

1. Comprehensive Sustainable Energy Committee Regular Meeting Agenda

Documents:

[COMPREHENSIVE SUSTAINABLE ENERGY COMMITTEE AGENDA 02-09-16.PDF](#)

2. Comprehensive Sustainable Energy Committee Item 1

Documents:

[CSEC STRATEGIES 2016 LABELLED.PDF](#)

3. Comprehensive Sustainable Energy Committee Item 2

Documents:

[LETTER TO SB CHAIR - ETF.PDF](#)

4. Comprehensive Sustainable Energy Committee Item 3

Documents:

[2016 GC ENERGY REDUCTION PLAN GUIDANCE TABLE.PDF](#)

5. Comprehensive Sustainable Energy Committee Item 4

Documents:

[2015 STRATEGIC PLAN EVALUATION WORKSHEET.PDF](#)



MEETING AGENDA

Town of Concord Comprehensive Sustainable Energy Committee

Date: Tuesday, February 9, 2016
Time: 7:30PM
Location: Harvey Wheeler Community Center
1276 Main Street

1. Welcome visitors [3 min; start 7:30]
2. 12 Jan 2016 CSEC meeting minutes review [5 min; 7:33]
3. Next meetings [2 min; 7:38]
4. Short report from new Town Facilities Manager, Jana Dengler [5 min; 7:40]
5. Short report from Scott Richardson re Article 45 [5 min; 7:45]
6. Short report on 26 Jan meeting with Chris Whelan (Alan) [5 min; 7:50]
7. Update on WWTP light upgrade status (Jan) [5 min; 7:55]
8. Strategic planning discussion (All) [90 min; 8:00]
(link to strategic planning evaluation worksheet:
http://www.concordma.gov/pages/ConcordMA_CSE/Meeting%20Support%20Materials/February%209,%202016%20CSEC%20meeting/Strategic%20Plan%20work%20doc)
9. Green Your Heat report (Pamela/All) [5 min; 9:30]
10. Green Communities update (Jan) [5 min; 9:35]
11. Heat Pump Challenge update (Gordon/Brad/Jill/Alan) [5 min; 9:40]
12. Public comment [10 min; 9:45]

Adjournment target: 9:55pm

2016 Comprehensive Sustainable Energy Committee (CSEC):

Alan Whitney (Chair)	Resident
Annie Moore	Resident
Bradley Hubbard-Nelson	Resident
Gilda Gussin	Resident
Gordon Brockway	Resident
Jill Appel	Resident
Mark Myles	Resident
Sue Felshin	Resident
William Lehr	Resident
Alice Kaufman	BOS Liaison

**Concord Comprehensive Sustainable Energy Committee
Strategic Planning
8 December 2015 – Planning session**

Strategic Planning framework:

MISSION / PURPOSE	VISION	STRATEGY	TACTICS
Why we exist	What we want to become	What we're going to do	How we're going to do it
<i>Defining</i>	<i>Dreaming</i>	<i>Planning</i>	<i>Doing</i>
Creation story	Desired <i>end state</i>	Larger, <i>overall plan</i> that can comprise several tactics	<i>Specific projects, tasks, or procedures</i> to implement the strategy
"We the people, in order to create a more perfect union..."	A one-sentence statement describing the clear and <i>inspirational long-term change, resulting from your work.</i>	Broad, " <i>big picture</i> "	Narrow, " <i>close-up</i> "
<i>Definitional</i>	<i>Inspirational</i>	<i>Over time, future-oriented</i>	<i>Soon or present</i>
"To create lasting solutions to poverty, hunger, and social injustice." (Oxfam)	"A just world without poverty"	"We'll tackle climate change by helping poor countries to resist having to pay the price for the rich world's history of dirty development. "	HR 1464, a bill to establish a small tax on certain Wall Street transactions to raise hundreds of billions of dollars every year was reintroduced today by Rep. Keith Ellison (D-MN).
...identify, fund, and implement sustainable energy projects within the Town, including projects to assist citizens in conserving energy and increasing energy efficiency in their homes. (CSEC Charge)		Build partnerships outside Concord [to.....?]	Finish strong with Green Your Heat

Vision Statement possibilities:

