2020, the ESC submitted regular annual reports updating GCOM on community emissions. Under the management of the ESC, York has not missed an interim or an annual report to GCOM and grades and badges awarded have improved each year. GCOM has recognized York for its commitment to climate mitigation.

Mitigation Badge

Awarded as soon as one of the steps (i.e. Inventory, Target, or Plan) is accomplished

Inventory → *GHG baseline emissions inventory submitted and validated (including all mandatory criteria)*

Target → *GHG emissions reduction/low emissions development target set and validated*

Plan → *Separate or integrated climate action plan covering climate change mitigation submitted and validated*

Adaptation Badge

Awarded as soon as one of the steps (i.e. Assessment, Goal, or Plan) is accomplished

Assessment → *Climate risk & vulnerability assessment submitted and validated*

Goal → *Climate change adaptation goal(s) set and validated*

Plan → *Separate or integrated climate action plan covering climate change adaptation submitted and validated*

Compliance Badge

The 'Compliance' badge is awarded to cities that have accomplished all steps under all three pillars: mitigation, adaptation, and access to energy. They will keep the badge as long as they keep submitting progress monitoring reports within the required timeframe, validated for meeting GCoM requirements.*

*Please note: GCoM has not yet formalized the energy access pillar. Until its requirements have been adopted, full badge compliance is already achieved once all requirements under the mitigation and the adaptation pillars have been fulfilled.

2020

In 2020 the Selectboard approved ESC's recommended budget for a consultant to help the Town create a Climate Action Plan (CAP) after a show of strong community support from such groups as York Ready for Climate Action and the York Land Trust. Throughout 2021 ESC members worked with the consultant and participated and led many of the working groups that produced the plan. **In 2022 the plan was approved by almost 70% of voters**. The Plan expanded on our 2019 emissions assessment and set out the tasks for both mitigation (cutting our emissions) and adaptation (protecting our properties and the natural environment).

> *"This Climate Action Plan (CAP) lays out a road map for the Town to move forward on climate action – preparing and adapting to the changes we know are coming and reducing our greenhouse gas emissions." (From the CAP Summary, page 6)*

A top priority of the Plan is York's buildings, which account for 74% of our carbon emissions, most of which is from heating single-family homes. Updating building and zoning codes and supporting building energy retrofits are examples of the specific actions addressing this priority.

The Plan also lays out how to protect our natural resources and infrastructure, increase access to renewable energy and clean transportation, reduce waste and increase recycling, coordinate a disaster response plan, and develop the financial capacity to implement the Plan's actions, with attention to ensuring that our low- and moderate-income residents share in the benefits of the actions we take. The Plan called for establishing a Climate Action Committee to oversee implementation (see section below for more on this).

York developed a new Comprehensive Plan at the same time, guided by the same consultant, so we had the unusual opportunity to integrate the two plans from the ground up.

York Harbor Beach – Photo courtesy of Wayne Boardman.

2022

In 2022, while the Climate Action Plan moved forward, the ESC again multi-tasked:

The ESC provided important information to the Town Hall Building Committee on energy efficiency and financial incentives. Their input resulted in an air-to-air heat pump system that saved money and obtained a $40,429 contribution from Efficiency Maine. This effort ties directly to the Climate Action Plan Goal 1, Buildings.

The ESC and Planning Board gained voter approval to require the "Stretch Code" for new construction and major renovations of municipal buildings. Maine's base building code is two cycles behind the national code, which requires 10% greater building efficiency. In 2020, the State permitted municipalities to adopt the stretch code in lieu of the 2015 base code. Adoption of the stretch code ensures that buildings are built to a greater standard of efficiency and lower carbon emissions.

2023

In 2023, the ESC acted as liaison with the York Public Library Energy Committee on the Library's planned energy retrofit. We recommended using an ESCO – Energy Services Company – and as an ex-officio member of the Library Committee, participated in developing the project scope and selecting the ESCO. As of this report date, the ESCO's proposal is being reviewed and work is expected to begin in 2024.

The Energy Steering Committee endorsed the **C-Pace ordinance in 2023** and recommended to the Selectboard that they place it on the citizens' ballot. C-Pace is a 3rd party financing program for commercial building energy retrofit elements, for the life of those elements at lower interest rates; a program run by Efficiency Maine..

The Energy Steering Committee also recommends that the **York Village Fire Department** accept a grant for a **solar array** on its roof.

In June 2023, the ESC co-sponsored the York Climate Action Fair at the High School, with partners York Ready for Climate Action and the York Recycling Committee. Over 200 people attended, not including volunteers and vendors. They talked to heat pump and solar vendors, home energy auditors, and YRCA's energy coaches. They test-drove electric vehicles, learned about sustainability organizations in York and got to meet the turtle from Center for Wildlife, and much more. A raffle awarded 11 families valuable prizes such as a battery electric mower from Eldredge, a home energy audit from Yankee Thermal and other items from Mr. Fox and Sea Hill Farm Alpacas. Food was provided by Hannaford and Anthony's. It was a strong showing of interest from our community and all of the vendors who participated are interested in participating again in the 2024 Fair.

In September 2023, the ESC participated in the York Beach Greenway planning process by recommending a micro-grid and a transportation hub be included in the project design.

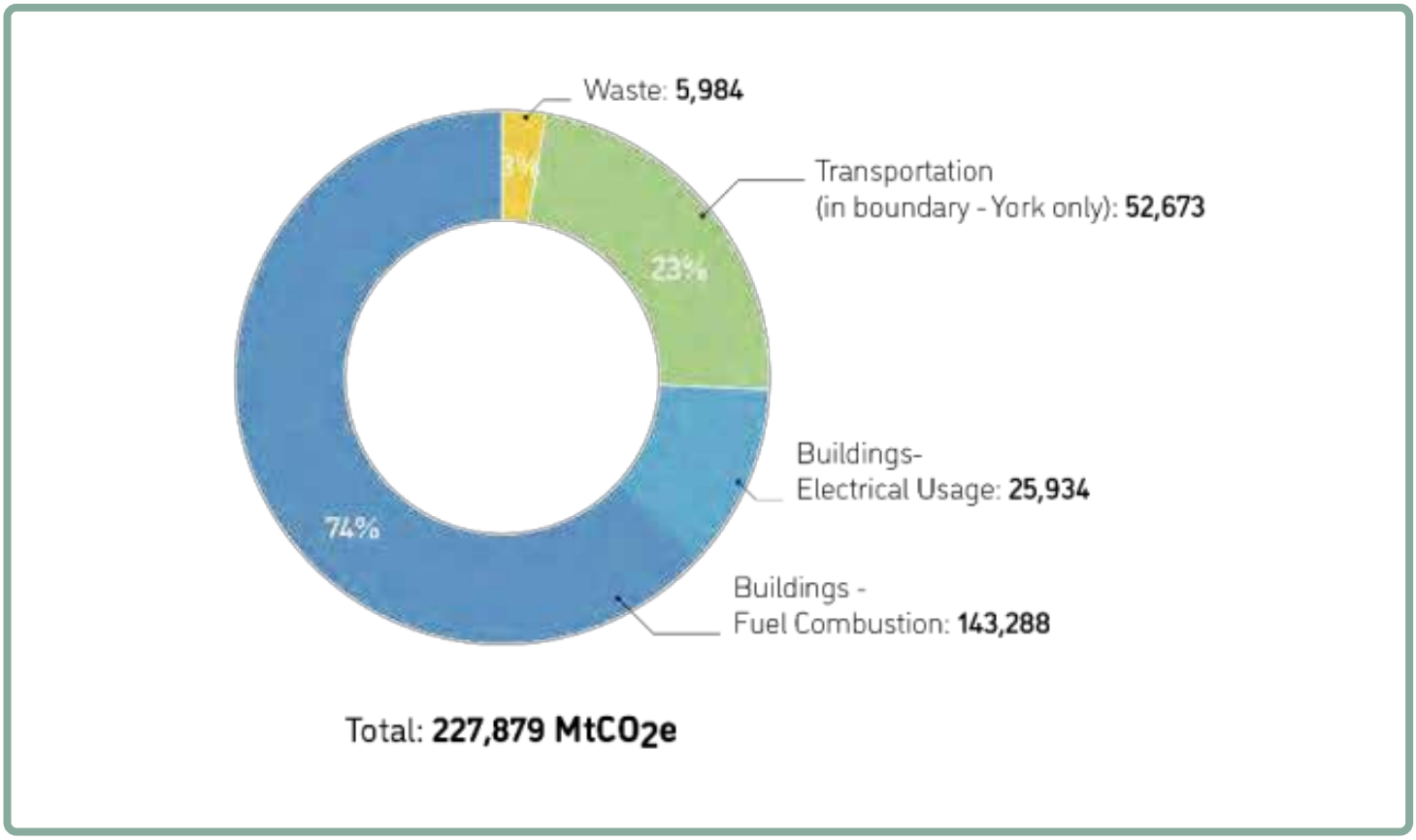
In 2023, the ESC supported York Ready for Climate Action's application for the Maine Community Resilience Grant; in September 2023 the Selectboard approved the grant request and in October YRCA was awarded the grant. The $50,000 grant goes to the Town and is then a sub-grant to YRCA for its Energy Coach program delivered on behalf of the Town to York residents. Energy coaches, trained and mentored by YRCA, offer free guidance to York households in all aspects of retrofitting their homes, from getting an energy audit to installing heat pumps, solar and electric vehicle charging stations. The two-year pilot aims to increase residents' interest in undertaking retrofits and increase the rate of projects completed; and it will recommend to York and the State how the program may be scaled across Maine communities.

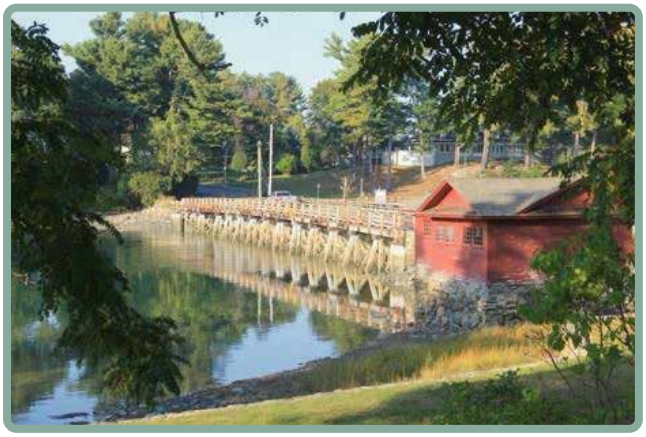
COMMUNITY RESILIENCE PARTNERSHIP

On the recommendation of the ESC and YRCA, York joined the Maine Community Resilience Partnership and approved YRCA's application, and in September 2023 we were informed that York was awarded the State grant to support the YRCA Energy Coach Program.

2023

In 2023 hired an environmental planner. The position will focus on issues of climate and sustainability as well as obtaining funding through the many opportunities from federal, state and local sources. The ESC had recommended a similar position for a number of years, but it had failed to win voter approval. This position is critical to the effectiveness of the new Climate Action Committee.





Sewall's Bridge - Photo courtesy of Gerry Runte.

In 2023, the Selectboard formed the Climate Action Committee, a key strategy of the Climate Action Plan. The ESC worked closely with the Selectboard to develop the Committee's charter that recognizes needed staff support from the Environmental Planner and balances the Selectboard's need to avoid surprises with the Committee's need for autonomy. The Committee will work with Town staff, community members and businesses, nonprofits and other interests. As this report goes to publication, the Selectboard appointed members and the Committee will begin meeting toward the end of the calendar year.

Suggested Priorities for Climate Action Committee

York's Climate Action Plan ends on this note, which we include here:

> *"Success in achieving the 25 goals of this plan and making early headway on priorities will depend on proactive leadership with authority, accountability and sufficient funding."*

The Climate Action Committee should develop an assessment of the Climate Action Plan priorities and identify available funding sources from the State as well as from DOE, EPA, HUD, the Inflation Reduction Act, the Bipartisan Infrastructure Law (BIL), and other sources, for projects in both the public sector and, in partnership with local community nonprofits, for projects the private sector as well.

The **"Stretch Code"** that requires more climate-conscious choices in new construction and major renovations should be extended to the entire community, addressing Climate Action Plan Goal 1.1. Beyond the stretch code, the Committee should review, revise and update town codes and ordinances to build in energy efficiency and climate impact evaluations.

The **solar farm on Witchtrot Road** that the Energy Steering Committee recommended and that did not succeed in 2017 should be restarted, and some part of its energy production should be allocated to York's low- and moderate-income households, both homeowners and renters.

The model **Electric Vehicle (EV) ordinance** approved by the Planning Board in 2022 with the ESC's support but it lacked support of the Selectboard. This ordinance supports Goal 5 of the Climate Action Plan.

The **EV charging stations** at the York Public Library that the ESC recommended in 2019 that was cancelled due to Covid should be installed and any cost not covered by grants should be funded by the Town of York.

The Climate Action Committee should have a major influence on the design of the **York Beach Greenway** project. This undertaking could be a model of climate-smart development, particularly if it incorporates such strategies as a micro-grid for critical infrastructure and a clean-energy transportation center.

It's time to update the **energy study of York's municipal buildings** and take the actions needed to make them zero-carbon assets.

The Energy Steering Committee endorsed the **C-Pace ordinance in 2023** and recommended to the Selectboard that they place it on the citizens' ballot. C-Pace is a third-party financing program for commercial building energy retrofit elements, for the life of those elements at lower interest rates; a program run by Efficiency Maine.

The Energy Steering Committee also recommends that the **York Village Fire Department** accept a grant for a **solar array** on their roof.

Reflections

There was never a manual that listed the keys to success for a volunteer committee whose task would be carried out in a volatile, changing climate landscape. But over the 15 years of the Committee's life, some fundamental operating principles emerged that account for its extraordinary success, which has been recognized by the State and other Maine communities for its outstanding contributions to climate action. The sheer volume of projects completed is remarkable, but more than that, the committee's work lowered the town's carbon profile, reduced municipal costs and catalyzed York's climate strategies.

The Energy Steering Committee has been a pivotal resource for York in addressing the challenges and capturing the opportunities of climate change.

We share these reflections here in the spirit of encouragement for volunteer change-makers of the future.

A combination of thoughtful policy and bold action will benefit the entire community well into the future.

Persistence. The slow pace at times can be discouraging but it's good to realize it just takes time for people to understand and get on board.

Collaboration, within our community and across the state – with Town staff, York Ready for Climate Action (who showed up with t-shirts when the Selectboard was deciding whether to join the Global Covenant of Mayors and develop a Climate Action Plan), local nonprofits such as YCSA and Habitat. The list is long. Collaboration can feel like extra effort sometimes but there can be unexpected benefits for everyone involved.

No one is an expert in everything...and even the experts don't always agree. But a group of dedicated citizens who are willing to reach out to experts in the many dimensions of climate work can get a lot done. We each had expertise in certain areas and shared that with each other; and almost unerringly, experts in the field were generous to us with their knowledge.

Think big and be bold, and adequately fund both municipal and community initiatives with priority and urgency. That's what it will take, with just seven years to reach the first goal of a 50% cut in carbon emissions. And, amazingly, others are thinking big in Maine and federally, so we have partners in the effort.

York Harbor Beach – Photo courtesy of Gerry Runte.

Garrison House on Route 91– Photo courtesy of Gerry Runte.

Comments from Community

"It was a pleasure working together and opening new doors for the Town."
- Dave Bridges, Retired York Beach Fire Chief

"The first thing the new Climate Action Committee needs to do is to prioritize suggested CAP actions based on impact to the carbon reduction goals, including quantifiable steps such as X number of heat pumps per month in York residences."
- Skip Schnable, York Ready for Climate Action Board member

"Paul McGowan and I met on the ESC early in its history. The committee was just taking shape. I had many great discussions with Paul about climate change and renewable energy. The committee struggled with how to get from vision to reality. The solar panels on the York Beach Fire Station (along with the retrofit) are dedicated to Paul who didn't live long enough to see the project come to fruition. Thanks to the brilliant leadership of Rozanna Patane, the Energy Committee has accomplished much over the years. I am proud to have been a committee member and am excited to see what's next."
- Victoria Simon, York Recycling Committee

"York Ready for 100% had its genesis at an Energy Fair sponsored by the Energy Steering Committee in the Spring of 2018. Two of us had a table at the Fair asking folks to sign up if they were willing to volunteer in dealing with climate change at the local level. Two dozen people signed up with about a dozen showing up for our first organizational meeting. Our goal was to secure a town commitment to greenhouse gas reductions with dates. The Energy Steering Committee had the same goal. We provided the necessary lobbying of the Selectboard, either in person or by letters/emails, by our town citizens. This lobbying was possible through our citizen-led initiative that did not have the governmental constraints of a town committee. We reached that goal in July of 2019 when the Selectboard agreed unanimously to join the Global Covenant of Mayors for Climate and Energy."
- Mac McAbee, Chair, York Ready for Climate Action

"I recall those first meetings of the newly formed York Energy Efficiency Committee to be ones of hope and advocacy. Those were the heady days when the COP conferences were rising to international attention, and the Mayors Climate Protection Agreement had been passed a few years prior. Mostly what I recall was the willing partner we found in then-Town Manager Rob Yandow. When we approached him with our idea about getting a funding measure on the ballot, he basically said, "Let's think big," and advocated for $100,000 annual funding for up to five years. It was a remarkable moment. I remember Eric Hopkins, Phyllis Newman and I did a happy dance when we left that meeting!"
- Deborah McDermott, early ESC member; later, York journalist; currently, climate activist in Ireland

"The LED streetlights are saving our town $120K/year in utility bills, had a 4 year payback and are providing great visibility at night."
- Mary Marshall, resident

"Since the second floor was insulated and had heat pumps installed it has been very comfortable; it's the first floor (that was not changed) that's drafty. And the solar panels continue to cover virtually all of our electric bill. Last year our electric bill was $16 a month and it has just gone up to $20."
- Jeff Welch, current York Beach Fire Chief

Comments from Community

"The Energy Committee was established when "energy conservation" was not a household phrase, by any means. But you all persevered and paved the way for some many new plans and town-wide efforts. Congratulations!

In my estimation, one of the most important accomplishments of the Energy Committee was getting new streetlights. You did the research and presented options in a compelling way. Now, the taxpayers of York are saving real money with our new energy saving streetlights, Plus, the new lights are warmer with much less glare, so we can see better outside at night, too. Thanks to the whole committee for its years of unheralded work on this project and so many others!"
- Ala Reid, resident

"Our plan is to be at the forefront of organizations in town striving to help meet York's stated goal of cutting carbon emissions in half by 2030 and completely by 2050.

I would mention all of the Energy Steering Committee's legwork to apply for the Efficiency Maine rebate for the EV charging stations - including presenting the project to the Town to secure their financial buy-in - though we ultimately had to decline the incentive award, thank you covid.

There's also all of the work Rozanna put in - over the course of several months - on being an "expert witness"/fount of knowledge for all things Energy Efficiency in helping YPL navigate and plan for a Library decarbonization project. I would personally be lost - truly lost - without Rozanna's guidance in the latter and Gerry Runte's in the former."
- Michelle Sampson, Director, York Public Library

"I worked closely with the Energy Steering Committee over the years and I'm proud of what we accomplished together, particularly with the LED streetlights. The Committee members have been good partners and we got a lot done."
- Dean Lessard, York Public Works Director

"The Energy Committee's extensive work on behalf of the town is no more apparent than in the successful LED street light project. Every time we see the improved illumination all over town we should thank the Committee. The fact that their efforts have saved York hundreds of thousands of dollars is a bonus as far as I am concerned."
- Ron McAllister

"When I tried to summarize the role of the York Energy Steering Committee here in York, the idea that always comes to mind is that all of its members over the years have been pioneers in this town. The York community wasn't necessarily fertile ground for seeding the committee's ideas, but with hard work and perseverance the YESC has changed the sustainability outlook of York, not to mention budget savings, in both quantitative and qualitative terms. Since leaving the committee five years ago I have witnessed admirable work from its volunteers. Going forward, it is important that the Climate Action Committee work with and diligently support the town Environmental Planner. Maintaining that role and fostering its visionary value in the community will reap great rewards for the town of York."
- Chris Ring, prior ESC member

"It has been a pleasure working with the York Energy Steering Committee. As a group, they were a force of good for York, especially in keeping the town residents abreast of climate change issues. I have no doubt that the York Energy Steering Committee has laid a strong foundation for the Climate Action Committee as they move forward in implementing the York's Climate Action Plan."
- Marilyn McLaughlin, York Selectboard

Comments from Community

"Kudos to the Energy Steering Committee for their tremendous efforts over the last 15 years to help the Town of York to become more energy-efficient, reduce carbon emissions, and save the Town lots of money! We look forward to working with the Climate Action Committee to implement the Town's Climate Action."
- Doreen MacGillis, Board member, York Ready for Climate Action

"The accomplishments of the Energy Steering Committee resulted from persistent effort and collaboration with other community organizations including but not limited to the Recycling Committee, York Ready for Climate Action, York Land Trust, and the Creation Care Committee of First Parish Church. It has been fun and rewarding to get to know and work with so many public minded folks. "My seven-year tenure at the ESC was deeply rewarding. Yes, we successfully launched and initiated several projects that created a lasting positive impact on the community. But my true reward was the incredible chance to collaborate with so many dedicated and committed people."
- Gerry Runte, State Rep from York

"The accomplishments of the Energy Steering Committee resulted from persistent effort and collaboration with other community organizations including but not limited to the Recycling Committee, York Ready for Climate Action, York Land Trust, and the Creation Care Committee of First Parish Church. It has been fun and rewarding to get to know and work with so many public minded folks."
- Susan Covino, Energy Steering Committee

"The Energy Committee's efforts have been ground breaking and insightful! Members have demonstrated exemplary diligence and persistence to improve our community, region and world. The Energy Committee's engagement with York Rotary catalyzed an inordinately productive community-based home weatherization project to provide practical energy saving solutions to local friends and neighbors. Much gratitude to all."
- Jud Knox

"Thank you all for the fine work you have done on this ESC journey. In 2013 during a town funded renovation at the York Village Fire Station (through the efforts and additional funding from ESC), we added insulation, new sheetrock ceiling, energy saving lighting fixtures, and guidance.... all benefitting the energy conservation benefits for the building. We had a significant allocation of Town of York voter approved capital funding for the renovation which included new overhead doors, and a 3 bay addition to the rear of the existing building, conversion to propane fired heating source resulting in about a 5K savings on energy costs just in the first year. A special thanks to Wayne Boardman for his assistance and expertise during the energy conservation related portion of this project."
- Chris Balentine, Chief, York Village Fire Station

"As a former State Rep from York and member of Maine's Climate Council, I'm proud of how our state has become a leader in fighting climate change, and thanks to the York Energy Steering Committee and York Ready for Climate Action, York has also been a leader. And I've seen how our efforts are noticed across Maine communities. Thank you, ESC!"
- Lydia Blume, former State Rep from York

Comments from Community

"The accomplishments of the Energy Steering Committee resulted from persistent effort and collaboration with other community organizations including but not limited to the Recycling Committee, York Ready for Climate Action, York Land Trust, and the Creation Care Committee of First Parish Church. It has been fun and rewarding to get to know and work with so many public minded folks."

- Susan Covino, Energy Steering Committee

"The Energy Steering Committee played a vital role in evaluating and educating the public and Town Boards on the topic of climate change, alternative energy and lower the Towns' greenhouse gas emissions. They also were vital to ensuring the topic of clean energy is part of York's energy future. They were essential to moving the conversation of climate change and ways the Town might face these challenges in a comprehensive way within our policy blueprint in the York Comprehensive Plan. In fact, York was one of the earlier communities in Maine to address York's energy future within a municipal Comprehensive Plan, which then led to the completion of a thorough evaluation of GHG emissions, climate vulnerabilities, goals and actions to reduce GHG emissions, and performance indicators within the Town's first "York Climate Action Plan" that received overwhelming voter support. The Energy Steering Committee was also a key component to ensure the Climate Action Plan received the staffing capacity needed to ensure plan implementation, and that a potential sustainability program be coordinated between Town, non-government groups, non-profits, and regional partners."

- Dylan Smith, York Planning Director

"At the end of the summer of 2018 into 2019, Diane Kleist and I, while members of the York Ready for 100, had the opportunity to supervise Molly Agrimson, an AmeriCorps worker, who came all away from Oregon, on a project with Window Dressers. We were very fortunate to have the guidance of Christine Seibert, who was the Americorps Vista worker with the town's Energy Steering Committee. I still have the image of Molly up on a ladder in a church measuring windows! A community effort of York residents,16 homes received winterized windows made from scratch for no cost."

- Jackie Brisebois

"The Energy Steering Committee (ESC) played a significant role in supporting the educational and communication programs of York Ready for Climate Action (Formerly York Ready for 100%). The committees worked together to bring legislators, renewable energy leaders, and vendors to share with the community, through educational programs, the latest developments moving us closer to our goal of 100% renewable energy. Several articles provided by ESC members appeared in "Getting Ready" our Newsletter used as another vehicle to communicate the activities of both committees to the members."

- Bob Brisebois

PortsmouthHerald

Seacoast Energy Initiative hands out $350,000 to 5 Maine towns

Deborah McDermott
June 28, 2014

SOLAR

98-year-old fire station a 'high-performing energy system'

By Deborah McDermott
dmcdermott@seacoastonline.com

Posted Sep. 29, 2015 at 3:41 PM

SUSTAINABILITY

Celebrating solar at York Beach fire station

The York Beach fire station will hold a solar celebration Sept. 26 at 3 p.m., offering tours of what is now the most energy efficient town building in York. Solar panels provide all electricity as well as second-floor heating, and the building has all new insulation. Courtesy photo

By Deborah McDermott
dmcdermott@seacoastonline.com

OUR VIEW

York leading way to sustainable future

Getting Ready: A new era of environmental care for the town of York

Anne Bancroft York Ready for Climate Action
Published 3:21 p.m. ET Oct. 24, 2023 | Updated 3:22 p.m. ET Oct. 24, 2023

MOVERS & SHAKERS

Movers & Shakers: An energetic committee sees the light in 2015

By Deborah McDermott dmcdermott@seacoastonline.com

YORK, MAINE

York considers LED streetlight conversion

How this century-old Maine fire station cut its energy bill from $325 to $1.52

By Deborah McDermott, The York Weekly
Posted Oct. 01, 2015, at 2:35 p.m.

Energy group wants to 'solarize York'

Efficiency Maine helps warm York homes

Town focus on sustainability sharpens

EDITORIAL

York Weekly - 02/20/2019

We applaud work toward clean energy

By Deborah McDermott
dmcdermott@seacoastonline.com

ICLEI Network Champions

Town of York, Manger Stephen H. Burns, and Town Select Board

"I'm proud of the commitment of the Town of York leadership for taking this first important step toward being a zero-emissions community."

—Stephen H. Burns,
Town Manager of York, ME

GREEN ENERGY

By Susan Morse

York Weekly 9/24/14

York Beach's fire station goes solar

Chris Cooke, left, and Gifford Junkins-Davis of ReVision Energy install solar panels on the York Beach Fire Station. The municipality secured a grant to install the 105 modules, which will feed energy not used electronically at the station back to the power grid. PHOTO BY DEB CRAM

LETTER

Hope for 'efficient' auditorium

'YES on climate action,' say York residents

By Deborah McDermott
dmcdermott@seacoastonline.com
Posted Jun 25, 2019 at 4:27 PM
Updated Jun 26, 2019 at 8:14 AM

Seacoastonline.com

YORK, MAINE

York committee wants town to switch to LED lights

'We are raising the alarm' over climate change

By Deborah McDermott
dmcdermott@seacoastonline.com
Posted Jul 31, 2019 at 1:36 PM
Updated Jul 31, 2019 at 1:36 PM

Seacoastonline.com

Goal: 100 percent fossil fuel free by 2050

Energy Steering Committee offers 'ambitious but achievable' target

Large York County solar projects under way

A crew from ReVision Energy is installing solar panels atop the South Berwick Public Library this week. A solar installation on the York Beach Fire Station will begin next week. (Casey Conley/Democrat photo)

SOUTH BERWICK, Maine — Two of the largest solar energy projects in Southern Maine got under way this month in South Berwick and York.

