



Mansfield BOH testimony Peabody Peaker NG plant and compressor

I am Dr. Brita Lundberg, Chair of the Board at Greater Boston Physicians for Social Responsibility. GBPSR is a group of nationally-recognized experts in public health, cancer epidemiology, occupational medicine, environmental health, emergency medicine, disaster preparedness and the health effects of climate change.

As a medical doctor, trained in infectious diseases, I and many other physicians are concerned about this project--so thank you for inviting me to share some of those concerns with you this evening.

I am here tonight with the following request: that Mansfield write a letter to Gov. Baker requesting that his administration reopen the MEPA process to conduct an Environmental Impact Report and a Health Impact assessment for Special Project 2015A.

We ask this because there are still substantial questions and serious concerns about the health and environmental impact this project will have on the local community and our Commonwealth.

Health concerns: This project is bad for the public's health--not just for the communities surrounding it, but for all of us.

Peaker plants, such as the one proposed here, are much dirtier than baseload power plants because they only operate at peak hours--so they start up and stop a lot. That is a health problem, because Peaker power

plants emit **three to seven times more** pollutants, like **oxides of nitrogen (NOx)**, during **start-up** than during one hour of full-load operation.

On average, the power plants operate less than 4 percent of the time, **less than 300 hours each year**, but they are likely to account for a significant portion of systemwide energy costs and local air pollution. And while it may be said to produce lower emissions than 94 percent of similar peaking resources in the region--Peaker plants are one of THE dirtiest forms of fossil fuel burning. So stating that this plant will burn 94% cleaner than the most polluting form of energy is not a very reassuring claim.

What are the pollutants it will put out--and what are the health impacts of those pollutants? The main pollutants resulting from oil and gas electricity generation are nitrogen oxides, or NOx. Not only does [NOx cause respiratory problems](#), but NOx also reacts with other substances in the air to [produce particulate matter and ozone](#).

Particulate matter is a mixture of so called black carbon (soot), hydrocarbons, nitrogen oxides, and metals; the most concerning form of it, is known as PM 2.5, named for the very small size of the particle, 2.5 microns; it is so tiny that 30 of these particles will fit into the diameter of a shaft of hair. Because it is so small, when it is inhaled, PM 2.5 can penetrate deep into the bronchioles of the lung, where it can lead to asthma and COPD exacerbations; when those particles then cross into the bloodstream, they cause inflammation, which in turn can lead to an increased ability of the blood to clot--which is why PM2.5 is associated with heart attack and stroke. PM 2.5 is associated with the increased risk of developing cancer (due to its pro-inflammatory effects) and with diabetes. Other important facts about PM 2.5: like the carcinogen benzene--there is no safe level: it has health effects at every concentration. It also has a greater effect on children; and--concerningly-- is found at

higher levels at “stroller level,” according to a recent study out of Britain showed.

PM 2.5 has been increasing in the US for the past few years, after falling for 70 years; it is associated with increased oil and gas infrastructure; it is associated with an excess 10,000 deaths in 2018; an excess of over 600 deaths in MA in 2019 alone; at a cost, per the National Bureau of Economic Research, of 89 billion dollars.

Other pollutants. Like [particulate matter](#), ground level [ozone](#), also produced by peaker plants, is associated with a similar long list of serious health outcomes: asthma, heart attacks, stroke, premature death, cancer. According to the Asthma and Allergy Foundation, Massachusetts is home to three cities in the top 20 “Asthma capitals” in the US: Boston, Springfield, and Worcester. But it does not mean that other communities in our state are not heavily burdened. My physician colleagues on the North Shore tell me of the disproportionate burden of asthma and COPD on their patients who live in areas of high air pollution. We have seen higher mortality due to COVID-19 here in Massachusetts in communities that suffer from high levels of air pollution. The Peabody Peaker project will add to this health burden.

Pollution from the proposed compressor station. I have seen little mention of the large fossil fuel tank and the compressor station that will be built on the site also. Yet those infrastructure -- through leakage and daily operation--have an additional potential to create substantial air and water pollution at the site.

“Blowdowns” at compressor stations constitute the large-scale release of gases in response to a dangerous buildup of pressure. On average, one blowdown emits 15 million cubic feet of gas into the atmosphere. Over one

year, compressor stations create on average 118 blowdowns. They also produce significant noise pollution.

Living near compressor stations has been shown to be associated with significant health effects, particularly in children: headache, asthma, bloody nose; and they emit known carcinogens, benzene and formaldehyde, 24/7.

Given that this project is located within half a mile of a school, we have substantial concerns regarding its safety and the serious health risks it poses to the low income community it will sit in the middle of-- significant concerns that warrant further assessment prior to construction.

The Massachusetts Medical Society has strongly advocated that a comprehensive health impact assessment be performed for all new gas infrastructure expansions such as this for just this reason (MMS policy attached).

I have heard--"but the price tag is low--"Expected to cost only \$85 million"-- yet--fossil fuel use has always externalized significant environmental and health costs due to water, soil and air pollution. The externalized costs of fossil fuel production in the U.S. have been estimated [to be between \\$72 to \\$240 Billion](#).

Environmental justice. In addition this project will locate heavy industrial infrastructure in neighborhoods already overly burdened with legacy pollutants and the health consequences that go with them. The myriad costs of the new peaker plant will be borne disproportionately by children, by the elderly, and by the environmental justice community it will be located in. These costs will include health impacts like increased cancers and respiratory disease, heat stroke and cardiovascular and neurologic

diseases known to be associated with the pollution this infrastructure elaborates. This heavily polluting infrastructure in Peabody will in turn increase medical costs and may lead to early mortality for members of that community. This expansion will add to existing health inequities since the health consequences of most heavy industry in this state are laid disproportionately upon the most vulnerable of communities.

Climate. I have heard that this facility is “needed for reliability.” But the burning of more fossil fuels is CONTRIBUTING to the instability of our energy needs--the more we burn, the more unstable our climate and energy needs.

The effects of the proposed peaker plant on climate change cannot be understated.

In 2021, with the pandemic still causing significant harm and universal agreement that we are facing a climate crisis of unprecedented magnitude, the very last thing that we should be doing is moving forward on a proposed natural gas and oil facility without conducting all of the necessary studies that allow us to understand the health and environmental impact of the project.

That is why we are requesting that you join the growing list of Boards of Health which includes the

- Peabody Board of Health
- Danvers Board of Health
- Wakefield Board of Health
- Holden Board of Health

as well as over 1,250 residents across the state in requesting that Governor Baker and his administration conduct an Environmental Impact

Assessment and a Community Health Impact Assessment prior to the construction of the project.

Voting to send a letter does not inherently mean that you oppose the project. Rather it sends a message that as a Board of Health in a community that will receive energy and financial resources from this project, you believe that it is important and necessary to ensure that the residents of Peabody who will live directly next to this plant do not suffer adversely or unnecessarily.

We hope that you will consider writing to our governor to request such an assessment, in the interest of the health, safety, and welfare of all of our members of the Commonwealth.

Thank you.

Brita E. Lundberg, M.D.

Chair of the Board, Greater Boston Physicians for Social Responsibility