

City of Salem, Massachusetts



"Know Your Rights Under the Open Meeting Law, M.G.L. c. 30A ss. 18-25 and
City Ordinance Sections 2-2028 through 2-2033."

The City Council Committee on Public Health, Safety and Environment co-posted with the Committee of the Whole
met in the Council Chamber on Thursday, June 21, 2018 at 6:15 P.M.
for the purpose of discussing the matters(s) listed below. Notice of this meeting was posted on
June 13, 2018 at 3:38 P.M.

(This meeting is being recorded)

ATTENDANCE

present from COW
ABSENT WERE: Councillor McCarthy - C. Dominguez, C. Dibble,
C. Furey

SUBJECT(S)

#244 - Meet with the Sustainability Committee for a presentation on projects completed by committee and upcoming goals

#298 - Smoking Issues outside of restaurants and bars

#298 - C. Dominguez introduce order
City Solicitor - background / research re: NYC - consider section
of Sanitation code that addresses cigarette butts Health Agent -
no one uses "park your butts" good step - examples - of other countries -
carry your own ashtray - time to look @ problem - indiscriminate
litter "C. Furey - 16 yrs ago - re local smoking - passed
C. Peterson - larger women concerned about what happens if we
put perimeter around restaurants & they will need to smoke
in the dark - looking for recommendation from Health Agent
C. Madore - 2 separate issues - public health (butts) & ? of ordinance
regulating just restaurants - what about other businesses
C. Flynn - discussion of fire hazards of smoking
C. Peterson - ? on education re: butts
Health Agent - advice - look at what's out there including smoking

Lesson, etc. C Dibble, C Peterson - discussion re: education
C. Madore B. Kennard - suggest she work w/ health agent -
to come up w/ examples - C Dibble - who empties butt bins -
C Madore butt bins need to be emptied - best owners
have asked to empty them - also work with to make it
"fun" - use your butt to vote C Dominguez - looking for
comprehensive solution C Dominguez to Hamdon - what challenges
stuffy & regulating individual - public comment - Sam Robinson
is Robinson - more visible ash trays vs butt bins
C Dominguez suggested a motion to follow ~~be~~ - ordnance
take a
look
C Peterson - ask city solicitor to come up w/ examples
ask health agent & dpw to look at
challenges contributing to littering - come up w/
suggest to meet challenges so that we review
review the results & include chamber of commerce -
2nd C. Madore & receive recommendations from B.H.
dis. C. Dibble - suggested input from B.H.
C. Solicitor caution - don't reply all
#244 - Jeff Barz Snel, Jeff Cohen, John Hayes, Jenna Ide
Presentation - see hand outs
C. Peterson - how do you measure wind - wind - explanation
C Dominguez - challenges C. Mib - efficiencies in C.C. C Dibble -
Summary C Peterson - what details re: volunteers JIDE answers
C Madore - move to discharge & report out re: public event -
C Peterson - 2nd - motion passed

On the motion of C. Madore

the meeting adjourned at 8:35 P.M.

Clare M. B.

(Chairperson)



Sustainability, Energy, & Resiliency Committee

Presentation to City Council Committee on Public Health, Safety &
Environment

6/21/28

Overview

The mission of the **Sustainability, Energy and Resiliency Committee (SERC)** is to promote a resilient environment and community. SERC focuses on practical applications that enhance the sustainability of the city's municipal operations, businesses, and residents by:

- advocating for the environmental well-being of all of the city's inhabitants
- developing long-term strategic planning focused on creating a more resilient community
- implementing effective city-wide energy management including applications of renewable and energy efficient technologies and operations
- achieving 100% clean energy procurement for the city's municipal operations - to reduce the city's greenhouse gas emissions that contribute to climate change
- leveraging with the private sector and other groups to accomplish our goals and to help the city's businesses and residents reduce their carbon footprint

Members

[Jeff Barz-Snell](#)

[John Hayes, Ph.D](#)

Richard Nye

Jeff Cohen

Gail Kubik

Lisa Kay Rosenthal

Chris Cantone

Jenna Ide - Staff

Past Accomplishments

- Green Community Designation
- Green Business Fair
- Municipal aggregation
- Stretch Code
- Resident/Business education
- LED Street Lighting project
- Solar
 - Solarize Salem/Swampscott
 - Solar Map
 - Solar on municipal Buildings
- Wind
 - turbine feasibility study
 - Wind FAQ and Wind Ordinance
- 100% Clean Energy Resolution
- Resolution supporting carbon pricing and the omnibus energy bill