The 38kW system at the South Berwick Public Library consists of 144 roof-mounted solar panels. The 28kW system atop the York Beach fire station includes 104 solar panels.

By Casey Conley
cconley@fosters.com
Thursday, September 18, 2014

Stretching the dollar and staying warm

A. 2013 ESC Annual Report

B. 2014 Wayne's Capital Projects List

C. 2015 ESC Annual Report

D. 2016 Energy Study Energy Conservation Measures

E. 2016 ESC Annual Report

F. 2016 8-18 YBFD Solar and Retrofit Post Project Report

G. 2016 Grant House Pellet Boiler Repair Report

H. 2016 LED Building Lighting Upgrades

I. 2017 ESC Annual Report

J. 2017 Keep York Warm Weatherization Project Report

K. 2018 ESC Annual Report

L. 2018 York Energy & Sustainability Fair Flyer

M. 2018 Route One DOT Building LED upgrade

N. 2019 First community emissions inventory presented to Selectboard

O. 2019 ESC Annual Report

P. 2019 First Community Wide Emissions Inventory - Graph

Q. 2019 Efficiency Maine features York weatherization program

R. 2020 ESC Annual Report

S. 2021 ESC Annual Report

T. 2022 ESC Annual Report

U. 2023 York's annual report to the Global Covenant of Mayors

V. 2023 ESC- YRCA Climate Action Fair Report

W. 2023 LED Streetlight Project Report

X. 2023 ESC Support of York and YRCA's successful Maine Community Resilience Grant (Award Confirmation Letter 10-18-23)

ENERGY STEERING COMMITTEE

Submitted By: Wayne Boardman, Chairman

In the spring of 2009, the Board of Selectmen established what came to be called the York Energy Steering Committee (ESC). The primary mission of this committee is to analyze and recommend energy conservation and alternative energy options for the town of York. Ultimately, these efforts are anticipated to shrink the carbon footprint of the town of York while at the same time saving taxpayer money by reducing energy consumption.

Appointed by the Board of Selectmen, the ESC is comprised of five voting members and two alternates, along with one liaison from the School Department and one Selectman liaison. This committee meets at least monthly in sessions open to the public. Each expenditure of funds recommended by the ESC must first be approved by the Board of Selectmen.

In May 2009, in May 2010, and again in May 2012, York voters approved allocating a total of $300,000 toward "alternate energy solutions and energy efficiency solutions." The ESC used a portion of these funds to have a professional energy study conducted on the 15 largest town-owned buildings. Based on that report and on later, more detailed studies, the committee developed specifications and solicited bids for selected energy upgrades on five municipal buildings. This work included attic insulation and hot water pipe insulation at the Police Station/Senior Center; hot water pipe insulation at the York Beach Fire Station; exterior insulation and siding at the York Village Fire Station; attic insulation and sealing at the Town Hall; and both attic and basement insulation at the Grant House (York Parks and Recreation office).

In 2013, the ESC completed a project to significantly improve the insulation of the upper part of the Village Fire Station. In addition to over a foot of blown-in insulation in the attic space, it was necessary to perform extensive weather-sealing, replacement of a drop ceiling on the second floor, replacement of old ceiling lights with high-efficiency units, reinforcement of rafters that did not meet code, installation of venting louvers and roof fans, replacement of an unsafe pull-down ladder, and replacement of a catwalk in the attic.
Also during last winter, an aged oil burner in the Grant House was replaced with a wood pellet boiler that will be fueled from renewable Maine forest products. The additional initial cost of this system is expected to pay for itself in 10-12 years since pellets are significantly cheaper than either oil or propane.
The ESC will continue to identify the most cost-effective opportunities to weatherize and insulate existing buildings and to replace aging and inefficient equipment, lighting, and boilers. We will also be looking for a suitable location for installation of a solar photovoltaic system, but we understand that it is first necessary to maximize a building's energy conservation (decreasing the total quantity of energy used) and energy efficiency (using less energy to provide the same level of service.) By minimizing demand first, we can reduce the cost of any renewable energy system.

Whenever possible, the Energy Steering Committee plans to work with municipal departments, the school system, and appointed building committees to advise them on strategies for "building in" energy efficiency for every major renovation and new construction project. Most of these strategies are based on principles of sound design and do not necessarily require spending more money during construction. However, if an additional investment can be shown to lead to a more energy efficient and more economical operation over the long run, the ESC may recommend expenditure of designated energy funds.

York voters will again have the opportunity on the May 2014 Budget Referendum to approve additional funds for energy conservation. Approval of this article will allow the ESC to continue its efforts to save both energy and taxpayer money for the town of York.

Expenditures under Account 207.0000.8001, excluding FY 2015.

Source: Records furnished by the Town of York Director of Finance, updated Sept. 2014.

Fiscal Yr	Date	Debit	Vendor	Project #	Project
FY10	11/5/2009	$ 500	Jenny Isler (admin support for inventory)	5	Misc
FY10	1/11/2010	$ 600	ICLEI USA Membership	5	Misc
FY10	4/5/2010	$ 173	Portland Herald/Telegram	1	Original energy report
FY10	4/15/2010	$ 188	Seacoast Media Group	1	Original energy report
FY10	4/15/2010	$ 30	Seacoast Media Group	1	Original energy report
FY10	4/15/2010	$ 335	Seacoast Media Group	1	Original energy report
FY10	4/16/2010	$ 173	Portland Herald/Telegram	1	Original energy report
FY10	5/21/2010	$ 402	Boston Globe	1	Original energy report
FY11	12/9/2010	$ 600	ICLEI USA Membership	5	Misc
FY11	12/16/2010	$ 17,890	MACTEC Engineering	1	Original energy report
FY11	3/10/2011	$ 11,087	MACTEC Engineering	1	Original energy report
FY11	4/7/2011	$ 14,723	Mactec Engineering & Consulting	1	Original energy report
FY12	11/3/2011	$ 600	ICLEI USA Membership	5	Misc
FY12	12/29/2011	$ 52	Portland Herald/Telegram	5	Misc
FY12	1/19/2012	$ 14	Seacoast Media Group	5	Misc
FY12	1/19/2012	$ 52	Portland Herald/Telegram	5	Misc
FY12	4/5/2012	$ 68	Press Herald/Telegram	5	Misc
FY12	4/26/2012	$ 30	Seacoast Media Group	5	Misc
FY12	4/26/2012	$ 157	Seacoast Media Group	5	Misc
FY12	6/30/2012	$ 4,700	MACTEC invoice	1	Original energy report
FY12	6/30/2012	$ 64	Press Herald/Telegram	5	Misc
FY12	6/30/2012	$ 2	Portland Herald/Telegram	5	Misc
FY12	6/30/2012	$ 14	To Post June expenditures from Warrant 3	5	Misc
FY13	9/6/2012	$ 22,275	Maine Energy Pros, inc	7	YVFD exterior insulation
FY13	9/6/2012	$ 1,200	Atlantic Paving	7	YVFD exterior insulation
FY13	9/13/2012	$ 26,770	BIOS Environments	4	Four building energy upgrades
FY13	9/13/2012	$ 980	BIOS Environments	4	Four building energy upgrades
FY13	9/13/2012	$ 838	Henningsen Inspections, LLC	7	YVFD exterior insulation
FY13	11/8/2012	$ 600	ICLEI USA Membership	5	Misc
FY13	12/6/2012	$ 1,440	Allied Engineering	8	YVFD attic insulation
FY13	4/30/2013	$ 8,313	Allied Engineering Invoice of 4/30/13 #0161	8	YVFD attic insulation
FY13	6/20/2013	$ 8,313	Allied Engineering	8	YVFD attic insulation
FY14	9/5/2013	$ 90	Northeast Test Consultants	8	YVFD attic insulation
FY14	10/3/2013	$ 36,000	E. C. Robbins Construction	6	Grant House boiler
FY14	12/12/2013	$ 10,000	E. C. Robbins Construction	6	Grant House boiler
FY14	12/12/2013	$ 59,029	TPD Construction Co.	8	YVFD attic insulation
FY14	12/19/2013	$ 600	ICLEI USA Membership	5	Misc
FY14	1/30/2014	$ 5,856	E. C. Robbins Construction	6	Grant House boiler
FY14	2/27/2014	$ 75,471	TPD Construction Co.	8	YVFD attic insulation
FY14	4/3/2014	$ 5,000	E. C. Robbins Construction	6	Grant House boiler
Total		$ 315,229			

Project	Project	FY10	FY11	FY12	FY13	FY14	Grand Total
1	Original energy report	$ 1,301	$ 43,700	$ 4,700			$ 49,701
4	Four building energy upgrades				$ 27,750		$ 27,750
5	Misc	$ 1,100	$ 600	$ 1,054	$ 600	$ 600	$ 3,954
6	Grant House boiler					$ 56,856	$ 56,856
7	YVFD exterior insulation				$ 24,313		$ 24,313
8	YVFD attic insulation				$ 18,065	$ 134,590	$ 152,655
Grand Total		$ 2,401	$ 44,300	$ 5,754	$ 70,728	$ 192,046	$ 315,229

Project	Description
Original energy report	MACTEC energy study and analysis
Four building energy upgrades	Insulation, weatherization for police station, YBFD, Town Hall, Grant House
Misc. Expenses	Miscellaneous expenses, advertising, ICLEI Dues, etc.
Grant House boiler	Pellet boiler and building at Grant House
YVFD exterior insulation	First floor exterior insulation and new siding, paving skirt
YVFD attic insulation	Including 2nd floor lighting, replacement of ceiling, structural work

Grant Funds, FY 2010-FY 2014:

Initial seed grant Nov. 2009 $10,000

Matching grant for 2012 work $15,498

Grant Funds, FY 2015:

SEI Grant July 2014 $94,758

York Energy Steering Committee Annual Report 2015
3/31/16

Introduction

This report covers Calendar 2014 and 2015 because no 2014 annual report was submitted.

The Energy Steering Committee (ESC) is comprised of 5 voting members and 2 alternates, plus one liaison from the School Department and one from the Board of Selectmen. Its goal is to help the Town of York shrink its carbon emissions by reducing energy consumption and using clean energy sources.

2014 – 2015 Milestones

May 2014	York voters approved final $100,000 funding for capital projects (bond was issued in February 2015). In future, projects will reside in the Town departments that sponsor them.	$100,000
September 2014	Beach Fire Station solar panels installed (Total cost $98,000 less SEI grant $94,758) CO2 savings: 80 tons The equivalent of the scrubbing power of 18 acres of forest	$3,242
March 2015	Beach Fire Station LED lighting changed (Town received Efficiency Maine rebates of $8,400)	$20,472
March 2015	Beach Fire Station energy study	$4,555
May 2015	York Dialogues public forum on energy May 30	No cost
June 2015	Beach Fire Station retrofit completed (Total $75,154 less Efficiency Maine rebate $8,400 and Fire Department funding $12,600) CO2 savings of the entire retrofit: 208 tons The equivalent of the scrubbing power of 173 acres of forest	$54,154
October 2015	Grant House Pellet Boiler Installation errors corrected (finalized February 2016)	$12,200
October 2015	LED streetlight project approved as ESPC, contingent on May 2016 ballot approval by voters	Funded from savings
December 2015	ESC initiated discussions with Habitat for Humanity York County on York weatherization program and net-zero energy model home	Grant

2014

In 2014, the Committee's work laying the foundation since its 2009 formation produced big results.

- The Committee reported to the Board of Selectmen on the five building efficiency upgrades that had been completed from the initial energy study done in 2011 – insulation at the Town Hall, the Beach and Village Fire Stations, the Police Station, and the Grant House — what was done and not done and why.
- A pellet boiler was installed in the Grant House in consultation with Mike Sullivan, Parks and Recreation Director.
- Solar panels were installed on the Beach Village Fire Station*.

  The net cost to York was $3,242 after a $94,758 grant from the Seacoast Energy Initiative and Efficiency Maine. If the Town had paid the entire $98,000 cost, the investment return would be 6% and the payback 17 years – the panels are expected to generate $100,000 in electricity costs in 17 years. The life of the solar panels is 30 or more years, so electricity will be essentially free after the 17-year period.

  The panels are projected to cut over 80 tons of carbon -- the equivalent of taking 5 cars off the road or the CO2 scrubbing power of 18 acres of forest.

These projects have contributed substantially to York's efforts to cut carbon, and, as a bonus, saved taxpayers money at the same time. Read more about them on the ESC webpage at yorkmaine.org.

2014 was a turning point in how energy projects are funded in York. After the May 2014 $100,000 ballot item for energy projects was not supported by the Budget Committee and approved only narrowly by York voters, it was clear that the Committee needed to do things differently for the work to be understood and have meaningful impact. The ESC recommended integrating the work in York's day-to-day operations as key to long-term success – it calls for collaboration among decision-makers and promotes broader awareness and agreement on how to achieve York's sustainability goals. To kick-start the process of integrating the energy work, the Town Manager took two important steps. Instead of ballot votes to fund isolated projects managed by the ESC, Steve Burns required that projects be sponsored by Town staff in the normal capital budgeting process. And on the forms each department submits to the capital budget process, he added two questions: "Does this project enhance sustainability?" and "Is this the most energy-efficient solution?" Small but essential steps forward.

*Read more about these projects on the ESC webpage at yorkmaine.org.

2015

In 2015 the pace of projects accelerated.

- The York Beach Fire Station energy retrofit* was completed in collaboration with the Beach Fire Department to maximize the efficiency of the solar panels. New insulation, heat pumps and LED interior lights were installed. After grants, rebates and a contribution from the York Beach Fireman's Fund, the net cost to taxpayers of the solar panels and retrofit was $54,154.

  The project is expected to cut 208 tons of CO2 emissions – the equivalent of taking 44 cars off the road, or the scrubbing power of 173 acres of forest. Projected return on investment, calculated as if the Town had paid the entire cost without grants or rebates, is 11%, with a simple payback of 8 years. The Beach Fire Department hosted a June open house attended by local officials and a representative of Angus King's office.

- The Committee completed their research on replacing York's streetlights with LEDs and, in partnership with Dean Lessard, DPW Director, obtained approval to hire a consultant to help plan the project as an Energy Savings Performance Contract (ESPC). The cost of the project will be paid from the guaranteed savings produced, so there is no out-of-pocket cost to taxpayers. Awareness workshops were held for the Board of Selectmen and the public, and the Board decided to proceed with an RFP if voters approve the project on the May 2016 ballot.
- The Grant House pellet boiler installation was discovered to have been faulty; the Committee worked with Mike Sullivan, Parks & Recreation Director, to repair the problems. The boiler is reported to be working successfully during the winter of 2016*.
- The ESC was asked by the Town Manager to help York implement our Comprehensive Plan Goal 1.4.1 to "support sustainability as a basis for policy decisions" by drafting an energy chapter to be approved by voters and included in the Comprehensive Plan on the November 2016 York ballot. The Committee interviewed other towns on their energy strategies and met with York Town department staff, various committees, businesses, nonprofits and individuals for their perspectives. The May, 2015 York Dialogues session was dedicated to our energy strategy. The draft is underway.
- The Committee has been serving as liaison to the Auditorium Building Committee and the Police Station Building Committee. Our role has been to provide information on how to incorporate energy improvements in the buildings' plans.
- In the Fall 2015 capital budget review process the ESC worked to expand understanding of life-cycle building costs and return-on-investment beyond simple payback
- Late in the year, the ESC initiated discussions with Habitat, York Community Services Association (YCSA), and York Rotary on obtaining Habitat's weatherization services for families in York. A grant proposal has been submitted to York Rotary, and if funded, work would be delivered by Rotary and Habitat volunteers during 2016.
- The ESC initiated discussions with Habitat for Humanity York County on a possible net-zero-energy house in York. This project would be a partnership of the Town of York, Habitat, and the Energy Steering Committee. If it goes forward, the home would be built in 2017.
- The Committee explored EPA's Portfolio Manager for benchmarking energy use data and is working to update data and establish a benchmarking process.

*Read more about these projects on the ESC webpage at yorkmaine.org.

2016 Plans

- LED Streetlight Project (contingent on voter approval May 2016)
    - Issue RFP, select ESPC vendor, complete installation in Fall of 2016
- LED interior lights on remaining municipal buildings
- Plan large solar array on municipal landfill
- Finalize collaboration with Habitat et al for weatherization program and net-zero-energy home
- Broaden understanding of clean energy strategies and options through information workshops and other communication strategies for Town staff and committees and the general public
- Sponsor public energy fair
- Update energy use data and establish benchmarking process
- Reach out to York Schools, Water and Sewer departments, businesses and non-profits, as well as other towns, for opportunities to collaborate.

Added 4/18/16:

- Add Energy Chapter to York Comprehensive Plan – to be voted on November 2016.

Capital Fund Remaining Balance

Bond Balance at 12/31/14		$100,000.00
York Beach Fire Station Retrofit*	$62,553.46	
Grant House Pellet Boiler Correction	$12,200.00	
	$74,753.46	
Bond Balance at 4/1/16		$25,246.54

*Less $8,400 Efficiency Maine Rebate returned to York general fund

Excerpt from the Town of York Energy Study Final Report (March 2011) prepared by MACTEC Engineering and Consulting, with annotations in italics by Wayne Boardman as of August 2016.

3.1 ENERGY CONSERVATION MEASURE APPLICATIONS

ECMs analyzed for this study are listed for each building. Following is a description of how the ECMs were specifically applied to each building.

1. Town Hall

• ECM 1 – Install approximately 20 motion sensors for automatic lighting control. *Motion sensors installed Aug. 2016.*

• ECM 3, 4 - Upgrade controls (economizer and improved zoning with temperature setback) for the two main indoor units and any associated terminal units. *Postponed due to estimated 14.2 year paybck.*

• ECM 6 - Implement air sealing at locations of significant infiltration (based on results of IR) such as in the attic and ceiling plenums. *Completed in 2012.*

• ECM 8 - Install storm window systems. *Determined to be unnecessary because storm windows already existed.*

• ECM 11, 18 - Upgrade AC system including high efficiency condensing units (typical of two 5 ton units) and indoor units (typical of two units with approximately 2500 cfm capacity each with EC (electronically commutated) motors for enhanced turndown. *Postponed due to estimated 53.8 year payback*.

2. Police Department and 3. Senior center

• ECM 4 - Automatic temperature setback. *Postponed due to uncertain future of building*.

• ECM 6 - Implement air sealing at locations of significant infiltration (based on results of IR) such as the building foundation and in the attic space. *Completed in 2012*.

• ECM 11 - Replace window AC units with ductless split AC units (approximately 12-15 tons capacity). *Postponed due to estimated 43.7 year payback.*

• ECM 12 - Installation of new boiler (600 MBH condensing type) with fully operational outdoor reset control. *Postponed due to uncertain future of building.*

• ECM 14 – Insulate uninsulated copper pipes in the basement boiler room. *Completed in 2012.*

• ECM 21 – Installation of SolaTube daylighting system; approximately ten units. *Postponed due to uncertain future of building.*

4. York Village Fire station

• ECM 4 - Automatic temperature setback. *YVFD installed their own heating system.*

• ECM 7 - Addition of insulation system to exterior walls. *Completed in 2012 & 2014.*

• ECM 12 - Installation of new boiler with efficient controls (outdoor reset and variable speed pumping). *Completed when YVFD installed their own heating system.*

• ECM 16 - Upgrade four large overhead doors with insulation and weatherstripping. *Completed when YVFD installed doors on their own.*

5. York Beach Fire station

• ECM 3 - Implementation of outdoor air reset control for hot water heating system. *Hot water system taken off main boiler in 2015.*

• ECM 4 - Installation of approximately eight programmable thermostats for temperature setback. *Determined to be unnecessary by Fire Chief.*

• ECM 14 – Insulate uninsulated copper pipes in the basement boiler room. *Completed in 2012.*

6. Public Works Town Garage

• ECM 2 – Upgrade lights to high efficiency fixtures. *Completed in 2016.*

• ECM 10 - Replace electric domestic water heater with high efficiency 60 gal capacity domestic water heater (air source heat pump). *Postponed due to estimated 83 year payback.*

• ECM 12 - Replace electric heating with variable refrigerant flow (VRV) ductless split heat pump system (approximately 50 MBH system including two indoor evaporator units and one outdoor condensing units). *Postponed due to estimated 190 year payback. DPW installed waste oil heater in 2012.*

7. Public Works Beach Garage

• ECM 1 – Install motion sensors for automatic lighting control. *Postponed due to estimated 26 year payback.*

• ECM 2 - High efficiency lighting upgrade (T8) with activation by motion sensors. Approximately twelve fixtures with one sensor. *Completed in 2016.*

• ECM 21 – Installation of SolaTube daylighting system; approximately eight units. *Postponed due to higher-priority items.*

8. Public Works Landfill

• ECM 1 – Install motion sensors for automatic lighting control. *Postponed due to higher-priority items and 29 year payback.*

Library and schools determined to be out of scope of ESC. All information turned over to appropriate officials.

9. York Public Library

• ECM 1 – Install approximately ten motion sensors for automatic lighting control.

• ECM 11, 17 - Upgrade split AC air system with high efficiency air cooled condensing units (approximately 50 tons) and optimized controls (demand controlled ventilation, etc).

• ECM 12 - Upgrade boiler to condensing type (650 MBH) with outdoor air reset.

• ECM 21 – Installation of SolaTube daylighting system; approximately ten units.

• ECM 22 – Replace existing electric domestic water heater with solar water heater with at least 60 gallons of storage.

10. York School Administration building

• ECM 7 - Addition of insulation to roofing (equivalent to R value of 7) and addition of insulation to exterior wall system (equivalent to R value of 6) and reduction of building infiltration.

11. Coastal Ridge Elementary

• ECM 5 - Upgrade DDC system (optimize variable speed pumping system by installing pressure sensors at optimal locations; Increase spaces served by occupancy sensors, balancing).

• ECM 11 - Install ductless split AC units to replace window AC units (approximately 50 tons).

• ECM 12 - Upgrade boiler plant with high efficiency boilers (3000 MBH and AFUE at least 90%).

• ECM 21 – Installation of SolaTube daylighting system; approximately 40 units.

• ECM 22 – Install solar domestic hot water system. 12. Village Elementary •

ECM 5 - Upgrade DDC system (optimize variable speed pumping system by installing pressure sensors at optimal locations; Increase spaces served by occupancy sensors, balancing).

• ECM 12 - Upgrade boiler plant by replacing aging backup boiler with high efficiency condensing boiler to serve as primary boiler at lower loads.

• ECM 15, 18 - Upgrade rooftop air handling units economizing capability and implement energy recovery (two units at 5000 cfm each).

13. York Middle School

• ECM 5 - Upgrade DDC system (optimize variable speed pumping system by installing pressure sensors at best locations; Increase spaces served by occupancy sensors, balancing).

14. York High School

• ECM 5 - Upgrade DDC system (optimize variable speed pumping system by installing pressure sensors at best locations; increase spaces served by occupancy sensors, balancing).

• ECM 18 - Upgrade rooftop air handling units economizing capability.

15. Parks and Recreation Grant House

• ECM 4 - Install programmable thermostats to automate temperature setback. *Completed in 2014?*

• ECM 6 - Implement air sealing at locations of significant infiltration (based on results of IR). *Completed in 2012.*

• ECM 11 - Upgrade ductless split AC air system (approximately 7.5 tons). *Postponed due to estimated 22 year payback*

• ECM 12 - Install new 175 MBH condensing boiler with outdoor air reset. *New high-efficiency pellet boiler installed in 2014.*

• ECM 14 – Insulate uninsulated copper pipes in the basement boiler room. *Completed in 2012.*

Table 3: Energy Indexes

#	BUILDING	SQ. FT.	Floors	EUI MBtu/SF	ECI $/SF	CO2 lb/SF	Comment
1	Town Hall	5,870	2	58.5	$1.55	13.0	
2	Police Department Station	3,800	2	**229.6**	**$4.66**	**49.6**	
3	Police Department Senior Center	1,000	2	**122.7**	**$4.98**	**33.4**	Shares heating system w/police
4	York Village Fire	5,100	2	**104.3**	**$2.29**	**20.0**	
5	York Beach Fire	10,116	2	54.8	$1.04	10.1	
6	Public Works Town Garage (Chases Pond)	4,440	1	58.0	$1.65	12.8	
7	Public Works (Rogers Rd)	2,280	1	25.3	$0.83	4.5	
8	Public Works Landfill	2,712	1	9.9	$0.49	2.7	Some heat by waste oil
9	Public Library	24,139	2	64.8	$1.74	12.3	Propane heat
10	School Administration Building	6,060	1	**158.8**	**$3.95**	**26.6**	Propane heat
11	Coastal Ridge Elementary	46,404	2	81.8	$1.64	15.4	Propane for kitchen
12	Village Elementary (2008-9)	43,400	1	59.4	$1.41	12.2	Propane for kitchen
13	York Middle School	155,356	3	49.1	$1.18	10.0	Propane for kitchen
14	York High School (2008-9)	124,500	1	57.8	$1.27	11.3	Propane for kitchen
15	Parks and Recreation Grant House	4,122	2	63.1	$1.18	12.5	
	TOTAL	439,299		60.9	$1.40	12.1	

Notes:

1. Bold values represent relatively high energy use and costs as follows:

Energy Use above 100 MBtu/sf

Energy Cost above $2.00/sf

Carbon Dioxide above 20 lb/sf

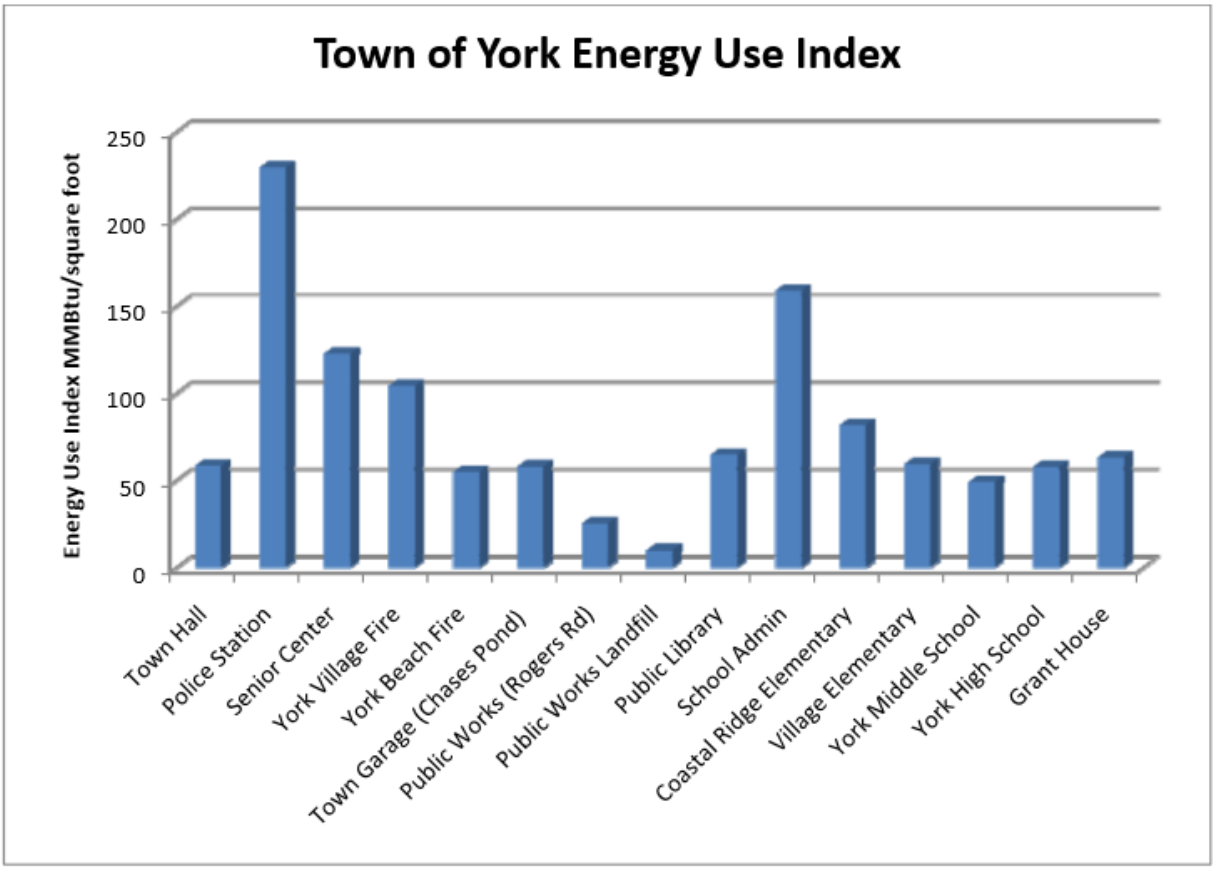


Figure 2-3

The buildings with the highest energy use and cost per square foot are the Police Department and Senior Center, the School Administration Building, and York Village Fire. Some of the high energy use is attributable to long operating hours (Police Station). Others, such as the School Administration Building and York Village Fire are primarily due to poor building insulation. The buildings with the highest energy use per square foot would likely offer the greatest energy savings per investment dollar for each improvement.