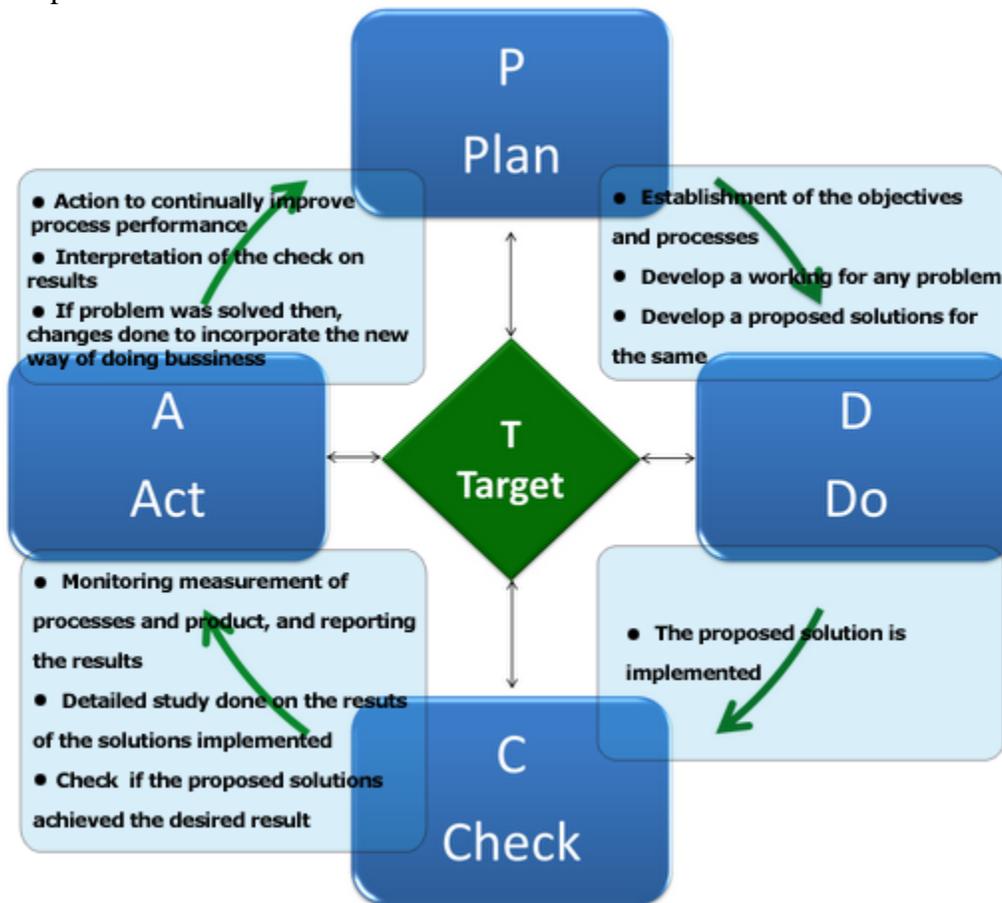
1. Sustainable Concord
2. Concord meets its present needs without compromising the needs of the future, in Concord and beyond.
3. Concord is a wise steward of the earth's resources, while embracing beneficial change.
4. In 2040, Concord is...
 - a. Carbon neutral, or even negative, without offsets
 - b. Working together with nearby communities
 - c. A national leader in sustainability, and proud of it
 - d. Beautiful, with farms, open spaces, recreational opportunities...
 - e. Using bikes and other carbon neutral transportation like shared vehicles
 - f. A cultural and intellectual center
 - g. Embracing and incorporating sustainability in everything that happens
5. In 2025, CSEC is...
 - a. Leading and guiding the town in sustainability efforts
 - b. Working with other towns on regional sustainability
 - c. Implementing a plan with clear goals and metrics
 - d. An advisory board to paid town staff
 - e. Guiding the sustainability effort
 - f. Paying for itself (sustainability sustains itself)
 - g. Going out of business, first with municipal projects, but still going with residential and commercial sector projects
 - h. Confident that it will achieve 2040 goals
 - i. Helping people implement fossil fuel alternatives
 - j. Bringing in sustainability infrastructure – new technologies, new systems, etc.
 - k. Using Yankee ingenuity and thriftiness in the service of sustainability

Strategy #4	Completion Date	
Establish funding and staffing resources for sustainability and carbon neutrality initiatives		
Tactics	Team	Due Date
a-Pursue a TM Warrant Article to commit resources to CSEC		
b-Support maintaining \$75k municipal sustainability fund		
c-Continue and refine CMLP rebates		
d-Investigate energy finance alternatives, such as heat loans and rebates		
e-Investigate market mechanisms to fulfill demand capacity (e.g., Smart Meters for demand management)	Jan Aceti, CMLP staff	
f-Find and propose on energy grants		

Strategy #5	Completion Date	
Gather and analyze data (on Greenhouse Gas emissions?)		
Tactics	Team	Due Date
a-Identify data we already have (such as ICLEI survey data)		
b-Identify data we need		
c-Settle on a definition of carbon neutrality <ul style="list-style-type: none"> • Find and engage an expert? • Buildings (???) 		
d-Identify carbon sinks – both current and potential		
e-Hire staff – interns and consultants		

Moving on with Strategic Planning – some recommendations:

- Fill in the blanks of the strategy tables, assigning people to teams that will be responsible for working on the various tactics. Team members can be CSEC members, associated town staff, and volunteers from outside
- Each team: establish reasonable due dates to complete the task
- At this point, you have completed the *Planning* stage of the Shuhart/Deming Cycle (Plan – Do – Check – Act). It is time to move on to the *Do*, or Implement, phase:



- Every CSEC meeting: briefly review the strategies to check on progress, refine tactics and strategies, add new tactics, refine dates and team members, etc. Don't let your Plan become a static and forgotten document – *Check* on how things are going and adjust. Make your plan a living document. As you become more proficient with the process, you'll get better at it.
- Take stock yearly. Have a yearly planning session in which you objectively evaluate the impact of what you have done, and *Act* to move forward with a new Plan for the year to come. Some strategies will likely have to continue, others may be considered fulfilled. Still others may need to be abandoned as unworkable, unachievable, or unnecessary. This isn't bad! It's a learning experience.
- Just do it! Don't get hung up on planning, but do use your plan as a guide. Concentrate on doing the things you have planned, not extraneous activity.

