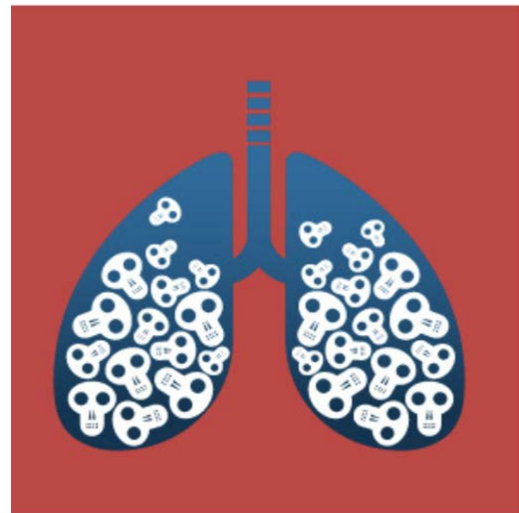


WEBINAR / MAY 6TH / 5:30-6:30PM

Danskammer & Public Health



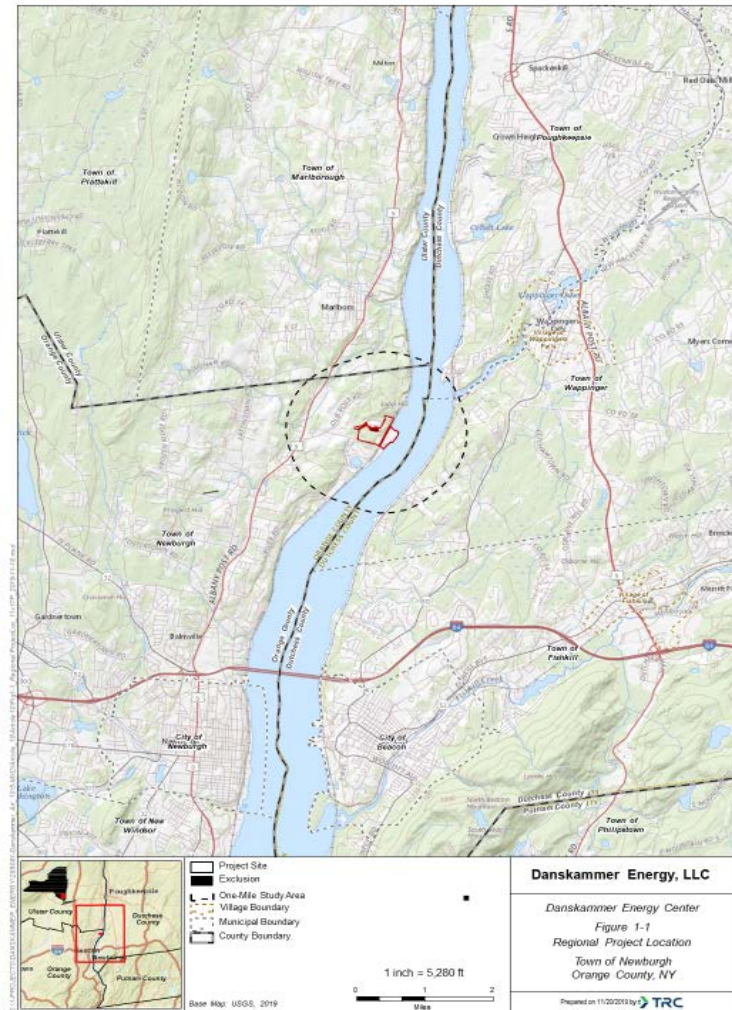
What Is Danskammer?

