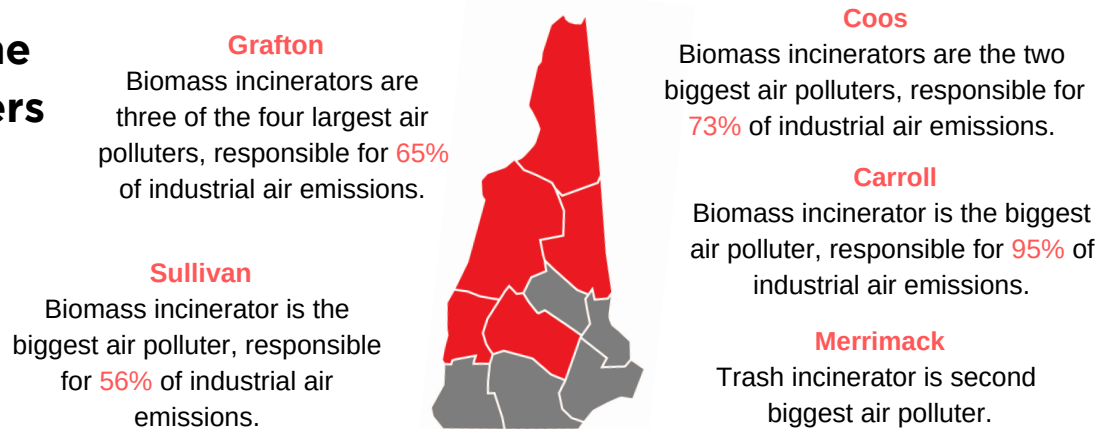


# The Double Cost of Biomass Incineration

**SB365's subsidies for the biomass and trash incineration industry would hit our pocketbooks and our health.**

New Hampshire ratepayers would pay twice for biomass and trash incineration: first, with a subsidy for an inefficient industry, and second, with our health. Far from being an economic source of renewable energy, biomass and trash incineration produces highly expensive electricity and pollutes the air we breathe.

**Incinerators are the biggest air polluters in nearly half of New Hampshire's counties.**



## SB365 subsidizes more than half of our state's top 13 air polluters.

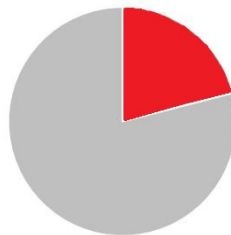
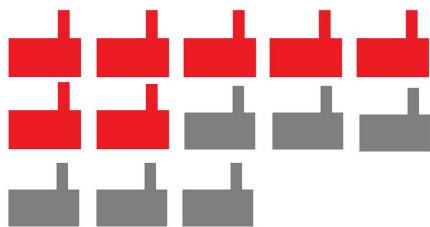
According to the emissions data from the U.S. Environmental Protection Agency's latest National Emissions Inventory (2014), these seven incinerators are responsible for a significant percentage of toxic pollution in New Hampshire.

The seven biomass and waste incinerators subsidized by SB365 are all among the state's top 13 air polluters.

**In 2014, the same seven incinerators accounted for...**

21% of the state's industrial air pollution.

significant percentages of many harmful pollutants released into the state's air by industrial sources.



**52%** of mercury    **37%** of carbon monoxide  
**46%** of benzene    **22%** of formaldehyde  
**45%** of arsenic    **19%** of lead

The below chart shows the emissions in pounds of top pollutants from these seven incinerators and the percentages of the state total that they represent, according to the latest EPA National Emissions Inventory data (2014).

Facility	Arsenic	Benzene	Carbon Monoxide	Chromium VI	Formaldehyde	Lead	Mercury	Nitrogen Oxides	Fine Particulate Matter	Sulfur Dioxide	Volatile Organic Compounds
Pinetree Power - Tamworth	65	3,110	861,890	35	3,198	141	10	228,886	33,572	903	12,414
Pinetree Power - Bethlehem	48	2,854	804,081	26	2,989	105	8	183,491	53,785	1,988	11,835
Wheelabrator Concord Company LLC*			33,054	1		4	3	702,486	5,750	113,259	2,659
Bridgewater Power Company	43	1,148	469,183	23	423	93	7	132,953	82,015	2,309	2,354
Indeck Energy - Alexandria LLC	38	7,224	485,039	20	7,568	83	6	153,592	9,237	5,197	29,282
DG Whitefield LLC	42	1,927	450,013	23	1,981	92	7	167,852	21,466	1,340	7,717
Springfield Power LLC	39	2,803	424,125	21	2,881	86	6	145,063	30,570	1,682	11,199
<b>Total Industrial Air Pollution in NH</b>	<b>607</b>	<b>41,272</b>	<b>9,615,172</b>	<b>221</b>	<b>85,609</b>	<b>3,138</b>	<b>90</b>	<b>8,685,366</b>	<b>842,683</b>	<b>6,904,975</b>	<b>882,646</b>
<b>Incinerator Percentage of State Total</b>	<b>45%</b>	<b>46%</b>	<b>37%</b>	<b>67%</b>	<b>22%</b>	<b>19%</b>	<b>52%</b>	<b>20%</b>	<b>28%</b>	<b>2%</b>	<b>9%</b>

\*Wheelabrator Concord Company LLC is the trash incinerator that would be subsidized by SB365.