Projects

Total Estimated Annual Savings From 27 Energy Reduction Projects Since 2010

Dollars: **\$770,375**

Grand Totals	# of Projects	Total Installed Cost	Grants	Utility Incentives	Cost Savings	Electricity (kWh)	Natural Gas (Therms)	Carbon Emissions (metric tons)
Cumulative Totals	27	\$ 6,557,640	\$ 3,472,003	\$ 714,350	\$ 6,163,001	32,046,176	159,584.0	24,999
Cumulative Annual Average	3.38	\$ 819,705	\$ 434,000	\$ 89,294	\$ 770,375	4,005,772.0	19,948.0	3,124.9
Other Metrics								
Oil (Gallons Annually)	91.0	Gallons Annually						
Water (Gallons Annually)	471,684.0	Gallons Annually						
Equivalent Carbon Reduction								
# Cars off the Road	669.0	Annually						
# of Seedlings Planted & Grown for 10 Years	80,985.0	Annually						

Future Goals

- Renewable Energy
 - Solar thermal, solar PV, wind, geothermal, other
- Deep Energy Efficiency
 - Air source heat pumps, zero net energy, LEED
- Education and support of residents and business on sustainability
 - Focus on resiliency

City of Salem Massachusetts
Energy/Water Efficiency, Renewable, and Sustainability Projects Since 2010
Sustainability, Energy, and Resiliency Committee

	# of Projects	Total Installed Cost	Grants	Utility Incentives	Cost Savings	Electricity (kWh)	Natural Gas (Therms)	Carbon Emissions (metric tons)
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Other Metrics

Oil (Gallons Annually)	91.0	Gallons Annually
Water (Gallons Annually)	471,684.0	Gallons Annually
Equivalenat Carbon Reduction		
# Cars off the Road	669.0	Annually
# of Seedlings Planted & Grown for 10 Years	80,985.0	Annually

	# of Projects	Total Installed Cost	Grants	Utility Incentives	Annual Savings	Electricity (kWh)	Natural Gas (Therms)	Carbon Emissions (metric tons)
Bentley Elementary School								
Retrocommissioning	2014	\$14,500	\$11,332	\$189.98	\$ 5,069	16,904.0	2,533.0	26.0
Indoor Lighting	2016	\$99,143		\$15,480	\$ 24,157	150,982.0		112.0
Exterior Lighting	2016	\$42,437		\$6,185	\$ 8,411	64,706.0		48.2
Subtotal	3	\$156,080	\$11,332	\$21,855	\$ 37,637	232,592.0	2,533.0	186.2

Department of Public Works Headquarters and Garage								
Retrocommissioning	2014	\$10,500	\$9,670	\$38.17	\$ 1,405	5,976.0	509.0	7.1
Exterior Lighting	2013	\$28,126.00	\$24,401	\$3,725	\$ 4,816	30,098.0		22.4
Energy Management System	2013	\$75,130	\$64,367	\$10,763	\$ 10,585		7,175.0	38.0
Infrared Heaters	2013	\$44,180	\$39,680	\$4,500	\$ 4,478		4,071.0	21.6
Building Envelope Improvements	2013	\$25,381	\$25,381		\$ 2,937	299.0	2,632.0	14.2
Subtotal	5	\$183,317	\$163,499	\$19,026	\$ 24,221	36,373.0	14,387.0	103.3

Fire Department								
Project	Year Implemented	Total Installed Cost	Grants	Utility Incentives	Dollars	Electricity (kWh)	Natural Gas (therms)	Carbon Emissions Reduction (equivalents in metric tons)
Retrocommissioning	2014	\$10,500	\$9,642	\$22.95	\$ 1,563	8,380.0	306.0	7.9
Subtotal	1	\$10,500	\$9,642	\$23	\$ 1,563	8,380.0	306.0	7.9

Police Department								
Retrocommissioning	2014	\$12,500	\$10,732	\$39.52	\$ 3,273	18,304.0	527.0	16.4
Subtotal	1	\$12,500	\$10,732	\$40	\$ 3,273	18,304.0	527.0	16.4