- Existing plant on shore of Hudson River in Newburgh, NY built in 1951
 - Burns gas with oil as backup fuel
 - Slated to be decommissioned after flooding during Hurricane Sandy in 2012
 - Only operates a handful of days a year since repowering in 2014

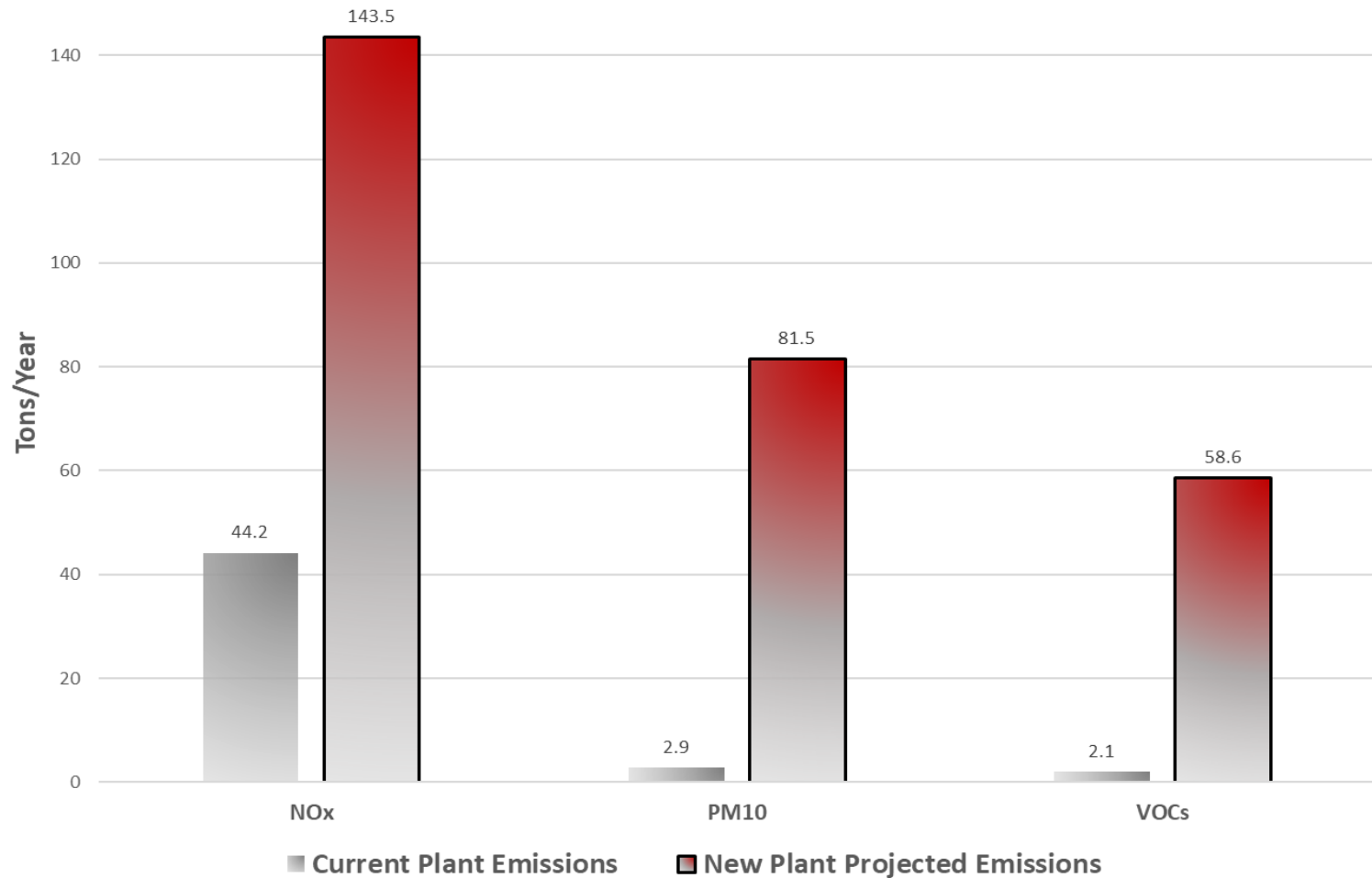


The New Proposal

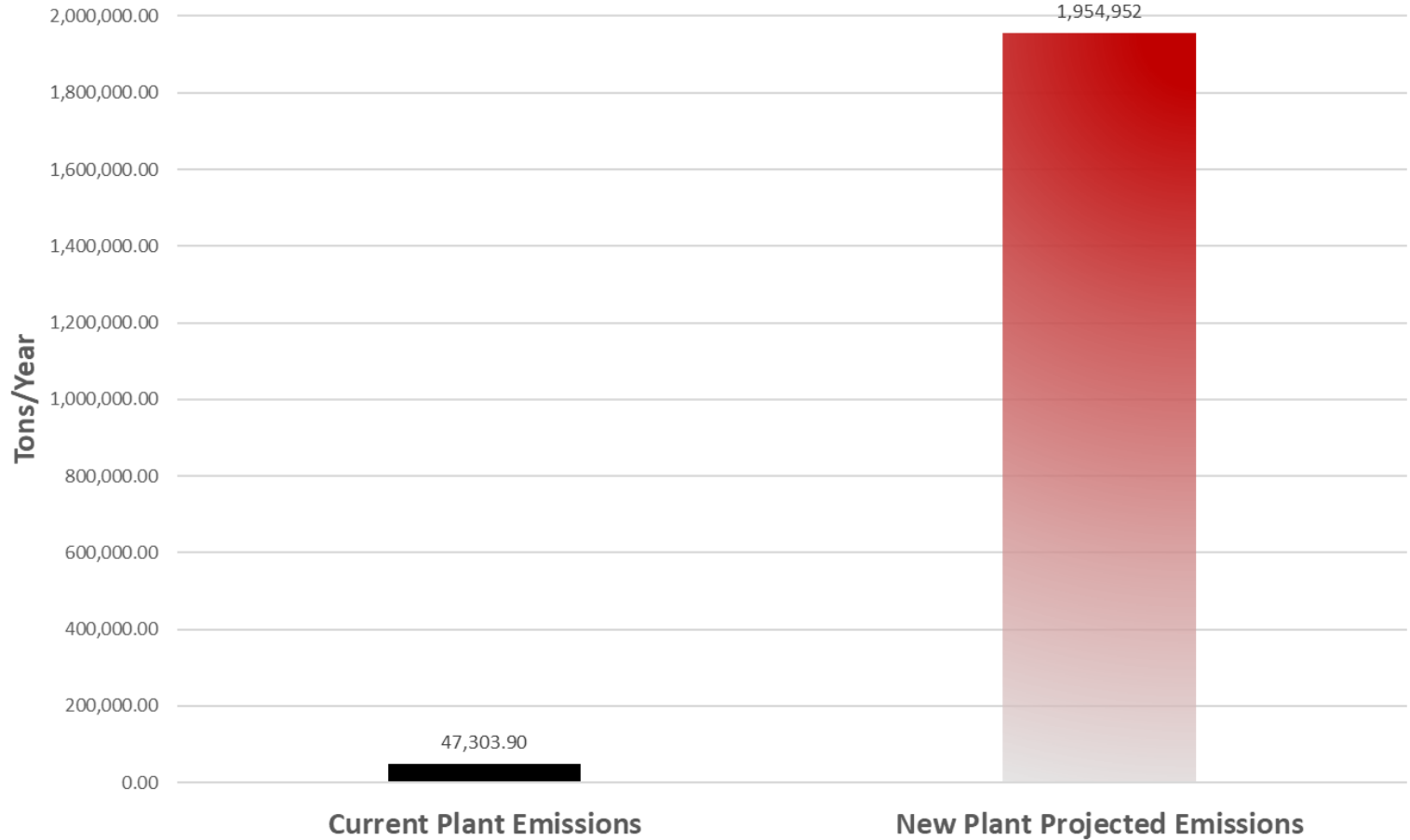
- In 2018, Danskammer Energy proposed to build a new 550-MW gas-fired power plant just south of the existing plant
- New proposed plant would be a “baseload” facility and run 70+% of the time
- Proposal conflicts with NY’s 2019 Climate Law (100% carbon free electricity by 2040)
- Because of increased operating time, air pollution expected to increase



Current Plant Emissions vs New Plant Projected Emissions*



Current Plant Emissions vs New Plant Projected Emissions* Greenhouse Gases



STOP

THE PLANT

NO DANSKAMMER

NO FRACKED GAS

www.stoptheplant.org

STOP
THE PLANT



AIR POLLUTION RESULTING FROM THE DANSKAMMER GAS POWER PLANT

David O. Carpenter, MD
Institute for Health and the Environment
University at Albany

What are the Components of Air Pollution Coming from a Power Plant?