178 Heaths Bridge Rd
Concord, MA 01742
10 February 2016

Ms. Alice Kaufman
Select Board Chair
22 Monument Square
Concord, MA 01742

Dear Alice,

I am writing this letter to (belatedly) thank you for your time and helpfulness in discussions a couple of weeks ago with Gordon Brockway and myself with respect to your vision of the Energy Future Task Force and the development and execution of a long-term plan to create a sustainable Concord. Subsequently, at last Tuesday's CSEC meeting, Gordon and I reported on these discussions. CSEC members were pleased to better understand the role of the EFTF in setting goals and creating a long-term plan to reach these goals; at the end of the discussion, CSEC voted unanimously to support the EFTF model.

A fair amount of time was also spent at last Tuesday's CSEC meeting discussing how CSEC might best help to support the effort towards a sustainable Concord. We discussed ideas ranging from helping to create the plan to playing an active part in executing the plan, as well as helping to educate and gather support of the community.

CSEC would benefit by expanding this discussion to include the broader vision that the Select Board and high-level Town officials have created, as well how CSEC might best integrate into both creating and executing such a plan. To that end, I would like to suggest that a meeting between a small group of CSEC members and key Town officials (including the Select Board chair, Town Manager and perhaps other key people) would be a useful exercise to discuss how CSEC might best play a beneficial role in the development and realization of the plan for a sustainable Concord.

(I am also copying Chris Whelan on this letter.)

Sincerely,

Alan Whitney
CSEC Chair
cc: Chris Whelan

ERP Guidance Table 3b - Municipal Energy Consumption for FY2011, FY2012, FY2013, FY2014, FY2015 and Q1 FY16 (MMBTU)

Building	FY2011	FY2012	Change from FY11 to FY12	FY2013	Change from FY11 to FY13	Change from FY12 to FY13	FY2014	Change from FY11 to FY14	Change from FY13 to FY14	FY2015	Change from FY11 to FY15	Change from FY14 to FY15	Q1 FY15	Q1 FY16	Change from Q1 FY15 to Q1 FY16
	Sanborn	9,793	8,724	-11%	8,376	-14%	-4%	12,807	31%	53%	10,424	6%	-19%	640	486
Beede Center	8,166	8,174	0%	8,875	9%	9%	8,883	9%	0%	9,555	17%	8%	1255	1596	27%
Ripley Admin	5,999	4,928	-18%	5,433	-9%	10%	5,717	-5%	5%	5,585	-7%	-2%	483	496	3%
Thoreau ES	6,621	5,636	-15%	5,591	-16%	-1%	5,300	-20%	-5%	5,024	-24%	-5%	659	665	1%
Alcott ES	6,849	5,806	-15%	5,699	-17%	-2%	5,628	-18%	-1%	4,939	-28%	-12%	675	695	3%
Peabody	5,326	4,520	-15%	5,041	-5%	12%	6,097	14%	21%	4,139	-22%	-32%	235	285	21%
Willard ES	5,835	4,725	-19%	4,234	-27%	-10%	3,962	-32%	-6%	3,581	-39%	-10%	512	579	13%
Main Library	2,738	2,642	-4%	2,586	-6%	-2%	2,973	9%	15%	2,769	1%	-7%	452	452	0%
Fire/Police Headquarters	3,321	2,249	-32%	2,295	-31%	2%	2,403	-28%	5%	2,490	-25%	4%	369	343	-7%
Engineering Headquarters	2,201	1,832	-17%	2,046	-7%	12%	2,072	-6%	1%	2,085	-5%	1%	126	105	-17%
CMLP Headquarters	1,610	1,591	-1%	1,578	-2%	-1%	1,409	-12%	-11%	1,301	-19%	-8%	236	214	-9%
Harvey Wheeler	1,782	1,258	-29%	1,378	-23%	10%	1,532	-14%	11%	1,079	-39%	-30%	92	100	9%
Hunt	1,030	841	-18%	908	-12%	8%	571	-45%	-37%	1,030	0%	80%	101	111	10%
Fowler Branch	381	477	25%	728	91%	53%	883	132%	21%	904	137%	2%	164	148	-10%
Planning and Land Management	801	724	-10%	777	-3%	7%	848	6%	9%	791	-1%	-7%	95	95	0%
Town House	926	838	-10%	826	-11%	-1%	861	-7%	4%	791	-15%	-8%	109	108	-1%
Water/Sewer Headquarters	531	377	-29%	448	-16%	19%	523	-2%	17%	555	5%	6%	41	42	2%
West Concord Station	558	384	-31%	445	-20%	16%	474	-15%	7%	504	-10%	6%	60	61	2%
Substation 223	425	365	-14%	398	-6%	9%	408	-4%	3%	406	-4%	0%	84	89	6%
105 Everett	206	190	-8%	213	3%	12%	219	6%	3%	257	25%	17%	9.5	8.95	-6%
Substation 479	222	206	-7%	214	-4%	4%	218	-2%	2%	169	-24%	-22%	48	0.04	-100%
Substation 219	136	128	-6%	126	-7%	-2%	146	7%	16%	157	15%	8%	19	21.5	13%
Information Center	128	92	-28%	100	-22%	9%	109	-15%	9%	111	-13%	2%	8	8	0%
Assessors	81	79	-2%	77	-5%	-3%	86	6%	12%	85	5%	-1%	8.1	7.4	-9%
Building at the Knoll	68	57	-16%	60	-12%	5%	69	1%	15%	72	6%	4%	2.7	3.1	15%
Gun House	3	1	-67%	4	33%	300%	3	0%	-25%	4	33%	33%	0.3	0.3	0%
Salt Shed	3	0	-100%	2	-33%	#DIV/0!	3	0%	50%	2	-33%	-33%	0.07	0.42	500%
Total	65,740	56,844	-14%	58,458	-11%	3%	64,204	-2%	10%	58,809	-11%	-8%	6484	6720	4%
Building Consumption as % of Grand Total	67%			64%			67%			64%				48.79%	
Heating Degree Days	6,576	5,414	-18%	6,294	-4%	16%	7,066	7%	12%	7,064	7%	0%	304	186	-39%
Cooling Degree Days	962	870	-10%	869	-10%	0%	785	-18%	-10%	748	-22%	-5%	499	648	30%

