

Reading Climate Advisory Committee



Green Communities Energy Reduction Plan

October 21, 2021

RCAC Recommends Energy Reduction Plan Adoption & Incremental Funding

Proposed Energy Reduction Plan in Article 6 meets the 5th of 5 requirements for Green Communities

- Presented to Town residents at a public forum in September

Designation as a Green Community is an important Town goal

- Immediate grant upon designation and may apply for more each year
- 17 peer communities receive on average \$116K per year in grants
- MCAN's MLP Scorecard advised that achieving Green Community designation is a smart goal for both Reading and RMLD

Adopt Energy Reduction Plan proposed by NORESO to satisfy the requirement for Green Communities

- Requirement is for a plan - not a funded plan - not an executed plan
- Plan must show 20% reduction of energy use in five years including 15% "hard" savings. This proposal covers the "hard" savings.
- Plan is credible. Town of Reading has experience with NORESO.
 - 2009 contract has delivered more than promised – ~ \$4M in 10 years

NORESCO PROPOSED ESPC PHASE 2 PROJECT

Overview of ECMs

Energy Conservation Measures	Price	Savings	Capital Improvement	Maintenance Reduction	Savings Drivers	Improved Learning Environment
1: LED Lighting Upgrades*	\$1,407,298	\$151,335	-	✓	✓	✓
2: New Boilers, Domestic HW Upgrades	\$2,049,788	\$9,855	✓	✓	-	✓
3: New Air-Cooled Condensing Unit	\$404,754	\$9,731	✓	✓	-	-
4: Energy Management System Upgrades	\$499,467	\$35,128	-	✓	✓	✓
5: Energy-Efficient Motors and VFDs	\$187,579	\$8,206	✓	✓	-	-
6: Energy-Efficient Transformers	\$214,607	\$10,328	✓	✓	-	-
7: Building Weatherization	\$194,876	\$14,410	-	-	✓	✓
8: Plug Load Controls	\$5,084	\$543	-	-	✓	-
Total	\$4,963,451	\$239,536				

* LED Lighting currently has an estimated material incentive of \$171,411 that would reduce the net price of that ECM to \$1,235,887 if available at time of purchase.

Additional estimated utility incentives on other ECMs total \$224,269

Rev.A

Partially Fund & Refine/Expand the Plan

✓ Incrementally fund the plan starting with \$1.4M for LED Lighting Upgrades => 9-year payback & 84% of total proposed electrical savings

The plan merits further investigation to identify energy saving projects of higher benefit to Reading

- Opportunities to reduce/eliminate fossil fuels.
 - The proposal locks municipal buildings into 30+ years of additional fossil fuel use when we must transition to more electrification and renewable energy.
 - The proposed HVAC measures only address the heating needs of buildings. Increasing extreme heat suggests that we also look at air conditioning.
- Opportunities to add tasks associated with some of the major improvements that Reading plans.
 - E.g., improvements for Coolidge Middle School Heating System Upgrade and Killam Elementary School were not included because of cost, schedule and unknowns