York Energy Steering Committee Annual Report 2016

Submitted 4/28/17 by Rozanna Patane, Chair

Introduction

This report covers calendar year 2016.

The Energy Steering Committee (ESC)'s mission was renewed and updated by the Board of Selectmen on April 4/10/17: To advise the Board of Selectmen on matters of energy policy and assist the Board in reducing York's carbon emissions. The Committee is now comprised of 7 permanent voting members appointed for staggering three-year terms.

2016 Summary of Accomplishments

March 2016

The Energy Steering Committee's first draft of an ***energy chapter*** for the York Comprehensive Plan was reviewed and approved by the Planning Board, which recommended shortening the draft. (Note: This work began in 2015 at the request of the Town Manager, and the ESC held public forums and meetings with department heads and committee chairs to gather community ideas before preparing the first draft.)

Over the summer the draft was reviewed with the Selectboard and presented to the Budget Committee and the School Committee, and was revised based on recommendations received. The draft had its first public hearing in June, when it received strong support from the public, and was endorsed by the SMPDC.

In November, the Planning Department conducted a survey that was developed with the assistance of a volunteer consultant recommended by the ESC. Survey results indicated strong support in the community for energy efficiency and clean energy work; the survey was included in further drafts of the energy chapter.

The energy chapter is slated to be included in Comprehensive Plan updates on the November 2017 ballot.

April 2016

After the Energy Steering Committee approached Habitat for Humanity York County (HFHYC) in December 2015 about expanding their weatherization work to York, the ESC initiated a collaboration with Habitat and York Community Services (YCSA), and ***Keep York Warm*** was launched to bring weatherization and energy efficiency services to York families who would otherwise be unable to obtain them.

In April the group received a $7,000 Rotary grant and enrolled in Efficiency Maine's Low Income Home Energy Savings Program (LIHESP), whose rebates increased the budget four-fold.

	In October, the team engaged three local energy auditors and scheduled home assessments and energy efficiency improvements for York homeowners. Volunteers from Rotary, area churches and other organizations built 58 window inserts and signed up for home installations scheduled for early 2017. The work is expected to be completed in the summer of 2017, and a second phase for the next year is being considered. The group also has scheduled a meeting of local apartment building owners with Efficiency Maine to learn how rebate programs can assist landlords with energy efficiency updates for their rental units.
May 2016	Voters approved the ***LED streetlight project*** capital budget and a $65,000 contingency budget in case the project is cancelled after the design phase; the contingency would pay contractors for work done to that point.
August 2016	***LED building light upgrades*** were completed in five municipal buildings, exhausting the balance of the $400,000 funds approved by voters in 2014.
December 2016	DPW Director Dean Lessard and two members of the Energy Steering Committee attended a workshop by RealTerm Energy, the streetlight contractor selected by four other Maine towns as the turnkey vendor to install ***LED streetlights***. After follow up discussions with York representatives, RealTerm submitted a preliminary proposal for York's streetlight installation This study was analyzed by the York team and York's energy consultant, Celtic Energy, and in early 2017, Celtic, the Energy Steering Committee and Dean Lessard recommended that York hire RealTerm to manage the streetlight installation. The Selectboard approved hiring RealTerm and tax-exempt lease financing on April 24, 2017.

These projects have already begun contributing to York's efforts to cut carbon, and, as a bonus, is saving taxpayers money. Details can be found in the current draft of the energy chapter for the Comprehensive Plan.

2014 was a turning point in how energy projects are funded in York. After the May 2014 $100,000 ballot item for energy projects was not supported by the Budget Committee and approved only narrowly by York voters, it was clear that the community needed a better understanding of the impact of energy efficiency work on both cutting carbon emissions and reducing our costs if they were to support continuing the work. The survey confirmed this perception; the weakest support was for the question of spending money on energy improvements.

The ESC recommended integrating the work in York's day-to-day operations as key to long-term success. This would call for collaboration among decision-makers and promote broader awareness and agreement on how to achieve York's sustainability goals.

To kick-start the process of integrating the energy work, the Town Manager took two important steps:

- Instead of ballot votes to fund isolated projects managed by the ESC, Steve Burns required that projects be sponsored by Town staff in the normal capital budgeting process.

- On the forms each department submits to the capital budget process, he added two questions: "Does this project enhance sustainability?" and "Is this the most energy-efficient solution?"

If the voters accept the energy chapter addition to the Comprehensive Plan, it will provide a helpful structure for specific action plans by department heads and committee chairs, as well as the Schools and Water and Sewer Departments.

These are small but essential steps forward, but the question of funding for future projects is still somewhat unresolved. The story of the benefits to the community that accrue from energy efficiency work is encouraging, but it's a continuing challenge to keep the progress we're making in front of the community.

If York is to make substantial progress toward its goal of becoming a sustainable community, resilient against the effects of climate change and sea level rise and as healthy and joyful to our children and grandchildren as it has been to our current residents, we must step up our efforts to keep people informed and make the goal a priority.

Respectfully submitted,

Rozanna Patane
Chair
Energy Steering Committee
rpatane@maine.rr.com

Read more about the work of the Energy Steering Committee on the ESC webpage at yorkmaine.org.

Capital Fund Remaining Balance

Bond Balance at 12/31/14		$100,000.00
2015 York Beach Fire Station Retrofit*	$62,553.46	
2015 Grant House Pellet Boiler Correction	$12,200.00	
2016 LED Building Lights Upgrade**	$24,231.00	
	$98,984.46	
Bond Balance at 12/31/16		$1,015.54

*Less $8,400 Efficiency Maine Rebate returned to York general fund
**Less $2,760 Efficiency Maine Rebate returned to York general fund

York Beach Fire Station Solar Panels and Energy Retrofit
Post Project Report

RP 8-18-16

Overview of work completed:

In 2014 the Committee obtained a $94,758 grant from Seacoast Energy Initiative (SEI) and Efficiency Maine for a 28.35 grid-tied solar array on the York Beach Fire Station roof. In a competitive bidding process conducted by SEI on behalf of five neighboring communities, Revision Energy was selected and installed the solar panels in September, 2014.

The Fire Department had prior plans to renovate the second floor Banquet Room, so the Energy Steering Committee planned an extensive retrofit of the building at the same time to maximize the solar power's efficiency. We conducted a competitive bidding process for the following improvements:

- Insulation
- Air-sealing
- Ducted heat pump & cooling system to reduce the demand on the oil-fired boiler
- LED lighting throughout the building
- More efficient glass panels on the bay doors.

The Beach Fire Department volunteers did their renovation work alongside these contractors and the Beach Fireman's Fund contributed a portion of the cost of insulation. The retrofit was completed in June, 2015 for a total of $75,153 and was celebrated at a "Solar Plug-In" ceremony at the Fire Station, attended by local officials, Revision Energy, and a representative from Angus King's office.

This comprehensive approach models how to convert a historic building to a high-performance energy system while retaining the building's function and historic appearance. Total cost was $173,153.

- After grants, rebates and the Fireman's Fund contribution, net taxpayer cost was $57,395.
- The project is expected to cut 233 tons of CO2 emissions, the equivalent of taking nearly 50 cars off the road or the CO2 scrubbing power of 233 acres of forest.
- Projected Return on Investment (ROI) is 10%, simple payback period is 10 years (calculated as if the Town paid the total cost with no grants), and annual energy savings are $12,077.

"My usual $350/month electricity bill dropped to a credit of $1.38 in August 2015 – so now I'm helping pay Town Hall's electricity bill."

Dave Bridges, York Beach Fire Chief

Visitors can observe the solar meters in the building and track solar production at:

http://revisionenergy.solarlog-web.net/york/

Financial Return:

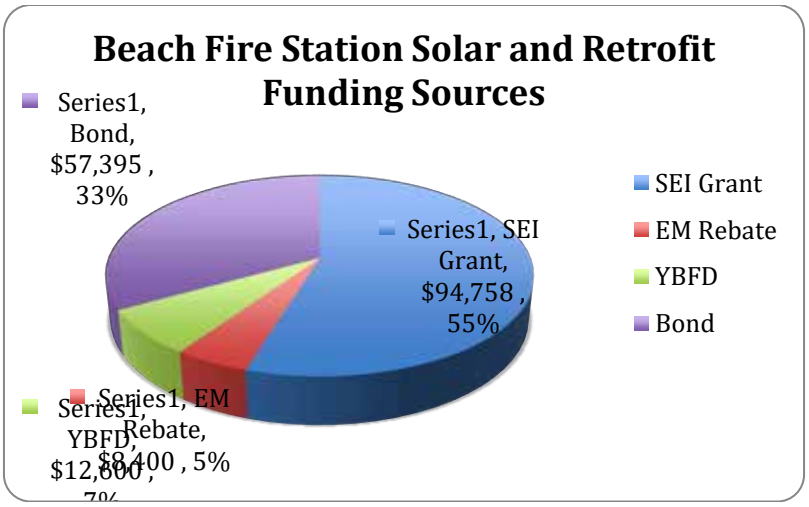
- 30-year Return on Investment of the total retrofit is 10%
- Exceeds York's cost of capital (its bonding rate) of 3%
- Simple payback period is 10 years
- Annual savings in cost of electricity and heat approximately $6,500
- Financial return is estimated as if the town paid the entire cost without grants or rebates to show the true value of energy efficiency improvements

Costs and savings:

Solar panels cost (Actual cost $0)	$98,000
Retrofit costs paid from bond	$59,323
Retrofit costs paid by York Beach Fireman's Fund	$12,600
Total Cost	**$169,923**

Funding:

Seacoast Energy Initiative grant	$94,758
Efficiency Maine LED light rebates	$8,400
York Beach Fireman's Fund	$12,600
Total Funding	**$115,758**
Net cost to York taxpayers (from 2014 $100,000 bond)	**$54,165**



Performance expectations

Projected CO^2 reductions of 233 tons per year are the equivalent of:

Taking 49 cars off the road

or

The CO2 scrubbing power of 233 acres of forest

https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Estimated Savings			
Oil	Gallons	Dollars	CO2
Insulation & air-sealing	1071	$3,064	83
Heat pumps	605	$1,457	120
	1,676	$4,521	
Electricity	Kwh	Dollars	
LED lighting	13,198	$2,032	8
Heat pumps	(5,712)		
Solar panels	31,304	$5,524	22
	38,790	$7,556	
Total Annual CO2 Reduction - Tons			**233**
Total Annual Savings		**$12,077**	

See also YBFD Solar PV System Summary Fact Sheet-5oct14.pdf

Grant House Pellet Boiler Repair – Post Project Report

RP 3-17-23

Overview of work completed:

The pellet boiler was originally installed in late 2013 at a cost of $56,856, when the Grant House needed to replace its non-functioning oil boiler. The boiler is from Maine Energy Systems; installation was EC Robbins Construction of Eliot, Maine. The Grant House cellar ceiling was too low for the boiler so an outbuilding was constructed and pipes laid to the main building to circulate the hot water.

The Energy Steering Committee (ESC) thoroughly researched and recommended a pellet boiler:

- It is a carbon-neutral, renewable fuel source that is compatible with York's clean-energy goals.
- It has life-cycle cost advantages over oil and gas systems.
- Pellets milled sustainably sourced by a Maine small business support the Maine clean economy and provide jobs to Maine people.
- Prices are not affected by world energy markets, as are oil and gas.
- The property lies on the banks of the York River, where a spill would be disastrous.
- The Kittery Wastewater Services Director assured the ESC how effective his system was and how many thousands of dollars it saved Kittery each year.
- Over its 25 year life the boiler was expected to save slightly more than its cost.

In 2014 it was clear that the system wasn't providing enough heat and was shutting off. Superficial inspection in winter revealed that the pipes were melting the path from the outbuilding to the main house; the conclusion was that the pipes were not adequately insulated and/or not buried deep enough. The ESC recommended correcting the installation problems and expected that the pellet boiler would then operate as expected.

- Omni proposed a page-long list of code and technical violations and a repair cost of $12,200.
- Omni began the repair September 15, 2015 and completed work September 24. Inspections were made by York Code Enforcement and the Maine Fuel Board Inspector, Peter Holmes (October 19), who found several deficiencies related to the Fuel Board rules or manufacturer specifications (none of the deficiencies represented a safety hazard or operating problem). Omni corrected the deficiencies and work was completed in November 2015. Omni maintains the system.
- In addition to the reduced CO2 emissions, expected savings over the life of the boiler is $136,173. Annual fuel cost savings are expected to be $4,363 (see following page for detailed financial comparison between propane and pellets).

Grant House Oil and Pellet Usage

	FY2013	FY2014 (9 mos)	FY2014 (3 months)	FY2015	FY2016
Oil Gallons	1,441	950	0	0	0
Pellet Tons	0	0	9.02	24.775	8.115
Dollars	$4,205	$2,874	$2,156	$6,192	$2,183

How is it working?

Outbuilding for pellet boiler; pipes run to Grant House on right

Piping was too shallow and water wasn't flowing correctly

New piping was set to correct depth

Automated controls in office increase efficiency

"The pellet boiler has worked flawlessly. While overall the winter has been relatively mild we have had days of extreme cold allowing us to test the system under frigid conditions. The work done by Omni Heat has proven very effective and the decision to bring them in to correct deficiencies was the right choice. It is clear [usage is] well below last year and we anticipate a significant savings."

Mike Sullivan, Director, Parks and Recreation, February 22, 2016

Environmental comparison of Pellet Boiler and Propane

- Gas emits less soot and other air pollution but gas is not sustainable source of energy – it is derived from oil or natural gas and is fraught with negative environmental impacts associated with extraction (eg, fracking) and transportation.
- Replacing fossil fuels with biomass for space heating results in a significant net reduction in CO2 emissions and is a meaningful way to reduce environmental impact.
- Although carbon is released when wood is burned, if harvested and burned at the rate it grows, no net carbon is released. Thus burning fossil fuels for space heating increases the net amount of carbon in the atmosphere, while burning wood does not.
- Using local pellets means less carbon used in production, packaging and transportation than gas
- No damage if spilled
- Wood pellets sourced in Maine support Maine economy
- Pellets sourced locally and sustainably are vastly preferable to their fossil ancestors
- Pellet boilers are as efficient as gas boilers
- Prices are not affected by world energy markets – more stable, less volatile

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Cost Comparisons - Installation Remediation and Annual Operating Costs
(per Maine Energy Systems Cost Comparison Calculator)

Propane Boiler Installation

The March, 2011, energy audit performed by MACTEC Engineering and Consulting, Inc, of Portland, Maine, showed usage of 1575 gallons of oil per year, which is equivalent to 13.5 tons of pellets. Without allowance for increased efficiency in the pellet boiler (which would mean lower pellet consumption), we compare propane costs to pellets for the equivalent heat.

Gas boiler installation cost	$7,600	Average for Portland Me (HomeAdvisor.com)
Propane tank Installation cost	$3,000	
Total Installation Budget	$10,600	
Propane fuel costs $ per MBtu ($2.80/gallon)	$25.40	Maine Governor's Office July 2015 spot price
Annual Propane Cost @2780 gals	$7,728	(Equivalent to 13.5 tons pellets)

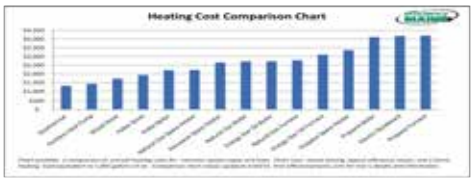
Pellet Boiler Installation Remediation

Basic	$8,446	Omni Proposal
Water heater	$1,040	
Automated controls & other improvements	$3,537	
Total Remediation Budget	$13,023	(Final cost was $12,200)
Pellet fuel costs $ per MBtu ($249/ton)	$15.33	Maine Governor's Office July 2015 spot price
Annual Pellet Cost @13.52 tons	$3,365	(Equivalent to 2780 gals propane)
Annual Fuel Cost Savings vs propane	$4,363	
Savings over 25-year life	$136,173	(Annual pellet and propane inflation 2%)
ROI of remediation	53%	
Simple payback - years	3	

Energy Price Expectations

Kiplinger's Energy Alert (May 2015) reports that the flood of new gas supplies has been dramatic – up more than 32% from 2010 to 2015. However, demand is rising and is expected to continue to rise as more coal plants are retired and renewables are still in their toddlerhood. And the US is exporting more gas as four new LNG terminals go into operation in the Gulf and elsewhere.

In last winter's cold, gas prices were twice their current prices, and in the longer run the look poised to trend higher. Kiplinger's forecast is for gas prices to be about one-third higher than their current summer prices, with higher spikes in prolonged winter cold spells.



Maine Energy Systems obtain their pellets from Maine sources (Geneva Wood Fuels in Strong and Corinth Wood Pellets In Corinth) and are intent on ensuring that pellet prices remain affordable, stable and predictable.

2016 Town of York LED Lighting Upgrade
At Selected Municipal Buildings

Project Summary Report

Submitted by: Len Loomans, Lighting Consultant

2016 Town of York LED Lighting Upgrade
at
Selected Municipal Buildings

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LED Lighting Upgrade Executive Summary

This project was funded by the last of four $100,000 sums the voters had approved for energy projects for lighting upgrades. The Energy Steering Committee selected Town Hall, the Grant House, the Senior Center and both DPW Garages to have most of their lighting upgraded to high-efficiency Light Emitting Diode (LED) lamps. A thorough audit of all existing interior and exterior lighting was conducted at the five facilities and recommendations made on best use of available funds to convert the various incandescent, fluorescent, and HID lamps to LED's. An RFP for the project was issued and interested bidders attended a walkthrough before submitting their bids. Affinity LED Lighting of Dover NH was selected by an ESC committee and approved by the Board of Selectmen to be awarded the bid. Work began in early July and was completed on August 18th.

Costs and Savings

	Investment Cost	10 Year Savings	Payback Yrs	10 Year ROI	Annual Tons CO2 Emissions Reduction	Acres of forest scrubbing Equivalent
LED Lighting Upgrade	**$21,562**	**$61,430**	**3.6**	**185%**	**26**	**25**

- Total project cost was $24,321. Projected incentives from Efficiency Maine of $2760 will recover about 11% of that total, resulting in a net investment of $21,562
- Annual savings in CMP energy costs (assuming 13¢/kWh fixed) are estimated at $6143/year, for a Simple Payback of 42.1 months and a 10 Year Cumulative ROI of $39,867, or 187%.
- Estimated total energy savings is 42,793 kWh annually, reducing CO^2 emissions by some 26.1 tons/year.

Doing Well and Doing Good!

York LED Lighting Upgrade Cost and Savings Summary

Energy Steering Committee
Town of York
186 York Street
York, Maine 03909

Town Hall
Senior Center
PRD Grant House
DPW Garages I & II

Project Costs	**TOTAL**	Affinity	L. Loomans	J. Branigan
LED Equipment + Disposal	$18,321.85	$18,234	$87.85	
Installation Labor + Materials	$4,200	$4,200		
Consulting: Lighting Audit & Project Mgmt.	$1,800		$1,200	$600
Project Total (before incentives)	**$24,321.85**	$24,322		
Projected Incentives	**($2,760)**	($2,760.00)		
% of Project Total	-11%	-11%		
Net Investment	**$21,562**	$21,562		
% of Project Total	**89%**	**89%**		

Straight Payoff	**TOTAL**	ALL AREAS
Annual Savings (CMP current rate)	**($6,143)**	($6,143)
Monthly Savings	**($512)**	($512)
Payoff (months)	**42.1**	42.1

Investment Return	**TOTAL**	ALL AREAS
1st Year Cumulative Return	($15,419)	($15,419)
ROI%	-72%	-72%
2 Years Cumulative Return	($9,276)	($9,276)
ROI%	-43%	-43%
3 Years Cumulative Return	($3,133)	($3,133)
ROI%	-15%	-15%
5 Years Cumulative Return	**$9,152**	**$9,152**
ROI%	**42%**	**42%**
10 Years Cumulative Return	**$39,867**	**$39,867**
ROI%	**185%**	**185%**

Annual CAPEX Impact	**TOTAL**	ALL AREAS
Annual Capex (10 years)	**($2,156)**	($2,156)
Annual Savings resulting from CAPEX investment	**$6,143**	$6,143
Annual Impact: Profit / Loss	*$3,987*	*$3,987*

Environmental Impact*	**TOTAL**	ALL AREAS
Estimated Total kWh Savings (annual)	**(42,793)**	**(42,793)**
Per Year CO^2 Abatement (tons)*	**(26.1)**	(26.1)
2 Years Cumulative	**(52.2)**	(52.2)
3 Years Cumulative	**(78.3)**	(78.3)
5 Years Cumulative	**(130.5)**	(130.5)
10 Years Cumulative	**(261.0)**	(261.0)

*Minimum CO^2 produced per kWh : 1.22 lbs. (http://www/.eia.gov)

Efficiency ME Incentives	**TOTAL**	ALL AREAS
Estimated Incentive	**($2,760)**	($2,760)

Electricians removing fluorescent troffers in preparation for installation of new LED troffers at Town Hall.

Town Hall Tax Collection Room before (above) and after (below) the upgrade.

"*We love the new lights."* - Kristie Bolton, Town Hall Finance Dept.

Before and after LED tube upgrade of Town Hall upstairs hall wraps.

“When you work in a building that’s over 200 years old, saving energy can be as simple as removing decades-old fluorescent lights and replacing them with LED fixtures.”

- Stephen H. Burns, York Town Manager

Various magnetic ballasts removed from dozens of fluorescent fixtures. Note that the top one had overheated.

New Full Cut-off Wall Packs on Senior Center entrance.

“The LED process went very well, the brightness is very nice — not too bright but noticeable. We had a York Hospital person here to do foot care recently who asked if we got new lights.”

- Brenda Bracy, Senior Center Facility Coordinator

New T5 LED lamps in the Dept. of Public Works Main Garage

“I’m excited about the new LED lights in the two town garages. We’ve tried to get more light in those buildings for years — put in more windows, even new fluorescent tubes a few years ago — but these lights really improved the work environment for our crew.”