Open Space	FY2011	FY2012	Change from FY11 to FY12	FY2013	Change from FY11 to FY13	Change from FY12 to FY13	FY2014	Change from FY11 to FY14	Change from FY13 to FY14	FY2015	Change from FY11 to FY15	Change from FY14 to FY15	Q1 FY15	Q1 FY16	Change from Q1 FY15 to Q1 FY16
	Rideout Playground	25	19	-24%	26	4%	37%	24	-4%	-8%	24	-4%	0%	12	9
Hunt Playground	29	19	-34%	17	-41%	-11%	27	-7%	59%	18	-38%	-33%	7	18	157%
Walden Street Compost Facility	2	2	0%	3	50%	50%	5	150%	67%	5	150%	0%	0.7	1.5	114%
Tennis Courts	0	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	0	#DIV/0!
Athletic Fields	118	147	25%	149	26%	1%	158	34%	6%	143	21%	-9%	0	0	#DIV/0!

Annursnac Hill Radio Tower	13	15	15%	5	-62%	-67%	12	-8%	140%	18	38%	50%	5	5	0%
IRRG - Old Pickard Rd	0	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0.04	0.05	25%
IRRG - Sanborn School	13	17	31%	13	0%	-24%	12	-8%	-8%	6	-54%	-50%	3.5	8.2	134%
IRRG - Ripley Field	8	6	-25%	5	-38%	-17%	6	-25%	20%	5	-38%	-17%	2.7	3.2	19%
Total	208	225	8%	218	5%	-3%	244	17%	12%	219	5%	-10%	31	45	45%

Open Space Consumption as % of Grand Total	0.21%	0.24%	0.25%	0.24%	0.33%
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St/Traffic Lts			Change from	Change from											
	FY2011	FY2012	FY11 to FY12	FY2013	FY11 to FY13	FY12 to FY13	FY2014	FY11 to FY14	FY13 to FY14	FY2015	FY11 to FY15	FY14 to FY15	Q1 FY15	Q1 FY16	Q1 FY15 to Q1 FY16
Willard Lights	0	0	#DIV/0!	1	#DIV/0!	#DIV/0!	1	#DIV/0!	0%	0	#DIV/0!	-100%	0.12	0	-100%
Willard Lights 2	0	0	#DIV/0!	2	#DIV/0!	#DIV/0!	1	#DIV/0!	-50%	2	#DIV/0!	100%	0.13	0.03	-77%
Public Works Streetlights	1,177	1,521	29%	1,533	30%	1%	1,536	31%	0%	1,534	30%	0%	329	329	0%
Main Street Light	1	1	0%	2	100%	100%	1	0%	-50%	1	0%	0%	0.34	0.34	0%
Main Street Traffic Light	35	37	6%	28	-20%	-24%	23	-34%	-18%	26	-26%	13%	6.4	5.9	-8%
Main Street Traffic Light 2	26	28	8%	25	-4%	-11%	23	-12%	-8%	23	-12%	0%	5.9	5.6	-5%
Main Street Traffic Light 3	27	38	41%	26	-4%	-32%	23	-15%	-12%	22	-19%	-4%	5.6	5.5	-2%
Old Marlboro Traffic Signal	0	0	#DIV/0!	1	#DIV/0!	#DIV/0!	1	#DIV/0!	0%	1	#DIV/0!	0%	0.08	0.07	-13%
Old Marlboro Traffic Signal 2	0	0	#DIV/0!	1	#DIV/0!	#DIV/0!	1	#DIV/0!	0%	1	#DIV/0!	0%	0.07	0.06	-14%
Thoreau Street Traffic Signal	16	16	0%	15	-6%	-6%	5	-69%	-67%	6	-63%	20%	1.4	1.4	0%
Thoreau Street Lights	0	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0.03	0.02	-33%
Thoreau Street Lights 2	0	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0.03	0.02	-33%
Thoreau Street Light	17	17	0%	17	0%	0%	16	-6%	-6%	16	-6%	0%	4.24	4.04	-5%
Lowell Road Light	4	4	0%	4	0%	0%	4	0%	0%	4	0%	0%	1	1	0%
Sudbury Road/117 Traffic Light	28	22	-21%	29	4%	32%	24	-14%	-17%	22	-21%	-8%	5.6	5.8	4%
Municipal Light Plant Street Light	1	1	0%	1	0%	0%	1	0%	0%	1	0%	0%	0.2	0.2	0%
Total	1,332	1,685	27%	1,685	27%	0%	1,660	25%	-1%	1,659	25%	0%	360	359	0%