Questions

Green Community Requirements

CRITERIA 1

As-of-right Siting

Achieved

CRITERIA 2

Expedited Permitting

Achieved

CRITERIA 3

Energy Reduction Plan

In Progress

CRITERIA 4

Fuel-efficient Vehicles

Adopted June 2021

CRITERIA 5

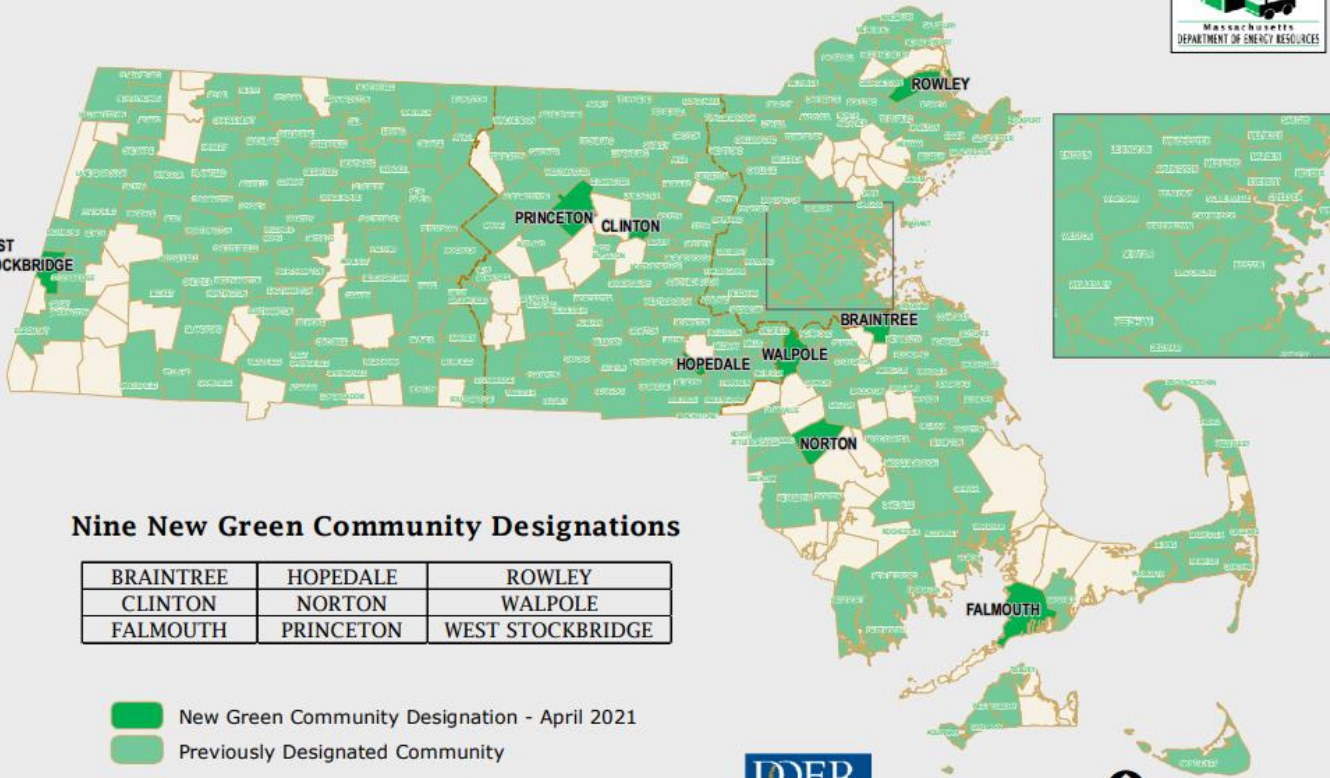
Stretch Code Adoption

Effective April 1, 2021

GREEN COMMUNITY DESIGNATIONS REACH TWO HUNDRED EIGHTY



280
communities
 have become
 designated
 Green
 Communities
 across
 Massachusetts



Nine New Green Community Designations

BRAINTREE	HOPEDALE	ROWLEY
CLINTON	NORTON	WALPOLE
FALMOUTH	PRINCETON	WEST STOCKBRIDGE

- New Green Community Designation - April 2021
- Previously Designated Community



J. Pfister, 4-12-21



25 Miles

Reading's Peer Communities...

On average, these communities have received between **\$38,000 to \$210,000** in Green Communities grant funding annually.

Designation Year	Municipality	Grant Funding to Date	Years Designated
2010	ANDOVER	\$1,018,664.00	11
2010	DEDHAM	\$428,434.00	11
2010	MILTON	\$1,062,739.00	11
2010	NATICK	\$1,670,953.00	11
2010	WINCHESTER	\$1,457,469.00	11
2011	BEDFORD	\$981,668.00	10
2011	TEWKSBURY	\$1,310,471.00	10
2013	WESTFORD	\$1,232,013.00	8
2014	BELMONT	\$401,850.00	7
2017	CANTON	\$564,996.00	4
2017	MARSHFIELD	\$841,346.00	4
2017	NORTH ANDOVER	\$538,841.00	4
2017	STONEHAM	\$619,615.00	4
2018	SHREWSBURY	\$367,713.00	3
2018	WESTBOROUGH	\$305,972.00	3
2020	BURLINGTON	\$172,250.00	1
2021	WALPOLE	\$166,203.00	0

Revisions

Revision	Date	Changes
-	10/16/2021	Original.
A	10/21/2021	Minor edit. Remove mention of coming link to public forum recording on Web site because it is up.
B		
C		
D		
E		
F		