- Dean Lessard, Director of Public Works

Installing new Wall Pack on Grant House Barn

New MaxLite LED Bullet Floods on Grant House

Affinity LED Light - Lighting Upgrade Inventory

Town Garage I	Installation location and notes	Description	Existing Fixture	Fixtures	Lamps/Fixture	Total Lamps	LED Upgrade	Description	Watts	Fixtures	Lamps/Fixture	Total Lamps
	Ext. South & East walls	250w MH WP	1M0250S	2	1	2	40 W Full Cut Off	Wall Pack FC Bronze 4000K	40w	2	1	2
	Ext. North wall (fuel tanks)	100w MH WP	1M0100S	1	1	1	40 W Full Cut Off	Wall Pack FC Bronze 4000K	40w	1	1	1
	1st floor	2F40 T12 Wrap	2F40SSM	11	2	22	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	11	2	22
	Office	2F40 T12 Wrap	2F40SSM	4	2	8	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	4	2	8
	Stairs	2F40 T12 Wrap	2F40SSM	1	2	2	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	1	2	2
	Hall	2F32 Wrap	2F32SSM	3	2	6	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	3	2	6
	Bathrooms	2F40 T12 Wrap	2F40SSM	2	2	4	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	2	4
	Bench	2F32 Wrap	2F32SSM	3	2	6	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	3	2	6
	Parts room	2F32 Wrap	2F32SSM	10	2	20	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	10	2	20
	Office	2F32 Wrap	2F32SSM	2	2	4	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	2	4
	Exterior	2 Lamp Flood Head	1L0065	6	2	12	BF30AUDW30B	MaxLite Bullet Flood	30w	6	2	12
	Shop	T5 4 Lamp Highbay	4F54HSE	19	2	38	T5 LED	T5L4-30W-XXF1-2L	60w	18	2	36
Town Garage II	Main Floor	T5 4 Lamp Highbay	4F54HSE	6	2	12	T5 LED	T5L4-30W-XXF1-2L	60w	5	2	10

Senior Center	Installation location and notes	Description	Existing Fixture	Fixtures	Lamps/Fixture	Total Lamps	LED Upgrade	Description	Watts	Fixtures	Lamps/Fixture	Total Lamps
	Exterior Wall Packs Left & Right of Main Door	**LED**	**?**	2	1	2	40 W Full Cut Off	Wall Pack FC Bronze 4000K	50W	2	1	2
	Exterior Sofit Mount Flood -	175W MH	1M0175S	2	1	2				0	0	0
	Hallway(s) 2x4 T12 recessed Troffers	4F40 T12 2x4 Rec Troffer	4F40SES	7	4	28	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	7	4	28
	Kitchen and counter (1 troffer is already LED)	4F40 T12 2x4 Rec Troffer	4F40SES	4	4	16	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	4	4	16
	Dinning Room	4F40 T12 2x4 Rec Troffer	4F40SES	6	4	24	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	6	4	24
	Closet by Office	1x4 T8 Surface Wrap 2F32	2F32SSM	1	2	2	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	1	2	2
	Office	4F40 T12 2x4 Rec Troffer	4F40SES	2	4	8	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	4	8
	Card Room	4F40 T12 2x4 Rec Troffer	4F40SES	2	4	8	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	4	8
	Computer Lab / hall (1 troffer is already LED)	4F32 T8 2x4 Rec Troffer	4F32SSM	2	4	8	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	4	8
	BASEMENT	2F40 T12 4ft Strip Light	2F40SES	2	2	4	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	2	4
	BASEMENT	2F32 T8 4ft Strip Light	2F32SSM	1	2	2	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	1	2	2
	Activity Room	4F40 T12 2x4 Rec Troffer	4F40SES	8	4	32	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	8	4	32

Grant House	Installation location and notes	Description	Existing Fixture	Fixtures	Lamps/Fixture	Total Lamps	LED Upgrade	Description	Watts	Fixtures	Lamps/Fixture	Total Lamps
	Men's Bathroom	2F40 T12 4ft Surface Wrap	2F40SES	2	2	4	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	2	4
	women's Bathroom	2F40 T12 4ft Surface Wrap	2F40SES	2	2	4	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	2	4
	Main Program Office	2F40 T12 4ft Surface Wrap	2F40SES	2	2	4	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	2	4
	Ext. South Entrance	2 Lamp Flood Head	1L0065	2	2	4	BF12AUDW30B	MaxLite Bullet Flood	12W	2	2	4

GrantHouse Barn	Installation location and notes	Description	Existing Fixture	Fixtures	Lamps/Fixture	Total Lamps	LED Upgrade	Description	Watts	Fixtures	Lamps/Fixture	Total Lamps
	Garage Attic Strips	2F40 T12 4ft Strip Light	2F40SES	3	2	6	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	3	2	6
	Garage Main Shop	4F32 T8 2x4 Rec Troffer	4F32SSM	6	4	24	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	6	4	24
	Ext. Forward Throw WallPacks (1x Garage, 1 x House)	175w MH	1M0175S	2	1	2	40 W Full Cut Off	Wall Pack FC Bronze 4000K	50W	1	1	1

Town Hall	Installation location and notes	Description	Existing Fixture	Fixtures	Lamps/Fixture	Total Lamps	LED Upgrade	Description	Watts	Fixtures	Lamps/Fixture	Total Lamps
	Bathroom	2U6 T8 2x2 Troffer	2F32SSM	1	2	2	TR2-38W-40K	2X2 Troffer Luminaire 4000K	35W	1	1	1
	Hall	4F40 T12 2x4 Rec Troffer	4F40SES	4	4	16	TR2-38W-40K	2X2 Troffer Luminaire 4000K	35W	4	1	4
	Closet	2U6 T8 2x2 Troffer	2F32SSM	1	2	2	TR2-38W-40K	2X2 Troffer Luminaire 4000K	35W	1	1	1
	Open Offices	4F40 T12 2x4 Rec Troffer	4F40SES	6	4	24	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	6	4	24
	Rick's Office	4F32 T8 2x4 Rec Troffer	4F32SSM	2	4	8	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	4	8
	Rick's Office	2U6 T8 2x2 Troffer	2F32SSM	1	2	2	TR2-38W-40K	2X2 Troffer Luminaire 4000K	35W	1	1	1
	Assessor Office	4F32 T8 2x4 Rec Troffer	4F32SSM	7	4	28	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	7	4	28
	Code Enforcement	4F32 T8 2x4 Rec Troffer	4F32SSM	2	4	8	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	4	8
	Tax collection Main area	4F40 T12 2x4 Rec Troffer	4F40SES	12	4	48	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	12	4	48
	Second Floor Main	2F40 T12 4ft Surface Wrap	2F40SES	5	2	10	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	5	2	10
	Finance Director * Dimmer	2F40 T12 4ft Surface Wrap	2F40SES	2	2	4	T8L4-18W-40F3D Retro	Dimmable T-LED Retrofit Tube	19W	2	2	4
	Town Managers Office * Dimmer	2F40 T12 4ft Surface Wrap	2F40SES	5	2	10	T8L4-18W-40F3D Retro	Dimmable T-LED Retrofit Tube	19W	5	2	10
	Asst to the Managers office	2F40 T12 4ft Surface Wrap	2F40SES	3	2	6	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	3	2	6
	Finance Dept. * Dimmer x 2	2F40 T12 4ft Surface Wrap	2F40SES	9	2	18	T8L4-18W-40F3D Retro	Dimmable T-LED Retrofit Tube	19W	9	2	18
	HR Office	2F40 T12 4ft Surface Wrap	2F40SES	3	2	6	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	3	2	6
	Room 205/6	2F40 T12 4ft Surface Wrap	2F40SES	11	2	22	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	11	2	22
	Conference Room	2F40 T12 4ft Surface Wrap	2F40SES	6	2	12	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	6	2	12
	Breakroom	2F40 T12 4ft Surface Wrap	2F40SES	1	2	2	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	1	2	2
	Server / IT Room	2F40 T12 4ft Surface Wrap	2F40SES	2	2	4	T8L4-18W-40F3 Retro	T-LED Retrofit Tube	18W	2	2	4
	Dimmers - Town Manager, Finance Dir. & Finace Dept.	Leviton LED	N/A	0	0	0	LEV DSL061LZ	Decora Rocker Slide Dimmer	N/A	4	1	4
All Properties	Bathroom Occ switch			0	0	0	LEV	DT Occ sensor	N/A	4	1	4
			TOTALS	211		553				214		539

Screw-in Bulbs - Lighting Upgrade Inventory

	Installation location and notes	Description	Existing Fixture	Fixtures	Bulbs/Fixture	Total Bulbs	LED Upgrade	Description	Watts
Town Garage I	Locker Room Cans	PAR38 18W CFL	1C0018S	6	1	6	8BR30DLED27	Dim R30 2700K	8W

	Installation location and notes	Description	Existing Fixture	Fixtures	Bulbs/Fixture	Total Bulbs	LED Upgrade	Description	Watts
Senior Center	Exterior Card Room Door	A19 100W Inc	1I0100	1	1	1	GVRLA6027ND	Dim A19 2700K	10W
	Entrance / Foyer	A19 14W CFL	1C0013S	1	2	2	GVRLA6027ND	Dim A19 2700K	10W
	Reception Desk Lamp	A19 60W Inc	1I0060	1	1	1	GVRLA6027ND	Dim A19 2700K	10W
	Kitchen - Stove Hood	A19 60W Inc	1I0060	2	1	2	GVRLA6027ND	Dim A19 2700K	10W
	Kitchen - Walk-in Freezer	A19 14W CFL	1C0013S	1	1	1	GVRLA6027ND	Dim A19 2700K	10W
	M & W Bathrooms and Closet	A19 60W Inc	1I0060	12	1	12	GVRLA6027ND	Dim A19 2700K	10W
	Hallway Fan/4-Lamp Fixture	A19 60W Inc	1I0061	4	1	4	GVRLA6027ND	Dim A19 2700K	10W

	Installation location and notes	Description	Existing Fixture	Fixtures	Bulbs/Fixture	Total Bulbs	LED Upgrade	Description	Watts
Grant House	Hall 3 x Ceiling Dome Fixtures	A19 13W CFL	1C0013S	3	1	3	GVRLA6027ND	Dim A19 2700K	10W
	Conference Room Cans	PAR38 60w Hal	1T0060	2	1	2	8BR30DLED27	Dim R30 2700K	8W
	Conference Room Wall Sconce	A19 60W Inc	1I0060	5	1	5	GVRLA6027ND	Dim A19 2700K	10W

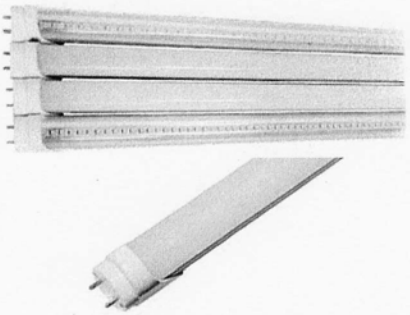
	Installation location and notes	Description	Existing Fixture	Fixtures	Bulbs/Fixture	Total Bulbs	LED Upgrade	Description	Watts
Town Hall	Entrance / Foyer	A19 26W CFL	1C0026S	2	1	2	HTFGD05	Filament Golbe 2700K	5W
	Rick's Office Task Lamp	A19 43W Inc (Hal)	1I0042	1	1	1	GVRLA6027ND	Dim A19 2700K	10W
	Men's and Women's Bathroom	A19 60W Inc	1I0060	2	1	2	GVRLA6027ND	Dim A19 2700K	10W
	Finance Director Task Lamp	A19 43W Inc (Hal)	1I0042	1	1	1	GVRLA6027ND	Dim A19 2700K	10W

TOTAL 45

affinity
led lighting

T8 18W 4' Linear Ballast Compatible

T8L4-18W-XXF3BC (Frosted Cover)
T8L4-18W-XXC3BC (Clear Cover)



Product Description

Affinity LED Lighting's 4-foot T8 Linear High Output Ballast Compatible Retrofit Lamps work with most ballasts (or without) for a simple solution that delivers lighting cost savings, instant-on responsiveness and reliable maintenance free light. An ideal replacement for current T8 & T12 linear installations.

Product Specifications

Type	T8 Linear	Model Number	T8L4-18W-XXX3BC
Equivalent to	32W T8 / 40W T12	Operating Temp.	-20℃~40℃
Wattage	18w	Life time	50,000Hrs
Rated Lumens	2212 lm	CRI	Ra≥80
Voltage	100-277v	Diameter	28mm
CCT	3000-5000K	Length	1200mm
Base	G13	Dimmable	Non-Dimmable
Power Factor	>96%	Weight	370g
Beam Angle	120°	Current	250mA

Features & Applications

- Rated lamp life 50,000Hrs
- No mercury, no IR or UV, reduces costs up to 75%
- Five years warranty
- Perfect alternative to T8 & T12 linear fluorescent tubes

- Offices
- Schools
- Retail
- Garages
- Hotels
- Healthcare

Packing details

Packaging Type	Outer Carton (25pcs/carton)
Dimensions (L x W x H)	1238mm * 218mm * 238mm

affinity
led lighting

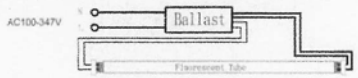
T8 18W 4' Linear Ballast Compatible

T8L4-18W-XXF3BC (Frosted Cover)
T8L4-18W-XXC3BC (Clear Cover)

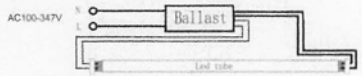
Installation Procedures

"Plug" and "Play" procedure

1. Turn off the power to the light fixture at the breaker panel before installation.
2. Open the diffuser from the light fixture.
3. Remove the fluorescent tubes. Please dispose of these items properly as they contain mercury.



4. Put led tube into the lighting fixture.

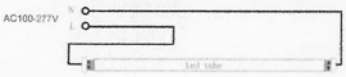


5. Install the LED tubes, close the diffuser.
6. Turn on the Power.

Retrofit Procedure

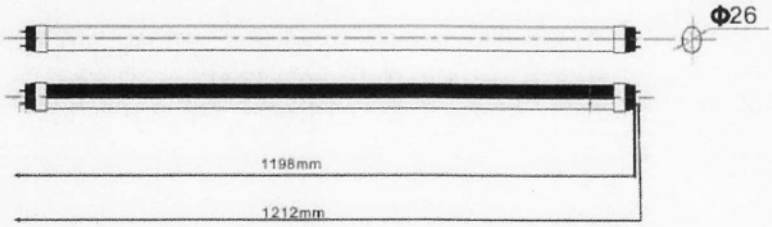
1. Turn off the power to the light fixture at the breaker panel before installation.
2. Open the diffuser from the light fixture.
3. Remove the fluorescent tubes. Please dispose of these items properly as they contain mercury.
4. Cut the wires shown as the diagram below.

5. Make the new wire connect to branch circuit shown as the diagram below.
6. Replace the cover over the wiring channel.
7. Install the LED tubes, close the diffuser.



8. Turn on the Power.

Mechanical Drawing



DLC Listed Item

Model Number	Watt	Lumen	CCT	DLC v2.1
T8L4-18W-30F3BC T8L4-18W-30C3BC	18W	2,212	3000K	Yes
T8L4-18W-35F3BC T8L4-18W-35C3BC			3500K	Yes
T8L4-18W-40F3BC T8L4-18W-40C3BC			4000K	Yes
T8L4-18W-45F3BC T8L4-18W-45C3BC			4500K	Yes
T8L4-18W-50F3BC T8L4-18W-50C3BC			5000K	Yes

Certifications

Intertek

LM79 LM80

For more information, please refer to www.affinityledlight.com

Date Qualified: 02/02/2015 Compare

Manufacturer: **Affinity LED Light LLC** Brand Name: **Affinity LED Light**

VIEW DETAILS | VIEW PARENT (2)

Product Id:	PBTWR64G
Model No.:	T8L4-18W-40F3BC
Categories:	Four-Foot Linear Replacement Lamps
Notes:	Internal driver; operates off existing fluorescent ballast

Close Details

RATED DATA

Light Output	2,212 lm	Efficacy	105.8 lm/W
Wattage	20.9 W	CRI	82.4
CCT	4,000 K		
Power Factor			0.9928
Total Harmonic Distortion			7.68 %
Lifetime			N/A
Warranty			N/A
Dimmable:			Not Yet Verified

* Note Dimmable version

✔Date Qualified: 06/13/2016 Compare

Model No.: **ZY-T8-18W1200 BIDX FIXTURE (4000K)**

Brand Name: **JAMES**

Manufacturer: **James Industry Group (China) Co., Ltd**

VIEW DETAILS | VIEW PARENT (3)

Indoor Luminaires | Linear Ambient

Direct Linear Ambient Luminaires

Classification: DLC Premium

DLC Product Code: PX91TBVM

DLC Family Code: KKKZAZ

Notes:

RATED DATA

Light Output	2,475 lm	Efficacy	130 lm/W
Wattage	19 W	CRI	82.1
CCT	4,000 K		
Power Factor			0.9
Total Harmonic Distortion			20 %
Dimmable:			Yes
Continuous/Stepped:			Continuous
Continuous to ≤ 10% W:			Yes
Has Integral Controls			No

Close Details

affinity led lighting

30W Wall Pack FC (full cutoff)

TLWMB30XWMZZ

Product Descriptions

Affinity LED Lighting's Wall Pack Series provide safe, reliable area lighting using Phillips LED technology. The updated slim, design is made from die-cast aluminum, with a shatter-resistent lens, corrosion resistant waterproof powder-coat finish and IP65 rating.

Product Specifications

Type	Wall Pack	Model number	TLWMB30XWMZZ
Equivalent to	75W-150W	Operating Temp	-30°C~40°C
Wattage	30W	L70 Lifetime	>50,000Hrs
Lumen	2688lm	CRI	Ra≥70
Voltage	100-277V	LxWxH	198x168x109mm 2.1kg
CCT	3000-5000K	Weight	(4.5lbs) 700mA
Power factor	>95%140°	Current	
Beam angle			

Features & Applications

- Rated lamp life 50,000Hrs
- No mercury, no IR or UV, reduces energy cost up to 70%
- Five years warranty
- Perfect alternative to MH & HPS Wall Pack Installations
- Parking Garages
- Public Areas
- Outdoor Walkways

Packing details

Packaging Type	Master Carton (1pc)
Dimensions (L x W x H)	215*135*240mm

affinity
led lighting

30W Wall Pack FC (full cutoff)

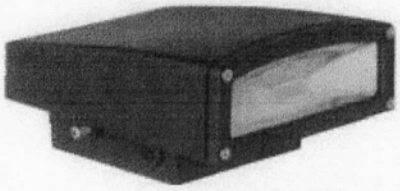
TLWMB30XWMZZ

Product Advantages

High powered Philips LED's

Corrosion resistant powder-coat finish

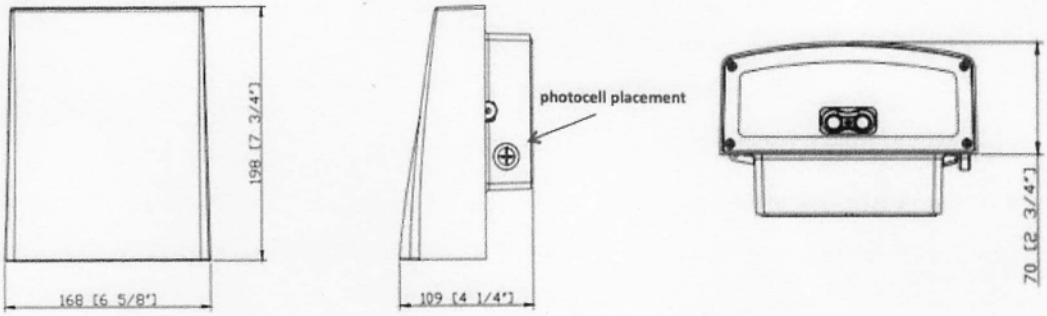
Instant-On Full Brightness



Shatter and UV Resistant lens

IP65 Rating

Mounting



DLC Listed Item

DLC Model Number	Watt	Lumen	CCT	DLC
Brand: Thailight **TLWMB304WMZZ** **TLWMB305WMZZ**	**30W**	**2688 lm**	**4000K** **5000K**	**YES** **YES**

Certifications

LM79 LM80

For more information, please refer to www.affinityledlight.com

Date Qualified: 04/09/2014 Compare

Model No.: **TLWMB305WMZZ**

Brand Name: **THAILIGHT**

Manufacturer: **DONGGUAN THAILIGHT SEMICONDUCTOR LIGHTING CO.,LTD.**

VIEW DETAILS

Outdoor Luminaires | Low Output

Outdoor Full-Cutoff Wall-Mounted Area Luminaires

Classification: DLC Standard

DLC Product Code: P00000QC7

DLC Family Code: KKKKYD

Notes:

TEST DATA		RATED DATA	
Light Output	2,687.8 lm	Efficacy	93.71 lm/W
Wattage	28.68 W	CRI	72.1
CCT	4,962 K		
Power Factor			0.913
Total Harmonic Distortion			17.85 %
Technical Requirements Version Number			2.1
Zonal Lumens: 0-90°			99.85 %
Zonal Lumens: 80-90°			0.09 %

Close Details

LED BULLET FLOODS

BF SERIES

12W

30W

See page 2 for dimensions

PRODUCT DESCRIPTION:

Ideal for landscape, façade and sign lighting applications, the LED Bullet Flood Light features a swivel arm for precise angle adjustment. Sealed to keep out dirt, bugs and moisture, the Bullet Floods is constructed with a precision die-cast aluminum housing and tempered, shatter-resistant glass for a sleek appearance and maximum durability. The floods can be surface mounted directly to electrical boxes or posts with a 1/2" threaded bushing.

FEATURES:

- 12W/30W replace up to 50 Watt Quartz Halogen/150 Watt Metal Halide
- Available in 4 distributions: Wide; Medium; Narrow; and Tight
- Leading efficiency ranging from 108-121 lm/W
- 3000K and 5000K available
- ≥ 100,000 hour L70 Life @ 25°C
- Universal 120-277V driver
- Fixture can be surface mounted directly to electrical boxes or posts with ½" threaded bushing
- 5 Year Limited Warranty

CONSTRUCTION:

- Die cast aluminum body
- Bronze polyester powder coat finish
- Sealed to keep out dirt and bugs
- Tempered shatter resistant glass lens
- Weep hole located on lower lip of fixture to prevent water buildup
- ½" NPT threaded arm with locking swivel

ACESSORIES:

- Optional shroud available, see page 3 for ordering information

MODEL SELECTION (Full list of order codes on pg. 2) | Typical order example: BF12AUDT50B000

BF		A	U			B	000
FAMILY	**NOMINAL POWER, EQUIVALENCY**	**GENERATION**	**VOLTAGE**	**DISTRIBUTION**	**CCT**	**COLOR**	**OPTIONS**
BF= Bullet Flood	**12=** 12W, replaces up to 50W Quartz Halogen **30=** 30W, replaces up to 150W Metal Halide	**A=** Generation A	**U=** 120-277V	***DT=** Tight ***DN=** Narrow ***DM=** Medium **DW=** Wide	**30=** 3000K **50=** 5000K	**B=** Bronze	**000=** None

NOTES:

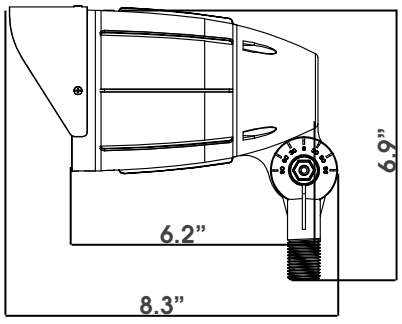
*Special request options available. Please contact your MaxLite representative for updated lead times and order requirements.

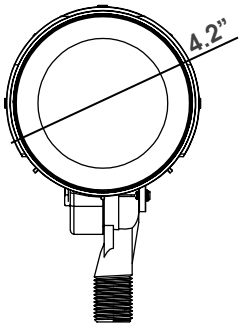
ACCESSORIES			
ORDER CODE	**MODEL NUMBER**	**DESCRIPTION**	**ACCESSORIES IMAGE**
101679	TR2.37BZ	Tennon Reducer, 2-3/8" to 1/2", Bronze	

SPECIFICATIONS:

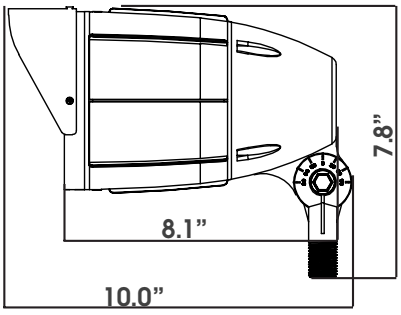
ITEM	SPECIFICATION	BF12AUDT XXXXXX	BF30AUDT XXXXXX	BF12AUDN XXXXXX	BF30AUDN XXXXXX	BF12AUDM XXXXXX	BF30AUDM XXXXXX	BF12AUDW XXXXXX	BF30AUDW XXXXXX
		DETAILS							
GENERAL PERFORMANCE	Distribution	Tight		Narrow		Medium		Wide	
	NEMA H x V Distribution	4 x 4	2 x 2	5 x 5	4 x 4	5 x 5	5 x 5	6 x 6	5 x 5
	Beam Angle	25	10	30	20	35	35	60	60
	Input Power (W)	11	28	11	28	11	28	11	28
	Lumens Delivered 3000K (lm)	1175	3225	1165	3250	1150	3060	1200	3120
	Lumens Delivered 5000K (lm)	1205	3290	1165	3315	1180	3120	1235	3185
	Efficacy (lm/W)	108-110	118-120	107-107	118-121	106-109	111-114	111-114	114-116
	Color Temperature	3000K, 5000K							
	CRI	≥72							
	Lumen Maintenance (L70, TM-21 @ 25"C)	≥100,000							
ELECTRICAL	Input Voltage	120-277V standard							
	Power Factor	> 0.9							
PHYSICAL	Housing	Aluminum							
	Lens	Tempered Glass							
	Finish	Bronze standard							
	Operating Temperature	-30°F - 104°F							
CERTIFICATION	Certifications	cULus, DLC Premium, LM-79, LM-80, TM-21, IP65, Title 24 Compliant							
	Environment	Outdoor, Wet location							
	Warranty	5 Years							

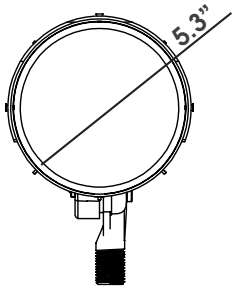
*DIMENSIONS:





12W





30W

*Shroud sold separately

ORDERING*:

ORDER CODE	MODEL	NOMINAL WATTAGE	INPUT VOLTAGE	BEAM TYPE	COLOR TEMPERATURE (CCT)
100052	BF12AUDN30B000	12W	120-277V	NARROW	3000K
100054	BF12AUDN50B000			NARROW	5000K
100048	BF12AUDM30B000			MEDIUM	3000K
100050	BF12AUDM50B000			MEDIUM	5000K
100056	BF12AUDT30B000			TIGHT	3000K
100058	BF12AUDT50B000			TIGHT	5000K
100060	BF12AUDW30B000			WIDE	3000K
100062	BF12AUDW50B000			WIDE	5000K
100068	BF30AUDN30B000	30W		NARROW	3000K
100070	BF30AUDN50B000			NARROW	5000K
100064	BF30AUDM30B000			MEDIUM	3000K
100066	BF30AUDM50B000			MEDIUM	5000K
100072	BF30AUDT30B000			TIGHT	3000K
100074	BF30AUDT50B000			TIGHT	5000K
100076	BF30AUDW30B000			WIDE	3000K
100078	BF30AUDW50B000			WIDE	5000K

Lighting layouts and spacing criteria available upon request
***Please contact your MaxLite representative to order products that don't have order codes listed here.**

ACCESSORIES				
ORDER CODE	**MODEL**	**DESCRIPTION**	**FINISH**	**COMPATIBLE MODELS**
101495	BF12SHB	Shroud for 12W Bullet Flood	Bronze	BF12XXXXXXBXXX
101496	BF30SHB	Shroud for 30W Bullet Flood	Bronze	BF30XXXXXXBXXX

PROJECT NAME:_____ CATALOG NUMBER:_____

NOTES:_____FIXTURE SCHEDULE:_____

LED BR LAMPS G2

BR20, BR30, BR40 SERIES

7W BR20

8W BR30
11W BR30
12W BR30

17W BR40

PRODUCT DESCRIPTION:

With a full array of BR lamps, MaxLite products offer an immediate payback with 7-, 8-, 11-, 12-, 14-, 17-watt LED replacements for 50-, 65-, 75-, and 100-watt incandescent lamps. A 12-watt BR30 is offered in 90+ CRI as well. Available in a standard medium base, the LED BR lamp is an ideal lighting solution for track lights, display lights and recessed lights. They provide efficient, general lighting suited for architectural, residential, retail, office space and hospitality applications.