St/Traffic Lt Consumption as % of Grand Total	1.36%	1.84%	1.72%	1.80%	2.61%
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Vehicle			Change from	Change from	Change from	Change from	Change from	Change from	Change from	Change from	Change from	Change from	Change from		
	FY2011	FY2012	FY11 to FY12	FY2013	FY11 to FY13	FY12 to FY13	FY2014	FY11 to FY14	FY13 to FY14	FY2015	FY11 to FY15	FY14 to FY15	Q1 FY15	Q1 FY16	Q1 FY15 to Q1 FY16
CPS Diesel School Buses	6,430	6,066	-6%	8,411	31%	39%	7,232	12%	-14%	7,427	16%	3%	853	918	8%
Police Gasoline Vehicles	2,592	2,831	9%	2,683	4%	-5%	2,641	2%	-2%	2,798	8%	6%	734	755	3%
Highway Diesel Vehicles	2,328	1,909	-18%	1,956	-16%	2%	1,786	-23%	-9%	1,970	-15%	10%	298	361	21%
Fire Diesel Vehicles	1,015	1,091	7%	1,085	7%	-1%	1,138	12%	5%	1,449	43%	27%	377	339	-10%
Snow Removal Diesel Vehicles	390	137	-65%	583	49%	326%	1,031	164%	77%	1,218	212%	18%	0	0	#DIV/0!
Municipal Light Plant Diesel Vehicles	821	956	16%	974	19%	2%	1,121	37%	15%	1,124	37%	0%	288	247	-14%
Water Gasoline Vehicles	1,101	1,093	-1%	1,002	-9%	-8%	865	-21%	-14%	859	-22%	-1%	230	231	0%
CPS Maintenance Gasoline Vehicles	687	695	1%	639	-7%	-8%	657	-4%	3%	631	-8%	-4%	144	76	-47%
Parks & Trees Diesel Vehicles	695	730	5%	694	0%	-5%	616	-11%	-11%	639	-8%	4%	228	182	-20%
Municipal Light Plant Gasoline Vehicles	583	621	7%	616	6%	-1%	572	-2%	-7%	523	-10%	-9%	134	132	-1%
Highway Gasoline Vehicles	580	606	4%	539	-7%	-11%	527	-9%	-2%	575	-1%	9%	145	167	15%
Fire Gasoline Vehicles	234	239	2%	285	22%	19%	334	43%	17%	335	43%	0%	67	85	27%

Water Diesel Vehicles	366	399	9%	341	-7%	-15%	273	-25%	-20%	269	-27%	-1%	43	62	44%
COA Gasoline Vehicles	334	235	-30%	191	-43%	-19%	268	-20%	40%	335	0%	25%	85	84	-1%
Parks & Trees Gasoline Vehicles	406	309	-24%	295	-27%	-5%	255	-37%	-14%	274	-33%	7%	79	73	-8%
Housing Authority Gasoline Vehicles	256	272	6%	245	-4%	-10%	246	-4%	0%	198	-23%	-20%	65	27	-58%
Sewer Gasoline Vehicles			#DIV/0!		#DIV/0!	#DIV/0!	215	#DIV/0!	#DIV/0!	215	#DIV/0!	0%	57	58	2%
Snow Removal Gasoline Vehicles	113	50	-56%	131	16%	162%	152	35%	16%	213	88%	40%	0	0	#DIV/0!
CPS Maintenance Diesel Vehicle			#DIV/0!		#DIV/0!	#DIV/0!	146	#DIV/0!	#DIV/0!	129	#DIV/0!	-12%	14	26	86%
Engineering Gasoline Vehicles	70	78	11%	106	51%	36%	114	63%	8%	85	21%	-25%	27	24	-11%
Parking Meter Officer	94	99	5%	114	21%	15%	121	29%	6%	112	19%	-7%	22	21	-5%
Cemetery Gasoline Vehicles	124	144	16%	88	-29%	-39%	75	-40%	-15%	43	-65%	-43%	11	12	9%
Sewer Diesel Vehicles			#DIV/0!		#DIV/0!	#DIV/0!	68	#DIV/0!	#DIV/0!	67	#DIV/0!	-1%	11	15	36%
Building Inspection Gasoline Vehicles	43	43	0%	36	-16%	-16%	35	-19%	-3%	27	-37%	-23%	11	9	-18%
Natural Resources Gasoline Vehicles	37	26	-30%	42	14%	62%	33	-11%	-21%	47	27%	42%	20	30	50%
Police Diesel Vehicles	3	5	67%	2	-33%	-60%	19	533%	850%	3	0%	-84%	0	0	#DIV/0!
Veteran's Agent Gasoline Vehicles	23	22	-4%	22	-4%	0%	22	-4%	0%	22	-4%	0%	5	7	40%
Board of Health Gasoline Vehicles	10	16	60%	14	40%	-13%	15	50%	7%	15	50%	0%	5	4	-20%
Library Gasoline Vehicles	18	19	6%	7	-61%	-63%	15	-17%	114%	18	0%	20%	6	6	0%
Muni Lt Plt Truck 5 Gasoline Vehicle			#DIV/0!		#DIV/0!	#DIV/0!	18	#DIV/0!	#DIV/0!	69	#DIV/0!	283%	18	22	22%
Fac. Maint. Suprvsr Gasoline Vehicle			#DIV/0!		#DIV/0!	#DIV/0!	15	#DIV/0!	#DIV/0!	45	#DIV/0!	200%	7	13	86%
Cemetery Diesel Vehicles			#DIV/0!		#DIV/0!	#DIV/0!	4	#DIV/0!	#DIV/0!	42	#DIV/0!	950%	13	6	-54%
Recreation Gasoline Vehicles		6	#DIV/0!	1	#DIV/0!	-83%		#DIV/0!	-100%	0	#DIV/0!	#DIV/0!	0	0	#DIV/0!
Total	19,353	18,697	-3%	21,102	9%	13%	20,629	7%	-2%	21,776	13%	6%	3997	3992	0%
Vehicle Consumption as % of Grand Total	19.80%			23.06%			21.38%			23.62%			28.98%		

