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August 7, 2017

Mr. Michael Judge  
Director, Renewables Division  
Massachusetts Department of Energy Resources  
100 Cambridge Street, Suite 1020  
Boston, MA 02114

*Submitted via email to thermal.doer@state.ma.us*

Re: Comments on Revised Proposed Changes to Alternative Portfolio  
Standard Regulations (225 CMR 16.00)

Dear Director Judge:

The Massachusetts Medical Society represents 25,000 physicians and medical students, dedicated to the health and wellbeing of our patients. In 2016, the Society reaffirmed its policy urging federal, state, and local governments to adopt measures that scrutinize the approval, certification, and construction of biomass-fueled plants; we urged focused evaluation of such projects so as to promote public health, energy efficiency, energy conservation and near zero-pollutant emissions.

Burning biomass can produce harmful emissions (including PM2.5 particulate air pollution) (1) which are associated with negative cardiopulmonary effects such as cardiac impairment (2), immune-competence damage (3), asthma exacerbations (4), other forms of increased respiratory injury (5), and premature birth (6). There is significant concern that such changes can lead to early death in select individuals (1). As a pediatric pulmonologist, I'm particularly concerned about the effect of biomass pollution on my patients, children and adults with cystic fibrosis (a form of chronic obstructive lung disease, COPD). We know that particulate matter can be very harmful to patients with severe COPD (7). Because of their pre-existing condition, CF patients are potentially vulnerable to harmful health effects from exposure to air pollution at an earlier age, and particulate matter of the PM 2.5 variety (8,9). To reiterate (vide supra), such particulate matter is known to be emitted by biomass combustion.

Given our concern about the impact that "incentivizing" biomass combustion would have on the health of some of Massachusetts' most vulnerable patient populations, we urge you to remove biomass from the eligible alternative technologies incorporated into the Revised Proposed

Changes to the Alternative Portfolio Standard Regulations (225 CMR 16.00). Further study is needed before one can consider biomass fuel as risk free as other alternative energy sources (e.g. wind, solar, etc).

Sincerely,

A handwritten signature in black ink, appearing to read 'H. L. Dorkin', with a stylized flourish at the end.

Henry L. Dorkin, MD, FAAP

HLD/ra

References:

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4. K. Hesselbach et al. Disease relevant modifications of the methylome and transcriptome by particulate matter (PM2.5) from biomass combustion. Epigenetics, in press, 2017.
5. Nguyen Thi Trang Nhung et al. Short-term association between ambient air pollution and pneumonia in children: A systematic review and meta-analysis of time-series and case-crossover studies. Environmental Pollution 230 (2017) 1000e1008
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7. D. Ramos et al. Effects of exposure to biomass burning on pulmonary inflammatory markers and pulmonary function in individuals with COPD. Portuguese Journal of Pulmonology, in press, 2017
8. K. Psoter et al. Air pollution exposure is associated with MRSA acquisition in young U.S. children with cystic fibrosis. BMC Pulmonary Medicine (2017) 17:106.
9. K Psoter et al. Fine Particulate Matter Exposure and Initial Pseudomonas aeruginosa Acquisition in Cystic Fibrosis. Ann Am Thorac Soc Vol 12, No 3, pp 385–391, Mar 2015