Public Library								
Retrocommissioning	2014	\$12,500	\$11,371	\$22.50	\$ 2,108	12,051.0	300.0	10.6
Subtotal	1	\$12,500	\$11,371	\$23	\$ 2,108	12,051.0	300.0	10.6

Schools								
Lighting and Exit Sign Retrofit Various L	2011	\$165,009		\$69,353	\$ 39,517	263,000.0		195.7
Retrocommissioning High School	2014	\$14,500	\$9,110	\$88.11	\$ 10,193	60,120.0	1,175.0	51.0
Nathaniel Bowditch School	2018	\$99,982.00	\$37,039.00	\$49,270	\$ 8,313	51,267.0		38.1
Bates Elementary School	2018	\$99,997.00	\$38,411.00	\$49,270	\$ 7,613	50,317.0		37.4
Witchcraft Heights Elementary School	2018	\$99,992.00	\$38,709.00	\$48,100	\$ 10,023	66,674.0		49.6
Carlton Innovation School	2018	\$97,668.00	\$66,818.00	\$15,922	\$ 8,843	49,123.0		36.5
Collins Middle School	2018	\$50,093.00	\$38,218.00	\$4,875	\$ 3,496	23,309.0		17.3
Subtotal	7	\$627,241	\$228,305	\$236,878	\$ 87,998	563,810.0	1,175.0	425.7

City Hall								
Roof Replacement and Chimney Repair	2012	\$397,580			\$ 166		91.0	39.1
Subtotal	1	\$397,580			\$ 166			39.1

Water And Sewer								
Drinking Water Treatment Plant	2012	\$100,000		\$0	\$ -	500,000.0		372.0
Water	2012	\$57,964	0	\$0	\$ 9,800	-	720.0	3.8
Subtotal	2	\$157,964	\$0	\$0	\$ 9,800	500,000.0	720.0	375.8

* Water estimated gallons 471,684.0

City of Salem Massachusetts
Energy/Water Efficiency, Renewable, and Sustainability Projects Since 2010
Sustainability, Energy, and Resiliency Committee

	# of Projects	Total Installed Cost	Grants	Utility Incentives	Annual Savings	Electricity (kWh)	Natural Gas (Therms)	Carbon Emissions (metric tons)
Street/Outdoor/Traffic Lights						Estimated Annual Savings		
LED Conversion for City-owned acorn-style street lights	2010	\$238,076	50000	\$34,968	\$ 37,733	241,875.0	-	180.0
LED Conversion for City-owned cobrahead street lights	2017	\$1,409,809	229708	\$346,038	\$ 194,082	1,097,988.0	-	816.9
LED Conversion for Traffic/Pedestrian Lights	2012	\$120,510	\$0	\$45,000	\$ 16,896	162,564.0	-	120.9
LED Retrofit - Various Locations	2017	\$20,630	\$7,214	\$10,500	\$ 5,754	57,540.0		42.8
Subtotal	3	\$1,789,025	\$286,922	\$436,506	\$254,465	\$1,559,967		1,160.62

Rooftop Solar PV					Estimated Annual Savings			
Witchcraft Heights Elementary School Phase-I 437 kW	2017	see below			\$ 163,290	502,432.0	-	
Witchcraft Heights Elementary School Phase-II 209 kW	Active	see below			\$ 78,095	240,293.0	-	
Bentley Elementary School 248 kW (includes new roof)	2017	see below			\$ 107,760	331,570.0	-	
Subtotal	3	\$3,210,933	\$2,750,200	\$0	\$ 349,145	1,074,295.0	-	799.3

Calculations and Back Up:

Grand Total	27	\$6,557,640	\$3,472,003	\$714,350	\$770,375	4,005,772		3,124.88
						Gas	19,948.0	Therms
Carbon Emissions (from EPA)						Oil	91.0	Gallons
Oil	0.43	metric tons per gallon				Water	471,684.0	Gallons
Natural Gas	0.0053	metric tons per therm						
Electricity	0.000744	metric tons per kWh				Equivalent Carbon	Trees*	80,985.0
Gasoline	0.008887	metric tons per gallon					Cars**	669.0
Cumulative Totals Assume Annual for 8 years (2010-2018).								
* (seedlings grown for 10 years)								
** passenger vehicles off road 1 year								
Years	8							