FEATURES:

- 120v/60 Hz
- 25,000 hour life (at L70 standards)
- CRI: >80; >90+ CRI BR30 available
- BR lens conceals LEDs from sight and evenly distributes the light
- Smooth aluminum housing with ANSI standard form factor
- Dimmable down to ten percent
- Operating temperature: -4°F to 104°F
- Suitable for use in damp locations
- Not for use in enclosed luminaires
- Five year warranty

MODEL SELECTION (Full list of order codes on pg. 2) Typical order example: 17BR40DLED27/G2

	DLED	
FAMILY	**DIMMABILITY**	**COLOR TEMPERATURE (CCT)**
7BR20 = 7 watts, BR20 **8BR30=** 8 watts, BR30 **11BR30 =** 11 watts, BR30 **17BR40=** 17 watts, BR40	**DLED=** Dimmable	**27/G2=** 2700K **30/G2=** 3000K **40/G2=** 4000K

	DLED	
FAMILY	**DIMMABILITY**	**COLOR TEMPERATURE (CCT)**
12BR30= 12 watts, BR30, 90+ CRI **14BR40=** 14 watts, BR40, 90+ CRI	**DLED=** Dimmable	**927/G2=** 2700K, 90+ CRI **930/G2=** 3000K, 90+ CRI

COMPATIBLE DIMMERS:

MAKE	DIMMER MODEL
Lutron	CTCL-153P
Lutron	DVCL-153P
Lutron	LGCL-153P
Lutron	S-600

MAKE	DIMMER MODEL
Leviton	IPL06
Leviton	IPI10
Leviton	6631-LW
Leviton	6683-IW

NOTES:

1. 14W BR40 model only comes in 3000K.
2. 8W BR30 2700K model are available in a 4-pack and bulk pack

SPECIFICATIONS:

		BR20	BR30			BR40	
ITEM	**SPECIFICATION**	**7 WATTS**	**8 WATTS**	**11 WATTS**	**12 WATTS (90 CRI)**	**14 WATTS (90 CRI)**	**17 WATTS**
GENERAL PERFORMANCE	Color Temperature	2700K, 3000K, 4000K	2700K, 3000K, 4000K	2700K, 3000K, 4000K	2700K, 3000K	2700K, 3000K	2700K, 3000K, 4000K
	Lumens Delivered (lm)	550	650	850	800	1000	1400
	Efficacy (lm/W)	79	81	77	67	71	82
	Equivalency	50W	65W	65W	65W	75W	100W
	Lumen Maintenance (L70)	25,000 hours					
ELECTRICAL	Power Factor	≥.90					
	Input Voltage	120V					
PHYSICAL	Operating Temperature	-4°F to 104°F					
APPLICATION	Environment	Dry, Damp					
	Warranty	5 Year					

ORDERING:

ORDER CODE	MODEL	WATTAGE	INCANDESCENT EQUIVALENCY	CRI	OUTPUT (LUMENS)	DIMENSIONS H" X W"	CCT
BR20							
77056*	7BR20DLED27/G2	7W	50W	82	550	3.8" x 2.5"	2700K
77057*	7BR20DLED30/G2	7W	50W	82	550	3.8" x 2.5"	3000K
77058*	7BR20DLED40/G2	7W	50W	84	550	3.8" x 2.5"	4000K
BR30							
76557*	8BR30DLED27/G2	8W	65W	82	650	5.10" x 3.75"	2700K
97867*	8BR30DLED27/G2/4P (4-Pack)	8W	65W	82	650	5.10" x 3.75"	2700K
96997*	8BR30DLED27/G2BP (Bulk Pack)	8W	65W	82	650	5.10" x 3.75"	2700K
77628*	8BR30DLED30/G2	8W	65W	82	650	5.10" x 3.75"	3000K
77629*	8BR30DLED40/G2	8W	65W	84	650	5.10" x 3.75"	4000K
77630*	11BR30DLED27/G2	11W	65W	82	850	5.10" x 3.75"	2700K
77631*	11BR30DLED30/G2	11W	65W	82	850	5.10" x 3.75"	3000K
77632*	11BR30DLED40/G2	11W	65W	84	850	5.10" x 3.75"	4000K
BR40							
77633*	17BR40DLED27/G2	17W	100W	82	1400	6.25" x 4.75"	2700K
77634*	17BR40DLED30/G2	17W	100W	82	1400	6.25" x 4.75"	3000K
77635*	17BR40DLED40/G2	17W	100W	84	1400	6.25" x 4.75"	4000K
90 CRI LAMPS							
BR30							
96260*	12BR30DLED927/G2	12W	65W	93	800	5.08" x 3.75"	2700K
91505*	12BR30DLED930/G2	12W	65W	94	800	5.08" x 3.75"	3000K
BR40							
96384*	14BR40DLED930/G2	14W	75W	93	1000	6.25" x 4.75"	3000K

***ENERGY STAR certified**

Great Value™ Soft White Dimmable LED Lamp

Light Bulb Type:	**Light-Emitting Diode**
Mfr. Part Number:	**GVRLAO1027D**
Light output:	**800 lumens**
Base type:	**E26**
Dimmable:	**Yes**
Color Temperature:	**Soft White (2700K)**
Color Rendering Index (CRI):	**82**
Lifespan:	**25,000 Hours**
Warranty:	**3-year limited**

Standard Warranty Statement

Affinity LED Light LLC

This limited warranty is provided by Affinity LED Light LLC ("Seller") to the ”Purchaser”, as the original purchaser of the LED lighting products as identified on Seller's invoice reflecting its original purchase (the "Product"). Seller warrants that the Product, when delivered in new condition and in its original packaging, will be free of defects in material and workmanship for a period of **FIVE (5) YEARS** from the date of original purchase. The determination of whether the Product is defective shall be made by the Seller, in its sole discretion, with consideration given to the overall performance of the Product. This limited warranty is void if the product is not used for the purpose for which it was designed.

If Seller determines the Product is defective, Seller will elect, in its sole discretion, to refund the purchase price of the Product, repair the Product, or replace the Product with a comparable product utilizing current technology at the time of replacement.

This limited warranty will not apply to loss or damage to the Product caused by: negligence; abuse; misuse; mishandling; improper installation, storage or maintenance; damage due to acts of God or nature; vandalism; civil disturbances; power surges; improper power supply; electrical current fluctuations; corrosive environment installations; unauthorized alteration/repair; accidents; failure to follow installation, operating, maintenance or environmental instructions prescribed by Seller or applicable electrical codes; or improper service of the Product performed by someone other than Seller or its authorized service provider.

Seller reserves the right to utilize new, reconditioned, refurbished, repaired or remanufactured products or parts in the warranty repair or replacement process. Such products and parts will be comparable in function and performance to an original product or part, as determined by Seller in its sole discretion, and warrantied for the remainder of the original warranty period.

In order to make a warranty claim, Purchaser must notify Seller in writing within sixty (60) days after discovery of the defect and comply with Seller's other warranty requirements. Upon receiving that notice, Seller may require Purchaser to promptly return the Product to Seller, or its authorized service provider, freight prepaid. Before returning any product, a Returned Material Authorization should be obtained from the Seller, and the RMA # clearly marked on the return packaging. Failure to exercise the above RMA policy and procedures will void all warranty responsibilities on behalf of Affinity LED Light LLC.

The foregoing warranty provisions are exclusive and are given and accepted in lieu of any and all other warranties, whether expressed or implied, including without limitation any warranty against infringement and any implied warranties of merchantability or fitness for a particular purpose. In no event shall Seller be liable for incidental, compensatory, consequential, indirect, special, or other damages. Seller's aggregate liability with respect to a defective product shall in any event be limited to the monies paid to Seller for that defective product.

This warranty is effective for purchases of Products on or after the effective date set forth below. Seller reserves the right to modify this warranty from time to time. Any modification of this warranty shall be effective for all orders placed with Seller on or after the effective date of such revised warranty.

Effective Date: August 1, 2016

York Energy Steering Committee
2018 Annual Report
April 20, 2018

✓ DONE

1. Keep York Warm! Weatherization Program for Low-Income Households

Keep York Warm was a collaboration among the York Energy Steering Committee, the York Rotary, York Community Services Association, Habitat for Humanity York County and Efficiency Maine brought weatherization services to low income homeowners in York, helped them save on energy bills and created safer and healthier homes. The proposal was presented to York Rotary in April 2016 and the work was completed in June 2017.

Efficiency Maine's Low Income Energy Savings Program (LIHESP) helped to pay energy auditors to provide a professional level of weatherization services. LIHESP offers up to $1,050 in rebates to energy auditors at the cost of only $50 from the homeowner or sponsoring organization, and transformed the $7,300 Rotary grant into over $20,000 of weatherization work for homeowners.

The program was recognized for excellence in innovation as the only one of its kind in Maine at Efficiency Maine's annual program review in January, 2017.

11 home energy audits were completed and weatherization services were delivered to 6 homeowners and 5 renters.

30 LED lights and 6 carbon monoxide detectors were installed were installed and more were made available to other homeowners by request.

Volunteers built 58 window inserts at Habitat in Kennebunk and at the York Masonic Hall.



To address the needs of renters, we introduced Efficiency Maine's incentive programs to multi-family building owners to encourage them to upgrade their rental units.

Cooperating businesses and organizations

Yankee Thermal Imaging and STP Home Performance did the work alongside Rotary and other volunteers, including Rotary InterAct students.York Masonic Lodge and St Aspinquid Masonic Lodge donated the use of their space for the window builds. Local churches provided volunteer labor for the window build.

The collaboration will continue with Habitat and York Community Services addressing families' energy upgrades as needed, and the Town of York has included some funding in their subsequent budget.

2. New Police Station Building Committee – Energy Efficient Design Assistance

Stephen Kosacz served as the Energy Steering Committee liaison to the Police Station Building Committee. The Building Committee members were receptive to most of Stephen's recommendations for improving insulation and other energy efficiency measure; and employed several of the recommended changes.

Consultant Geoff Aleva, who acted as project manager, said the building is much better insulated than it had been; which should continue to pay dividends in lower operating costs in the future.

As a result of his experience, Stephen delivered the following recommendations to the Selectboard to optimize energy efficient design while minimizing added time and cost to the project:

- Incorporate life-cycle costs in considering a building project so decisions can balance potential additional insulating costs up-front with operating budget savings over the life of the building.
- Employ an energy design expert from the outset to avoid making early decisions that close off options later in the process, and to optimize the design for features and costs. Several local architects with this expertise would be interested in participating in this way:
- Include an Energy Steering Committee member on each building committee to keep the goal on the list of important objectives.
- Ensure that a building committee project manager is knowledgeable about current energy design and construction issues so there is no resistance to the goal of a highly energy-efficient building.

3. Energy Strategy Added to Comprehensive Plan (Voter-approved - an 86% vote!)

York's Comprehensive Plan supports sustainability as a basis for policy decisions (Goal 1.4.1) but no specific actions accompanied the goal until 2017, when voters approved an Energy Chapter addition with an 86% vote.

The chapter was nearly three years in the process; the Town Manager asked the Energy Steering Committee in 2015 to work with the Planning Board on it, and originally it was intended for the 2015 November ballot. It took until November 2017 to be ready for voters.

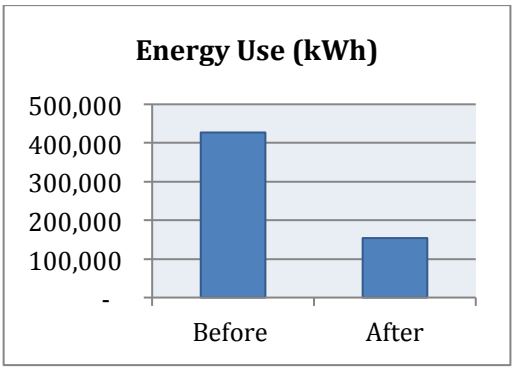
In March of 2015 the Energy Committee met with the Planning Board and updated the Selectboard (which supported the project). The ESC completed the first draft in November of that year after holding a York Community Dialogues session, and presented it to the Planning Board in April of 2016. Then the ESC sought comments from the Southern Maine Planning and Development Commission, Town department heads, committees, including the Budget Committee, and made revisions throughout 2016.

In 2016, at the request of the Selectboard, a public survey was conducted, and results were published in January 2017. In 2017 the York Schools added a section, final reviews and public hearings were held and York voters passed the Chapter in November, with an approval of 86%.

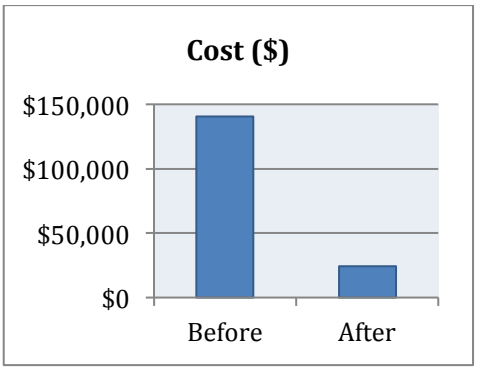
4. LED Streetlight Project Approved

Real Term Energy

Projected CO^2 reduction 64%



Projected Cost savings 83%



At their April 2017 meeting, the Selectboard approved hiring RealTerm Energy to deliver a turn-key project that would replace York's approximately 821 streetlights. RTE's proposal projected a cut of 64% of the CO2 emissions associated with our streetlights and a cost savings of $117,000 in the first year.

It would cost about $500,000 to replace the current lights that we lease from CMP with our own LED lights. The investment would be paid back in about 4 years; the cost to install would be borrowed through a tax-exempt municipal lease, to be paid back over 7 years. Even after making the lease payments, York would save about $35,000/year in the first 7 years; then 100% of the savings would go to York and reduce the town's operating budget needs.

A series of delays followed, and the contract with RealTerm Energy has not yet been signed. Some of the delay was because CMP postponed their approval of OnTarget as their designated contractor for the part of the installation related to the high-voltage lines and CMP's grid. And some of the delay has been because York has requested a number of changes to RealTerm's boiler-plate contract.

At the April 16, 2018 Selectboard meeting, CMP proposed their own alternative contract that would be a light-for-light swap of the current lease with a new, 15-year LED lease. The Board requested that the Energy Steering Committee have our energy consultant, Celtic Energy, compare CMP's and RealTerm's proposals, and that analysis is underway at this writing.

UNDERWAY

- LED streetlights installation; evaluation of CMP vs RealTerm proposals
- Energy Fair – Community outreach and information; practical solutions for the home; electric vehicle demonstrations and
- Solar Farm for all Municipal Electricity Needs
- Help Design new town hall for maximum energy efficiency and solar power (recommend architectural firms with energy expertise to assist in early design planning)
- Plan York electric vehicle charging station infrastructure
- Solar-Friendly ordinance; review ordinances generally for energy-efficiency and solar-friendly
- Solar and energy conservation in the Historic District – Assist HDC
- LED lights in MDOT maintenance buildings on Route One
- Vista Volunteer - Track and report York's greenhouse gas emissions trends over time
- Training, outreach to implement Energy Chapter Action Plans

Keep York Warm

FINAL Report September 29, 2017

Weatherizing homes is the most cost-efficient way to reduce greenhouse gas emissions (GHG) that contribute to global warming, and it reduces homeowners' heating costs. Widely available to those who can afford it, this strategy is out of reach to low-income households. This program extends the cost savings to just those households where the savings have greatest impact, helping alleviate poverty and lower the community's GHG emissions.

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York Energy Steering Committee
2018 Annual Report
April 19, 2019
Rozanna Patane, Chair

✓ DONE

2018 was a busy year of projects for the ESC and there is powerful momentum going into 2019 as well. Perhaps most significantly, though, has been a subtle shift in the community's awareness of the urgency of dealing with climate change. York voters have been strongly supportive for years (the Energy Chapter of the Comprehensive Plan passed in 2017 with an 86% vote); now, increasingly, town officials are taking the initiative. We saw it when our Town Manager called for any design of a new (or renovated) Town Hall to be as close to net zero carbon as possible; and when the Selectboard initiated a $50,000 Green Fund to be voted on in May 2019. The grass roots citizens' group "Ready for 100%" informative public events were held to standing-room only attendance. These are important signals that the culture shift that the ESC has been nurturing is taking place!

Meanwhile, the price of solar keeps coming down and the State's new government has set aggressive goals to transition to a clean-energy economy.

It's an exciting and demanding moment for everyone working to address climate change. We are happy with the progress in 2018 (and tired!), and we look to 2019 with optimism and high expectations.

To paraphrase a local climate expert, Edward Cameron: The issues of climate, carbon and fairness are a risk if ignored but a tremendous opportunity if we tackle them together with aspiration, urgency and pragmatism.

1. April 22, 2018: York Energy & Sustainability Fair at the York Beach Fire Station

The Energy Steering Committee sponsored the Energy Fair but the hard work was done by a committee of York residents - Hilary Clark, Victoria Simon, Bob Brisebois and Chris Hartwell organized and publicized the Fair, found the vendors and nine other volunteers to help on the day.

The Fair was a big success:

- Hundreds of attendees
- Over 30 vendors offering energy services, solar and heat pumps, architectural services, composting, permaculture, water conservation.

- Climate non-profits
- Electric vehicle (EV) test drive
- Launch of EV week-long test drives for Selectboard members and town employees
- 3 free home energy audits awarded
- York Ready-for-100% appeared for the first time in public and went on to form a powerful citizens' group for awareness and advocacy for becoming a clean-energy community.

2. May and June: Met with architects specializing in highly efficient buildings.

Representatives of ARQ of Kittery Maine and of Lavalee Brensinger of Boston, Manchester and Portland briefed ESC on their expertise in highly energy efficient buildings both new and retrofits. ESC's familiarity with them may be helpful when the Town decides on a new Town Hall.

3. August: Vista Volunteer hired to launch emissions benchmarking project

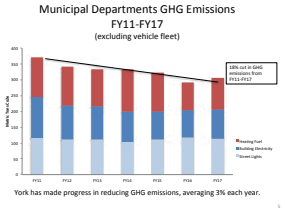
Because of the work of a Vista Volunteer, Lucy Brenna, this year was the first time the ESC was able to benchmark the Town's greenhouse gas (GHG) emissions and illustrate the results of the efficiency work the ESC has done since 2008 to reduce emissions.

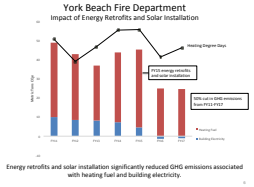
The ESC hired an outstanding Vista Volunteer, Lucy Brennan, who has done a superb job pulling together municipal energy use data from CMP and heating fuel invoices and entering the data in ICLEI's ClearPath software that converts electricity and heating consumption into equivalent tons of GHG emissions.

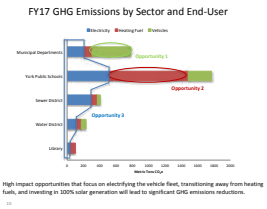
Lucy is with us from September 2018 through August 2019. Her work is organized in three phases.

Phase 1 concentrated on emissions from Town operations – Town Hall, Fire and Police, Parks & Rec and DPW. Lucy presented this data to the Selectboard in December 2018.

Her work showed that emissions from the Town operations had come down 18% since 2010 and highlighted the 50% reductions at the Beach Fire station that resulted from the comprehensive energy retrofit of the second floor, installation of heat pumps, LED lighting and solar panels on the roof. Next best opportunities for improvement: a) replace the oil furnace at the Beach Fire Station with electricity to make it a zero-emissions building and b) convert the municipal fleet to electric vehicles.







Phase 2 added emissions from other municipal entities: the Schools, Water and Sewer Districts, and the Library. Lucy presented that information in February, 2019.

Next best opportunities for further reductions: for all entities, converting heating fuel to electric and powering the electricity from solar. The latter recommendation has resulted in the formation of a joint committee of representatives from the Town government, the Schools, Water and Sewer Districts, Town Library and Budget Committee to evaluate the option of sharing a large solar array that would potentially supply all of these entities' power needs.

This all came about because of a lucky meeting at a Dining for Women with the regional AmeriCorps Program Director, who suggested the idea to support the Committee's work. We were lucky again to find Lucy Brennan, who also works part-time in the South Portland Sustainability Office and is a young professional with a promising future in the field.

Phases 3 and 4 are underway. In May 2019, Lucy will present a model of the emissions of the entire community and a report on the energy burden and needs of our low-income community. In August the ESC will present policy recommendations that arise from the benchmarking work. This work will help revise the Energy Chapter in York's Comprehensive Plan to broaden the scope and establish a firm goal of a 100% clean energy community by 2050). The new Sustainability and Climate Change chapter will identify the strategies and responsible departments and individuals to make the actions happen. The ESC is partnering with the Budget Committee on a strategic planning process that will engage a broad group of stakeholders in sustainability and climate change – town officials as well as nonprofit and for-profit organizations and members of the public, including our low-income community. Equity is a guiding principle of this planning effort. Lucy's work and the eSC policy recommendation will inform the climate action planning process.

The ESC is currently looking for the right person for a second Vista year to continue this vital work of gathering and reporting emissions data and to support the strategic planning process.

4. September: LED Streetlight Analysis requested of Celtic Energy

In April, CMP submitted an eleventh-hour proposal to convert York's streetlights to LEDs in a new 15-year lease. The Board requested the ESC's recommendation and in June the ESC voted to recommend having our energy consultant, Celtic Energy, compare CMP's and RealTerm's proposals. In September the Board approved Celtic's contract and in January 2019 Celtic presented its recommendation to select RealTerm – reaffirming the decision the Board made in 2017.

5. October 2: Route One DOT Building LED upgrade completed

At the request of the Town Manager, Gerry Runte worked with Dean Lessard, DPW Director, to manage a project to upgrade the interior and exterior lighting to LEDs on the three buildings York had recently acquired from the Maine DOT.

Gerry sought bids from the two vendors that had previously responded to the 2016 LED conversion project of other municipal buildings. Affinity LED Lighting replaced 142 fluorescent, 4 high-pressure sodium and 3 wall pack outdoor lights for a cost of $4,651.

- Estimated annual cost savings $1,581
- 5 year ROI: 70%
- Carbon emissions cut per year: 6.7 tons (equivalent to taking 9 cars off the road)

6. October: ESC Budget submitted

A second Vista year was approved by Steve Burns but several other ESC proposals did not make the cut: 1) Updating the 2011 Energy Study $40,000, 2) Conducting a Solar Study $50,000 (Steve pledged to support this in next year's budget) or 3) developing an EV Charging Station plan $10,000.

7. November: Solar ordinance approved

Wayne Boardman developed the ordinance with Dylan Smith and the Planning Board.

The ordinance introduced guidelines for CEO/PB decisions about solar for the first time. Highlights: Code enforcement approves small roof and ground-mounted solar. Medium and large ground systems are reviewed by PB, treated like structures, allowed if they meet code. Max permitted height is 12' in residential area- can be waived with demonstrated need. In Historic District, HDC must approve. The ordinance has a sunset clause; after 5 years it would need to be re-authorized. *See ESC minutes of May 3 2018 meeting for further details on the new code.*

8. December: First meeting with Library on retrofit

Rozanna introduced Ron Lamarre of Lavalee Brensinger Architects to the Library Board of Trustees. The Board expressed interest in a retrofit that would bring the building to net-zero emissions or close to it. Discussions will continue with the Board.

Other

It was necessary to hold extra meetings to review Lucy's presentations in October and November.

Expanded meeting agendas to include guests for purposes of informing committee of trends, vendors, and capabilities York may need to access

Members attended conferences: Climate Table on municipal efficiency work being done in Maine; GPCOG on EVs; NRCM on legislative updates after change in State leadership in November; Acadia Center on new initiatives.

Deane Rykerson briefed the ESC on the many bills on clean energy and climate change in the new legislature.

Gerry did extensive background research on solar farm for 100% of municipal electricity needs (see ESC/Solar farms/York Solar Proposal Revised 3/20/18)

EV Charging Station plan: Gerry & Rozanna attended several meetings of GPCOG and EM on Maine's plans to roll out EV charging stations so we would be ready to respond to EM RFP with proposals for stations in York. Also conducted research on EVs – availability, price, etc

Cooperated with RF100 – attended their meetings, informed them of ESC history and work, etc

Press: 13 stories

• UNDERWAY

- LED streetlights installation after voter approval in May 2019
- Propose concrete clean-energy target for November 2019 ballot
- Co-lead Climate Change Committee – strategic planning for sustainability with broad stakeholder participation
- Vista Volunteer – wrap up benchmarking project
- Vista Volunteer second year: establish greenhouse gas emissions reporting process, support Climate Change Committee strategic planning
- Joint Solar Committee to assess solar installation to provide 100% of all municipal electricity needs
- Develop collaborations with York Land Trust, YCSA, Planning Board on intersection of clean-energy access, equity and innovative affordable housing
- Participate in Maine Municipal Energy Priorities Coalition to stay abreast of State intitiatives and ensure the legislature considers the needs of municipalities

- York electric vehicle charging station infrastructure plan
- Assist with design of new or remodeled and enlarged net-zero town hall (recommend architectural firms with energy expertise to assist in early design planning)
- Assist HDC with solar and energy conservation in the Historic District
- Training, outreach to implement Energy Chapter Action Plans

YES FAIR

Practical Solutions for Energy Efficiency & Sustainability in Your Home

- *Vendor Exhibits*
- *Electric Cars*
- *Raffles*
- *Kid Friendly*
- *Refreshments*
- *Music*
- *Topical Displays*
- *Prizes*
- *Scavenger Hunt*
- *Special Offers*

Sunday, April 22, 1-5pm
York Beach Fire Station
18 Railroad Ave, York
Free Admission

York Energy & Sustainability Fair

Sponsored by York Energy Steering Committee
in partnership with York Beach Fire Department

LED Lighting Upgrade, Route 1 Maintenance Facility
Town of York Department of Public Works

Project Summary Report

Submitted by the Town of York Energy Steering Committee
October 2018

Summary

The Town of York recently acquired three buildings from the Maine Department of Transportation. The buildings consist of a large multi-bay garage with a small administrative space; another large multi-bay garage and a smaller garage with administrative space. The Town desired to replace the existing lighting in these facilities with LED lamps, as well as outdoor fixtures and at a gas pump. The ESC was asked to seek bids from vendors to accomplish the conversion.

Proposal Process

Rather than go out for a general RFP a decision was made to seek bids from the two vendors who had responded to a 2016 LED conversion project that involved other municipal buildings. Those vendors were Affinity LED Lighting (the selected vendor for the 2016 project) and Richardson Electric. Richardson elected not to bid on the project. Another local vendor was sought and found: True Enterprises LLC. True Enterprises had experience doing LED conversions at other municipal facilities in Maine and New Hampshire. Both vendors are deemed qualified to perform the work; True Enterprises is headquartered in York, Affinity in Dover, NH (owner lives in York).

Execution

Ultimately Affinity was selected to complete the project based on submitted pricing. The work began and was completed the week of October 1.

Scope

The project consisted of the following elements:

- Replacement of 142 fluorescent tubes, bypassing existing ballasts and replacing fixtures where necessary
- Removal of 4 high pressure sodium lights and replacing with LED tubes.
- Installation of 3 wall pack outdoor lights (dark sky compliant)
- Replacement of lighting at gas pump

Cost and Savings

Affinity LED Lighting's winning bid was $4,651.

- Cost savings can only be approximated, in that there is no history of usage for these buildings. However, assuming all interior lamps operate for 2,080 hours per year and exterior 4,380 hours, at an electricity cost of 13 cents/kWh, annual savings would be $1,581.
- Payback under these assumptions would be in 35 months – earlier with greater usage and later with less usage.
- 5 Year ROI: 70%
- 6.7 tons carbon dioxide abated per year.

Further details on the savings/environmental impacts are provided in the tables below, as provided by Affinity.

Investment Return	TOTAL	ALL AREAS
1st Year Cumulative Return	($3,070)	($3,070)
ROI%	-66%	-66%
2 Years Cumulative Return	($1,490)	($1,490)
ROI%	-32%	-32%
3 Years Cumulative Return	$91	$91
ROI%	2%	2%
5 Years Cumulative Return	$3,253	$3,253
ROI%	70%	70%
10 Years Cumulative Return	$11,156	$11,156
ROI%	240%	240%

Annual CAPEX Impact	TOTAL	ALL AREAS
Annual Capex (10 years)	($465)	($465)
Annual Savings resulting from CAPEX investment	$1,581	$1,581
Annual Impact: Profit / Loss	*$1,116*	*$1,116*

Environmental Impact*	TOTAL	ALL AREAS
Estimated Total kWh Savings (annual)	(10,983)	(10,983)
Per Year CO^2 Abatement (tons)*	(6.7)	(6.7)
2 Years Cumulative	(13.4)	(13.4)
3 Years Cumulative	(20.1)	(20.1)
5 Years Cumulative	(33.5)	(33.5)
10 Years Cumulative	(67.0)	(67.0)

**Minimum CO^2 produced per kWh : 1.22 lbs. (http://www/.eia.gov)*

Appendix A provides a detailed inventory of the specific equipment used and the savings provided by each unit.

