BOSTON OFFICE

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3 YP Comments

Date: May 19, 2015
Re: Improving Health Care Energy Efficiency in MA 2016-18 Energy Efficiency Plan
Comments by: Health Care Without Harm (HCWH)[i], Represented by Paul Lipke. While time constraints have prevented full sector review by today, we confidently predict the Boston Green Ribbon Commission's Health Care Working Group, MASCO and Massachusetts Hospital Association (MHA) will fully endorse these comments in the next few days, and we will re-submit these comments when that occurs.

Introduction: Massachusetts' health care has a deep, ongoing commitment to energy efficiency and addressing climate change, in keeping with our mission to protect health, and to care for those in need. Over 75% of the members of the Massachusetts Hospital Association are enrolled in the Healthier Hospital Initiative ***Leaner Energy Challenge; we are small, medium and large C&I customers anxious to continue our strong collaborations with our utility partners and others***. Despite its length, we regretfully feel compelled to say that this draft plan lacks strategic content in a number of areas, and has unacceptably weak savings goals, including unintentionally imposing an estimated $440 million in health costs on the region.

We deeply appreciate everyone's good efforts to date, and look forward to more collaboration. We advocate the 3 Year Plan include the following four points, or similar, in **bold text**. Un-bolded text provides explanations and/or includes elements to be discussed and addressed during implementation, building on informal collaboration between the utilities, customers and key stakeholders.

1. For **each major C&I subsector**, the plan still needs to **include high level strategy and specific benchmarks to reduce the cumulative C&I performance gap**, especially in light of repeated under-spending and a much-touted culture of innovation and continuous improvement. The EEAC Consultant's analysis shows higher level savings are achievable with minimal rate impacts, and that market saturation has not been established.
2. **Increase the attention paid to energy efficiency at mid-sized and smaller C&I customers:**
    a. **Co-fund resource conservation managers** or similar to address customer EE staffing constraints**,** as recommended in the health care best practice study and implemented by utilities in other regions.
    b. **Engage stakeholders more collaboratively to help review and implement cost effective best practices,** such as those recommended in the health care study, through low-barrier, ongoing two-way communication. Recent meetings convened by HCWH with hospital, ACEEE, MHA and utility thought-leaders demonstrate that even in high-attention areas like CHP, there are significant opportunities for improvement to the programs. C&I customers need **segment-specific audit standards, pro forma and collateral that build utility, vendor and internal customer capacity to assess opportunities and sell EE to senior management.**
        i. In this same vein, in the upcoming workshops, we ask that time be allocated for brief customer comments on each issue.
3. **Launch a comprehensive, integrated, energy efficient 'Smart Lab' demonstration project or proof of concept, with statewide expansion to follow, including health care, higher education and biotech.**
4. **The Green Communities Act, Section 4e (c) states: "Public interests to be advanced...shall include... (ii) the protection of the environment and the health of the citizens of the commonwealth through the prevention, mitigation and alleviation of the adverse pollution effects associated with certain electricity generation facilities.**" In keeping with this:
    a. and since peer reviewed research demonstrates health benefits, (e.g. asthma prevention) are bigger motivators for households than EE dollar savings, we ask the PA's explore the advantages of stressing health benefits in MassSave strategy and literature.
    b. Based on the 11,088 GWH difference between PA and Consultants' lifetime savings goals, the Healthcare Energy Impact Calculator, www.eichealth.org conservatively estimates the PA's lower goals would, however unintentionally, result in tens of thousands of health incidents, and medical treatment costs of $370 million for just seven health impacts and their productivity costs, including premature death,

respiratory symptoms. These are costs that must be covered by the region, the Commonwealth, its health systems and citizens. See Figure 1 below.

FIGURE 1

MA EEAC - f f - (123) 555-1234

7: NEPP/NE Select from Map

Northeast Power Coordinating Council/ New England

kWh per Year: 11,088,000,000

Clean Energy Fraction: 0 %

Calculate

Pollutants	Annual Quantity	Pollutant Permit Costs	
SO2 (Tons):	15,960.72	$8,746,472	per year
NOx (Tons):	3,530.40	$10,414,668	per year
CO2 (Tons):	4,682,305.74	$84,281,503	EU Pricing
Mercury (lbs):	112.09	$7,285,983	per year

Incidents	Per Year	Societal Value	Direct Medical Costs
Premature Death:	49.61	$335,246,094	$14,866,340
Chronic Bronchitis:	31.58	$14,940,360	$3,822,148
Hospital Visit Incidents:	44.88	$590,630	$470,868
Asthma Attacks:	1,018.25	$61,262	$58,405
Respiratory Symptoms:	48,573.31	$1,766,806	$1,766,806
Work Loss Days:	8,961.61	$1,630,883	$1,517,011
Mercury Related:	N/A	$15,681,677	$15,681,677
Totals:	**N/A**	**$369,917,711**	**$38,183,256**
Unintended Impacts/kWh:		**0.03336**	**0.00344**

c. The health impacts for the 340 million therms "left on the table" between PA and Consultants' goals shows an additional, unintentional, +-10,000 incidents and an avoidable $74 million in health and productivity costs for these same illnesses, as shown in Figure 2. We cannot support a Plan that entails such readily avoidable harm.