- Particulates: These are “soot” particles that come in various sizes. Larger particulates (PM10) look bad but they are trapped by cilia in the lung and removed. Smaller particulates (PM2.5 and ultrafine ones) can go deep into the lung, cause inflammation and disease.
- Gases: Whenever natural gas is burned there will be formation of carbon dioxide, carbon monoxide, sulfur and nitrogen gases. The latter two are dangerous because they can combine with water to form acids. There will also be volatile organic compounds formed and/or released because of incomplete combustion. Many of these are known carcinogens and neurotoxic substances.

Air Pollution Causes Cancer!

- The World Health Organization has just declared outdoor air pollution to be a Group 1, known human carcinogen.
- Benzene , formaldehyde and radon are already identified as being Group 1, known human carcinogens.
- Even if health effects are known for exposure to one environmental contaminant, the effect of being exposed to multiple contaminants is uncertain. Co-exposure may have an additive effect or even a synergistic effect.
- Cancer has a long latency and effects may not appear for years.

Air Pollution Causes Other Diseases as Well

- Chronic air pollution cause increased risk of cardiovascular and respiratory disease.
- Both particulate and VOC air pollution cause increased risk of asthma, respiratory infections and chronic obstructive pulmonary disease.
- Immediate health effects include headaches, dizziness, eye, nose and throat irritation, visual disorders, memory problems, fatigue, nosebleeds.

Air Pollution Makes COVID-19 Worse!

- On April 5th, 2020, scientists from the Harvard School of Public Health reported that an increase of 1 $\mu\text{g}/\text{m}^3$ of PM_{2.5} was associated with a statistically significant 15% increase in the COVID-19 death rate.
- The increase in death rate was 20-times larger than what would be seen with the same amount of air pollution alone.
- The virus may also bind to particulates and, when inhaled, increase risk of infection.

Air Pollution Coming From the Danskammer Plant

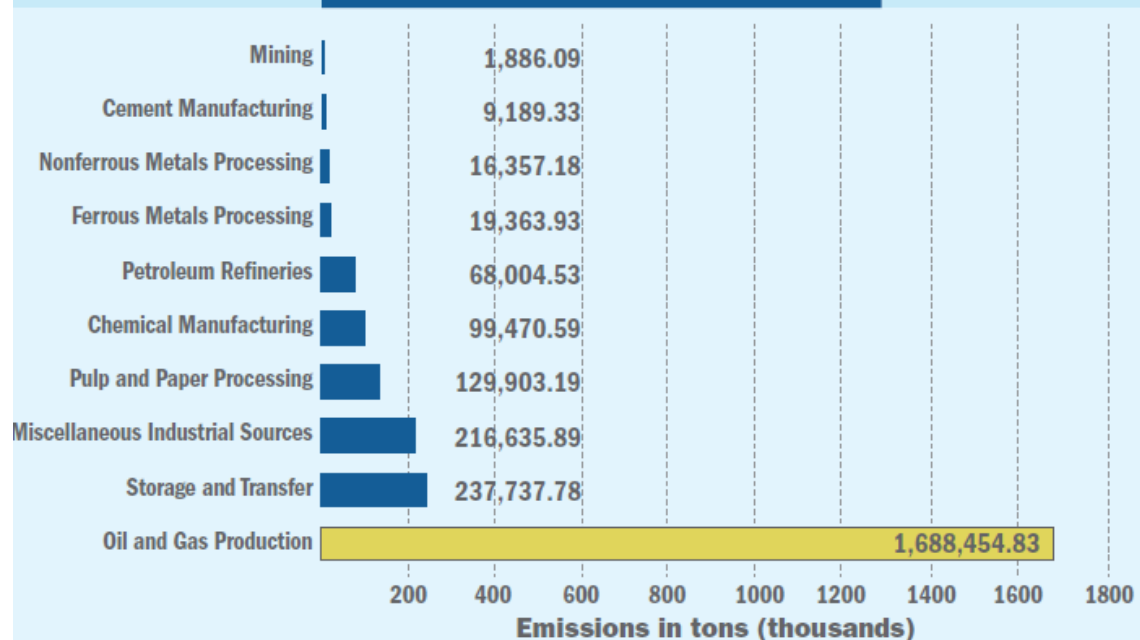
- The Danskammer Plant is already causing release of significant amount of air pollutants.
- By their own admission the proposed expansion will increase the amount of air pollutants significantly.
- This increase will cause an increase in the already elevated risk of disease in nearby residents.