Appendix A
Savings Calculation and Lamp Inventory

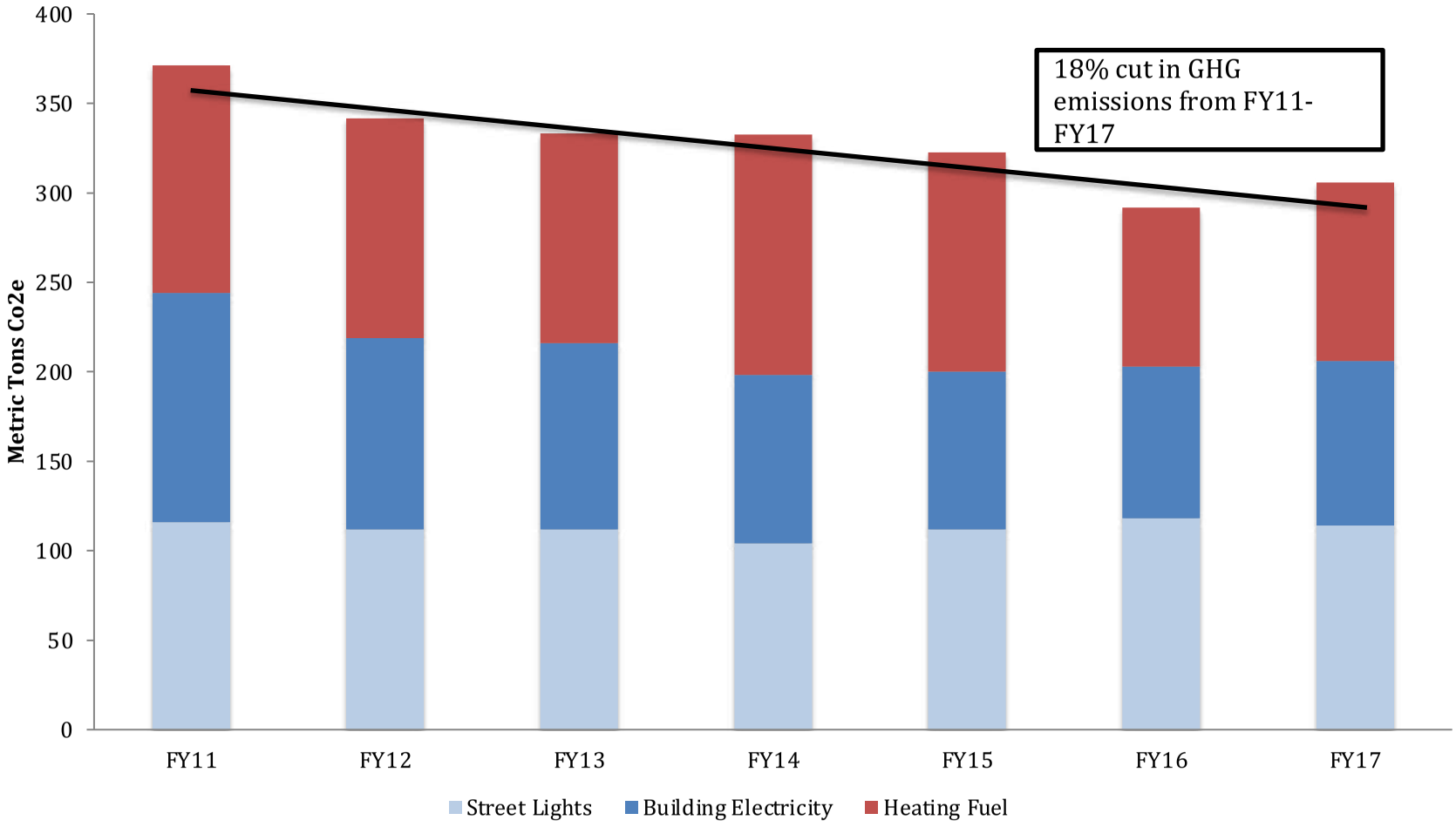
	Combined Buildings Scope		EXISTING INSTALLATIONS					CONSUMPTION		OPERATING HOURS			EXISTING LIGHTING TOTAL ANNUAL COST			$2,391				
					QUANTITIES					Rate: $0.1300			EXISTING ENERGY COST			ANNUAL BULBS & BALLAST COST				$153
					72		72						158,960	17,213	$2,238					
	TYPE	Installation	Description	Existing Fixture Codes	Fixtures	Lamps/ Fixture	Total Lamps	RATED Lamp Watts	TTL Watts	hrs/ day	days/yr	annual hours	total lamp hours	annual kWh	total annual energy cost	lamp life	lamps/ year	lamp cost/ unit	annual cost / lamp	total annual cost
1	B36205	main floor	2F40 T12 4ft Strip Light	2F40SSM	8	1	8	70.7	565.6	8	260	2,080	16,640	1176	$153	5,000	0.42	$3.50	$1.46	$12
2	B36205	main floor	4F32 T8 4ft tandem Strip	4F32SSM	2	1	2	112	224	8	260	2,080	4,160	466	$61	5,000	0.42	$3.50	$1.46	$3
3	B36205	main floor	400w HPS HighBay	1M0400S	4	1	4	465	1860	8	260	2,080	8,320	3869	$503	6,000	0.26	$19.00	$4.94	$20
4	B36205	Small Room	2F40 T12 4ft Surface Wrap	2F40SSM	4	1	4	70.7	282.8	8	260	2,080	8,320	588	$76	5,000	0.42	$3.50	$1.46	$6
5	B36205	Bathroom	2F32 wrap	2F32SSM	1	1	1	59	59	8	260	2,080	2,080	123	$16	5,000	0.42	$3.50	$1.46	$1
6	B36205	Backroom	2F40 T12 4ft Strip	2F40SES	1	1	1	70.7	70.7	8	260	2,080	2,080	147	$19	5,000	0.42	$3.50	$1.46	$1
7	B36205	Backroom	2F32 T8 4ft Strip Light	2F32SSM	1	1	1	59	59	8	260	2,080	2,080	123	$16	5,000	0.42	$3.50	$1.46	$1
8	B36205	Communications Room	2F40 T12 4ft Strip	2F40SES	1	1	1	70.7	70.7	8	260	2,080	2,080	147	$19	5,000	0.42	$3.50	$1.46	$1
9	B36205	Meeting room	2F40 T12 Wrap	2F40SSM	6	1	6	70.7	424.2	8	260	2,080	12,480	882	$115	5,000	0.42	$3.50	$1.46	$9
10	B36205	Entrance Locker Room	2F40 T12 Wrap	2F40SSM	2	1	2	70.7	141.4	8	260	2,080	4,160	294	$38	5,000	0.42	$3.50	$1.46	$3
11	B36205	2nd floor	2F40 T12 Wrap	2F40SSM	4	1	4	70.7	282.8	8	260	2,080	8,320	588	$76	5,000	0.42	$3.50	$1.46	$6
12	B36205	2nd floor	2F32 wrap	2F32SSM	1	1	1	70	70	8	260	2,080	2,080	146	$19	5,000	0.42	$3.50	$1.46	$1
13	B56781	main floor	2F40 T12 4ft Strip	2F40SSM	18	1	18	70.7	1272.6	8	260	2,080	37,440	2647	$344	5,000	0.42	$3.50	$1.46	$26
14	B56781	main floor	2F32 Strips	2F32SSM	2	1	2	70	140	8	260	2,080	4,160	291	$38	5,000	0.42	$3.50	$1.46	$3
15	B36207	Under Mezzanine	2F40 T12 4ft Strip	2F40SSM	3	1	3	70	210	8	260	2,080	6,240	437	$57	5,000	0.42	$3.50	$1.46	$4
16	B36207	Main Bay	2F40 T12 4ft Strip	2F40SSM	2	1	2	70.7	141.4	8	260	2,080	4,160	294	$38	5,000	0.42	$3.50	$1.46	$3
17	B36207	Main Bay	2F32 Strips	2F32SSM	4	1	4	70	280	8	260	2,080	8,320	582	$76	5,000	0.42	$3.50	$1.46	$6
18	B36207	Small Bay	2F40 T12 4ft Strip	2F40SSM	4	1	4	70.7	282.8	8	260	2,080	8,320	588	$76	5,000	0.42	$3.50	$1.46	$6
19	B36207	Exterior Small Wall Pack Over Stairs	70W HPS FC WP	1M007S	1	1	1	95	95	12	365	4,380	4,380	416	$54	6,000	0.55	$16.00	$8.76	$9
20	B36207	Exterior Wall Pack facing Lot	250w MH FT WP	1M0250S	1	1	1	295	295	12	365	4,380	4,380	1292	$168	6,000	0.55	$19.00	$10.40	$10
21	B36207	Exterior Wall Yard Light	250w MH FT WP	1M0250S	1	1	1	295	295	12	365	4,380	4,380	1292	$168	6,000	0.55	$19.00	$10.40	$10
22	Fuel Pump	Exterior Post Top Light	150W HPS	1M0150S	1	1	1	188	188	12	365	4,380	4,380	823	$107	6,000	0.55	$19.00	$10.40	$10
98	All	Electrical Misc.																		
99	All	Disposal																		

PROPOSED LIGHTING ANNUAL COST							$810		($1,581)		ANNUAL LIGHTING COST SAVINGS					kWh Savings	TOTAL INCENTIVE:		
	QUANTITIES			PROPOSED ENERGY COST					PROPOSED LIGHTING TOTAL					$5,151			Perscriptive Incentive		
	74		142			6,230	$810						$3,106	$2,045		(10,983)	per Unit	product code	Total Incentive
Description	Fixtures	Lamps/ Fixture	Total Lamps	Lamp Watts	TTL Watts	annual kWh	total annual cost	% Energy	lamp life	lamps/ year	Total Lighting Cost	Labor & Matls Cost/ Fixture	Total Lamp Cost	Total Labor/ Matls Cost	Total Cost			$500	
T8L4-18w-40F3 - Retro	8	2	16	18	288	599	$78	-49%	50,000	24.0	$12.50	$20.00	$200	$160	$360	(577)	$0.00		$0.00
T8L4-18w-40F3 - Retro	2	4	8	18	144	300	$39	-36%	50,000	24.0	$12.50	$20.00	$100	$40	$140	(166)	$0.00		$0.00
LDA1-60W-40K	4	1	4	60	240	499	$65	-87%	50,000	24.0	$149.00	$50.00	$596	$200	$796	(3,370)	$70.00	S82	$280.00
T8L4-18w-40F3 - Retro	4	2	8	18	144	300	$39	-49%	50,000	24.0	$12.50	$20.00	$100	$80	$180	(289)	$0.00		$0.00
T8L4-18w-40F3 - Retro	1	2	2	18	36	75	$10	-39%	50,000	24.0	$12.50	$20.00	$25	$20	$45	(48)	$0.00		$0.00
T8L4-18w-40F3 - Retro	1	2	2	18	36	75	$10	-49%	50,000	24.0	$12.50	$20.00	$25	$20	$45	(72)	$0.00		$0.00
T8L4-18w-40F3 - Retro	1	2	2	18	36	75	$10	-39%	50,000	24.0	$12.50	$20.00	$25	$20	$45	(48)	$0.00		$0.00
T8L4-18w-40F3 - Retro	1	2	2	18	36	75	$10	-49%	50,000	24.0	$12.50	$20.00	$25	$20	$45	(72)	$0.00		$0.00
T8L4-18w-40F3 - Retro	6	2	12	18	216	449	$58	-49%	50,000	24.0	$12.50	$20.00	$150	$120	$270	(433)	$0.00		$0.00
T8L4-18w-40F3 - Retro	2	2	4	18	72	150	$19	-49%	50,000	24.0	$12.50	$20.00	$50	$40	$90	(144)	$0.00		$0.00
T8L4-18w-40F3 - Retro	4	2	8	18	144	300	$39	-49%	50,000	24.0	$12.50	$20.00	$100	$80	$180	(289)	$0.00		$0.00
T8L4-18w-40F3 - Retro	1	2	2	18	36	75	$10	-49%	50,000	24.0	$12.50	$20.00	$25	$20	$45	(71)	$0.00		$0.00
T8L4-18w-40F3 - Retro	18	2	36	18	648	1348	$175	-49%	50,000	24.0	$12.50	$20.00	$450	$360	$810	(1,299)	$0.00		$0.00
T8L4-18w-40F3 - Retro	2	2	4	18	72	150	$19	-49%	50,000	24.0	$12.50	$20.00	$50	$40	$90	(141)	$0.00		$0.00
T8L4-18w-40F3 - Retro	3	2	6	18	108	225	$29	-49%	50,000	24.0	$12.50	$20.00	$75	$60	$135	(212)	$0.00		$0.00
T8L4-18w-40F3 - Retro	2	2	4	18	72	150	$19	-49%	50,000	24.0	$12.50	$20.00	$50	$40	$90	(144)	$0.00		$0.00
T8L4-18w-40F3 - Retro	4	2	8	18	144	300	$39	-49%	50,000	24.0	$12.50	$20.00	$100	$80	$180	(283)	$0.00		$0.00
T8L4-18w-40F3 - Retro	4	2	8	18	144	300	$39	-49%	50,000	24.0	$12.50	$20.00	$100	$80	$180	(289)	$0.00		$0.00
WFC2-30W-30KP	1	1	1	30	30	131	$17	-68%	50,000	11.4	$159.00	$50.00	$159	$50	$209	(285)	$60.00	S13	$60.00
WFC2-40W-30KP	1	1	1	40	40	175	$23	-86%	50,000	11.4	$189.00	$55.00	$189	$55	$244	(1,117)	$70.00	S13	$70.00
S800-65W-30K-T2-10-GR-M	1	1	1	65	65	285	$37	-78%	100,000	22.8	$183.00	$55.00	$183	$55	$238	(1,007)	$90.00	S11	$90.00
PT6DS-45W-30K-E39	1	1	1	45	45	197	$26	-76%	50,000	11.4	$129.00	$55.00	$129	$55	$184	(626)	$0.00		$0.00
contingency	1	1	1								$0.00	$350.00	$0	$350	$350	-	$0.00		$0.00
URT Disposal	1	1	1								$200.00	$0.00	$200	$0	$200	-	$0.00		$0.00

York's Goal to be a Clean Energy Community

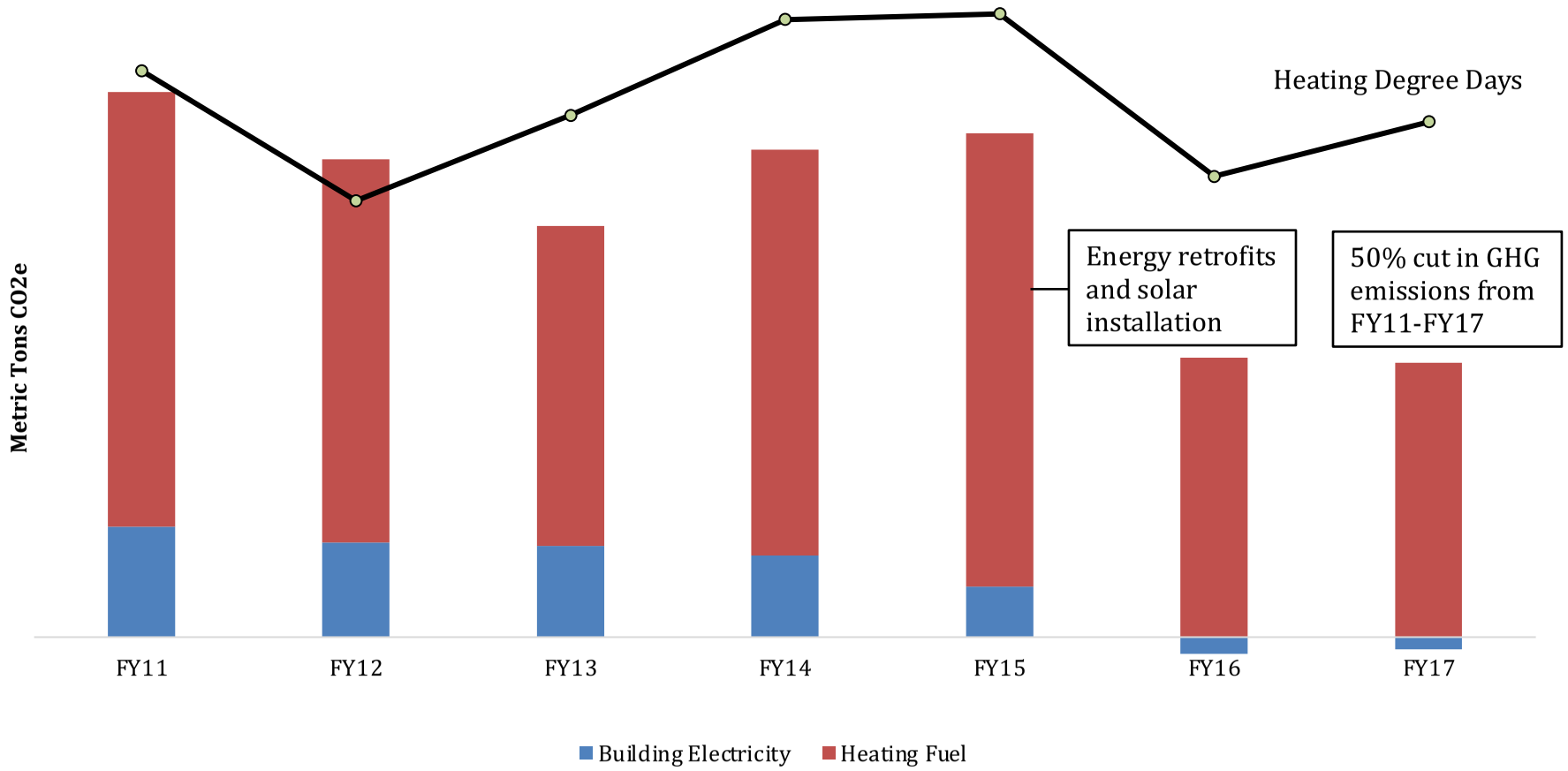
Rozanna Patane, Energy Steering Committee Chair
rpatane@maine.rr.com

Progress in Reducing Emissions



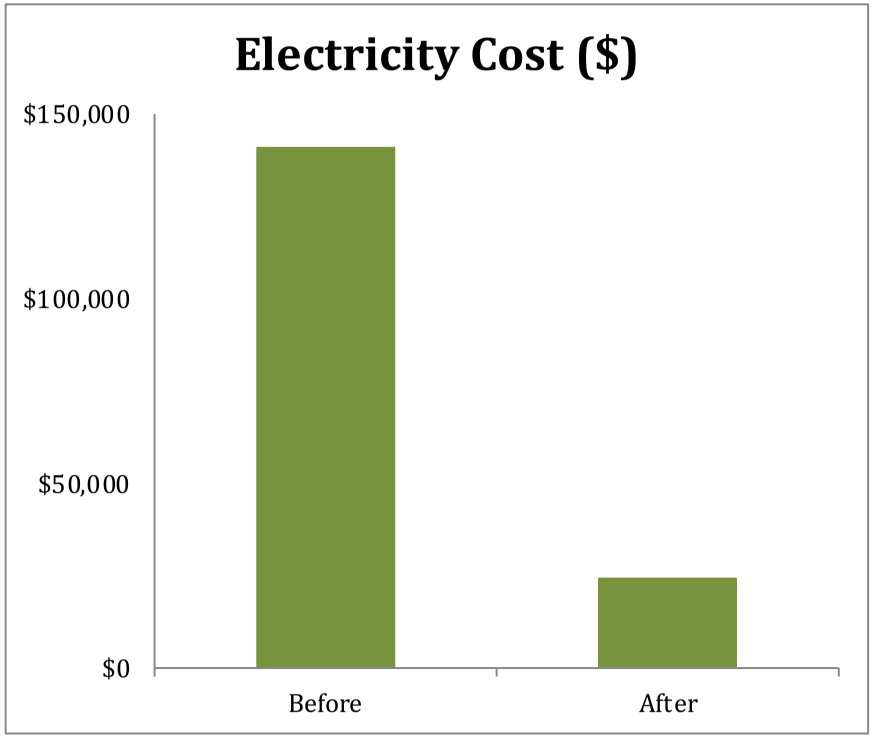
York has made progress in reducing GHG emissions, averaging 3% each year.

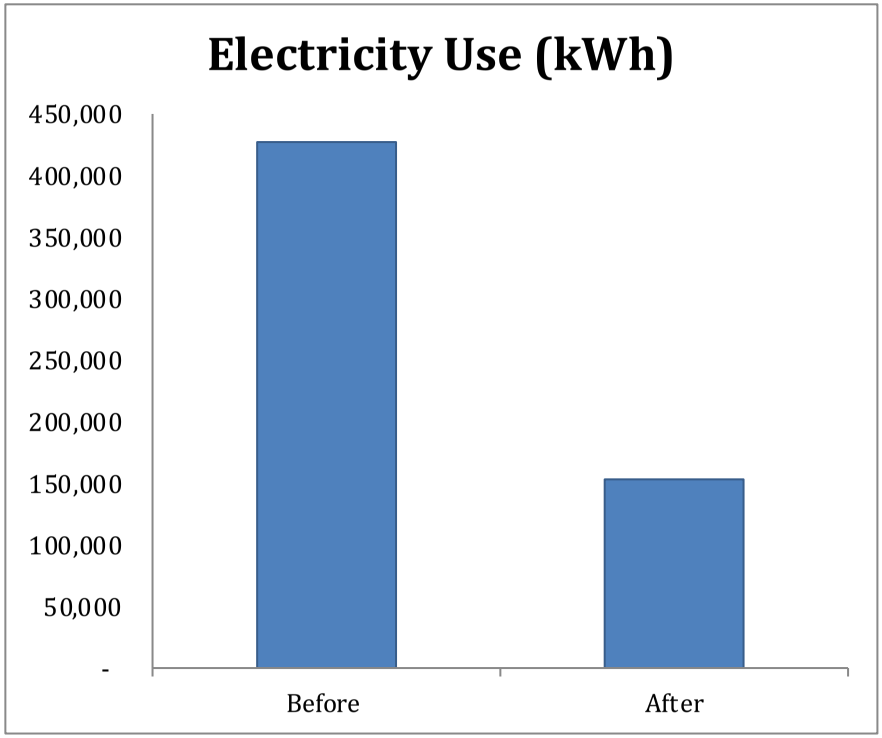
York Beach Fire Station: Energy Retrofit and Solar Installation



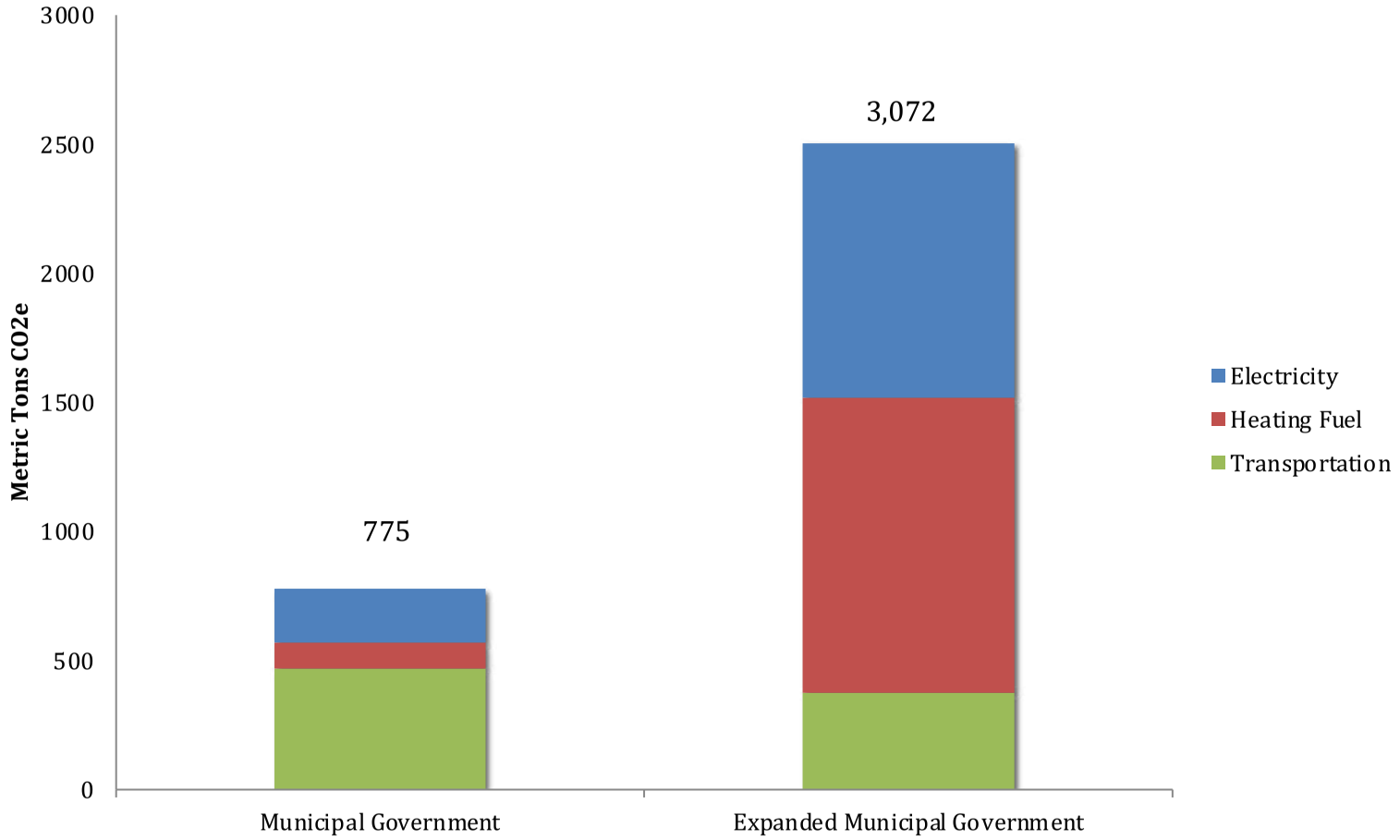
Energy retrofits and solar installation significantly reduced GHG emissions associated with heating fuel and building electricity.

LED Streetlight Installation



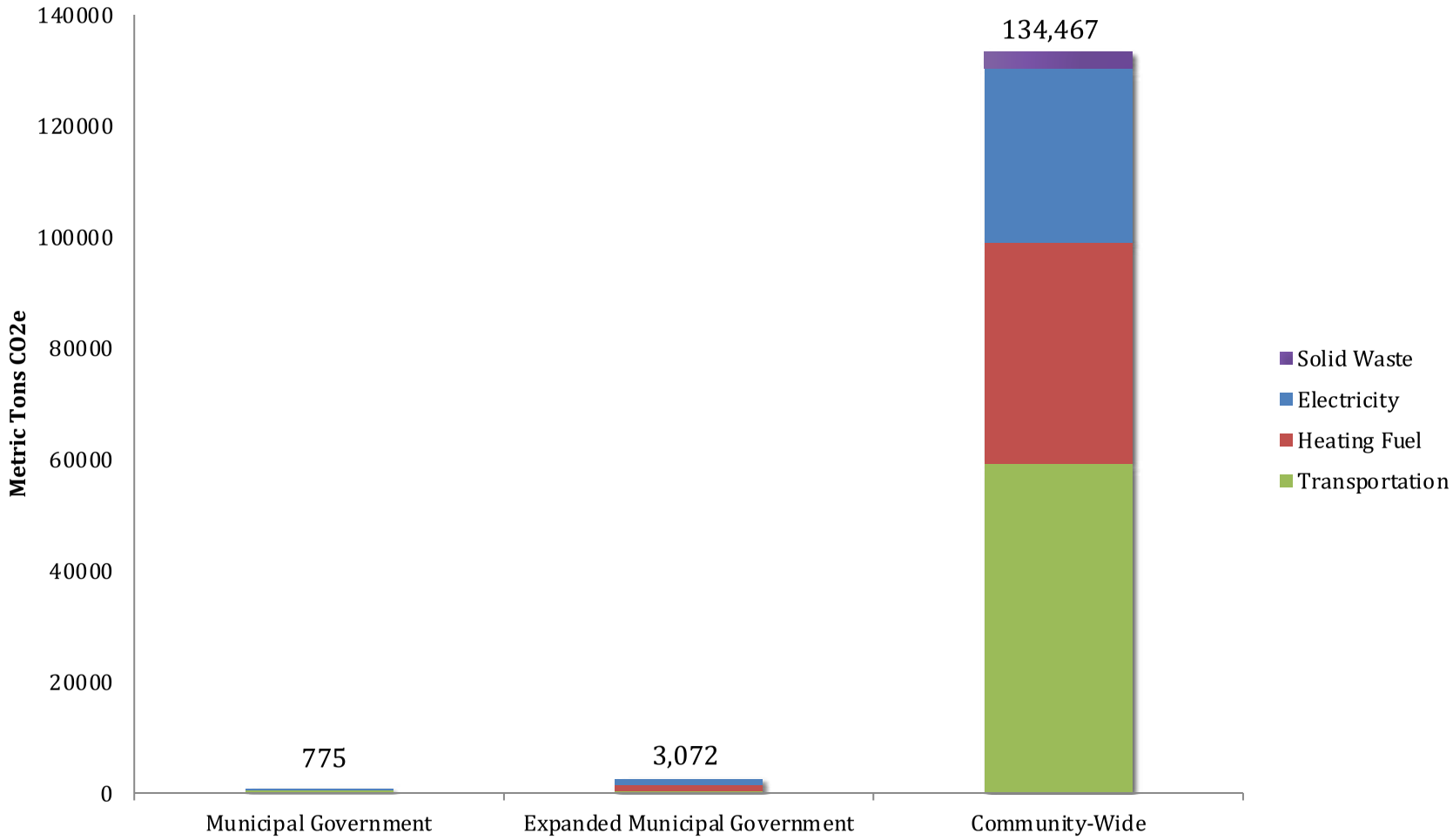


Benchmarking: Municipal GHG Emissions



Municipal entities must focus on the electrification of transportation and heating sectors and leverage partnerships to transition to renewables in a cost-effective way.