	FY2011	FY2012	Change from FY11 to FY12	FY2013	Change from FY11 to FY13	Change from FY12 to FY13	FY2014	Change from FY11 to FY14	Change from FY13 to FY14	FY2015	Change from FY11 to FY15	Change from FY14 to FY15	Q1 FY15	Q1 FY16	Change from Q1 FY15 to Q1 FY16
Water/Sewer Wastewater Treatment Plant	3,130	2,681	-14%	2,842	-9%	6%	2,514	-20%	-12%	2,527	-19%	1%	429	565	32%
Deaconness Water Treatment Plant	1,928	1,384	-28%	1,377	-29%	-1%	1,378	-29%	0%	1,594	-17%	16%	396	445	12%
White Pond Well	632	566	-10%	1,007	59%	78%	969	53%	-4%	703	11%	-27%	212	276	30%
Robinson Well	849	545	-36%	681	-20%	25%	874	3%	28%	809	-5%	-7%	213	202	-5%
Ozone Facility	879	538	-39%	636	-28%	18%	648	-26%	2%	622	-29%	-4%	179	284	59%
Lowell Rd Pump	685	734	7%	819	20%	12%	789	15%	-4%	641	-6%	-19%	94	108	15%
2nd Division Well	932	833	-11%	984	6%	18%	758	-19%	-23%	848	-9%	12%	199	257	29%
Rte 2A Pumping Station	338	130	-62%	130	-62%	0%	256	-24%	97%	379	12%	48%	96	132	38%
Jennie Dugan Well	530	599	13%	585	10%	-2%	555	5%	-5%	596	12%	7%	162	167	3%
Hugh Cargill Well	734	598	-19%	570	-22%	-5%	535	-27%	-6%	477	-35%	-11%	161	151	-6%
Assabet/Main St. Pump	228	171	-25%	176	-23%	3%	222	-3%	26%	192	-16%	-14%	30	25	-17%
Pine Hill Reservoir	19	50	163%	63	232%	26%	71	274%	13%	92	384%	30%	18	18	0%
Park Lane Pump	56	60	7%	30	-46%	-50%	43	-23%	43%	33	-41%	-23%	4.6	4.5	-2%
Annursnac Hill Reservoir	33	23	-30%	33	0%	43%	42	27%	27%	53	61%	26%	10.7	11.3	6%
Bedford St. Pump	45	46	2%	34	-24%	-26%	35	-22%	3%	34	-24%	-3%	5.8	5.1	-12%
Pilgrim Road Pump	17	18	6%	19	12%	6%	27	59%	42%	25	47%	-7%	3.8	2.8	-26%
Laurel St. (Walden) Pump	16	15	-6%	20	25%	33%	19	19%	-5%	17	6%	-11%	1.6	1.9	19%
Gifford Lane Pump	31	14	-55%	18	-42%	29%	19	-39%	6%	15	-52%	-21%	1.3	1.2	-8%
Cousins Park Pump	41	34	-17%	17	-59%	-50%	18	-56%	6%	56	37%	211%	1.3	1.3	0%

Total	11,123	9,039	-19%	10,041	-10%	11%	9,772	-12%	-3%	9,713	-13%	-1%	2,218	2,658	20%
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Wtr/Swr Consumption as % of Grand Total	11.38%			10.97%			10.13%			10.54%				19.30%	
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Grand Total	97,756	86,490	-12%	91,504	-6%	6%	96,509	-1%	5%	92,176	-6%	-4%	13,090	13,774	5%
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Heating Degree Days	6,576	5,414	-18%	6,294	-4%	16%	7,066	7%	12%	7,064	7%	0%	304	186	-39%
Cooling Degree Days	962	870	-10%	869	-10%	0%	785	-18%	-10%	748	-22%	-5%	499	648	30%

20% of FY11 Baseline Energy Consumption = 19,551 MMBTUs

Annual Reduction Achieved As Of End of FY15 = 5,579 MMBTUs

Further Reduction Needed to Reach 20% Goal = 13,972 MMBTUs

2015 Strategic Plan evaluation spreadsheet

Your priority ranking (1 to 3)

Vision Statement possibilities:

Avg						
2	1	2	1	2	3	3
2	2	1	3	1	1	1
3	3	3	2	3	2	2

1. Sustainable Concord
2. Concord meets its present needs without compromising the needs of the future, in Concord and beyond.
3. Concord is a wise steward of the earth's resources, while embracing beneficial change.