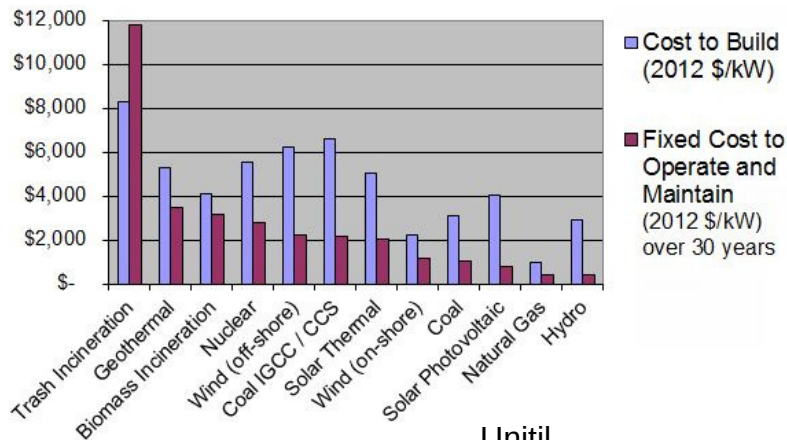
# Breathing in these air pollutants could cost us our health.

The pollutants released into the air through biomass and trash incineration have serious impacts on our health. People exposed to these pollutants are at an increased risk for cancer, respiratory diseases and other health concerns.

Pollutant	Health Impacts
Dioxins and furans	Cancer, damage to reproductive, nervous & immune systems of developing fetuses; weak immune response, decreased sperm count, impaired sexual development in boys, lower IQ, learning disabilities, behavior abnormalities, endometriosis and diabetes
Mercury	Liver, kidney, and brain and nervous system damage; birth defects
Lead	Brain and nervous system damage (esp. children), digestive problems, damage to the blood-forming, nervous, urinary, and reproductive systems; lower IQ and behavioral issues in children; heart disease
Arsenic, cadmium, hexavalent chromium	Skin, bladder, lung and kidney cancers, damage to nervous system, heart, skin, respiratory tract & immune system
Polycyclic aromatic hydrocarbons (PAHs)	Lung cancer, damage to liver, kidneys, sperm
Particulate matter (PM)	Eye, nose, and throat irritation; lung damage; bronchitis; cancer; heart attacks; stroke; early death
Sulfur oxides (SOx)	Respiratory illness, airway constriction, breathing problems, may cause permanent damage to lungs
Nitrogen oxides (NOx)	Triggers asthma attacks, causes lung damage, respiratory illnesses, airway inflammation, and smog
Carbon monoxide (CO)	Reduces oxygen delivery to internal organs and tissues
Carbon dioxide (CO2)	Disease and pest boundaries expanding towards the poles; coastal flooding; reduced agriculture output; acidified oceans
Volatile organic compounds (VOCs)	Lung cancer, eye & respiratory irritation, impaired lung function

# Incineration produces extremely high-cost energy.

Trash incineration is the most expensive energy source, and biomass incineration is the third most expensive, according to data from the U.S. Energy Information Administration.



Subsidizing this incineration would come at a cost to ratepayers, according to the NH Public Utilities Commission.

Unitil  
small commercial  
customers  
**would pay an additional**  
**\$75.60/year**  
on average

Eversource  
General Service class  
customers  
**would pay an additional**  
**\$61.80/year**  
on average

To subsidize an inefficient industry, SB365 would require residents of New Hampshire to pay more on our bills, pollute our state and risk our health.

For more information, see: [www.energyjustice.net/nh](http://www.energyjustice.net/nh) or contact Mike Ewall at 215-436-9511 or [mike@energyjustice.net](mailto:mike@energyjustice.net)

Sources:

U.S. Environmental Protection Agency. (2014). 2014 National Emissions Inventory (NEI) Data. Retrieved from [www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data](http://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data)

U.S. Energy Information Administration. (2013). Updated Capital Cost Estimates for Utility Scale Electricity Generating Plants. Retrieved from [www.eia.gov/outlooks/capitalcost/](http://www.eia.gov/outlooks/capitalcost/)

An act relative to the use of renewable generation to provide fuel diversity 2018 SB365. Retrieved from [gencourt.state.nh.us/bill\\_status/billText.aspx?sy=2018&id=1736&txtFormat=pdf&v=current](http://gencourt.state.nh.us/bill_status/billText.aspx?sy=2018&id=1736&txtFormat=pdf&v=current)

Energy Justice Network. Biomass Incineration. Retrieved from [www.energyjustice.net/biomass](http://www.energyjustice.net/biomass)