Benchmarking: Community-wide GHG Emissions



The most significant opportunities for emission reductions exist in the community at-large and with the right policies, municipal government can drive the community toward these deep reductions.

Energy Policy Recommendations

1. Renew York's Commitment to Global Covenant of Mayors for Climate and Energy

2. Establish a goal of reducing municipal GHG emissions 75% by 2030 and community-wide emissions 50% by 2030 and both municipal and community-wide emissions 100% by 2050

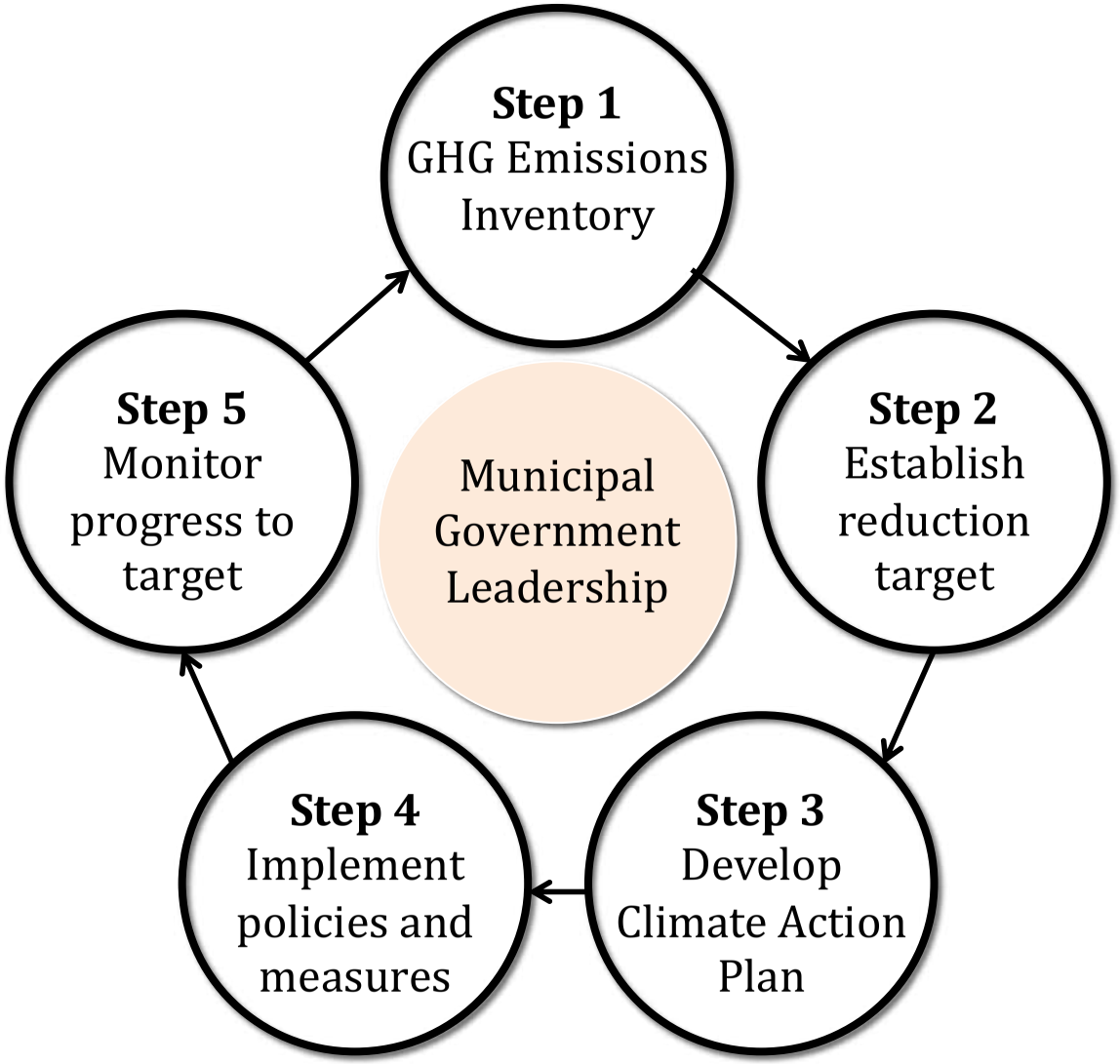
   These goals include reaching 100% clean electricity community-wide by 2030 using wind, solar, sustainably sourced biofuels, and small hydro as clean generation sources.

3. Develop a *community-driven, inclusive* Climate Action Plan that identifies measurable strategies to achieve emissions reductions goals to be completed within 2 years

Recommendation 1: Renew York's Commitment to the Global Covenant of Mayors for Climate and Energy (GCOM)

1. Develop a community-wide greenhouse gas emissions inventory
2. Assess climate risks and vulnerabilities
3. Define ambitious, time-bound targets to reduce GHG emissions
4. Create and formally adopt a climate action plan

Recommendation 3: Develop a *community-drive, inclusive* Climate Action Plan that identifies measurable strategies to achieve emissions reduction goals



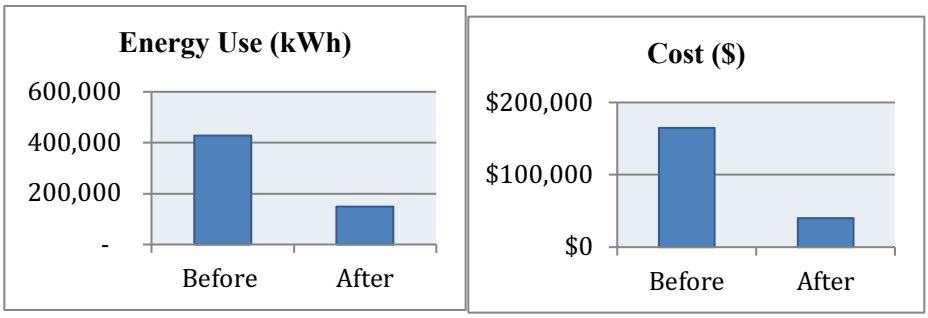
York Energy Steering Committee
2018 Annual Report
April 20, 2019
Rozanna Patane, Chair

✓ DONE

1. January: LED Streetlight Project Vendor Approved (again)

Real Term Energy

Projected CO^2 reduction 65% **Projected Cost savings 76%**



After delays implementing the contract with RealTerm Energy that was approved by the Selectboard in April 2017 and an eleventh-hour proposal from CMP, the Selectboard heard and analysis by our energy consultant, Celtic Energy in January. Consequently the Board reaffirmed their original approval of RealTerm as vendor of choice.

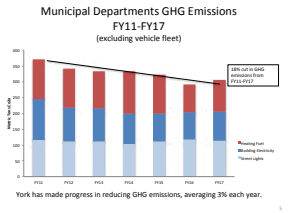
The project was placed on the May 2019 ballot and accepted by a _% margin of voters.

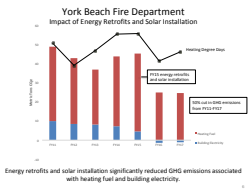
Cost

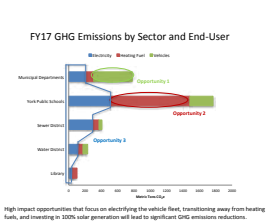
Savings

2. Emissions Benchmarking Project

May – Community Model to Board







June – Policy recommendations

July – Launched Climate Change Committee with Nan Graves

August – hired second Vista Volunteer to sustain the emissions benchmarking project and support the Climate Change Committee's strategic planning process.

3. March: Solar Joint Committee launched

4. Speakers Bureau

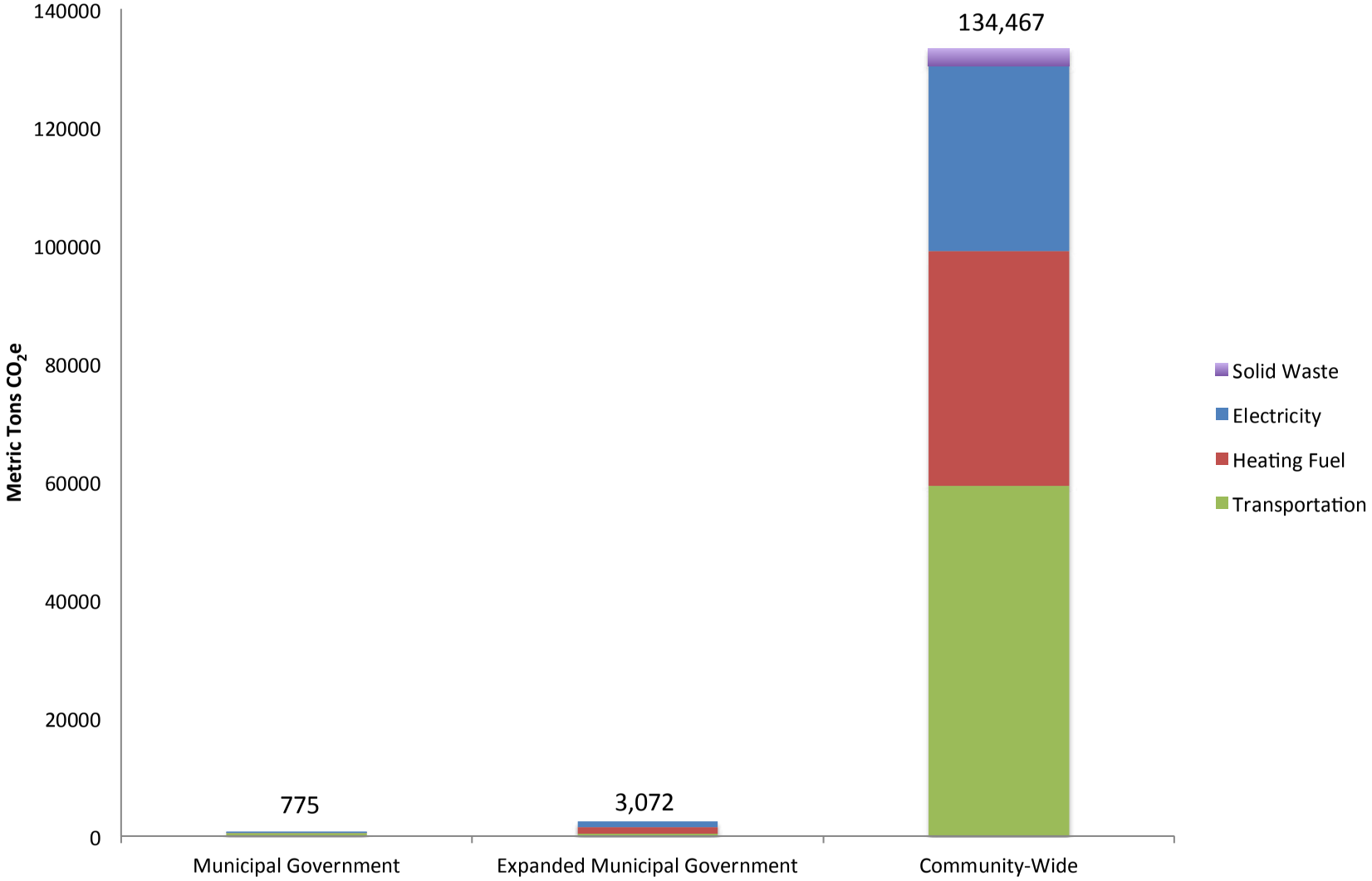
Presentations to

Feb: RF100
March: Rotary

UNDERWAY

- Help Design new town hall for maximum energy efficiency and solar power (recommend architectural firms with energy expertise to assist in early design planning)
- Plan York electric vehicle charging station infrastructure
- Solar-Friendly ordinance; review ordinances generally for energy-efficiency and solar-friendly
- Solar and energy conservation in the Historic District – Assist HDC
- LED lights in MDOT maintenance buildings on Route One
- Training, outreach to implement Energy Chapter Action Plans

York GHG Emissions Inventories



The most significant opportunities for GHG emission reductions exist in the community at-large and with the right policies, municipal government can drive the community toward these deep reductions.

Blog

Feb 27, 2019

Learn More About Collective Purchase Initiatives

Similar to buying food in bulk, Maine residents are saving money and enhancing their homes through collective purchases that deliver significant energy savings.

Some community-scale purchases involve energy-efficient products—both big (ductless heat pumps) and small (LED lightbulbs). Other groups seek out wholesale pricing on services—like home energy assessments, air sealing and insulation. An initiative in York recently winterized 15 homes, helping homeowners lower monthly energy bills by installing custom-made window inserts, weather-stripping, LED lighting, and low-flow showerheads. Their success grew out of a strong community partnership in which the town's Energy Steering Committee teamed up with York Community Service Association, York Rotary Club (which generously provided $7,000), and Efficiency Maine (which matched every $50 spent locally with $1,000 toward home energy projects).

Collective purchase projects can take many different forms depending on the needs of the community. The process typically begins with an

CATEGORIES

ELECTRICITY MONITORS

CIPI SECTOR REFRIGERATION

CIPI SECTOR LIGHTING

CIPI SECTOR HVAC 1

CIPI INSULATION

BLOG

SUCCESS STORY

RESIDENTIAL

PROGRAM HIGHLIGHT

ORGANIZATIONAL HIGHLIGHT

ENERGY TIPS

COMMERCIAL

exploratory meeting organized by a "community lead"—a person who may be affiliated with municipal government (such as with Bangor's **EnergySmart Rebate Program**), a community or neighborhood group, or a service or faith-based organization. An Efficiency Maine staff person can attend a community-organized meeting to share information about energy-efficient opportunities, financing, and available rebates.

Once residents decide what energy services or equipment they need, the community lead puts out the word to **potential contractors**, seeking proposals for services at a set price. Homeowners then sign up and schedule work directly with the chosen contractor. Residents who are eligible for rebates or loans from Efficiency Maine can download forms directly from our website.

Efficiency Maine offers an **online toolkit** to help community leads organize a successful collective purchase initiative, complete with templates for a contractor request-for-proposals, and a homeowner signup. To find out how to get started with your own collective purchase initiative, **click here** for a toolkit and an introductory video.

York Energy Steering Committee - 2020 Annual Report

March 19, 2020

Susan Covino, Co-chair

Introduction:

This report would begin in a normal year with the word “DONE” followed by a numbered list of accomplishments. The COVID 19 pandemic made 2020 anything but a normal year. Society faced new challenges and the tragic loss of life throughout the year and beyond.

The York Select Board met continuously to grapple with access to public spaces and social distancing rules for local residents and summer visitors. Uncertainty about local tax revenues delayed or sidelined projects including the planned installation of 2 electrical vehicle (EV) chargers at the York Public Library.

Meetings of the Energy Steering Committee (ESC) were postponed until suitable virtual meeting arrangements using Zoom could be put in place. Nevertheless, the ESC, under the leadership of Chair Rozanna Patane kept working and accomplishing items designated as “underway and planned” in the ESC’s 2019 annual report.

1. LED Street Lights Installed

York voters authorized the expenditure of $556,500 comprised of $425,000 of principal and $131,500 of interest for the LED street light conversion on May 12, 2019.

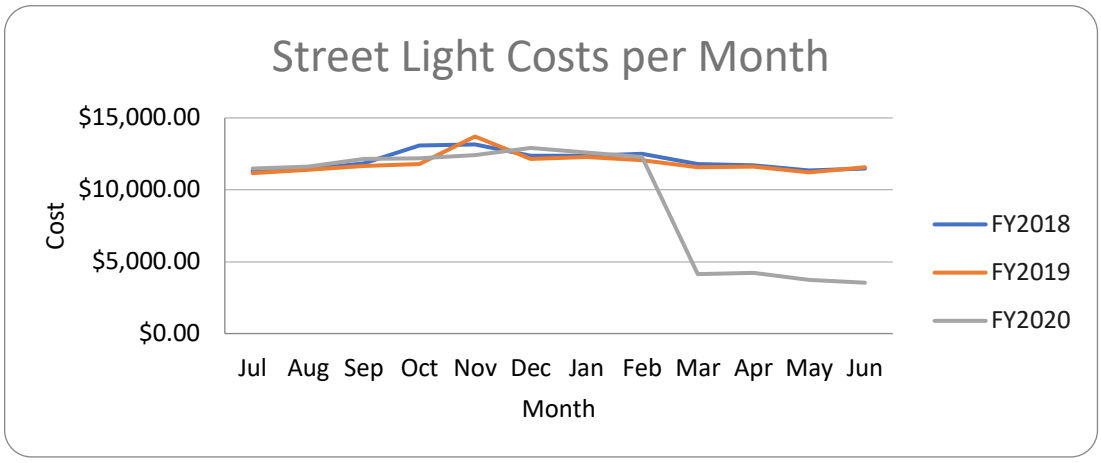
The Town of York contracted with RealTerm U.S. L.P. (RealTerm) to manage the conversion of the streetlights to LED on August 12, 2019. RealTerm lauched the project on August 29, 2019.

RealTerm provided the town with a Geographic Information System inventory assessment of the existing public street and other outdoor lights. Following design of the new LED street light network by RealTime and approved by the town, RealTime ordered Acuity Brands cobrahead and decorative street light fixtures.

On Target, RealTerm’s electrical subcontractor, completed installation of 769 cobrahead fixtures and 9 decorative fixtures between February 24, 2020 and March 31, 2020 at a cost of $337,891. RealTerm recycled the old CMP light fixtures and light bulbs removed by On Target.

Actual costs as of June 18, 2020, according to York’s Finance Director, totaled $397,731.86, which includes $94,460 paid to CMP for the old street light fixtures. This total is less than the budgeted amount of $425,000 by $27,268.14 but as of this writing, several lights around Town Hall are yet to be installed, and there are a few issues with poles that need replaceing. The monthly charges for streetlighting to the town from

CMP show the significant impact of switching street lights to LEDs. See the chart below.



RealTerm's Investment Grade Audit report to the town projects demand (kw) savings of 60.9% and annual energy consumption (kWh) savings of 67%. These final projections align closely with the analysis provided to the Select Board by Celtic Energy in January of 2019. Celtic's analysis estimated energy reductions of approximately 65%, which equates to a 42.1 ton annual reduction in CO2 equivalent greenhouse gas (GHG) emissions.

2. Maine Climate Council – Service on the Buildings, Infrastructure and Housing Working Group

ESC Chair Rozanna Patane served on one of six working groups established by the Maine State Climate Council. The in-person meetings quickly switched to virtual meetings in early 2020.

Rozanna's mission was to represent the voice of the municipalities, where strategies would ultimately be carried out. She made two recommendations that survived the review process and were contained in the final Plan strategies.

- The first was to require and make available extensive training of contractors in energy-smart building techniques. Contractors are the major interface with property owners so it's vital that they are well-equipped to offer the right choices to consumers. Combined with similar proposals from Code Enforcement staff in other Maine towns and the Buildings and Construction Trades Council, this strategy resulted in one bill currently in the Maine Legislature.

- The second recommendation was to form a State climate corps of Vista and Americorps members.This proposal has been taken up by the Maine Office of

Volunteers, which is expanding its current program that includes other Maine fellowship and internship programs.

Rozanna reported that the process was well organized, that she learned a lot, and that she and her fellow working group members felt that their perspectives and ideas were heard and carefully considered. This experience positioned her to guide the anticipated Climate Action Planning process in York.

The 6 working groups completed their work in June 2020. The Maine Climate Council delivered its report to Governor Mills on December 1, 2020". The report contained 7 specific recommendations for making Maine homes and buildings smart and cost efficient. The entire Maine Won't Wait Climate Action Plan can be found at:

https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_December2020.pdf

The Climate Council recommendations have resulted already in state policy changes and legislation and plans for further changes for several years that will create a transformation of Maine's energy strategy and an emerging energy economy.

3. Climate Action Plan for York

The voters approved on July 14, 2020 the expenditure of $150,000 for a consultant to facilitate the development of a Climate Action Plan (CAP) for York. Unfortunately, the voters did not approve a companion proposal made by the ECS to hire a Sustainability Coordinator to participate in the CAP process and assist in the implementation of the CAP by town government and the town's people.

Later in the year the ESC recommended that the Select Board retain an independent contractor to perform the work of a Sustainability Coordinator. The Select Board forwarded the recommendation to the Budget Committee. The Budget Committee approved the recommendation on November 24, 2020. The related expenditure will be presented to the voters for approval in May of 2021.

Working with Celtic Energy, the ESC drafted a request for proposal (RFP) for a consultant to support the CAP process. The ESC forwarded the RFP to the Town Manager, who used it as the basis of a contract with Civic Moxie, a consulting firm based in Boston, Massachusetts.

The York Planning Board had decided earlier in 2020 to engage Civic Moxie as its consultant to an update of the town's Comprehensive Plan (Comp Plan). Given the interrelatedness of the CAP and Comp Plan and the obvious efficiencies of using the same consultant, the Planning Board, Town Manager and the ESC agreed to coordinate the work of both plans under the guidance of the same consultant. The work was slated to begin in early 2021.

4. Global Covenant of Mayors – York Compliance

On July 29, 2019 the Select Board unanimously approved the ESC recommendation to join the Global Covenant of Mayors (GCOM) and directed the Town Manager to execute the Commitment on behalf of the Town of York. The Select Board also approved the target of cutting GHG emissions by 50% from a 2018 baseline and by 100% by 2050.

The GCOM commitment obligates York to undertake specific actions within three years:

- Community-scale GHG emission inventory
- Assessment of climate risks and vulnerabilities
- Time-bound targets to reduce GHG emissions
- Climate change adaptation vision and goals
- Goal to improve access to secure, sustainable, and affordable energy
- Formally adopted climate action plan

Christine Siebert, the ESC's Vista Volunteer, submitted the CDP (Climate Disclosure Project) report for York in compliance with the GHG emission inventory requirement on August 5, 2020. Christine Siebert and her successor, Erin Ferrill, worked with the International Council for Local Environmental Initiatives (ICLEI) during the balance of 2020 to obtain acceptance of York's CDP report.

5. Committee Development Workshop

The members of the ESC engaged in a development workshop on the lawn behind Town Hall on September 9 & 23, 2020. Jeanette Millard of CJM Consulting facilitated the workshop. The ESC invited representatives of York Ready for 100 and Town Manager, Steve Burns to participate in portions of the workshop.

The ESC identified the CAP process as the focus of work in 2020 and beyond. The ESC recognized the need to maximize effort until York can retain a Sustainability Coordinator consultant. The ESC will recommend that the Select Board include funds for a Sustainability Coordinator consultant in the warrants submitted to the voters in May, 2021.

The ESC anticipated working with Civic Moxie to:

- Align the CAP with the Maine Climate Action Plan
- Identify the interests/organizations that will ensure broad and deep representation
- Ensure that participants understand the cost/benefit analysis that will be applied to recommended actions in the CAP
- Develop messaging that builds support for why a local CAP is needed and how the CAP will be implemented after approval

6. Hire Third Vista Volunteer

Erin Ferrell joined the ESC team as a Sustainability Associate for a one-year term on October 26, 2020. Her primary duties are to collect municipal energy data for FY2021, streamline the data collection process, create the CDP report for 2021, and support the CAP process. She will also provide support for the York Recycling Committee and York Ready for 100 if and as her work schedule permits. Her annual stipend will be paid by the Town of York and Goodwill Industries of Northern New England.

Ms. Ferrell served as an Americorps Energy Efficiency Coordinator at the University of Maine Orono during the year preceding her assignment to the York ESC. During her service in Orono, Ms. Ferrell conducted free home energy consultations, organized a green job fair, and directed 80 in the building of over 250 insulating window inserts for low-income community members. Ms. Ferrell is a graduate of the University of Dayton, Dayton, Ohio. The university awarded her a B.S. in Environmental Biology with a minor in Sustainability, Energy, and the Environment in May, 2019.

7. Lease of Witchtrot Road Landfill Site to a Community Solar Developer

The ESC convened an Ad Hoc Solar Committee in March, 2019 to explore the development of a solar array large enough to meet the needs of the municipal departments, the school district, the water district, the sewer district, and the library with a 1 MW set aside for low-income and moderate-income families. The impetus for the Ad Hoc Solar Committee, state legislation providing favorable community solar provisions and incentives, passed and became law in mid-2019.

The hard work of the Ad Hoc Solar Committee continued through the balance of 2019. The project at the Witchtrot Road landfill site moved forward. The requirement for ballot approval for leasing the Witchtrot Road site delayed the project until voter approval was obtained on July 14, 2020. The ESC in the meantime submitted a draft lease and a draft RFP for the solar developer to the Town Manager for legal review. The exigencies of the COVID 19 pandemic intervened in early 2020 to further delay the project.

UNDERWAY AND PLANNED

- Kick off a successful CAP process
- Keep the Town Manager and the Select Board informed of EV developments and incentives
- Pursue the review and approval for the Witchtrot lease and RFP
- Work with York Ready for 100 to grow citizen engagement in EcoHOMES
- Gather data and submit a compliant CDP for 2021
- Assist the Select Board in retaining a contract Sustainability Coordinator when the voters approve the expenditure in May of 2021

Respectfully submitted by the Energy Steering Committee March 19, 2021

Len Loomans and Susan Covino, co-chairs

Gerry Runte

Rozanna Patane

Harry Mussman

Elizabeth Kinsly

Wayne Boardman

Camerson Runte (ex officio)

York Energy Steering Committee – 2021 Annual Report

March 25, 2022

Susan Covino, Co-chair

Introduction:

The year began in a spirit of hope that rapid deployment of COVID vaccinations would enable a return to normalcy in a matter of a few months. The unfortunate politicization of vaccination and emergence of the Delta and Omicron variants added to the challenges faced by all of the York Boards and Committees in 2021.