Your priority ranking (1 to 7)

Avg						
3	7	1	3	1	1	2
4	3	2	6	3	5	5
4	2	3	1	7	7	6
4	5	6	4	4	2	3
5	6	5	7	5	4	4
5	4	7	5	6	3	7
3	1	4	2	2	6	1

4. In 2040, Concord is...
 - a. Carbon neutral, or even negative, without offsets
 - b. Working together with nearby communities
 - c. A national leader in sustainability, and proud of it
 - d. Beautiful, with farms, open spaces, recreational opportunities...
 - e. Using bikes and other carbon neutral transportation like shared vehicles
 - f. A cultural and intellectual center
 - g. Embracing and incorporating sustainability in everything that happens

Your priority ranking (1 to 11)

Avg						
3	2	1	1	5	5	5
6	4	4	4	7	6	10
3	1	6	7	2	3	1
3	5	1	2	1	1	8
5	3	1	3	6	11	4
8	10	11	9	8	4	7
10	9	10	11	11	10	9
7	11	9	10	9	2	2
6	7	7	5	4	8	3
6	6	5	6	3	7	6
9	8	8	8	10	9	11

5. In 2025, CSEC is...
 - a. Leading and guiding the town in sustainability efforts
 - b. Working with other towns on regional sustainability
 - c. Implementing a plan with clear goals and metrics
 - d. An advisory board to paid town staff
 - e. Guiding the sustainability effort
 - f. Paying for itself (sustainability sustains itself)
 - g. Going out of business, first with municipal projects, but still going with residential & commercial sector projects
 - h. Confident that it will achieve 2040 goals
 - i. Helping people implement fossil fuel alternatives
 - j. Bringing in sustainability infrastructure – new technologies, new systems, etc.
 - k. Using Yankee ingenuity and thriftiness in the service of sustainability

Your Comments:

- d. is subsumed by a. a/d & e are mutually exclusive.
- We need agreement from the Town on our role, & also need Town's agreement w.r.t. c
- Will the Town and Schools pay/hire staff to lead sustainability? If so, is redundant for CSEC to lead and will cause power struggles.
If not, CSEC needs to lead and Town needs to allow it to lead.
- Items a. to k. seems like the wrong list. Not sure where these come from -- I missed Dec mtg & my notes from earlier are somewhat cryptic
- I think CSEC can be clear about what sorts of things we think are "in scope" but the precise role and organization of CSEC depends in part on what Town chooses to do with respect to Net.Zero sustainability strategic plan, and what resources (personnel & financial) CSEC has
- I especially do not like items (f-h) which is why I ranked them 9-11. Not sure how the "Vision Statement" candidates were grouped but certainly believe that some combo of Group I and II is right tenor -- mission statement should be concise statement of our goals.
- I think what I have ranked high is close but we can do better, but perhaps that is best achieved to see if we can reach consensus on top level vision
- I'd love it if we are confident of 2040 goals by 2025, but I think it will be a long struggle
- I'd like to think that sustainability will pay for itself, but doubt that once the low hanging fruit is harvested it will be so easy

- Isn't #1 the same as #2?

1. Sustainable Concord
 2. Concord meets its present needs without compromising the needs of the future, in Concord and beyond.
- (this seems the same as 2 to me)

Strategies & Tactics evaluations

Strategy relative ranking (sum to 100)

Avg	8	10	5	10	10	0	10	#1 - Reduce Greenhouse Gas emissions from transportation sources in Concord
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Tactic ranking (1 to 6)

2	1	6	1	1				a-Gather data on transportation use
4	2	5	6	2				b-Find an expert
4	5	3	5	4			X	c-Investigate inter-town transportation options
2	3	1	2	3	1			d-Support changes to school bus system; take a position on 2016 TM Warrant Article
5	6	4	4	6				e-Investigate bike racks
4	4	2	3	5				f-Pilot new ideas

Comments/suggestions:

- DPLM and DPW should be taking care of e., but they're not doing enough. Do they need our help, or are there problems we don't know of?
- Re b., the Rec. Dep't workshop on getting around had good ideas—who should shepherd them? Us?
- Re c, the DPLM just had a meeting about it—do they have it covered or could they use our help?
- Re d, warrant article position is important but quick.
- This is important but the energy consumption of municipal transport is relatively small piece of whole.
- Things like bike racks, rentable bikes, bike paths, local shuttle buses, electric car charging stations and host of other options might be considered here. I think the menu of potential tactical efforts could be larger than we can pursue but provides opportunistic options to match available resources/CSEC interest to tasks -- test should be if tactical is consistent with Vision.
- We need to better understand the barriers to using public transportation and shared vehicles, and help people get by them
- Getting commuters out of cars can improve their lives
- Bike lanes also important, not just bike racks

Avg	26	20	40	25	30	0	40	#2 - Reduce Greenhouse Gas emissions from built environment in Concord
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Tactic ranking (1 to 5)