FIGURE 2

Emissions

Pollutant	Pounds*
CO2 carbon dioxide	395,621,079
CO carbon	7,770,290
CH4 methane	2,848,639
Nox nitrogen oxide	12,102,895
N2O nitrous oxide	11,582
SOx sulfur oxide	2,149
TNMOC total non-methane org.	287,844
Pb Lead	2
Hg Mercury	1
PM10 particulate matter ≤10 mici	56,596
VOC volatile organic compounc	287,844
GWP Global warming potential	464,567,973

Health Impacts

Impact	Incidents Per Year	Societal Value	Direct Medical and Other Costs
Premature Mortality	10.3509	$69,948,043	$3,101,863
Chronic Bronchitis	6.53743	$3,092,438	$791,135
Hospital + ER Visits	9.62445	$126,675	$101,008
Asthma Attacks	212.284	$12,807	$12,171
Respiratory Symptom:	9582.21	$348,491	$348,491
Work Loss Days	1867.7	$339,935	$316,174
Mercury Related	N/A	$123,672	$123,672
Total	**N/A**	**$73,992,061**	**$4,794,513**
Unintended Societal & Direct Health Impact Costs per MMbtu		**$21.17**	**$1.37**

We would be happy to bring hospital representatives to an upcoming Council meeting to present and discuss their energy efficiency commitments, climate change and health concerns. Again, we greatly appreciate the significant efforts of all involved, and look forward to a future versions of the 3YP that contain more strategic detail, more aggressive goals, and avenues for deeper collaboration with diverse stakeholders.

#END of NARRATIVE, FOOTNOTE BELOW#

For more information, please Contact Paul Lipke, 413 367-2878, plipke@hcwh.org

Health Care Without Harm https://noharm-uscanada.org/ works to transform the health sector worldwide, without compromising patient safety or care, so that it becomes ecologically sustainable and a leading advocate for environmental health and justice. HCWH-Boston leads some of its most ambitious efforts, covering toxic reductions, green building, energy efficiency, and climate change. As a result, Boston's health care sector is playing a leadership role in regional efforts to address climate change.

[i]Health care is, and will be on the front lines of the energy/climate issue due to our energy intensity, and because extreme weather events, air quality and other factors impact facility operations and clinical services at the same time we are reinventing ourselves to deliver care more effectively and efficiently. Ever more aggressive pursuit of energy savings is essential to an effective response. To reach a 25% reduction in GHG by 2020, a daunting challenge, we must push beyond current practices and collaborate with regulators and utilities to identify novel, persistent strategies we can share widely. We ask the Council to adopt our suggestions to enable "next generation" savings and help the Commonwealth reach its goals.

Health care's leverage is enormous and unique: immensely complex buildings and clinical equipment with 24/7 life and death operations, dedicated to "doing no harm." We are the Commonwealth and Boston's largest employers (454,000 / 100,000 respectively), and Boston's largest real estate holder with over 23 million owned square feet. Not counting significant leased space, we consume about 700 million kWh, 8.6 million therms of natural gas, 82 million ton/hours of chilled water, and 2.7 MBtu of steam annually. Energy is our biggest cost after labor and pharmaceuticals. We have many reasons to be serious about energy/GHG reductions.

Energy efficiency and cost-effective clean energy are essential to the health and economic well-being of the Commonwealth, of its citizens, and to health care cost containment. Health is energy efficiency's most important non-energy, strategic, and economic benefit.

As institutions at such scales, we support the GCA, and think the GCA/EEAC plans need to maintain an achievable, yet aggressive savings rate, reduce barriers and increase access, improve data collection to drive continuous program improvement, and position energy efficiency as a key strategy to improve the health of citizens of the Commonwealth, reduce loss of jobs and strengthen our economy.

From the public health and health care sector perspectives, energy efficiency and clean energy supply are essential components of a healthy and resilient society. As health institutions, we strive to mitigate the adverse health impacts of conventional energy use, to heal patients from unavoidable impacts, and to properly value in our business decisions the health benefits of energy efficiency.

#END#

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