**Table 17-4. PSD/NNSR
Netting Analysis**



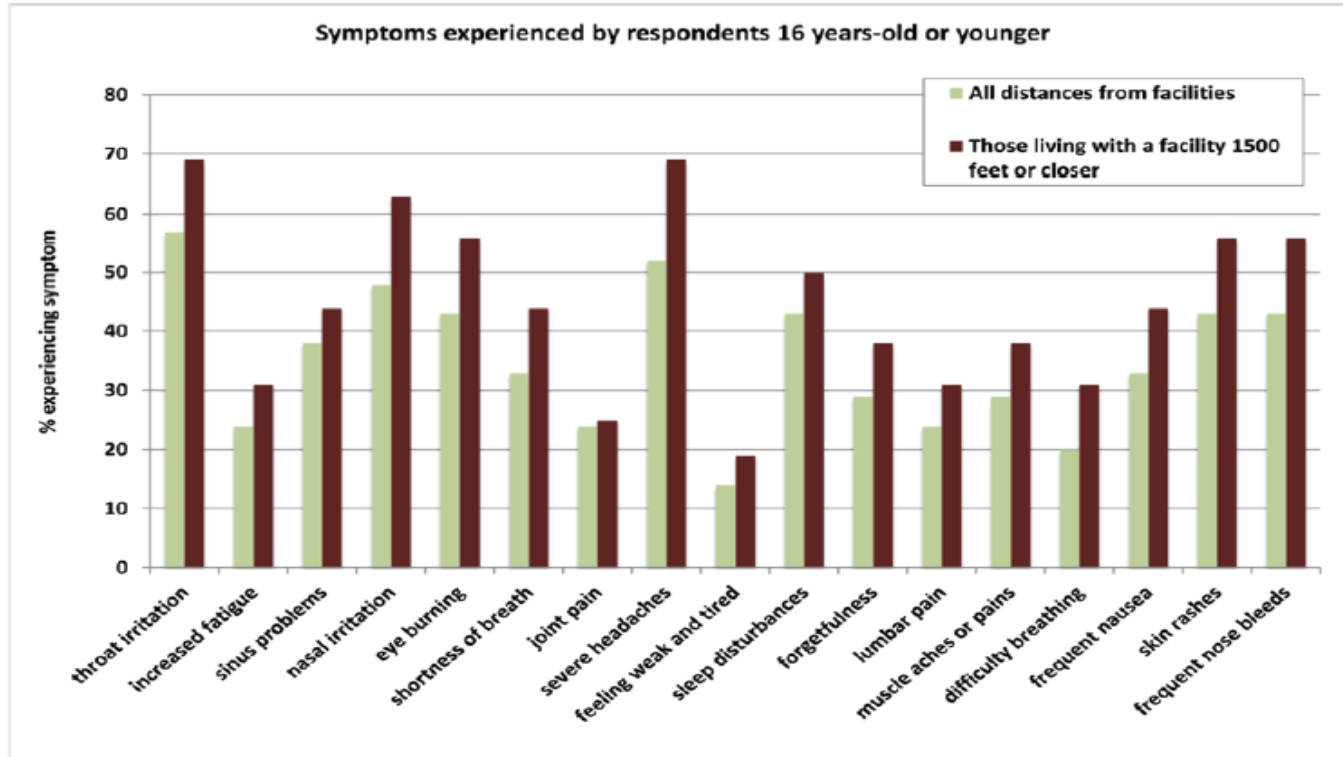
| Pollutant | Baseline Period ¹ | Baseline Actual Emissions (BAE) (ERC) ² tons/yr. | Project Emission Potential ³ NSR Step 1 (PEP) tons/yr. | Contemporaneous ⁴ Emission Increases tons/yr. | Project Net Emission Increase NSR Step 2 (PEP - ERC) ⁵ tons/yr. |
|--------------------------------|--------------------------------|---|---|--|--|
| NO _x | December 2014 to November 2016 | 44.2 | 143.5 | 0.0 | 99.3 |
| CO | December 2014 to November 2016 | 9.2 | 115.6 | 0.0 | 106.4 |
| SO ₂ | December 2014 to November 2016 | 27.1 | 24.4 | 0.0 | (2.6) |
| PM ₁₀ | December 2014 to November 2016 | 2.9 | 81.5 | 0.0 | 78.6 |
| PM _{2.5} | December 2014 to November 2016 | 2.9 | 81.5 | 0.0 | 78.6 |
| VOC | December 2014 to November 2016 | 2.1 | 58.6 | 0.0 | 56.5 |
| H ₂ SO ₄ | December 2014 to November 2016 | 2.1 | 22.1 | 0.0 | 20.0 |
| GHG | December 2014 to November 2016 | 47,303.9 | 1,954,952 | 0.0 | 1,907,648.2 |