2	2	5	1	1				a-Tally the energy use of the present built environment. Start with the ICLEI survey data from 2012(?)
3	4	2	2	4	1		X	b-With Planning Board, study and develop changes to Building Code and Zoning bylaws to support energy conservation
2	1	1	3	2			X	c-Collaborate on the town's Long Range Plan
5	5	3	5	5				d-Pilot 'Green Lease' provisions
4	3	4	4	3				e-Research Energy Service Companies (ESCOs) to reduce commercial use of energy

Comments/suggestions:

- a, d, and e depend on interest, skill, and available time of CSEC members (and Jan has been working on d).
- Might need expert help, esp. for a.
- I view (b) and (c) as closely related. I think (d), (e) and a range of other tactical strategies are important but depend on expertise / resources / interests of CSEC membership. I rank data collection high because I think that is a necessary first step that will yield important benefits in (a) seeking/justifying additional funding; (b) prioritizing resources/effort and tracking progress; and (c) motivating continued effort.
- Policy changes make it easy for people to act in sustainable ways
- Build on what is already happen and use resources that are already present.

Avg

29 20 40 25 20 50 20

#3 - Work with CMLP and Light Board to develop strategies for energy conservation and efficiency, and supporting renewable energy sources

Comments/suggestions (describe what to do and how):

- Research TOUR plus expanded deployment and use of SMART meters. Develop energy price structure to encourage both minimizing peak loads as well as lower energy usage. Offer rebates for appropriate technologies.
- Probably need to see what's happening with the proposed Energy Task Force first. This is partly a political issue of not stepping on toes.
- Maybe try to publicize idea that we can't afford *not* to change, due to costs of climate change?
- I think this is a key factor for determining success of sustainability efforts in Concord and for potential for Concord to be national leader. We are (relatively) unique in having a muni utility and we cannot have successful Net.Zero future without changing CMLP's business model. Also, CMLP is critical to establishing the baseline data on energy use that I think is needed. How best to work with CMLP and the appropriate role for CSEC and other groups within Concord is a work-in-progress.
- a-Implement a communications strategy to enhance town wide support for efficiency and renewable energy
- b-Implement social marketing strategies to maximize the use of existing rebates for ee and renewables-look for funding for innovative pilots
- c. Enlist the help of graduate student/intern to work with Pamela
- d-Support a new rate structure
- Again, use existing resources.

Avg

24 25 10 20 30 50 10

#4 - Establish funding and staffing resources for sustainability and carbon neutrality initiatives

Tactic ranking (1 to 6)

4 6 6 2 6 2
 2 5 1 3 1 1
 4 4 5 5 4 3
 4 3 3 4 5 6
 3 2 2 6 2 4
 3 1 4 1 3 5

- a-Pursue a TM Warrant Article to commit resources to CSEC
- b-Support maintaining \$75k municipal sustainability fund
- c-Continue and refine CMLP rebates
- d-Investigate energy finance alternatives, such as heat loans and rebates
- e-Investigate market mechanisms to fulfill demand capacity (e.g., Smart Meters for demand management)
- f-Find and propose on energy grants

Comments/suggestions:

- f. depends on grant type—marketing programs to residents is too much work for too little carbon reduction.
- c. depends on working relationship w/CMLP
- a. depends on a specific purpose for the money and Select Board support, which are both no-goes at the moment.
- I think CSEC needs that data and expertise to opportunistically help Town go after matching Federal and state funds for sustainability efforts
- I think we do need to figure out how to fund CSEC efforts going forward and am disappointed that the Warrant article approach failed this time around.
- I think this is a work in progress that should attract significant CSEC attention but is less strategic/mission related than operational.
- Cost will be a major barrier to getting to Net Zero
- Support the TM Warrant Article for Net Zero Planning process and consultant

Avg								
13	25	5	20	10	0	20	#5 - Gather and analyze data (on Greenhouse Gas emissions?)	
								Tactic ranking (1 to 5)
3	4	3		1			X	a-Identify data we already have (such as ICLEI survey data)
2	3	2		2			X	b-Identify data we need
2	2	1		3				c-Settle on a definition of carbon neutrality
5	5	5		5				d-Identify carbon sinks – both current and potential
3	1	4		4				e-Hire staff – interns and consultants
								Comments/suggestions:
								- Hire single consultant first. This will inform Town staffing requirements.
								- c. should be a moving target; definition to be refined over time.
								- e. depends on whether CSEC members can perform work ourselves.
								- Some of this is subsumed as tactical above, but I believe that CSEC has three basic functions/roles it can play:
								(1) As repository for data/information on current status of town with respect to sustainability efforts;
								(2) As seeker of grants & outreach to other communities across State & Nation to coordinate efforts, share info, & raise funds to support actions in Concord
								(3) As leader of collection of projects with longer and short term agendas that fall under the Town's strategic sustainability plan.
								- This includes things like GYH (immediate, short term) and Net.Zero building code reform (longer term).
								- Use data to make informed decisions about what efforts are most important and what direction to go

Avg								
100	100	100	100	100	100	100	Sum of strategy relative weights (should sum to 100)	
								Overall Comments:
								- Work with Town Net.Zero Strategic Plan
								- Top tactics for top strategies:
								2.b (building code/zoning changes)
								2.c (Long Range Plan)
								3 (electric rate restructuring w/demand management (4.e))