The Energy Steering Committee (ESC) met via Zoom in January, February, March, April, and May of 2021 and met in person in October and November of 2021. Broad member participation in the Climate Action Plan process led to the ESC decision to suspend monthly committee meetings for the summer months (June through September). Liz Kinzly resigned from the ESC effective May 19, 2021 after years of service.

1. Climate Action Plan

The York Climate Action Plan process consisted of three main phases: preparation and kick-off (March through May), working groups (June through August), and finally synthesis and writing (September through December). The consultant, Civic Moxie, worked closely with local volunteers throughout the process.

ESC member Rozanna Patane contributed to the Climate Action Plan (CAP) preparation phase of the process. She and Wayne Boardman led the recruitment of volunteers for the Climate Action Plan Steering Committee and the Working Groups. Gerry Runte and Wayne Boardman co-chaired the Climate Action Plan Steering Committee. A public in-person meeting at the library kicked-off the CAP process on June 9, 2021. Thereafter, Gerry Runte led, and Len Loomans served on, the Resilience, Health & Emergency Management working group. Wayne Boardman and Susan Covino led the Infrastructure Working Group. Harry Mussman led the Transportation working group, and Wayne Boardman led the Buildings working group. Erin Ferrell, the ESC's Vista Volunteer, helped lead the Communications and Outreach working group and the Equity Subcommittee. Selectboard members, Marilyn McLaughlin and Robert Palmer served on the CAP Steering Committee.

During the third phase of the CAP process, Wayne Boardman stepped down as the Steering Committee co-chair in order to chair the Comprehensive Plan Steering

Committee, which was proceeding at a slight lag to the Climate Action Plan. Susan Covino stepped in and joined the CAP Steering Committee when other members were unable to continue serving.

The CAP describes York's 2019 Global Covenant of Mayors commitment to reduce GHG emissions 50% by 2030 and 100% by 2050, and includes a Vulnerability Assessment, a Greenhouse Gas (GHG) Inventory, and eight focus areas of goals and recommended actions; Buildings, Infrastructure, Mobility, Access to Renewable Energy, Natural Resources, Waste and Recycling, Community Resiliency and Equity, and Leadership and Capacity. The CAP also provides suggestions for engaging the community, and a proposed Interim Implementation Committee to organize and monitor the implementation of the plan.

The CAP also includes a key for abbreviations used and a glossary of climate terms. The appendices include flood maps, detailed methodologies used in the climate vulnerability study and GHG inventory, working group report summaries, community survey results, and information about available funding and financing options.

2. Electric Vehicle Developments and Incentives for the Town Manager and the Selectboard

Harry Mussman and Len Loomans monitored electric vehicle (EV) technological developments and state policy and incentives, which they have shared with Town Manager, Steve Burns, and with Dean Lessard, Director of Public Works. Len attended an electric street sweeper demo in neighboring Kittery and shared the information with the ESC and the Department of Public Works.

Harry Mussman has followed state EV procurement and charging station incentives administered by Efficiency Maine and kept the ESC and local municipal offices informed.

3. Sustainability Coordinator – Independent Contractor

The ESC proposal for retaining an independent contractor to provide coordination of sustainability initiatives for the town and its residents won Selectboard and Budget Committee support, but did not win voter approval in the May election. This followed a similar defeat of funding for a town sustainability coordinator in May of 2020.

The ESC has explored other options for this important work including, but not limited to, the Southern Maine Planning and Development Commission, Vista Volunteers, and new staffing proposed for the planning department.

4. Global Covenant of Mayors – York Compliance

Erin Ferrell, who joined the ESC team as a Sustainability Associate in October of 2020, gathered data and coordinated with Tom Herrod of the International Council for Local Environmental Initiatives (ICLEI) to ensure the timely and compliant filing of York's CDP report. Erin attempted to streamline data gathering for the report by working with York finance officials and Central Maine Power to automatically receive copies of municipal power bills.

The Global Covenant of Mayors (GCOM), the largest global alliance for city climate leadership, awarded York two badges in 2021. GCOM recognized York for submitting a greenhouse gas (GHG) baseline emissions inventory and for setting GHG emissions reductions targets. Erin reported the GCOM badges to the Selectboard at its August 9 meeting. Her report also referenced the following upcoming GCOM milestones: development of a local climate action plan (in progress), implementation of the local climate action plan, and monitoring and verification of emission reductions.

5. Extension of Erin Ferrell's service, Vista Assignment Description (VAD) for a new project

Scott Dupee, AmeriCorps Program Coordinator, advised Erin on October 14 that her request to extend her service for 3 months (November and December of 2021 and January of 2022) was approved. She based the request on her desire to see the CAP process through to its conclusion. She emphasized her leadership of the Equity Subcommittee. Her request had universal support from the ECS, the Recycling Committee, and the CAP Steering Committee. Town Manager Burns agreed to have the Town cover the $1,625 cost to York of extending Erin's service.

AmeriCorp program rules limit the service of successive Vista Volunteers to 3 years for each project. Erin informed the Selectboard and Steve Burns of this rule during her report on August 9. The work of Lucy Brennan, Christine Seibert, and Erin Ferrell supported the town's decision to become a signatory to the Global Covenant of Mayors and the related commitments. Each has contributed to gathering GHG emissions data and related reporting. Christine researched the climate action plan experiences of other towns and cities to assist the ESC in providing town officials with a request for proposal (RFP) for a consultant/facilitator for the Climate Action Plan process. Erin will support the York CAP process through to completion in January of 2022.

Assuming that the voters approve the CAP in May of 2022, the Town will begin a new and very different phase of climate action – implementation of the CAP. This work will require a public/private partnership that engages York's residents and businesses as well as monitors progress on GHG emission reductions and adaptation and mitigation efforts of Town government. The ESC worked with York ECOHOMES, an initiative of York Ready for 100, and with the Recycling Committee to develop a Volunteer Assignment Description (VAD) for this new project.

AmeriCorp approved the new VAD in October and recruitment of a successor for Erin began but has had no success. The new VAD adds two new objectives: support of implementation of York's Climate Action Plan and engaging youth at the high school and community college by, among other things, providing information about job opportunities in renewable energy, smart grid, and energy efficiency.

6. Witchtrot lease and RFP for development of a community solar project

The voters approved a warrant in July of 2020 permitting the Town to lease the Witchtrot landfill to a solar project developer. The project was not pursued over the balance of 2020, given the exigencies of the COVID 19 pandemic and limited town staff resources. Late in 2020, the State of Maine halted new applications for solar projects over concerns that the electricity distribution network might not be able to accommodate all proposed projects, temporarily eliminating any market for the project. Solar project applications to the State resumed in late 2021. Town Manager, Steve Burns, has suggested that perhaps it would appropriate to review the project next year in the context of the recommendations in the Climate Action Plan.

7. Climate Ready Coast – Southern Maine Planning and Development Commission

The Southern Maine Planning and Development Commission (SMPDC) invited the ESC to participate in the Working Group of a 2-year regional project to develop a regional coastal resilience plan for the 10 southernmost coastal communities in the state. Gerry Runte volunteered to participate on behalf of the ESC. The ESC advised Town Manager Burns, as well as Selectboard members Todd Frederick, and Robert Palmer of this development.

Gerry Runte attended the kickoff, a virtual Working Group workshop, on October 27. Gerry reported that the workshop was an opportunity to meet the participants. Presenters reviewed the objectives for the project, identified available resource

materials, and shared the results of a few surveys on public opinion. He also reported that the next step will be to undertake a more detailed vulnerability assessment.

UNDERWAY AND PLANNED

- Inform the public about the CAP in anticipation of the May, 2022 ballot question
- Recruit a new Vista Volunteer
- Continue flow of EV information and developments to town staff
- Provide volunteers for the CAP Interim Implementation Committee
- Help organize and pursue an application for a Community Resilience Partnership Grant
- Provide support for CAP implementation by collaborating with town staff and officials as well as local organizations like York Ready for Climate Action (YRCA
- Recruit ESC members to fill vacant seats

Current Energy Steering Committee Membership and Terms:

- Susan Covino, Co-chair
  Term Expires: June 30, 2023

- Len Loomans, Co-chair
  Term Expires: June 30, 2023

- Rozanna Patane
  Term Expires: June 30, 2022

- Wayne Boardman
  Term Expires: June 30, 2024

- Gerry Runte
  Term Expires: June 30, 2022

- Harry Mussman
  Term Expires: June 30, 2024

- (2) Vacancies

York Energy Steering Committee – 2022 Annual Report

March 31, 2023

Susan Covino, Co-chair

Introduction:

The Energy Steering Committee achieved 5 of the 7 goals outlined in the committee's 2021 annual report including:

- Inform the public about the CAP (Climate Action Plan) in anticipation of the May, 2022 ballot question
- Recruit a new Vista Volunteer
- Continue the flow of EV information and developments to town staff
- Provide support for the CAP implementation by collaborating with town staff and officials as well as local organizations like York Ready for Climate Action (YRCA)
- Recruit ESC members to fill vacant seats

The committee faced a few challenges in 2022. Fortunately, the committee was able to extend by three months the service of AmeriCorps Member, Erin Ferrell. She served through the end of January, 2022 coincident with the completion of the Climate Action Plan. Unfortunately, recruitment of Ms. Ferrell's successor in a very tight labor market meant a gap in service of 6 months. We succeeded in bringing AmeriCorps Member, AJ Barthel, on board on August 1, 2022.

Gerry Runte, a longtime member of the ESC, stepped down to run successfully for the lower house of the Maine legislature in November of 2022. Finally, long serving Town Manager, Steve Burns, retired on July 1 and had not been replaced by year end.

1. Climate Action Plan – Voter Approval and Implementation Plan

Civic Moxie completed the Climate Action Plan in late January and presented it to a joint meeting of the Selectboard and the Planning Board on February 10. Members of the ESC reached out to build awareness of and support for the CAP

before the May 21 vote. The ECS members submitted an April 26 letter of support for the CAP to the editor of The York Weekly. York voters approved the CAP with nearly 70% of the vote.

Moving to the implementation phase of the CAP has proved challenging. The CAP calls for a broadly based and temporary implementation committee to organize an implementation plan for Selectboard consideration and approval. ESC members Wayne Boardman and Gerry Runte, who also served as co-chairs of the CAP Steering Committee found consensus among interested participants impossible to reach. Ultimately it was decided to put off further efforts until after the November vote on the town's Comprehensive Plan, which passed. Coincidentally the ESC revised its charter to better align with the goals of the CAP and submitted it to Dylan Smith, the Planning Director and in the absence of a town manager our town staff contact.

Susan Silberberg of Civic Moxie presented recommendations to a joint meeting of the Planning Board and the Selectboard on December 8. She recommended that the Selectboard thank the Energy Steering Committee for championing the CAP process and create a Climate Action Committee to work with a new town staffer responsible for CAP implementation. She further recommended that the Selectboard "own" the CAP in the same way that the Planning Board owns the Comprehensive Plan.

2. Global Covenant of Mayors – York Compliance

The ESC, with the concurrence of the Town Manager, Steve Burns, approached Erin Ferrell in June for assistance in preparing York's annual report to the Global Covenant of Mayors (GCoM). Erin previously served as York's AmeriCorps Member. Using training and tools provided by the International Council for Local Environmental Initiatives (ICLEI), she prepared and submitted the report. The

ESC had with the Town Manager's approval extended membership in ICLEI for 4 years at a deeply discounted rate.

Later in the year AJ and Erin used feedback from the CDP (Carbon Disclosure Project) as well as advice from Tom Herrod of ICLEI to revise and improve the town's annual report to GCoM. AJ resubmitted the revised report in early December.

3. Electric Vehicle (EV)

Early in the year, ESC member, Harry Mussman, reported on a "Municipal EV Readiness" webinar that described the "Municipal EV Toolkit, already in use by South Portland and Scarborough. The Toolkit includes a Model Ordinance for EV chargers prepared by the Southern Maine Planning and Development Commission (SMPDC). The Model Ordinance requires new and renovated parking lots to provide charging capability for 10% of the spaces and the required electrical setup for another 10% of the spaces. Harry submitted the Model Ordinance to York's Planning Board for consideration.

Harry drafted a letter to the Planning Board in support of the Electric Vehicle Infrastructure draft ordinance. The ESC unanimously voted to approve the letter at its June 8 meeting. The ESC learned at its June 15 meeting that the Planning Board had approved the Electric Vehicle Infrastructure ordinance. Lack of Selectboard support, however, kept the proposed ordinance off the November ballot.

4. Town Hall Building Committee

The ESC recognized in early June the opportunity to advise the newly formed Town Hall Building Committee (THBC) regarding compliance with the recently adopted IEECC 2021 Energy Code and the HVAC system including but not limited to energy efficient technologies and incentives provided by Efficiency Maine and federal programs. Port City Architecture prepared the final design and construction drawings over the summer. The plans located the HVAC and electrical equipment behind the municipal garage and supplied power and HVAC through conduit/duct banks under the road that loops town hall and the First Parish Church. Mechanical Systems Inc. was retained to design the HVAC system.

ESC members, Harry Mussman and Len Loomans, have been regular attendees at THBC meetings. Given high inflation, many meetings have been devoted to "value engineering," the identification of construction cost reductions that result in closer alignment with the total expenditure approved by voters. Harry and Len have provided information about efficiency and technology incentives available through Efficiency Maine. The THBC has decided to install ductless heat pumps to meet the HVAC needs of the building.

5. IECC 2021 Stretch Code Approved

York voters approved the IECC 2021 Stretch Code endorsed by the Planning Board. This building energy efficiency standard will initially apply only to town owned properties including the renovation of and addition to the town hall. The standard, however, also includes allowances for historic buildings.

6. ESC Volunteer Member and AmeriCorps Member Recruitment

The ESC faced two recruitment challenges during the year. Two vacancies on the ESC were filled thanks to KiKi Tidwell and Catherine ("Casey") Giffen.

Six months into the year 3 ESC members and Erin Ferrell, York's previous AmeriCorps Member, interviewed AJ Barthel via Zoom. The unanimous decision to make AJ an offer was endorsed by the full committee and the Town Manager.

7. York Public Library – Goal to Become a Net Zero Building

Early in the year the York Public Library (YPL) applied for a $100,000 grant for a rooftop solar system that would provide half of the library's electric power needs. This followed a similar grant application that was unsuccessful.

Using the work of the library's energy committee, the library board decided to pursue an energy services (ESCO) model for retrofitting the building in pursuit of its net zero building goal. The library board is reviewing the competing proposals of three ESCO's: Energy Efficient Investments (EEI), Siemens, and Trane.

8. Community Resilience Grant – Initiative of Maine Won't Wait

York Ready for Climate Action board member and ESC member, Rozanna Patane, presented the proposed "Whole House Pilot Program" to the ESC. She explained YRCA's intention to apply for a $50,000 Community Resilience Grant, which requires Selectboard approval and to also request a $50,000 matching grant from the Selectboard. The ESC voted unanimously in support of this proposal at its July 21 meeting.

The Selectboard declined to endorse “Whole House Pilot Program” later in the year. The Selectboard did, however, subsequently unanimously approve York’s participation in the Community Resilience Partnership program.

PLANS FOR 2023

- Work with Selectboard and town staff to finalize a charter for the Climate Action Committee
- Support the AmeriCorps Member’s preparation of the York annual report to the Global Covenant of Mayors
- Continue the flow of EV information and developments to municipal officials
- Continue to provide energy technology and incentive information to the Town Hall Building Committee
- Provide support for the York Public Library’s effort to achieve a net zero building
- Work with York Ready for Climate Action and other town committees and organizations to plan, organize and execute the Climate Action Fair on June 24

Current Energy Steering Committee Membership and Terms:

- Susan Covino, Co-chair
  Term Expires: June 30, 2023

- Len Loomans, Co-chair
  Term Expires: June 30, 2023

- Rozanna Patane

Term Expires: June 30, 2025

- Wayne Boardman
  Term Expires: June 30, 2024

- Catherine (“Casey”) Giffen
  Term Expires: June 30, 2025

- Kiki Tidwell
  Term Expires: June 30, 2026

Welcome to CDP-ICLEI Track 2023

Governance

0. Governance

(0.1) Provide details of your jurisdiction in the table below.

Response

Administrative boundary of reporting government^
Town

Next highest level of government
County / Province

Next lowest level of government
No lower level of government

Land area of the jurisdiction boundary (in square km)^
341.36

Percentage range of land area that is green space
>60%

Current (or most recent) population size^
13,161

Population year^
2010

Projected population size
19,340

Projected population year
2025

Select the currency used for all financial information reported throughout your response^
USD US Dollar

(0.2) Provide information on your jurisdiction's oversight of climate-related risks and opportunities and how these issues have impacted your jurisdiction's planning.

Response

Select the processes that reflect your jurisdiction's oversight of climate-related issues

Council (or equivalent) is informed by relevant departments, committees and/or subcommittees about climate-related issues

Provide further details on your jurisdiction's oversight of climate-related issues

The Town of York Selectboard is informed of climate-related issues by relevant departments such as the Planning Department and committees such as the Energy Steering Committee. The Town made addressing climate-related issues a priority by allocating funds to hire a consultant to create a Climate Action Plan that guided the creation of the Comprehensive Plan. Citizens are able to voice concerns related to climate issues during Selectboard meetings and voted to pass the Climate Action Plan in May 2022. The Climate Action Plan set forth adaptation and mitigation goals for York to address climate change.

Describe how climate-related issues have impacted your jurisdiction's master/development planning

The Climate Action Plan (CAP) was created alongside the update to the Town's Comprehensive Plan. Goals and ideas in the Comprehensive Plan align with the goals set forth in the Climate Action Plan.

Describe how climate-related issues have impacted your jurisdiction's financial planning

York's economy is based on tourism with thousands of visitors each year enjoying York's numerous natural amenities . Seasonal residents, vacationers, and day-trippers who come to York for its natural amenities spend money at local businesses, which supports a vibrant business community, employment, and local tax revenue. The loss of natural amenities due to climate change will make York a less attractive place to visit and threaten the tourism economy the Town currently relies upon. York’s beaches are its most valuable natural amenity from a tourism perspective, and are at high risk from SLR. An analysis conducted for the Maine Climate Council estimated the amount of dry beach (above the high tide line) in York County that will be lost at different SLR scenarios and how this will affect the number of visitors and tourist spending. At 1.6 feet of SLR, which the Climate Council considers likely by 2050, the study estimates that York County will lose over 40% of its dry beach area, which will result in more than 1 million less visitors and more than $130 million less spent by tourists per year. At 3.9 feet of SLR, which is possible by 2050 under a high emissions scenario and likely by 2100 under a lower emissions scenario, this jumps to 75% dry beach loss and a loss of over 6 million visitors and $765 million in spending annually. With 8.8 feet of SLR, possible by 2100 under a high emissions scenario, nearly all of the dry beach area and $1.7 billion in spending are estimated to be lost. It should be noted however, that there is still much unknown about how tourist behaviors will change in response to climate impacts, especially if beaches in other parts of Maine and New England (which would serve as alternative options) are suffering similar impacts.

The Town of York is subject to increased extreme flooding events due to climate change. The Town has already started adaptation projects such as rebuilding the seawall and collapsed roads. A Sustainability Fund was created in recent years to fund projects and programs that address climate-related issues brought forth by citizens and

Town committees. The vulnerability assessment included in the Climate Action Plan lays out the numerous climate-related risks posed if there is no action. Significant financial planning will continue to be designated to adaptation projects.

Describe the risks to your jurisdiction related to the transition to a low-carbon economy

York's economy is based on tourism with thousands of visitors each year enjoying York's numerous natural amenities. Many of these visitors arrive by car and move around the Town via car. York currently has limited capacity for electric vehicles and electric vehicle infrastructure. The low carbon economy would call for adoption of electric vehicles by a majority of visitors. This would only pose a risk for York if electric vehicle infrastructure is not made a priority in the near future.

(0.3) Report how your jurisdiction assesses the wider environmental, social, and economic opportunities and benefits of climate action.

Response

Does the jurisdiction assess the wider opportunities/benefits of climate action?

Yes, wider opportunities/benefits are assessed for all climate actions

Outline how your jurisdiction quantifies the impact of these wider opportunities/benefits

Wider opportunities/benefits are considered at the action planning stage

Describe the wider opportunities/benefits of climate action the jurisdiction has identified

York's Climate Action Plan identified multiple climate actions that have wider benefits other than climate mitigation. 23% of the emissions in York come from transportation. Improved local public transportation would lower emissions, improve tourism, and benefit the local business community. The Equity Subcommittee noted improved accessible public transportation would benefit marginalized communities and improve mobility for older adults.

Outline if and how your jurisdiction ensures the equitable distribution of climate action opportunities/benefits

Yes, the jurisdiction is engaging with frontline communities most impacted by climate change

Outline how your jurisdiction quantifies the equitable and inclusive distribution of climate action

Provide evidence and/or more details on the actions your jurisdiction is taking to ensure equitable and inclusive distribution of climate action

The creation of York's Climate Action Plan involved stakeholders from a wide variety of demographics in York. Modeled from the state's climate action planning process, York's Climate Action Plan involved an Equity Subcommittee to highlight climate actions with

benefits to marginalized communities while also noting any climate action that may have an unintended negative outcome for residents and especially marginalized communities.

(0.4) Report on your engagement with other levels of government regarding your jurisdiction's climate action.

Climate component

Other, please specify

Adaptation and mitigation actions and goals

Level of governments engaged in the development, implementation and/or monitoring of component

State/Regional-level government

Outline the purpose of this engagement

To facilitate capacity building across different levels of government

Comment

Southern Maine Planning and Development Commission (SMPDC) is a regional planning organization that brings together designated climate action teams from towns in York County to share information and build capacity for climate action. The Town of York works with SMPDC and other towns on natural resource assessments, electric vehicle infrastructure projects, and other information sharing.

(0.5) Report your jurisdiction's most significant examples of collaboration with government, business, and/or civil society on climate-related issues.

Primary entity collaborated with (selection mandatory)

Civil society

Climate initiatives/networks

Mechanisms used to collaborate

Knowledge or data sharing

Funding (grants)

Climate action plan implementation

Areas collaboration focused on

Emissions reduction

Description of collaboration

York Ready for Climate Action is a citizens group in York focused on initiatives related to climate mitigation. York Ready for Climate Action and it's sub-groups EcoHomes and Energy Coaches has applied for and was awarded funds through the Town's Sustainability Fund to run initiatives. EcoHomes and Energy Coaches focuses on helping individual households reduce their carbon footprint through education and continued assistance of residents.

View this email in your browser

YORK READY FOR CLIMATE ACTION

The Climate Action Fair on June 24th was a great success! Many thanks to all who volunteered, planned, donated, and came out for the fair.

Over 200 of our neighbors came through and got to talk to heat pump and solar

vendors, learn about sustainable organizations in York, test drive electric vehicles and electric bikes, learn about energy efficient home upgrades, talk with YRCA's energy coaches, plant a tree, meet the turtle from Center for Wildlife, and much more. Several lucky people got to take home fantastic door prizes, like an electric mower and a home energy audit!

We are very grateful to all of the vendors who came out to showcase their work, and thanks to all of you who came out to support us!

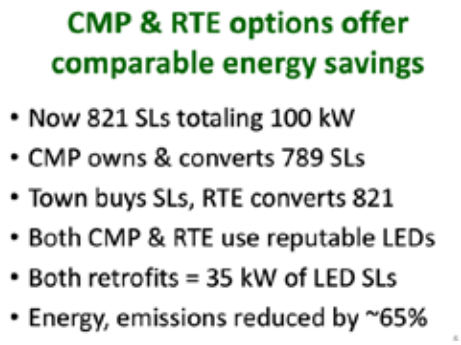
Sincerely,
The York Ready for Climate Action Team

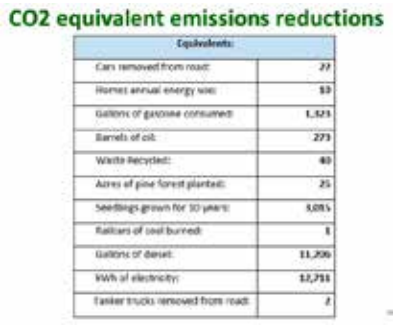
PS: Special thanks to our cosponsors, The Energy Steering Committee and The Recycling Committee. Thanks to Hannaford and Anthony's for donating food, and to Mr. Fox and Sea Hill Farm Alpacas for donating door prize items.

York LED Streetlight Report

Installation March 2020
Cost data through June 2022
7/21/22

- **Celtic Energy Analysis in 2019 suggested a potential reduction in GHG emissions of 65% and a savings of more than $2 million over 20 years**





- **As of FY2023, cost data indicate that savings are on target at over $120,000/year**
- **Cumulative cost savings in 4 years total over $400,000 (FY2020 was a transition year)**

Summary	FY2019	FY2020	FY2021	FY2022	FY2023
Baseline (2019 + 3%/yr)	$ 148,554	$ 153,011	$ 157,601	$ 162,329	$ 167,199
Actual Operating Cost	$ 147,447	$ 111,804	$ 37,754	$ 26,069	$ 37,775
Interest on Debt	$ ---	$ ---	$ 8,932	$ 7,600	$ 7,000
Savings	$ 1,107	$ 41,207	$ 110,915	**$ 128,660**	**$ 122,424**
Cumulative Savings					**$ 401,345**
Average Savings (3 yrs)					

Note 1: Baseline 2019 per Celtic Energy Analysis January 2019;
Actual spending per Wendy Anderson report 10/8/23
Note 2: Installation complete March 2020 - so FY2020 savings for 3 months
Note 3: FY2022 also incurred $23,473 capital costs for decorative lights at Town Hall not originally installed
Note 4: FY2023 also incurred $39,648 capital costs for decorative lights at Long Sands not originally installed
Note 5: There will be further installations of decorative lights at Long Beach in FY2024
Note 6: The alternative of leasing new LEDs from CMP would have cost twice as much as buying and installing our own

RP
Energy Steering Committee
10-10-23

STATE OF MAINE
GOVERNOR'S OFFICE OF POLICY
INNOVATION AND THE FUTURE

Janet T. Mills
Governor

Hannah Pingree
Director

AWARD CONFIRMATION

October 19, 2023

Taylor Maguire
Town of York
186 York St
York, Maine 03909

RFA#202305100: Award confirmation for Community Resilience Partnership Community Action Grant

Dear Ms. Maguire,

This letter is in regard to the Request for Applications (RFA) issued by the State of Maine Governor's Office of Policy Innovation and the Future (GOPIF) for the Community Resilience Partnership Community Action Grant. The Department is pleased to confirm your award in the amount of $50,000.00.

To accept this award and indicate your organization's good faith intention to satisfy the roles, deliverables, timelines, and outcomes set forth in the scope of work, sign below and return to GOPIF.

The grant performance period is October 26, 2023 to October 25, 2024. Quarterly reports are due 15 days after the close of the preceding quarter (Quarters: 1/1–3/31; 4/1–6/30; 7/1–9/30; 10/1–12/31). A final report is due 30 days after the end of the grant period. The State of Maine reserves the right to reclaim any or all of the grant award in the event that the Department deems a good faith effort has not been made by the awardee.

Attached to this letter you will find copies of the RFA and your application, and a quarterly reporting template. Ashley Krulik is the point of contact for your grant and can be contacted by phone at (207)-816-2717 or via email at ashley.krulik@maine.gov. Thank you again for your interest in doing business with the State of Maine.

Sincerely,

Hannah Pingree
Director, Governor's Office of Policy Innovation and the Future

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To confirm acceptance of this grant award and commit to the roles, deliverables, timeline, and outcomes in your attached scope of work, please sign, date, and return to Brian Ambrette at GOPIF. Thank you.

Authorized Signature _____ Name _____ Date _____