VOC Emissions by Industry, 2008



Source: U.S. Environmental Protection Agency⁸

Figure 1. Association of symptoms and distance from facilities, by age group



From: "Gas Patch Roulette: How shale gas development risks public health in Pennsylvania" by Earthworks

Table 2: Ranking of top 8 categories of symptoms, by county

| Symptom Category | All | Bedford | Bradford | Butler | Fayette | Washington | Others* |
|------------------------|-----|---------|----------|--------|---------|------------|---------|
| Sinus/respiratory | 1 | 1 | 2 | 1 | 1 | 1 | 1 |
| Behavioral/mood/energy | 2 | 2 | 1 | 3 | 2 | 4 | 2 |
| Neurological | 3 | 5 | 5 | 8 | 7 | 3 | 3 |
| Muscles/joints | 4 | 3 | 3 | 4 | 8 | 5 | 6 |
| Ear/nose/mouth | 5 | 7 | 8 | 7 | 5 | 6 | 5 |
| Digestive/stomach | 6 | 4 | 7 | 5 | 4 | 8 | 7 |
| Skin reactions | 7 | 6 | 4 | 2 | 3 | 7 | 8 |
| Vision/eyes | 8 | 8 | 6 | 6 | 6 | 2 | 4 |

Table 3: Most prevalent categories of symptoms

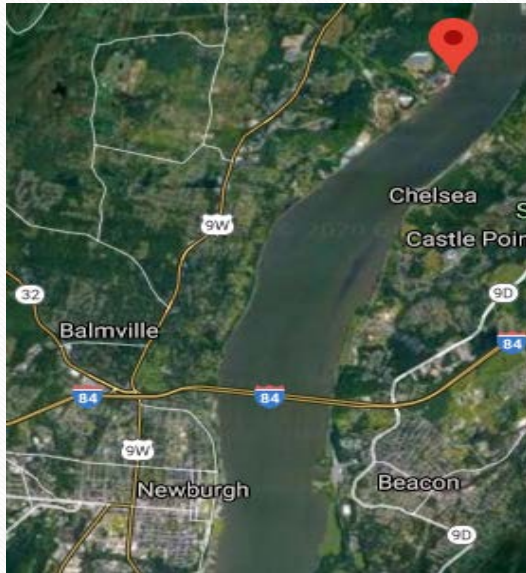
| Symptom category | Percent of individuals reporting conditions in category | | | | | | |
|------------------------|---|---------|----------|--------|---------|------------|---------|
| | All | Bedford | Bradford | Butler | Fayette | Washington | Others* |
| Sinus/respiratory | 88 | 80 | 82 | 75 | 85 | 95 | 87 |
| Behavioral/mood/energy | 80 | 60 | 88 | 67 | 85 | 74 | 67 |
| Neurological | 74 | 45 | 71 | 50 | 70 | 79 | 60 |
| Muscles/joints | 70 | 55 | 82 | 67 | 70 | 74 | 47 |
| Digestive/stomach | 64 | 55 | 65 | 58 | 75 | 63 | 33 |
| Ear/nose/mouth | 66 | 40 | 59 | 50 | 75 | 68 | 47 |
| Skin reactions | 64 | 45 | 70 | 67 | 75 | 63 | 27 |
| Vision/eyes | 63 | 40 | 65 | 50 | 70 | 79 | 53 |

* Includes Clearfield, Elk, Erie, Jefferson, Greene, Sullivan, Susquehanna, Warren, and Westmoreland Counties. The surveys from these counties (15) were analyzed together to create a group comparable in number to each of the counties where more surveys were collected.

Conclusions:

- Air pollution coming from the Danskammer Energy Plant is already increasing risk of respiratory, cardiovascular and neurologic disease in nearby residents.
- The proposed expansion will significantly increase release of air pollutants and will result in increased disease.
- In these trying times there is also evidence that an increase in air pollution will both increase risk of infection with the coronavirus and increase risk of death because of lung damage.
- We need to rapidly move to renewable energy sources.
- For all of the above reasons there should not be expansion of Danskammer plant.

The City of Newburgh



- The City of Newburgh is located on the west side of the Hudson River about 60 miles from New York City

Source: Google maps

Who is there?

- A little under 30,000 people in four square miles.
- 47.9% Hispanic/Latino
- 30.2% Black/African-American
- 39.4% Non-Hispanic White
- 5.2 % Persons reporting 2 or more races

Source: <https://www.census.gov/quickfacts/fact/table/US/PST045217>

Health and wealth

- 11% of our population do not have health insurance
- The number one cause of death is Heart Disease followed by Cancer
- 40% of our deaths are premature (under 65 years of age)
- Rate of emergency department visits for asthma per 10,000 population, aged 0-4 years, 2011-2013 was 245. For comparison, Orange County was at 102.
- Median Household Income: \$36,153
- 5.5% of our population are unemployed as of March 2020

Source: https://www.health.ny.gov/statistics/community/minority/docs/mcd_reports/orange_county_city_of_newburgh.pdf

What can City of Newburgh government do?

- Encourage projects that have workforce development especially in the areas of green jobs, infrastructure, technology, food industry, and the arts.
- Work with developers for mixed income housing
- Work with health insurance providers for them to offer products to our population.
- Work with health care providers for seminars and other outreach efforts.
- Work with providers of affordable fresh fruits and vegetables
- Work with neighboring municipalities for transportation to employment.
- Work with neighboring municipalities to understand the environmental impact on our watershed and/or in the air from factories and other developments.
- Oppose any project that will damage our watershed or air despite the promise of jobs.



TAKE ACTION!



Speak Up: New York State is currently deciding whether or not to approve plans for the new plant. Now is your chance to speak out. Submit an official comment to the Siting Board opposing the proposal at: on.ny.gov/2FiZDgn

Call Your Rep: Call your New York State Senator and Assembly member and tell them why we don't need a new Danskammer.

Community Action: Urge your local government to pass a resolution opposing a new Danskammer plant.

Join the Fight: Sign up for our email list to get occasional updates and find out about additional ways to take action and join the coalition!

www.stoptheplant.org